MEXICO PEACE INDEX

2019

IDENTIFYING AND MEASURING THE FACTORS THAT DRIVE PEACE

INSTITUTE FOR
ECONOMICS
& PEACE

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Quantifying Peace and its Benefits

The Institute for Economics & Peace (IEP) is an independent, non-partisan, non-profit think tank dedicated to shifting the world's focus to peace as a positive, achievable, and tangible measure of human well-being and progress.

IEP achieves its goals by developing new conceptual frameworks to define peacefulness; providing metrics for measuring peace; and uncovering the relationships between business, peace and prosperity as well as promoting a better understanding of the cultural, economic and political factors that create peace.

IEP is headquartered in Sydney, with offices in New York, The Hague, Mexico City and Brussels. It works with a wide range of partners internationally and collaborates with intergovernmental organisations on measuring and communicating the economic value of peace.

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EXECUTIVE SUMMARY

The 2019 Mexico Peace Index (MPI), produced by the Institute for Economics and Peace (IEP), provides a comprehensive measure of peacefulness in Mexico. The MPI is based on the Global Peace Index (GPI), the world's leading measure of global peacefulness, produced by IEP every year since 2007. This is the sixth edition of the MPI, outlining the key trends, patterns and drivers of peace in Mexico, including an analysis through the lens of Positive Peace, which reviews eight societal structures and highlight areas important for government policy.

The report also estimates the economic impact of violence to the Mexican economy, highlighting the need to increase investment and capacity in the criminal justice system. Finally, the report provides quantitative evidence to aid in the development of policies for a more peaceful society. The research is of assistance to policymakers, researchers, business leaders and the general public working towards building peace in Mexico.

Peace in Mexico declined by 4.9 percent in 2018, with ten states improving in peacefulness, while 22 states deteriorated. The major driver behind the deterioration was an upsurge in the homicide rate, which increased by 14 percent. Mexico's 2018 homicide rate reached historically high levels, at 27 deaths per 100,000 people, or over 34,000 victims. This level of violence surpasses the prior peak of 2011. The rise in the homicide rate in 2018 was accompanied by a substantial increase in the rate of gun violence, which rose by 16 percent, with 24 of the 32 states reporting escalating rates of firearms crimes.

The main finding of this year's report is that government is underinvested in the justice system, given the high level of violence. Currently, government spending on police and the justice system is just half of the average for other members of the Organisation for Economic Co-operation and Development (OECD), as a percentage of gross domestic product (GDP). And yet, only seven percent of crimes resulted in a criminal investigation in 2017 and less than three percent resulted in a conviction, leaving an impunity rate of 97 percent.

The economic impact of violence rose by ten percent in 2018, reaching 5.16 trillion pesos (US$268 billion), which is equivalent to 24 percent of the country's GDP.

On a per person basis, the economic impact of violence was 41,181 pesos, more than five times the average monthly salary of a Mexican worker.

The lost opportunity cost is high: reducing violence throughout Mexico to the levels of the five most peaceful states would result in a peace dividend of 2.5 trillion pesos per year, or ten trillion pesos over a four-year period. This would unleash an additional economic value equivalent to 11 percent of Mexico's 2018 GDP, or more than 11 times what the federal government currently spends on domestic security and justice.

Yucatán was once again the most peaceful state in Mexico, followed by Campeche, Tlaxcala, Chiapas and Hidalgo. However, all five states recorded an increase in their homicide rate last year, consistent with the national trend. Three of the five – Tlaxcala, Chiapas and Hidalgo – had deteriorating MPI scores in 2018, indicating that even the most peaceful parts of the country have been affected by the rise in violence.

Baja California ranked as Mexico's least peaceful state for the first time in 2018, followed by Guerrero, Colima, Quintana Roo, and Chihuahua. All five of the least peaceful states deteriorated in 2018. Geographically, these states span the country, with Guerrero, Colima and Baja California along the Pacific Coast, Quintana Roo on the Caribbean Sea, and Chihuahua on the border with the United States. All five states score poorly across nearly all indicators.

The largest improvement occurred in Baja California Sur, which improved its ranking by seven places, from 32 in 2017 to 25 in 2018. Baja California Sur has reduced its homicide rate by 76 percent, from 105 to 26 per 100,000 people. Baja California Sur was the only state in the country to become more peaceful in every indicator.

In the three states that improved the most in the 2019 MPI – Baja California Sur, Sinaloa and Sonora – governments used programs specifically designed to target local challenges. All of these programs incorporated inter-government agencies in collaboration with businesses and the community. Key characteristics of successful security programs are covered in Section 3.

> " The lost opportunity cost is high: reducing violence throughout Mexico to the levels of the five most peaceful states would result in a peace dividend of 2.5 trillion pesos per year.

Mexico continues to struggle with high levels of corruption. Nearly 70 percent of Mexicans believed judges were corrupt in 2018, and over 65 percent of Mexicans perceived the Public Ministry, the institution to which they are meant to report a crime, as corrupt. This figure is higher among people who have been the victim of a crime, reaching 78 percent of survey respondents.

Despite the high rates of homicide, violent crime and organized crime, Mexican states had a median of 110 public security officials per 100,000 people in 2017, underscoring the lack of capacity. This rate is less than half of the average for Latin America. The most recent data shows that Mexico has only 3.5 judges and magistrates per 100,000 people, significantly below the global average of 16. This deficit in judges means that fewer cases go before the bench and contributes to the low conviction rates.

Promisingly, there have been some improvements in justice capacity in recent years. For example, the number of Public Ministry offices is up eight percent and the share of Public Ministries with specialists in "grave" crimes, such as homicide and rape, has risen from 15 percent of the offices to nearly a third since 2016. Additionally, the per capita budget for state prosecutors increased 20 percent over the same time, with the number of staff in state attorney generals' offices rising by three percent in the last two years. Mexico will need to continue to raise its investment in the capacity of the criminal justice system and improve the allocation of funds to arrest the trend of rising violence.

One in three adults in Mexico are the victim of a crime each year, but some types of violence disproportionately affect a particular group. Men are much more likely to be victims of homicide, while 44 percent of women have experienced intimate partner violence in their life. The victims of nine out of ten homicides were men, and in the case of kidnapping, 74 percent were men. However, 85 percent of crimes were committed by men. Youth are more affected by violence than older adults, with the homicide rate for youth aged 15 to 29 being 42 percent higher than that of the general population. Taken all together, the data on victims, perpetrators and justice indicates that sections of Mexico's young male population are trapped in cycles of violence.

Most of Mexico's incarcerated people are young men with families and some level of education; 64 percent had at least one child dependent at the time of their arrest. Interrupting this cycle will have flow on benefits for the economy, future levels of violence and development.

> **"**
> One in three adults in Mexico are the victim of a crime each year, but some types of violence disproportionately affect a particular group.

IEP's analysis of the relationships between violence and the factors that sustain peace, known as Positive Peace, finds that four of the eight pillars are weak and deteriorating. The continuing rise in violence indicates that a much broader peacebuilding strategy is needed to address the causes, as well as the symptoms of lawlessness.

IEP's systemic Positive Peace analysis finds that weak scores in *well-functioning government*, *low levels of corruption* and *free flow of information* have trapped Mexico's social system in a cycle of violence. Not only are these pillars weak when compared to the rest of the world or Latin America, but they are also deteriorating, which is of considerable concern. Furthermore, IEP's global research has shown that balanced performance across all pillars is a defining characteristic of highly peaceful countries. However, Mexico's scores are unbalanced and the gap between the pillars is continuing to grow. Unless these areas are addressed, it will be difficult for Mexico to improve its levels of peacefulness.

An effective strategy will need to look at multiple dynamics and how they interact. For example, the weak rule of law impacts the *free flow of information*, with journalists facing high rates of violence throughout the country. In 2017, 507 cases of attacks against journalists were recorded. By July of 2018, 389 attacks had already been registered in the year, over 40 percent more than the same period in the previous year.

It should also be noted that changes in the system can produce limited results for a period of time, and then change can be very rapid. The point at which change materializes is known as a "tipping point" and underlines the importance of maintaining the pace of change in Mexico, even when progress appears slow. This may prove to be particularly relevant for the justice and law enforcement reform programs.

KEY FINDINGS

SECTION 1: RESULTS

> Mexico's peacefulness deteriorated by 4.9 percent in 2018, marking the third year of successive deteriorations.

> The homicide rate increased 14 percent in 2018, exceeding 27 deaths per 100,000 people – the highest level on record.

> Gun violence is also on the rise, with the firearms crime rate doubling from 13.5 per 100,000 people in 2015 to 28.6 in 2018.

> Last year, 69.4 percent of homicides were committed with a gun.

> The violence affected politicians as well as civilians, with at least 850 acts of political violence recorded during the 2018 election cycle. At least 175 candidates or elected officials were killed.

> Yucatán remains the most peaceful state in Mexico, followed by Campeche, Tlaxcala, Chiapas and Hidalgo.

> Baja California is now the least peaceful state in Mexico, followed by Guerrero, Colima, Quintana Roo and Chihuahua.

> The violent crime rate has increased 25 percent since 2015.

> The rate of organized crime related offenses rose by 11.6 percent in 2018. Both extortion and retail drug crime increased in 2018, but the deterioration in score was partially offset by improvements in the rates of kidnapping and human trafficking.

> The *organized crime* score has deteriorated for the last two years, but remains better in 2018 relative to 2015.

> Over the last four years, the *organized crime* score showed substantial improvement in the US border states of Sonara, Tamaulipas and Coahuila.

> Detention without a sentence has reached its lowest level since 2006.

SECTION 2: THE ECONOMIC VALUE OF PEACE

> The economic impact of violence in Mexico was 5.16 trillion pesos (US$268 billion) in 2018, ten percent higher than 2017, and equivalent to 24 percent of the country's GDP.

> Homicide was the largest contributor to the economic impact of violence, at 51 percent, at 2.63 trillion pesos in 2018, an increase of 15 percent from 2017.

> Mexico spends 0.81 percent of its GDP on domestic security and the justice system. This is half of the OECD average and puts Mexico at the bottom of 33 OECD countries.

> On a per person basis, the economic impact of violence was 41,181 pesos, more than five times the average monthly salary of a Mexican worker.

> The per capita economic cost of violence varies significantly from state to state, ranging from 10,808 pesos in Yucatán to 83,167 pesos in Colima.

> If violence and its consequential economic impact were reduced to the level of the five most peaceful states in Mexico, the resulting peace dividend would amount to 10 trillion pesos over a four-year period.

> The least peaceful states experiencing the highest levels of violence as measured by the MPI do not necessarily receive higher per capita funds for domestic security.

SECTION 3: VICTIMIZATION, SECURITY & JUSTICE

> Only seven percent of crimes committed in 2017 resulted in a criminal investigation, according to the most recent available data.

> Mexico has only 3.5 judges and magistrates per 100,000 people, significantly below the global average of 16 and the OECD average of 17.9.

> States had a median of 110 public security officials per 100,000 in 2017, a rate that is less than half of the average for the rest of Latin America.

> The homicide rate for men reached 49 per 100,000 in 2018, a 15 percent increase from 2017. The homicide rate for women rose seven percent to 5.5 per 100,000.

> Roughly nine out of ten homicide victims were men in 2018, while roughly a third of homicide victims have been between the ages of 15 and 29 each year.

> Police recorded 580 human trafficking victims in 2018. Four out of ten victims were children or teenagers and 71 percent of victims were women and girls.

- 93 percent of extortions were conducted by phone and the extortionist's demands were met in 6.8 percent of cases.
- In 2018, assault victims were mostly male at 49 percent, while 35 percent were female and the sex of the victim was unknown in 16 percent of cases.
- Roughly 85 percent of all crimes were committed by a man or a group of men.

SECTION 4: POSITIVE PEACE

- Mexico shows higher levels of Positive Peace than actual peace, as measured by Global Peace Index (GPI), indicating that it has the capacity to improve its level of peacefulness and its GPI ranking if it can improve its weakest Positive Peace pillars.
- Mexico is ranked 62 out of 163 countries in the 2018 Positive Peace Index (PPI), compared to 140 on the GPI.
- Mexico shows strengths in *sound business environment*, *high levels of human capital, acceptance of the rights of others*, and *good relations with neighbors*.
- Community cooperation continues to improve, with the proportion of Mexicans reporting that their communities organize to solve problems increasing 10 percentage points from 2012.

- The level of education is also improving: over 77 percent of Mexican teenagers were enrolled in secondary school in 2016, an increase of nearly nine percentage points since 2011.
- Mexico's gender equality score improved by 14 percent over the last 12 years, compared to a nine percent improvement in the global average.
- The country needs to improve in *good relations with neighbors, low levels of corruption, well-functioning government* and *free flow of information* in order to reduce levels of violence sustainably.
- Corruption is Mexico's worst performing pillar when compared to either the rest of the world or Latin America. Mexico's *low levels of corruption* score has deteriorated by 12 percent since 2005.
- *Equitable distribution of resources* recorded the largest deterioration in score of any pillar, deteriorating by 12.3 percent from 2005 to 2017.
- *Free flow of information* and *well-functioning government* have also deteriorated since 2005, six and five percent respectively.
- The deterioration of the *free flow of information* pillar was partly driven by an increase in violence against journalists, with 389 attacks recorded in the first six months of 2018, over 40 percent more than the same period in the previous year.

MPI SCORE

More peaceful

Less Peaceful

VISION *of* HUMANITY
visionofhumanity.org

Explore the data on the interactive Mexico Peace Index map: see how peace changes over time, compare levels of peace between states and discover how the states fare according to each indicator of peace.

2019 MEXICO PEACE INDEX

A SNAPSHOT OF THE STATE OF PEACE IN MEXICO

RANK		STATE	SCORE	RANK		STATE	SCORE
1	●	Yucatán	1.066	17	●	Nuevo León	2.592
2	●	Campeche	1.374	18	●	Michoacán	2.714
3	●	Tlaxcala	1.390	19	●	Jalisco	2.761
4	●	Chiapas	1.641	20	●	Mexico City	2.767
5	●	Hidalgo	1.808	21	●	Tabasco	2.809
6	●	Coahuila	1.909	22	●	Sinaloa	2.912
7	●	Querétaro	1.959	23	●	Tamaulipas	2.916
8	●	Veracruz	1.975	24	●	Morelos	2.926
9	●	Puebla	2.115	25	●	Baja California Sur	3.247
10	●	Durango	2.121	26	●	Zacatecas	3.392
11	●	Aguascalientes	2.219	27	●	Guanajuato	3.602
12	●	Sonora	2.369	28	●	Chihuahua	3.680
13	●	San Luis Potosí	2.438	29	●	Quintana Roo	3.720
14	●	Oaxaca	2.482	30	●	Colima	4.021
15	●	Nayarit	2.568	31	●	Guerrero	4.063
16	●	México	2.574	32	●	Baja California	4.553
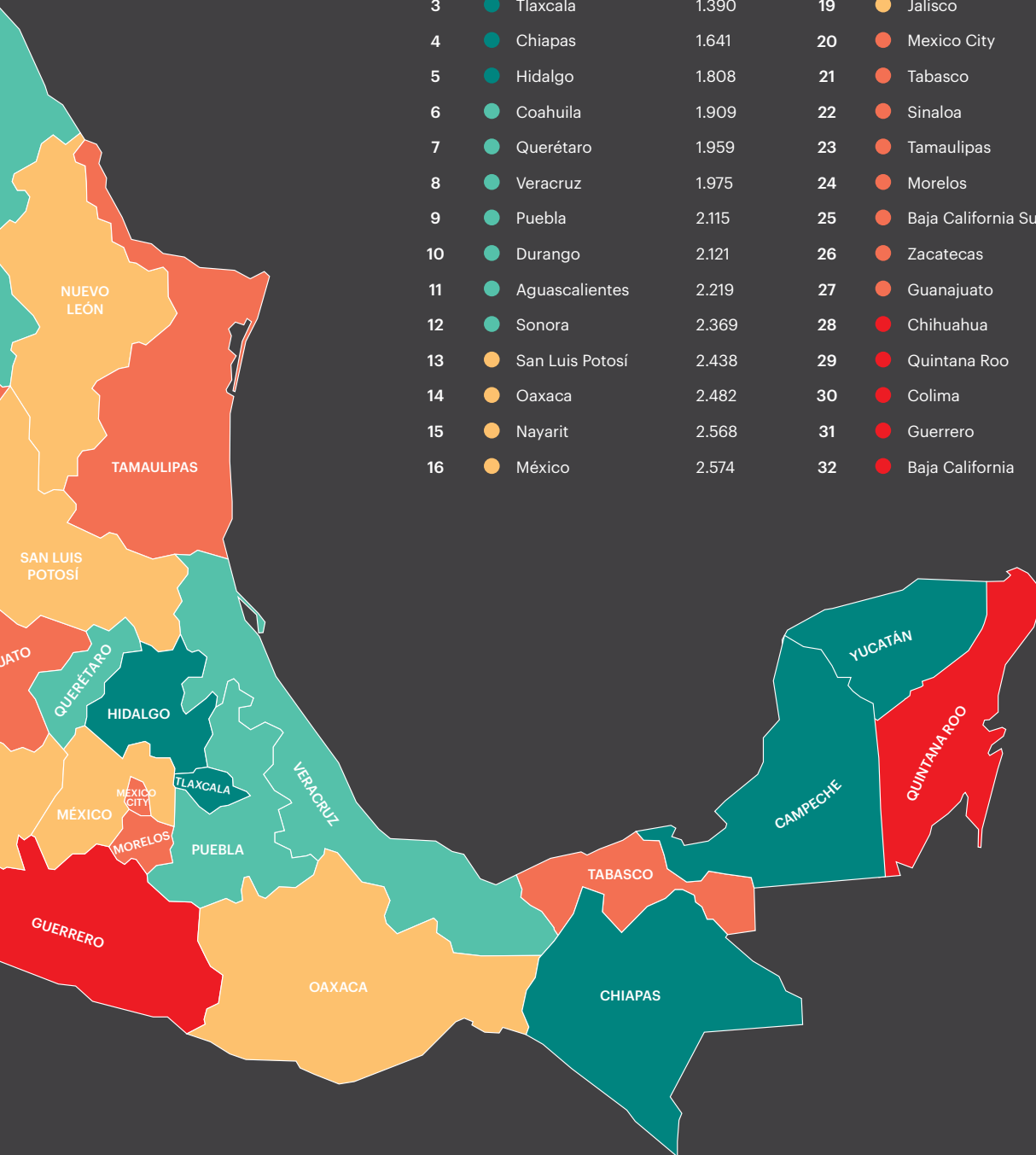
RESULTS

KEY FINDINGS

- Mexico's peacefulness deteriorated by 4.9 percent in 2018, marking the third year of successive deteriorations.

- Yucatán remains the most peaceful state in Mexico, followed by Campeche, Tlaxcala, Chiapas and Hidalgo.

- Baja California is now the least peaceful state in Mexico, followed by Guerrero, Colima, Quintana Roo and Chihuahua.

- The homicide rate increased 14 percent in 2018. In the same year, 69.4 percent of homicides were committed with a gun, up from 57.1 percent in 2015.

- The rate of organized crime related offenses rose by 11.6 percent in 2018. Both extortion and retail drug crime increased in 2018, but the deterioration in score was partially offset by improvements in the rates of kidnapping and human trafficking.

- Violent crime rates improved marginally in 2018, following the sharp deterioration in 2017.

- Baja California Sur had the largest improvement in score, after reducing its homicide rate by 76 percent from 105 to 26 per 100,000 people.

- Guanajuato recorded the largest deterioration in its overall score, following a 127 percent increase in its homicide rate in 2018.

FOUR-YEAR TRENDS

- The national homicide rate increased by 80.5 percent between 2015 and 2018.

- Since 2015, only two states, Coahuila and Durango, have recorded improvements in their homicide rates.

- The violent crime rate increased by 25 percent from 2015 to 2018.

- Gun violence is also on the rise, with the firearms crime rate doubling from 13.5 per 100,000 people in 2015, to 28.6 in 2018.

- The nationwide score for *detention without a sentence* has continued to improve since 2015, reaching its lowest level since 2006.

- The *organized crime score* has deteriorated for the last two years, but remains better in 2018 relative to 2015.

- The *organized crime* indicator improved in the US-border states of Sonora, Tamaulipas and Coahuila, which were among the five most improved states from 2015 to 2018.

NATIONAL RESULTS

Table 1.1 provides the full national results for the 2019 MPI, including the rank, overall score, indicator scores, and change in score from 2017 to 2018.
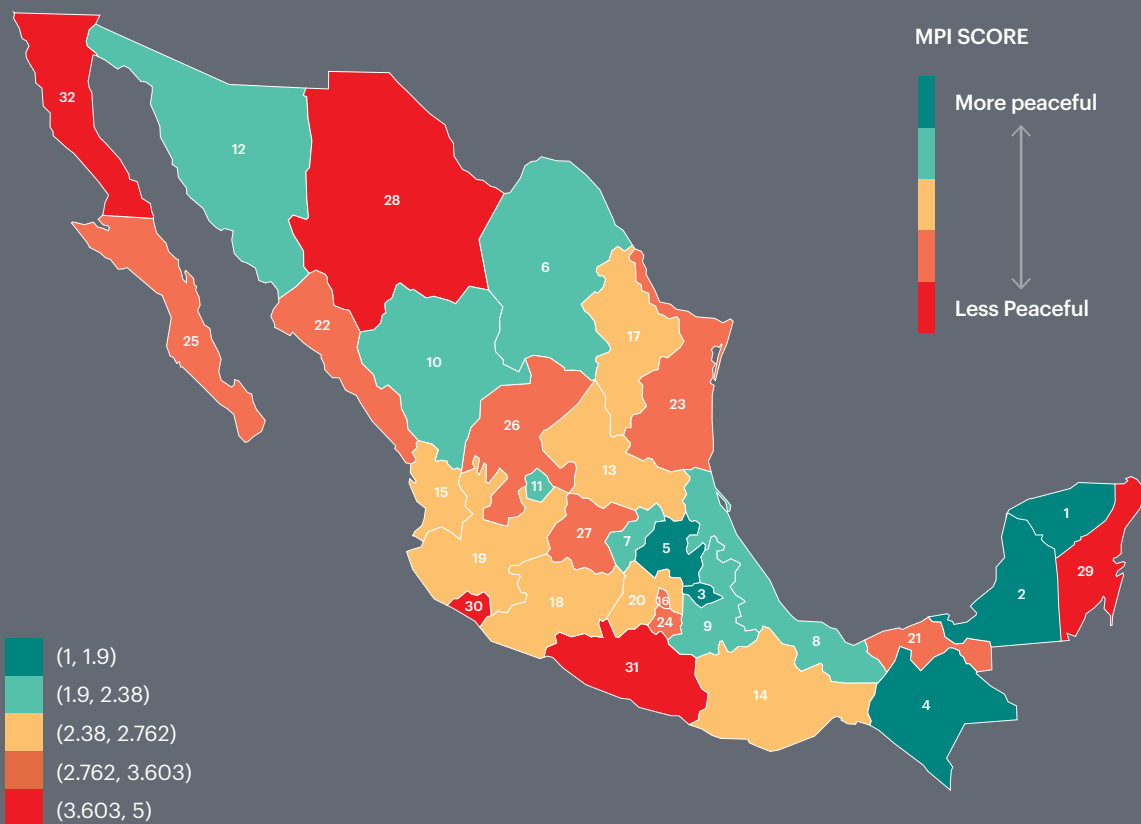

MPI SCORE

More peaceful

Less Peaceful

(1, 1.9)
(1.9, 2.38)
(2.38, 2.762)
(2.762, 3.603)
(3.603, 5)

TABLE 1.1

2019 Mexico Peace Index results

A lower score indicates a better level of peacefulness.

MPI RANK	STATE	OVERALL SCORE	HOMICIDE	VIOLENT CRIME	FIREARMS CRIME	ORGANIZED CRIME	DETENTION WITHOUT A SENTENCE	OVERALL CHANGE, 2017-2018	
1	Yucatán	1.066	1.009	1.168	1	1.078	1.148	-0.115	—
2	Campeche	1.374	1.354	1.041	1.112	1.253	3.290	-0.109	↑ 1
3	Tlaxcala	1.390	1.518	1.745	1.322	1.003	1.168	0.060	↓ 1
4	Chiapas	1.641	1.575	1.838	1.413	1.813	1.485	0.071	—
5	Hidalgo	1.808	1.384	3.126	1.620	1.503	1.214	0.156	—
6	Coahuila	1.909	1.362	2.779	1.194	2.838	1.026	0.154	—
7	Querétaro	1.959	1.412	2.982	1.541	2.431	1.130	0.184	—
8	Veracruz	1.975	2.154	1.843	2.063	1.968	1.448	-0.189	↑ 3
9	Puebla	2.115	2.148	3.100	2.154	1.392	1.213	0.236	↓ 1
10	Durango	2.121	1.488	3.060	1.406	2.746	2.180	-0.094	↑ 2
11	Aguascalientes	2.219	1.234	3.979	1.465	3.041	1.016	0.182	↓ 2
12	Sonora	2.369	2.735	1.614	2.414	2.441	2.671	-0.226	↑ 6
13	San Luis Potosí	2.438	2.138	3	2.268	2.948	1.159	0.096	↑ 1
14	Oaxaca	2.482	2.767	2.874	3.035	1.632	1.236	0.338	↓ 4
15	Nayarit	2.568	3.019	1	2.556	2.677	4.731	0.286	↑ 2
16	México	2.574	1.872	4.902	2.120	2.221	1.153	0.091	—
17	Nuevo León	2.592	1.780	3.307	2.080	4.066	1.165	-0.085	↑ 4
18	Michoacán	2.714	3.070	2.392	4.022	1.747	1.491	0.142	↓ 1
19	Jalisco	2.761	2.723	2.989	2.725	3.087	1.540	0.379	↓ 4
20	Mexico City	2.767	1.818	5	2.930	2.389	1.048	0.150	—
21	Tabasco	2.809	2.282	4.613	2.137	3.010	1.209	-0.141	↑ 3
22	Sinaloa	2.912	3.194	2.722	3.195	3.074	1.215	-0.450	↑ 5
23	Tamaulipas	2.916	2.841	3.635	2.742	3.167	1.083	-0.160	↑ 2
24	Morelos	2.926	3.392	4.605	2.715	1.511	1.007	0.116	↓ 2
25	Baja California Sur	3.247	2.493	4.220	2.307	5	1.271	-1.298	↑ 7
26	Zacatecas	3.392	3.571	2.771	3.468	4.538	1.154	0.138	—
27	Guanajuato	3.602	4.295	4.068	4.885	1.917	1.001	0.991	↓ 8
28	Chihuahua	3.680	4.758	2.849	4.496	2.966	1.649	0.136	—
29	Quintana Roo	3.720	3.848	4.004	3.884	4.015	1.307	0.906	↓ 6
30	Colima	4.021	5	3.414	5	3.269	1.474	0.165	↓ 1
31	Guerrero	4.063	5	3.027	4.742	4.210	1.182	0.073	↓ 1
32	Baja California	4.553	5	4.225	5	5	1.445	0.203	↓ 1
	NATIONAL	2.661	2.597	3.354	2.735	2.534	1.237	0.124	

Source: IEP

"

Peacefulness in Mexico deteriorated 4.9 percent in 2018, reaching its worst level since 2015.

NATIONAL RESULTS

Peace in Mexico deteriorated by 4.9 percent in 2018, largely driven by a 14 percent rise in the homicide rate, from 23.9 to 27.2 homicides per 100,000 people, and was the worst year for peacefulness in Mexico since 2015, the first year recorded under the new data standards. Although four indicators deteriorated, there was an improvement in *detention without a sentence* during 2018.

While the continued deterioration is concerning, the rate of deterioration has slowed from the prior year. However, overall peacefulness in Mexico has now deteriorated by 21.5 percent since 2015, with improvements in only ten states.

After *homicide*, the *organized crime* indicator had the largest deterioration, deteriorating by 2.1 percent in 2018. This was driven by large increases in extortion and retail drug crimes. The deterioration in score would have been much larger except that both kidnapping and human trafficking rates improved by more than 20 percent from 2017 to 2018.

The *violent crime* indicator improved for the first time in the four years of data covered in this report. There was a 2.2 percent improvement in the rate of robberies and a 4.5 percent improvement in assault compared to 2017. However, the overall violent crime rate remains 25.4 percent higher than in 2015.

Detention without a sentence has been steadily improving since 2015. However, the pace of improvement has slowed, with only a 0.5 percent improvement in 2018; this is compared to a roughly 10 percent improvement in the prior two years. The total number of people incarcerated without a sentence is the lowest it has been since 2006.

FIGURE 1.1

Changes in peacefulness

Peacefulness in Mexico deteriorated by 4.9 percent from 2017 to 2018. A lower score indicates a better level of peacefulness.
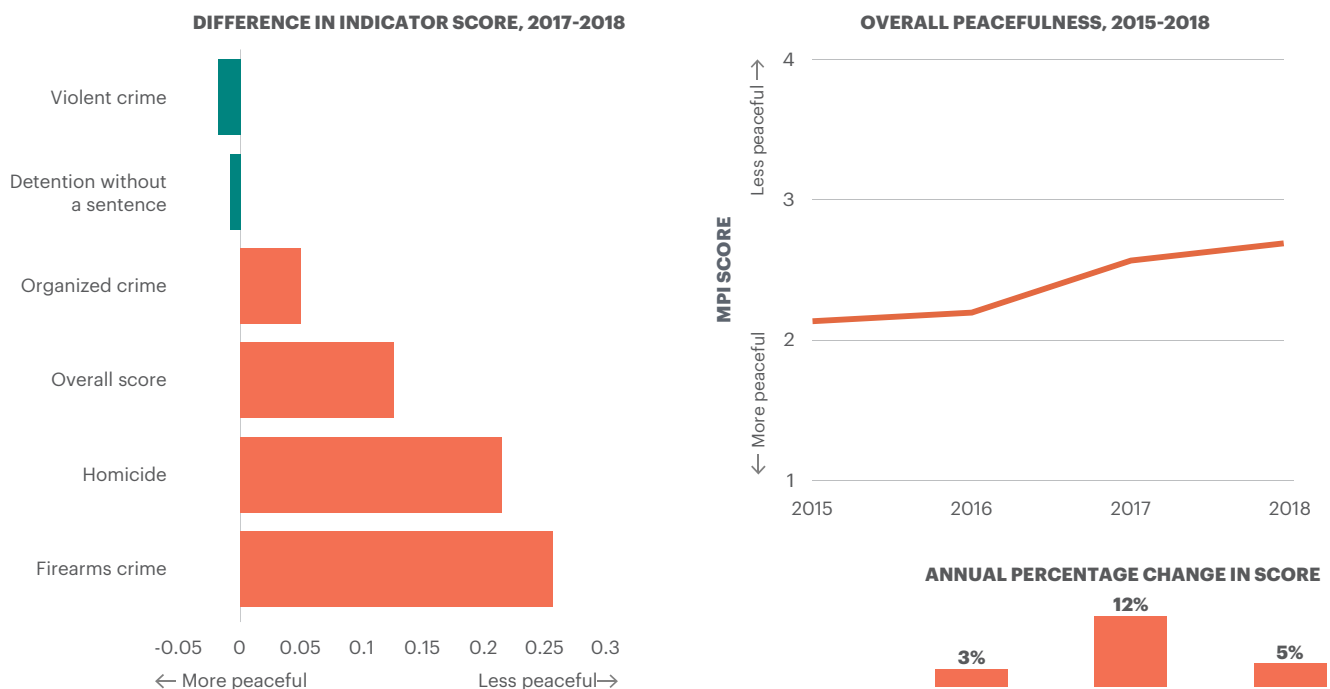

Source: IEP

METHODOLOGY AT A GLANCE

The Mexico Peace Index (MPI) is based on the work of the Global Peace Index, the leading global measure of peacefulness, produced by IEP annually since 2007. The MPI follows a similar methodology to the United Kingdom Peace Index (UKPI) and the United States Peace Index (USPI), also produced by IEP, and measures negative peace, which is defined as "the absence of violence or fear of violence". This is the sixth iteration of the MPI and the 2019 edition makes use of the significantly improved data sets released last year by the *Secretariado Ejecutivo de Sistema Nacional de Seguridad Pública* (SESNSP), or Executive Secretary of the National System for Public Security. This page summarizes the methodology. Full methodological details can be found in Section 5.

The MPI is composed of the following five indicators, scored between 1 and 5, where 1 represents the most peaceful score and 5 the least peaceful:
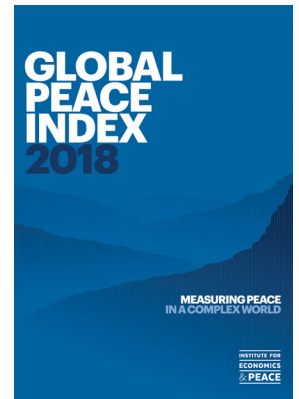
GLOBAL PEACE INDEX 2018

HOMICIDE

The number of victims of intentional homicide per 100,000 people.

Source: SESNSP

VIOLENT CRIME

The number of violent crimes per 100,000 people, adjusted for underreporting. Violent crimes include robbery, assault and sexual violence.

Source: SESNSP

ORGANIZED CRIME

The number of extortions, drug trade related crimes and kidnapping or human trafficking investigations per 100,000 people. Extortion, kidnapping and human trafficking rates are adjusted for underreporting. Drug trade and major organized crime offenses include:

- the federal crimes of production, transport, trafficking, trade, supply, or possession of drugs or other crimes under the *Crimes Against Public Health* law;

- retail drug crimes, as a proxy indicator of the size of the market fueled by illegal drug production and distribution; and

- crimes classed under the *Law Against Organized Crime,* which includes all of the above crimes when three or more people conspire to commit them.

The crimes included in the *organized crime* indicator are weighted against each other to derive the indicator score. Indicator sub-weights adjust the scores based on the

distribution of crimes, the relative social impact of the offense, and the degree to which the crime represents the presence of criminal organizations.

Source: SESNSP

FIREARMS CRIME

The number of victims of an intentional or negligent homicide or assault committed with a firearm per 100,000 people.

Source: SESNSP

DETENTION WITHOUT A SENTENCE

The ratio of people in prison without a sentence to the number of violent crimes (including homicide).

Source: National Security Commission / *Comisión Nacional de Seguridad* (CNS)

Two of the indicators – *violent crime* and *organized crime* – are adjusted for underreporting. In 2016, 93.6 percent of crimes in Mexico did not make it into the official statistics because they were either not reported to the authorities or because no investigation was opened.[1] IEP uses INEGI's National Survey of Victimization and Perceptions of Public Security / *Encuesta Nacional de Victimización y Percepción sobre Seguridad Publica* (ENVIPE) to calculate underreporting rates for each state and adjusts the official statistics for robbery, assault, sexual violence, extortion and kidnapping or human trafficking to better reflect actual rates of violence. This approach helps to counter balance the high rates of underreporting, known as the "cifra negra".

HOMICIDE

In 2018, the national homicide rate reached 27.2 cases per 100,000 people, over five times the global average.[2] The rate increased by 14 percent from 2017.

The homicide rate rose in 23 states from 2017 to 2018, while only nine improved. The largest increases were recorded in Guanajuato, which increased by 127 percent, and Quintana Roo, which increased by 106 percent.

When compared to 2015 levels, this increase is even more severe. The homicide rate in 2018 was 81 percent higher than in 2015. Figure 1.2 depicts the national trend, using monthly data for more detail. Since 2015, only Coahuila and Durango recorded improvements in their homicide rate. In Oaxaca, the state with the largest relative increase over the four-year period, the homicide rate has more than quadrupled.

Table 1.2 gives the number of states with a homicide rate in the low, moderate, high or extreme category by year. The categories are based on the distribution of homicide rates in 2015, when they were much lower. In this analysis, a "low" homicide rate is considered less than 7.6 per 100,000 people. A "moderate" rate is between 7.6 and 12.4, while a rate higher than 12.4 is classed as "high." An "extreme" homicide rate is greater than 49.5 homicides per 100,000 people. Homicide rates this high are considered extreme because they are statistical outliers compared to the rest of the country at 2015 levels.

FIGURE 1.2

Homicide rate, 2015-2018

The homicide rate in Mexico has risen consistently since 2015, reaching a high in July 2018.
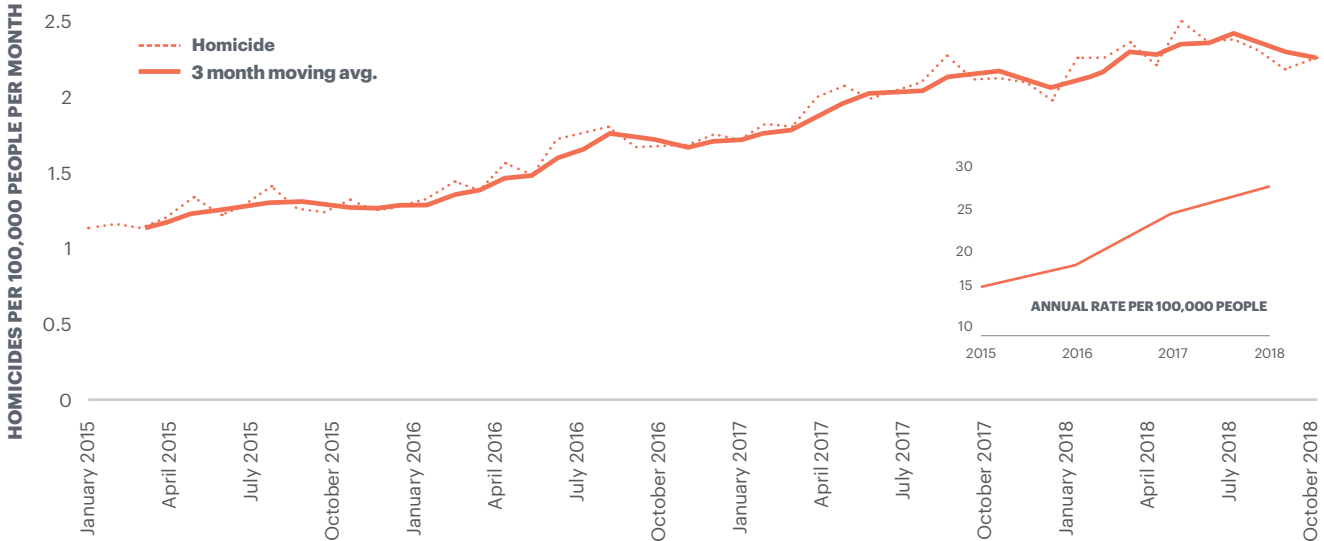
Source: SESNSP

TRENDS 📈

NATIONAL HOMICIDE RATE

80.5%

The national homicide rate increased by 80.5 percent between 2015 and 2018.

COAHUILA

DURANGO

Since 2015, only two states, Coahuila and Durango, have recorded improvements in their homicide rates.

TABLE 1.2
Homicide levels by year

The number of states with high and extreme homicide rates has been increasing since 2015.

	Low	Moderate	High	Extreme
2015	8	8	15	1
2016	6	8	16	2
2017	3	6	17	6
2018	2	7	18	5

Source: INEGI

" The homicide rate increased 14 percent in 2018. In the same year, 69.4 percent of homicides were committed with a gun, up from 57.1 percent in 2015.

As shown in Table 1.2, the major deterioration occurred between 2016 and 2017, with the number of states with a low homicide rate dropping from six to three, while the states with an extreme homicide rate increased from two to six.

From 2017 to 2018, the number of states with an extreme homicide rate decreased by one, due to reductions in violence in Baja California Sur. Joint public and private efforts to improve security in the state saw the homicide rate fall by 76 percent.

Homicide rates in the two Baja Peninsula states had been steadily rising from 2015 to 2017, although Baja California Sur dropped its "extreme" rate down to a "high" rate in 2018. However, its neighboring state, Baja California, experienced an increase of 33 percent from "high" to "extreme".

Sinaloa also managed to bring its homicide rate out of the extreme category last year, with a 28 percent improvement. It is now considered "high," at 36.5 per 100,000 people. This improvement may have been the result of statewide efforts to reduce violence at both the governmental and community levels.

Guanajuato recorded the largest increase in the country last year. Guanajuato's rate rose by 127 percent, increasing from 23.7 to 53.6 per 100,000 people and is now placed in the extreme category. Colima, which had the highest rate in 2017, retained that position. It has reduced its homicide rate by 13 percent, but it remains the most extreme rate in the country.

Just two states have homicide rates classified as "low" in 2018, down from eight in 2015. Yucatán had the lowest homicide rate of any state in Mexico in 2018 at 2.52. Aguascalientes is the only other state in the "low" group, with a homicide rate of 6.02.

TABLE 1.3
States with extreme homicide rates

The total number of states with extreme homicide rates (above 49 per 100,000) has risen from 1 to 5 since 2015.

2015		2016		2017		2018	
State	Rate	State	Rate	State	Rate	State	Rate
Guerrero	56.39	Guerrero	62.1	Sinaloa	50.59	Guanajuato	53.64
		Colima	82.49	Chihuahua	54.53	Chihuahua	60.84
				Baja California	67.05	Guerrero	69.58
				Guerrero	70.36	Baja California	89.44
				Baja California Sur	104.47	Colima	95.41
				Colima	109.28		

Source: INEGI

HOMICIDE RATE

76% ↘

Baja California Sur reduced its homicide rate 76% from 2017 to 2018 - the largest reduction in Mexico.

127% ↗

Guanajuato experienced the largest increase in homicide rate from 2017 to 2018, at 127%.

FIREARMS CRIME

In 2018, the firearms crime rate deteriorated in 28 states, while only four improved. Significant improvements in Baja California Sur, with a 78 percent improvement; and Sinaloa, with 31 percent improvement, were not enough to counterbalance the large rises in total recorded firearms crimes in other states.

For example, Tabasco saw a 121 percent increase in firearm crimes, and Quintana Roo's rate rose by 85 percent. Baja California remains the state most affected by firearms crime into 2018, with 91.4 cases recorded per 100,000 people.

While both components of firearms crime increased, homicide with a firearm recorded the greater increase in 2018. Following three years of consistent rises, the rate of homicide with a firearm has now increased 119.3 percent since 2015. This deterioration is consistent across 29 states. Nationally, gun violence accounted for 69.4 percent of homicides in 2018; the same figure was only 57.1 percent in 2015.

In Quintana Roo, the increase in the rate of homicide with a firearm was most pronounced, becoming 15

> **Following three years of consistent rises, the rate of homicide with a firearm has now increased 119.3 percent since 2015.**

times larger from 2015 to 2018, reaching 30.5 per 100,000.

The rate of assault with a firearm in Mexico increased by 14.9 percent in 2018, nearly doubling since 2015. In 2018, the rate of assault with a firearm improved in only 11 states and deteriorated in 20, while one state recorded no change. Baja California recorded the largest deterioration, with an increase of over 200 percent in its assault with a firearm rate.
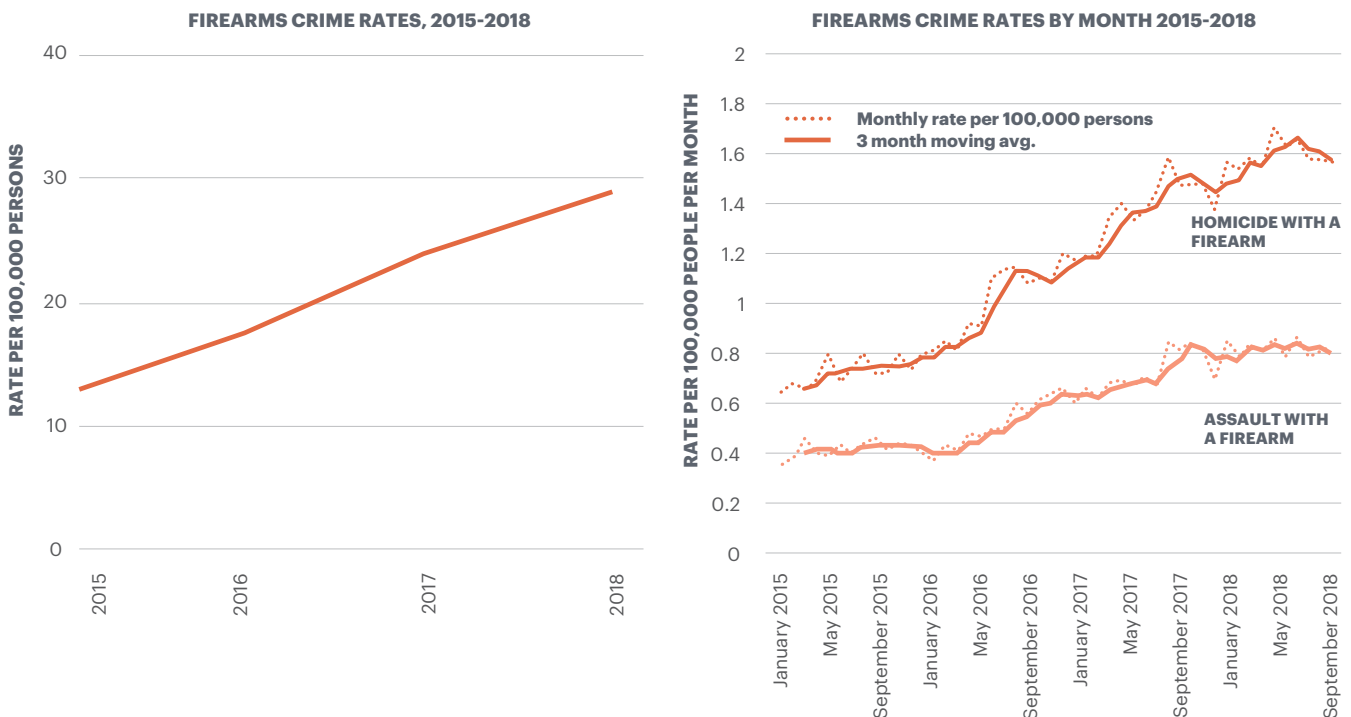
Figure 1.3 highlights the trends in the firearms crime rate from 2015 to 2018. The rise in 2018 was a 15.8 percent increase from 2017, compared to a 23 percent increase from 2016 to 2017. The *firearms crime* indicator includes assaults and homicides committed with a firearm.

Trends in gun violence, 2015-2018

The rate of homicides with a firearm has increased almost 120 percent since 2015.

FIREARMS CRIME RATES, 2015-2018

FIREARMS CRIME RATES BY MONTH 2015-2018

- Monthly rate per 100,000 persons
- 3 month moving avg.

HOMICIDE WITH A FIREARM

ASSAULT WITH A FIREARM

Source: SESNSP

ORGANIZED CRIME

The rate of organized crime related offenses rose in 2018 for the second year in a row, increasing by 11.6 percent. However, IEP's *organized crime* score indicates some progress. While the number of crimes continues to increase, the weighted score indicates that some of the most serious organized crime related offenses decreased in 2018.

This subsection presents the trends and results for the four sub-indicators, which comprise the overall measure of organized crime. The four sub-indicators are *extortion, kidnapping and human trafficking, retail drug crimes* and *major organized crime offenses*.

The organized crime rate rose in 20 states last year, with only 12 states improving their score. Coahuila and Oaxaca recorded the largest increases in the last year, with the combined rate of all organized crime offenses rising by 90 percent and 72 percent, respectively. In contrast, Yucatán showed the largest improvement in 2018, with offenses declining by 54 percent.

National rates of retail drug crime and extortion have been driving the rise in score, both in 2018 and over the past four years, as shown in Figure 1.4. Particularly noteworthy is the 46.1 percent increase in retail drug crime since the beginning of 2015.

In contrast, major organized crime offences have decreased, alongside the combined rate of kidnapping and human trafficking. The spike in the rate for August of 2015, shown in Figure 1.4, was due to a high level of police reporting that month, based on successful police rescues of trafficked migrants in Coahuila.[3] Since then, the rate has fluctuated, but has generally been on the decline.

FIGURE 1.4

Indexed change in organized crime related offenses, 2015-2018

Following a large improvement in 2016, the rate of organized crime offenses rose in 2017 and 2018.
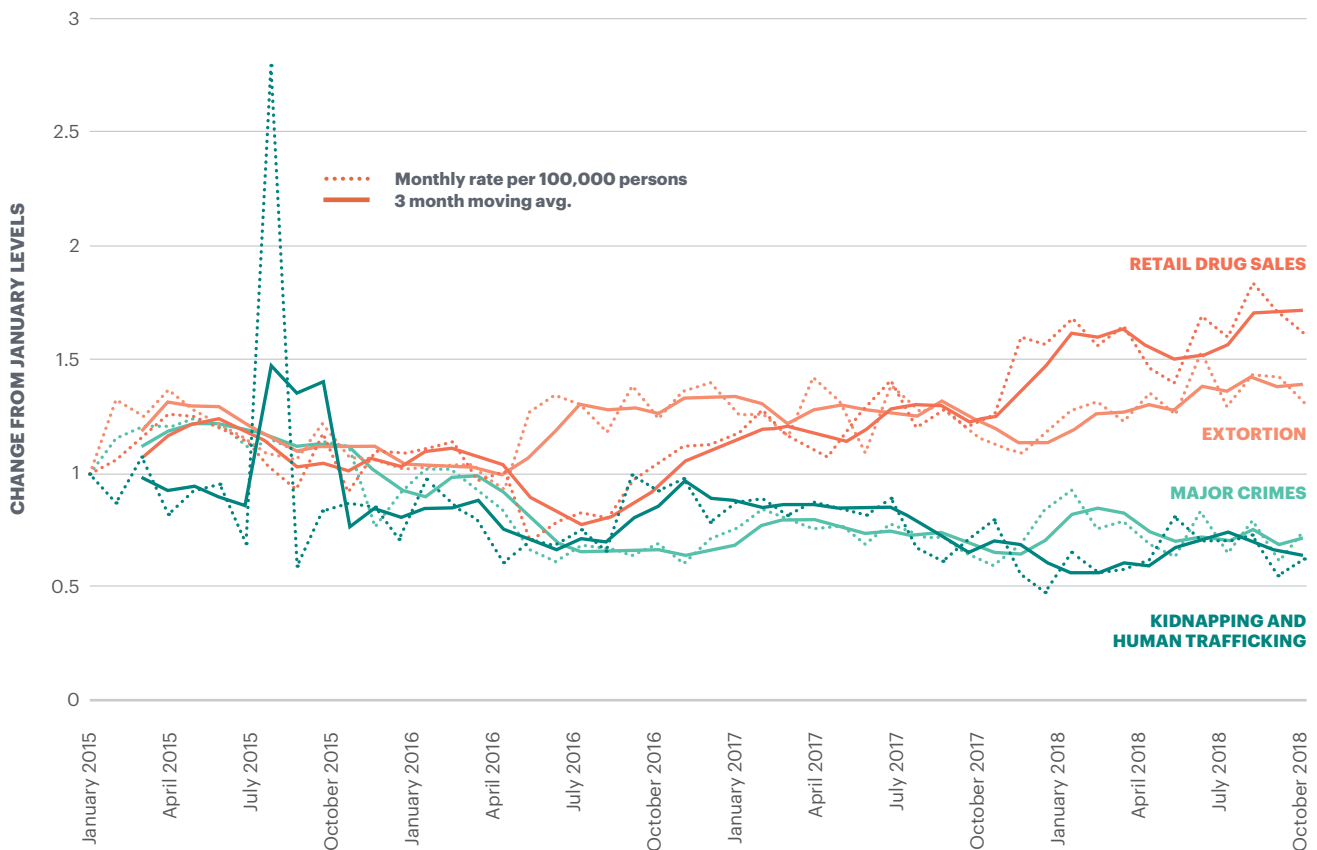
Source: SESNSP

The score for the *organized crime* indicator in the MPI is designed to reflect progress in reducing both the rate of organized crime related offenses and the relative impact of those crimes. To achieve the latter, IEP weights the different crimes included in the score relative to one another. Table 1.4 gives the crimes included in the indicator and their relative weights.

Major organized crime offenses, such as drug trafficking, kidnapping and human trafficking have the highest weights in the *organized crime* score. These crimes reflect more severe acts of violence and provide an indication of the strength and presence of major criminal organizations. Retail drug crimes serve as a proxy

indication of the size of the drug market. However, some portion of the retail drug market will represent small individual sellers or reflect personal drug use, both of which are less threatening. Human trafficking and major drug trafficking offenses are more destabilizing to Mexican society because these crimes:

- reflect large revenue sources for criminal organizations;
- absorb more human and physical resources into violent, illicit economic activity;
- depend upon a greater level of corruption; and
- indicate the presence of organizations that pose a greater threat to the Mexican state.

TABLE 1.4

Composition of the MPI organized crime score

MPI Indicator	Description	Weight as % of overall MPI score	Indicator sub-type	Variables included	Sub-weight relative to other crimes in the indicator
Organized crime	Extortions, kidnappings and cases of human trafficking, and narcotics crimes per 100,000 people	21%	Extortion (adjusted for underreporting)	Extortion	3
			Kidnapping & human trafficking (adjusted for underreporting)	Kidnapping	5
				Human trafficking	
				Trafficking of minors	
			Retail drug crimes	Possession, commerce and supply in small amounts	1
			Major organized crime offenses	Violations of the law prohibiting crimes against public health, which criminalizes drug trafficking	20
				Violations of the organized crime law, which criminalizes organized crime related offenses committed by three or more people	

Source: INEGI

FIGURE 1.5

Trend in the organized crime score, 2015-2018

The MPI composite score for organized crime remains more peaceful than it was in 2015, suggesting reduced activity by major criminal organizations.

ORGANIZED CRIME SCORE (2015-2018)
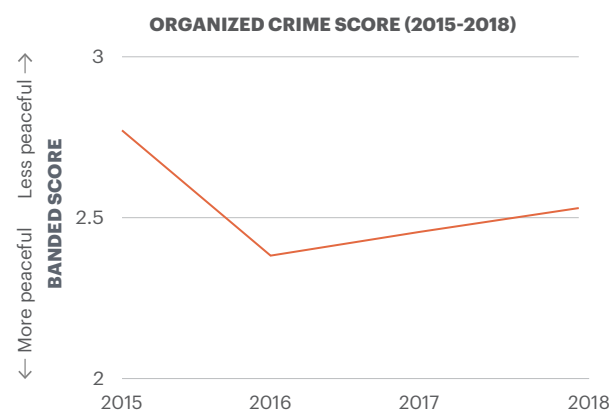
Source: IEP

As shown in Figure 1.5, the *organized crime* score remains more peaceful than it was in 2015. In 2018, 14 states achieved better scores when compared to 2015. Sonora, Tamaulipas, Tabasco, Morelos, and Coahuila, were the five largest improvers over four years. All five states have been heavily impacted by organized crime; Sonora and Tamaulipas have improved from a score of five, the least peaceful possible. Sonora, Tamaulipas and Coahuila all share a border with the United States.

❝

The rate of organized crime related offenses rose by 11.6 percent in 2018. Both extortion and retail drug crime increased in 2018, but the deterioration in score was partially offset by improvements in the rates of kidnapping and human trafficking.
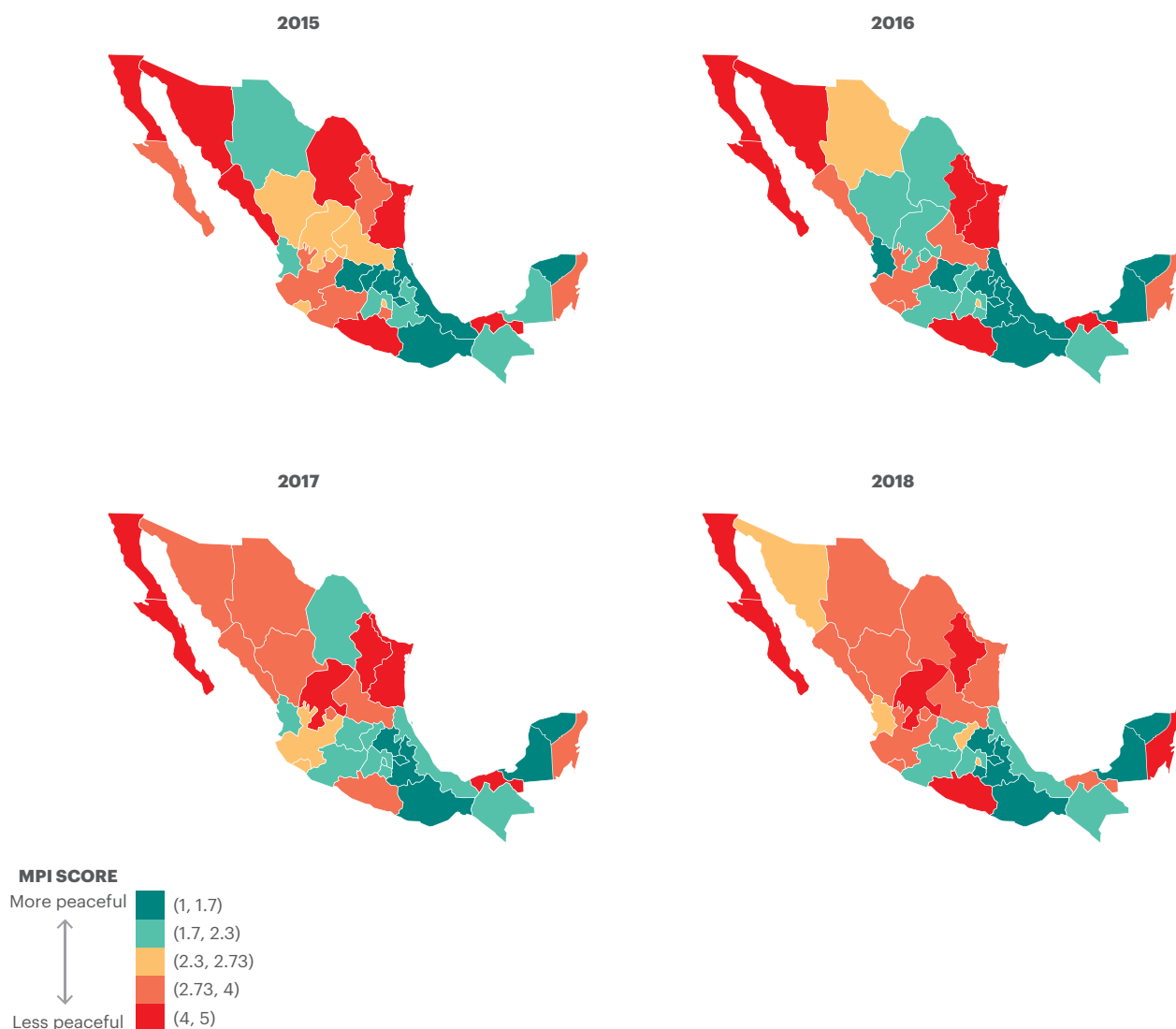
Figure 1.6 highlights the *organized crime* scores at a state level for the years from 2015 to 2018. The maps show that organized crime activity moves around the country, indicating that relatively quick-moving geographic dynamics are at play. Amongst these dynamics are conflicts between criminal organizations and interventions by military and law enforcement.

It is important to consider these results in the context of the overall MPI score, which is also a composite indicator that takes all the aspects of peace into account.[4] Increased homicide rates suggest that criminal organizations are using violence to respond to constraints on their activity, whether those constraints come from police, military, or rival organizations. Some types of law enforcement interventions carry the risk of displacing crime and violence into neighboring communities.[5] However, comprehensive policy responses can build on the successes of interrupting and reducing some of the economic activity of criminal organizations to further reduce the scope of their activities and bring down homicide rates.

Overall, reductions in major offenses may indicate that major criminal organizations are less and less able to pursue mainstream trafficking activities, which is partly the result of law enforcement success. Crime data is based on criminal justice investigations, so as such, "hot spots" necessarily reflect that police have been successful in uncovering organized crime activity.

FIGURE 1.6

State organized crime scores, 2015-2018

2015

2016

2017

2018

MPI SCORE

More peaceful

- (1, 1.7)
- (1.7, 2.3)
- (2.3, 2.73)
- (2.73, 4)
- (4, 5)

Less peaceful

Source: IEP

VIOLENT CRIME

The violent crime rate improved by 0.4 percent in 2018, halting the sharp increase that occurred in 2017. The decline in robbery rates in the first half of the year largely drove the improvements in 2018. Rates of sexual violence and assault remained similar to those seen in 2017, while the rate of family violence slightly increased.

Figure 1.7 visualizes the trend for the four types of violent crime captured in the MPI over the past four years, using monthly data for greater detail. The 2018 improvement in violent crime was driven by improvements in robbery and assault, which fell by 2.2 and 4.5 percent, respectively, in 2018. Most of these improvements occurred in states with the highest levels of violent crime.

The robbery rate improved in 15 states in 2018, while the other 17 states recorded a deterioration. The largest improvements occurred in Sonora, Chihuahua and Baja California, with rates declining 32 percent, 23 percent and 21 percent, respectively. The largest deteriorations occurred in Nayarit, Quintana Roo and Campeche at 56 percent, 43 percent and 41 percent, respectively.

Nationally, the assault rate remained steady between 2017 and 2018. In 2018, 14 states improved, 17 deteriorated and one recorded no change. Quintana Roo and Chiapas had the largest deteriorations, by 45 percent and 52 percent, respectively. Yucatán had the largest improvement, with a 46 percent decrease in its assault rate.

The national family violence rate rose by 5.7 percent in 2018, due to 20 states recording increases. Tlaxcala had the largest relative increase of 484 percent. Chiapas also experienced a significant rise in its family violence rate, of 72 percent in 2018. The largest improvement was in Yucatán, with a 27 percent decrease in family violence from 2017 to 2018.

Sexual violence increased by 12.4 percent in 2018. These results were consistent across 26 states, with only six improving over the same period. Tlaxcala and Mexico City had the largest deteriorations, with their rates increasing by 177 percent and 64 percent, respectively.

Many of the 2018 results are a continuation of trends from 2015. Despite the small improvement in 2018, the violent crime rate was still 25.4 percent higher than in 2015. As shown in Figure 1.7, the decline in robbery in the middle of 2018 was not enough to counteract the rise in 2016 and 2017, when violence escalated across the country. The rates for all four indicators of violent crime increased from 2015 to 2018.

FIGURE 1.7

Trends in violent crime, 2015-2018

Nationally, the violent crime rate improved by 0.4 percent in 2018. This slight change was based on improvements in 15 states.
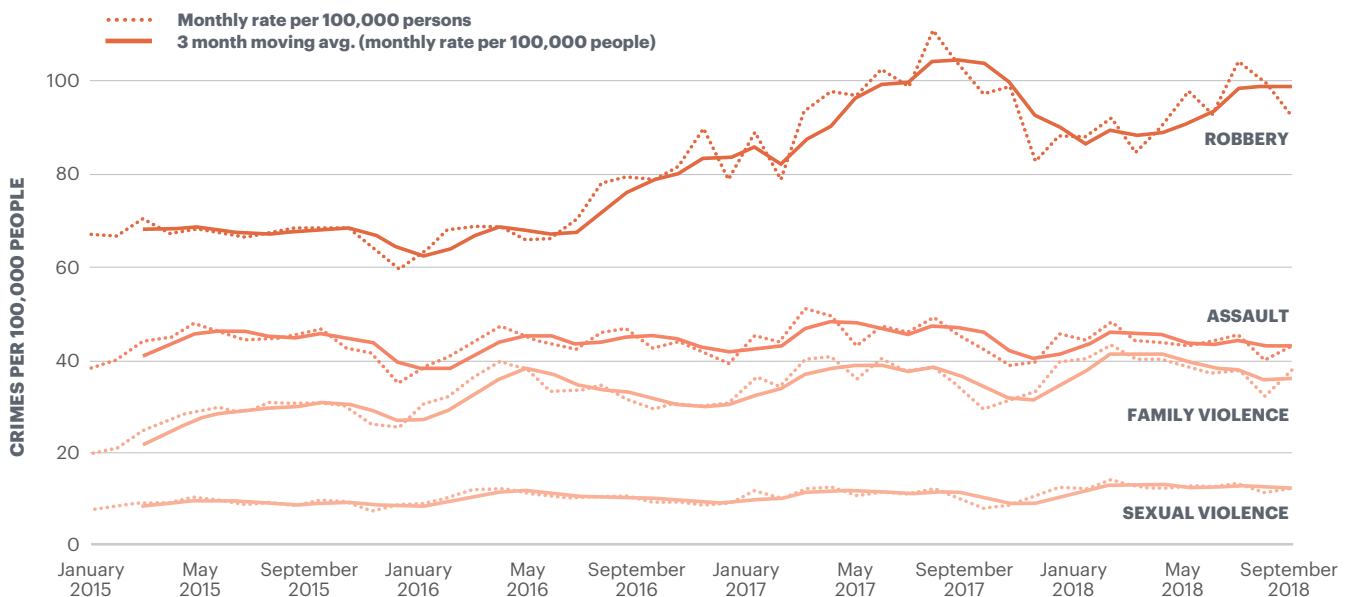
Source: SESNSP

DETENTION WITHOUT A SENTENCE

Detention without a sentence is the only MPI indicator to improve every year since 2015.

In 2018, 60,518 persons were incarcerated without a sentence, nearly 20,000 fewer persons than in 2015.[6] This improvement has been consistent across 28 states, with total figures rising in only four states: Guanajuato, Zacatecas, Mexico City, and Nuevo León. The percentage of detainees without a sentence compared to the total prison population has slightly fallen, from 37 percent in 2016 to 33.7 percent in 2017.[7]

A number of recent legal reforms have aimed to reduce the use of pre-trial detention. The introduction of the presumption of innocence as a legal standard in Mexico, as part of the new criminal justice system, intends to protect the rights of the accused and establishes that the majority of people should not be detained without a conviction. Article 19 of Mexico's constitution states that a judge may order "preventative prison" for up to two years prior to sentencing when other precautionary measures are not enough to:

- guarantee the presence of the accused at the legal proceedings;
- prevent obstruction of justice; and/or
- protect victims, witnesses or the community.[8]

As such, the *detention without a sentence* indicator captures both the need for pre-trial detention and the degree to which state governments are relying on this tool.

Article 19 of the Mexican constitution prescribes preventative prison for nine "grave" crimes, which include organized crime related offenses, rape and homicide.[9] In February of 2019, the national legislature voted to include an additional eight crimes, including corruption and abuse of a minor.[10] State-level congresses must now vote on the constitutional change.[11]

As more and more municipalities across the country implemented reforms to the justice system, there was a steady decline in the overall number of unsentenced detainees, which is one indicator that reform is taking hold. However, in 2016, there were still 20 percent of detainees that had been held for more than two years while awaiting sentencing.[12]

The finding that one in five prisoners wait more than two years for a sentence comes from INEGI's ENPOL survey of the national prison population. Statistics on the length of detention before and after sentencing are crucial for monitoring justice processes in the wake of the reforms. However, the survey will be discontinued in 2019.[13]

FIGURE 1.8

Total number of detainees without a sentence, 2006-2018

Judicial reforms have reduced the number of detainees without sentence to the lowest number on record in 2018.
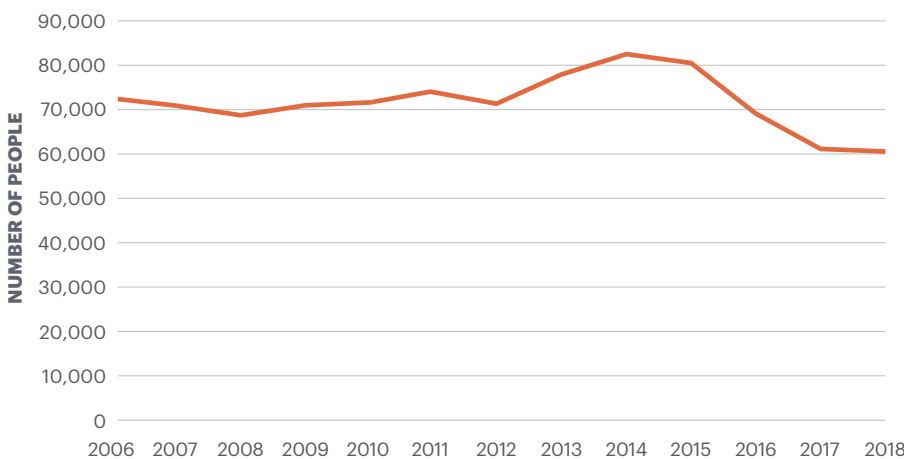
Source: CNS data provided by Jurimetria
Note: Includes prisoners charged with state level crimes and incarcerated in state prisons; federal crimes not included

DETENTION WITHOUT A SENTENCE

33.7%

The percentage of detainees without a sentence compared to the total prison population has slightly fallen, from 37 percent in 2016 to 33.7 percent in 2017.

20% ↗

In 2016, 20% of prisoners had been held for more than two years without a sentence.

POLITICAL VIOLENCE IN 2018

From 1 September 2017 to 31 August 2018, 850 events of political violence were recorded across Mexico. This time span captures the eleven months prior to the July 1st election and the month following, during which violence continued into the political transition.

Seventy-five percent of these attacks targeted municipal-level political figures, compared to 18 percent affecting state figures and seven percent affecting federal figures. Data in this section comes from the database developed by Etellekt Consulting, which counts threats and acts of violence against an incumbent or a candidate for political office at the municipal, state, or federal level.

A large majority - 81 percent - of recorded attacks were targeted at opposition figures, suggesting that assailants were typically either aligned with the incumbent or found the incumbent's policies preferable to the opposition's. Assailants may be responding to proposed changes in policy by the candidates or, in a more pragmatic sense, the perception that incumbent politicians are more tolerant of organized crime.

Every state in Mexico saw at least one act of violence against a Morena opposition candidate, amounting to 122 opposition candidates representing the Morena party that were attacked over the time period recorded. Morena, or the National Regeneration Movement, built its campaign around anti-corruption messages and ultimately won the presidency, control of congress, and several local governments.[14]

Twelve of 18 states with a PRI opposition candidate recorded acts of political violence against that candidate, amounting to 87 PRI opposition candidates attacked over the 12 months. PRI, or the Institutional Revolutionary Party, was the party that held the presidency for all but 12 years from 1929 to 2018.[15]

There was a moderate correlation between the number of aggressions against municipal-level politicians and how tight their race was. The smaller the difference in votes between the first and second place politician, the more acts of violence – with a correlation coefficient of -0.3.[16]

Across all parties, PRI and Morena members experienced the highest levels of violence, with 217 and 201 events recorded, respectively, making up 54 percent of the total. PRI also experienced the highest number of political assassinations, with 61 assassinations, especially in the states of Puebla and Veracruz.

The states of Guerrero and Oaxaca recorded the highest number of assassinations in the year from 1 September 2017 to 31 August 2018, with 32 and 29 events recorded, respectively. These states were followed by Puebla, which had a total of 18 assassinations, Michoacán with 17, and Mexico City and Veracruz with ten assassinations each.

> " Assailants may be acting on the perception that incumbent politicians are more tolerant of organized crime.

> " The states of Guerrero and Oaxaca recorded the highest number of assassinations in the year from 1 September 2017 to 31 August 2018, with 32 and 29 events recorded, respectively.

FIGURE 1.9

Recorded events of political violence in Mexico,
1 September 2017 - 31 August 2018

The year leading up to the 2018 elections was marred by numerous events of political violence.

RECORDED EVENTS OF POLITICAL VIOLENCE
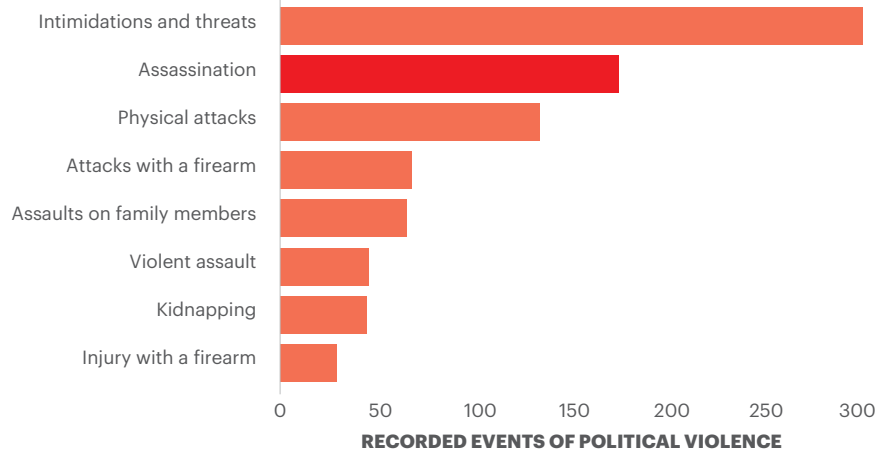
POLITICAL VIOLENCE

75%

Seventy-five percent of these attacks targeted municipal-level political figures.

81%

A large majority - 81 percent - of recorded attacks were targeted at opposition figures.

Source: Etellekt

FIGURE 1.10

Political affiliations of victims of political
violence, 1 September 2017 - 31 August 2018

With the largest number of candidates, PRI and Morena were the major targets for political violence in the leadup to the 2018 elections.

RECORDED EVENTS OF POLITICAL VIOLENCE
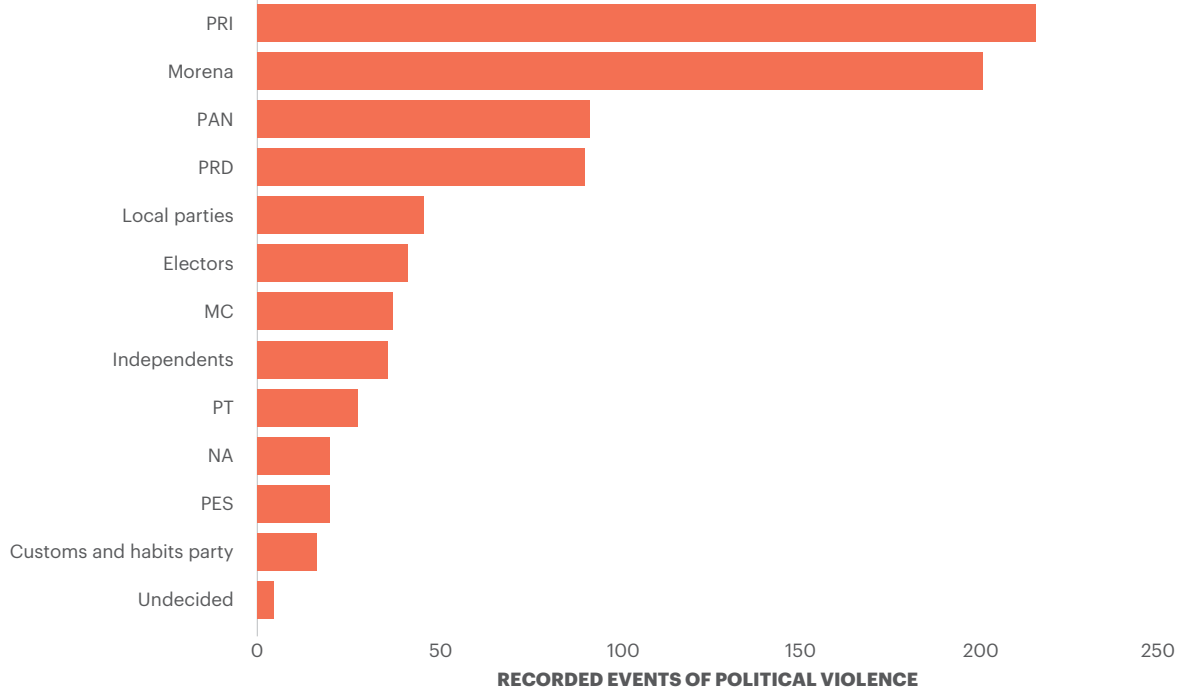
Source: Etellekt

2018
STATE
RESULTS

MOST PEACEFUL STATES

The deterioration in peacefulness in Mexico was broad, with only two of the five most peaceful states improving in 2018. All five of these states recorded an increase in their homicide rate, consistent with national level trends.

Figure 1.11 visualizes the states' scores by indicator. While many scores are consistently low, Campeche and Hidalgo still face challenges in *detention without a sentence* and *violent crime*, respectively.

TABLE 1.5

Most and least peaceful states, 2018

Yucatán retained its place as the most peaceful state in Mexico, while Baja California fell to last place for the first time.

MOST PEACEFUL				LEAST PECEFUL			
Rank	State	MPI Score	Change	Rank	State	MPI Score	Change
1	Yucatán	1.066	-0.115	32	Baja California	4.553	0.203
2	Campeche	1.374	-0.109	31	Guerrero	4.063	0.073
3	Tlaxcala	1.390	0.060	30	Colima	4.021	0.165
4	Chiapas	1.641	0.071	29	Quintana Roo	3.720	0.906
5	Hidalgo	1.808	0.156	28	Chihuahua	3.680	0.136

Source: IEP

> Yucatán remains the most peaceful state in Mexico, followed by Campeche, Tlaxcala, Chiapas and Hidalgo.
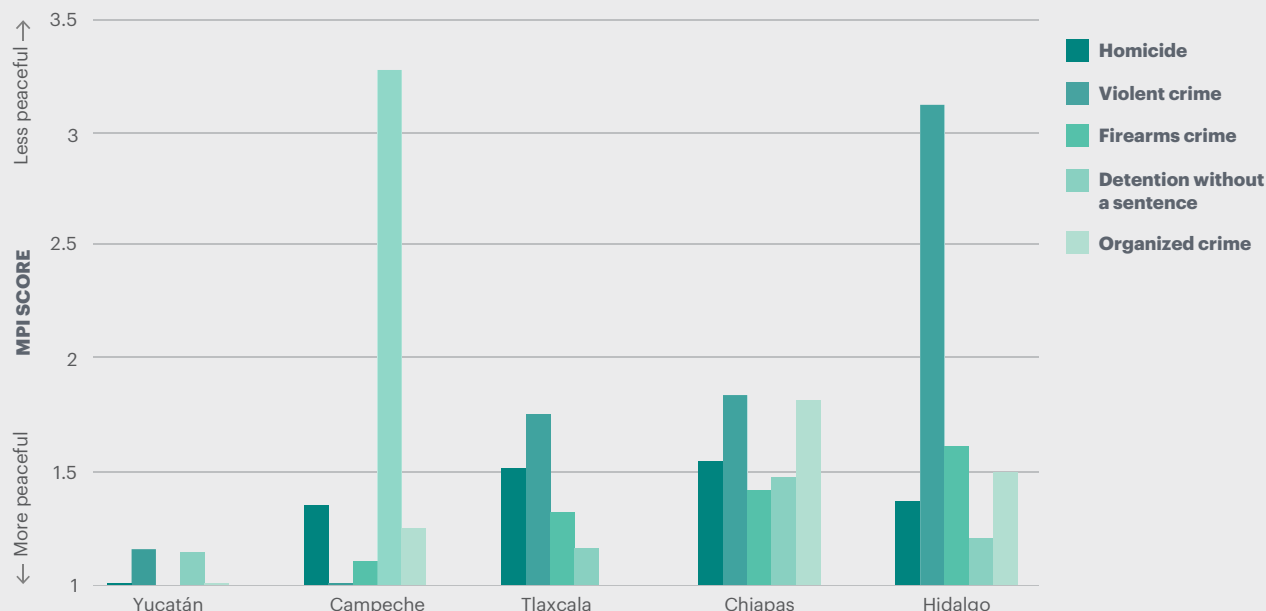
Most peaceful states by indicator scores, 2018

The five most peaceful states consistently score well in the *homicide, organized crime,* and *firearms crime* indicators. However, Hidalgo scores poorly on *violent crime,* and Campeche ranks second to last in *detention without a sentence* in Mexico.

Source: IEP

Rank 1: Yucatán

2018 SCORE	CHANGE IN RANK 17/18:
1.066	**0**

CHANGE IN SCORE 17/18: **-0.115**

Yucatán remained the most peaceful state in Mexico for the second year in a row, with an improvement of ten percent. Additionally, Yucatán is one of the few states in the country to show a consistent improvement in its overall score every year since 2015. Its violent crime rate fell by 45 percent in 2018, and the rate of organized crime offenses halved, from 31.2 per 100,000 people to 14.5. All three of the sub-components of the *violent crime* indicator and all four of the components in *organized crime* fell in the state.

While its overall score improved, Yucatán's *detention without a sentence* score deteriorated by 12 percent, and its homicide rate rose by 17 percent, to just over 2.5 per 100,000 people. Despite this increase, Yucatán still has the lowest homicide rate in Mexico at a third of the next lowest state, Aguascalientes.

Rank 2: Campeche

2018 SCORE	CHANGE IN RANK 17/18:
1.374	↗ **1**

CHANGE IN SCORE 17/18: **-0.109**

Campeche improved its score by seven percent in 2018, surpassing Tlaxcala to become the second most peaceful state. This is largely due to improvements in both the *detention without a sentence* and the *organized crime* indicator scores. While still ranking 31st in *detention without a sentence*, the state reported an improvement of 29 percent, the largest of any state over the last year. Although the state's homicide rate increased by six percent, Campeche still has one of the lowest homicide rates in the country.

Two of three sub-components of the *organized crime* indicator improved. Narcotics crime rates decreased by 35 percent, and the extortion rate declined by 25 percent. Offsetting this, kidnapping and human trafficking increased by 32 percent. Additionally, all three sub-components of the violent crime indicator deteriorated; robbery rates had the largest increase, by 41 percent.

Rank 3: Tlaxcala

2018 SCORE

1.390

CHANGE IN RANK 17/18:

↘ 1

CHANGE IN SCORE 17/18: **0.060**

Tlaxcala fell from second to third place in the 2019 MPI, with a deterioration in its overall score of five percent.

Detention without a sentence was the only indicator score to improve last year, dropping from 237 people imprisoned without a sentence in the state to 213. The remaining four indicators deteriorated, most notably *violent crime*, which rose by 12 percent in 2018. All three sub-components of the *violent crime* indicator deteriorated, with the rate of sexual violence nearly tripling, from 73.9 per 100,000 to 204.9. The rate of family violence also increased sharply, rising by 484 percent, from five cases per 100,000 to 28.5.

While extortion rates fell by 87 percent, the overall rate of organized crime increased by sixteen percent. This is due to a rise in the rate of narcotics crime and the combined rate of kidnapping and human trafficking, which increased by 106 percent and 56 percent, respectively. Despite this increase, Tlaxcala recorded the lowest organized crime rate in the country. The overall rate of gun violence and homicide both increased by more than 12 percent, which is similar to the national trend.

Rank 4: Chiapas

2018 SCORE

1.641

CHANGE IN RANK 17/18:

0

CHANGE IN SCORE 17/18: **0.071**

Chiapas' overall score deteriorated by four percent in 2018. Four of the five indicator scores deteriorated; only *detention without a sentence* improved, by 14 percent.

Homicide rates are now higher than in 2015, after a rise of 15 percent over the past year. The overall violent crime rate rose by 19 percent, with all three of its sub-indicators contributing to the increase. Assault rates increased by 52 percent, with the family violence rate rising by 72 percent.

"

The rise in Chiapas's homicide and firearms crime rates corresponded with an increase in narcotics related crimes.

While the *organized crime* indicator deteriorated, the sub-indicator combining kidnapping and human trafficking improved by 29 percent. The overall deterioration in this indicator was mainly driven by an increase of over 20 percent in the rates of both extortion and narcotics crimes.

The rise in the homicide and firearms crime rates corresponded with an increase in narcotics related crimes, pointing to a possible rise in cartel activity in the region.

Rank 5: Hidalgo

2018 SCORE

1.808

CHANGE IN RANK 17/18:

0

CHANGE IN SCORE 17/18: **0.156**

Although its overall score deteriorated by nine percent, Hidalgo ranked amongst the five most peaceful states in 2018. All five indicator scores deteriorated, with *organized crime* rates increasing by 30 percent in 2018. While the state still has relatively low levels of organized crime, all three components of the indicator deteriorated. The crime rates for extortion and narcotics have risen 255 percent and 90 percent, respectively, since 2015. Violent crime rates rose 19 percent in 2018 and the state is now ranked in the bottom half of all states for this indicator. While the rates of all three *violent crime* sub-components increased, robbery rose the most sharply, increasing by 25 percent over the past year. While the state maintains its position amongst the lowest rates of homicide in the nation, there has been a 50 percent increase in the homicide rate since 2015.

BOTTOM FIVE

LEAST PEACEFUL
STATES

While two of the five best performing states had improvements in peacefulness, all five of the least peaceful states deteriorated in 2018. Baja California ranked as Mexico's least peaceful state for the first time in 2018, followed by Guerrero, Colima, Quintana Roo, and Chihuahua.

Geographically, the least peaceful states span the country; with Guerrero, Colima, and Baja California along the Pacific Coast, Quintana Roo on the Caribbean Sea, and Chihuahua on the border with the United States. All of these states score poorly across nearly all indicators, as demonstrated in Figure 1.12.


"

Baja California is now the least peaceful state in Mexico, followed by Guerrero, Colima, Quintana Roo and Chihuahua.

FIGURE 1.12

Least peaceful states by indicator scores, 2018

The five least peaceful states have consistently poor scores in the *homicide, organized crime, violent crime,* and *firearms crime* indicators. However, all states score well in *detention without a sentence*.
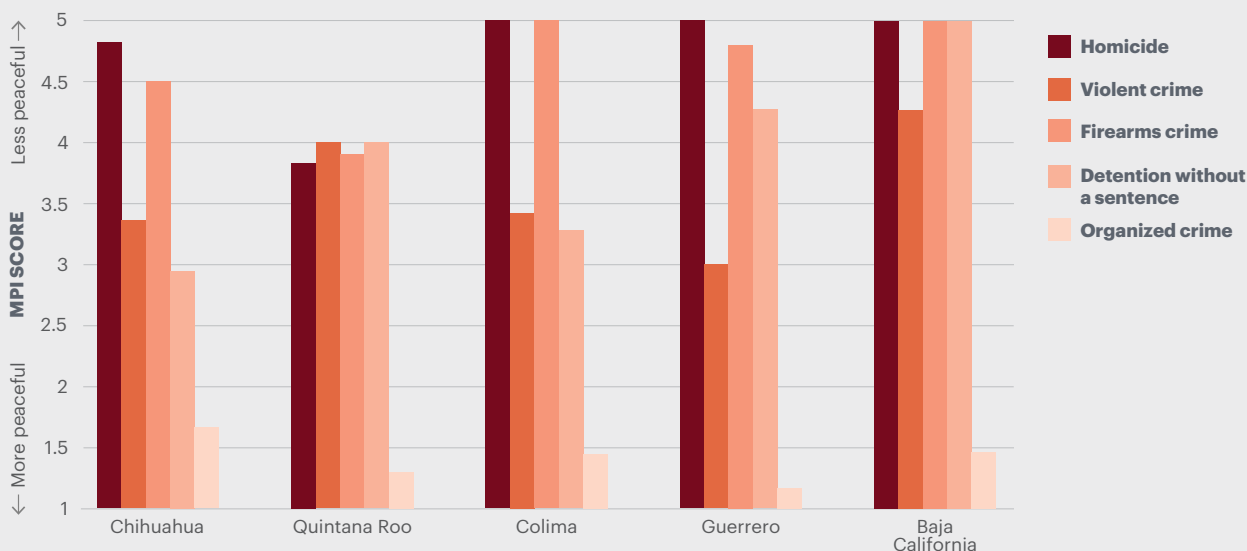
Source: IEP

Rank 32: Baja California

2018 SCORE
4.553

CHANGE IN RANK 17/18:
↘ **1**

CHANGE IN SCORE 17/18: **0.203**

Baja California is Mexico's least peaceful state, following a five percent deterioration in its overall score last year, which was mainly driven by a substantial increase in its homicide rate. It holds this position by a wide margin, with the next least peaceful state, Guerrero, having a ten percent better score.

Baja California had the highest organized crime and firearms crime rates, and the second highest homicide rate, in the country in 2018. The homicide rate in the state deteriorated substantially in 2018, increasing by 33 percent.

With a population of 2.1 million, Tijuana is the state's largest city. The Arellano Felix Organization (AFO), an organized crime group sometimes called the Tijuana Cartel, is known to operate in the city. The AFO has roots in Sinaloa and at various times has been either operating in concert with or in conflict with the Sinaloa Cartel.[17]

Despite a deterioration in overall score, both *detention without a sentence* and violent crime improved in 2018. The violent crime rate fell by eight percent, largely due to a decrease of 21 percent in the robbery rate.

Rank 31: Guerrero

2018 SCORE
4.063

CHANGE IN RANK 17/18:
↘ **1**

CHANGE IN SCORE 17/18: **0.073**

In 2018, Guerrero's score deteriorated by two percent, largely due to a 16 percent increase in the organized crime rate and an eight percent rise in the firearms crime rate. The deterioration in the *organized crime* score was due to a 31 percent rise in the extortion rate.

Despite the overall rise in organized crime, three of its four sub-indicators did improve. Drug trade related crime fell by 27 percent, possibly due to a decrease in demand for opium. Guerrero has historically been a poppy producer, and an increase in the use of synthetic opioids internationally has decreased poppy production throughout the state.[18]

While the overall score deteriorated, both the violent crime and the homicide rate improved. The violent crime rate fell by six percent in 2018, after rising for two consecutive years. Last year's fall is due to a decrease in both the sexual violence and the robbery rates.

Despite a one percent decrease in 2018, Guerrero remains the state with the third highest homicide rate.

Rank 30: Colima

2018 SCORE
4.021

CHANGE IN RANK 17/18:
↘**1**

CHANGE IN SCORE 17/18: **0.165**

Colima fell one place in the overall rankings, due to a four percent deterioration in its score. Despite this deterioration in overall score and ranking, four of five indicators improved in 2018. The deterioration in score is solely due to a 40 percent increase in the organized crime rate.

While all four sub-components of *organized crime* deteriorated, extortion and kidnapping and human trafficking recorded the two largest deteriorations. Both rates rose by over 200 percent in 2018 alone. Violent clashes between rival criminal organizations have severely affected Colima and neighboring states. While the violent crime, firearms crime, and the homicide rates improved over the past year, they remain high.

The most notable improvement was in the *detention without a sentence* indicator, which improved by 13 percent. Homicide, firearms crime, and violent crime rates also fell in 2018, after increases in the three previous years. Both the rates of robbery and homicide with a firearm fell by 11 percent, while the assault rate fell by six percent.

Even though the homicide rate decreased by 13 percent, Colima still recorded the highest homicide rate in Mexico in 2018.

Rank 29: Quintana Roo

2018 SCORE
3.720

CHANGE IN RANK 17/18:
↘**6**

CHANGE IN SCORE 17/18: **0.906**

For the first time, Quintana Roo ranks amongst Mexico's least peaceful states, following deteriorations in its score of over 30 percent in both 2017 and 2018. Since 2016, Quintana Roo has experienced significant increases in violent crime, homicide, organized crime and firearms crime.

The state recorded a 21 percent increase in organized crime related activities in 2018. The extortion rate increased by 70 percent in 2018, and the state now has one of the five highest rates of extortion in Mexico. Organized crime related violence also contributed to the increase in the homicide rate,[19] which doubled in 2018 from 22.6 to 46.7 per 100,000 people. At least 500 deaths statewide were attributed to inter-gang violence in just the first seven months of the year.[20]

Rank 28: Chihuahua

2018 SCORE
3.680

CHANGE IN RANK 17/18:
0

CHANGE IN SCORE 17/18: **0.136**

Chihuahua ranks as the fifth least peaceful state, with a deterioration in its overall score of four percent in 2018. This was driven by a rise in both the firearms crime and the homicide rate, which increased by 19 and 12 percent, respectively. Since 2015, homicide rates have doubled, due to a resurgence of violence in Ciudad Juarez. In 2018, the city's homicide rate increased 61.6 percent compared to the prior year.[21]

Offsetting this, the *organized crime* and *violent crime* indicator scores improved by 12 and four percent, respectively, in 2018. Notably, extortion rates halved and the robbery rate fell by 23 percent.

Despite improvements in the organized crime indicator, cartel presence may not have declined. There are certain organized crime operations, such as illegal logging, that cannot be measured due to insufficient data. It is evident that in recent years illegal logging has increased in the forested areas of the state. Cartels are drawn to logging, as it is a lucrative business, diversifies revenue incomes that fluctuate with poppy and marijuana prices and also results in more land with which to grow illicit substances.[22]

IMPROVEMENTS IN PEACEFULNESS

While Mexico as a whole deteriorated in peacefulness last year, ten states improved. The five largest "risers" showed significant improvements in score, with four out of five of them reversing prior trends of deterioration. Table 1.6 gives the size of the improvement last year by state, while Figure 1.13 visualizes the change in overall score by year for each of the five most improved states.

TABLE 1.6

Five most improved states, 2017-2018

Baja California Sur had the largest improvement in its overall score after reducing its homicide rate 76 percent from 105 to 26 per 100,000 people.

STATE	CHANGE IN SCORE	2017 MPI RANK	2018 MPI RANK	CHANGE IN RANK
Baja California Sur	-1.298	32	25	↑ 7
Sinaloa	-0.450	27	22	↑ 5
Sonora	-0.226	18	12	↑ 6
Veracruz	-0.189	11	8	↑ 3
Tamaulipas	-0.160	25	23	↑ 2

Source: IEP

Four of the five states with the largest improvements, excluding Sinaloa, recorded decreases in their violent crime and organized crime rates.

All five of these states recorded reductions in their robbery rates and the combined rate of kidnapping and human trafficking. Sonora experienced the greatest percentage improvement of any Mexican state for these two indicators, with reductions of 32 percent and 98 percent, respectively.

Sonora and Veracruz improved in all aspects of violent crime: robbery; sexual violence; and assault, including violence between family members. Both states have programs in place to reduce violence against women and achieved the second and third lowest rates of sexual violence in the country in 2018.

Improvements in the overall rate of violent crime in Baja California Sur and Tamaulipas were due to reductions in the rates of robbery. However, both states recorded increasing rates of family and sexual violence.

The three most improved states – Baja California Sur, Sinaloa and Sonora – all had mutli-sectoral government programs designed to target the state's specific challenges. Multi-sectoral programs involve collaboration between various groups, including the government, civil society and the private sector.

Baja California Sur was the only state in the country to become more peaceful in every indicator, a major improvement from the situation in 2017, when it ranked as the least peaceful state. In 2018, the public and private sector jointly invested over 950 million pesos ($50 million USD) into increasing security measures in the resort area of Los Cabos, to protect the state's tourism-dependent economy. These measures included expanded surveillance and security camera usage, a rapid response system that connected local business and hotels with law enforcement authorities, new security and training protocols, and a new intelligence center for marines. As Los Cabos contains over one third of the state's total population, the decrease in the homicide, organized crime, and violent crime rates could be linked to this increase in security measures.

Sinaloa's improvement in score reflects a 35 percent decrease in its homicide rate, the second largest in Mexico after Baja California Sur. This could be the result of statewide efforts to reduce crime. In 2017, Sinaloa instituted the Sectoral Public Security Program 2017-2021, which outlined the state's main crime threats and highlighted steps towards alleviating risks. These included multi-sectoral institutional change and increased community participation in preventing and mitigating crime. Programs included constructing strategic operating zones to enhance cooperation between state and municipal level police, using community participation to prevent crime and obtaining georeferenced data to develop community-oriented prevention strategies. Many of these ideas have yet to be implemented, as the program is still in its beginning stages, but the decrease in homicide is promising.

Sonora has experienced consistent improvements over the last three years. While homicide and firearms crime rates have risen in this time period, the violent crime rate has halved and the organized crime rate has fallen by 71 percent. Sonora reported high levels of kidnapping and human trafficking in 2017, but in 2018 recorded the lowest rate in the country. This significant change could in part be due to the work of a task force specifically centered on preventing kidnapping (Unidad Especializada en el Combate al Secuestro del Estado de Sonora). In December of 2017, the state government in partnership with the Attorney General

FIGURE 1.13

Overall score of five largest "Risers", 2015 – 2018

Of the top five risers, only Sonora has consistently improved its score over more than one year. The other states have reversed trends of increasing crime from 2015 to 2017.
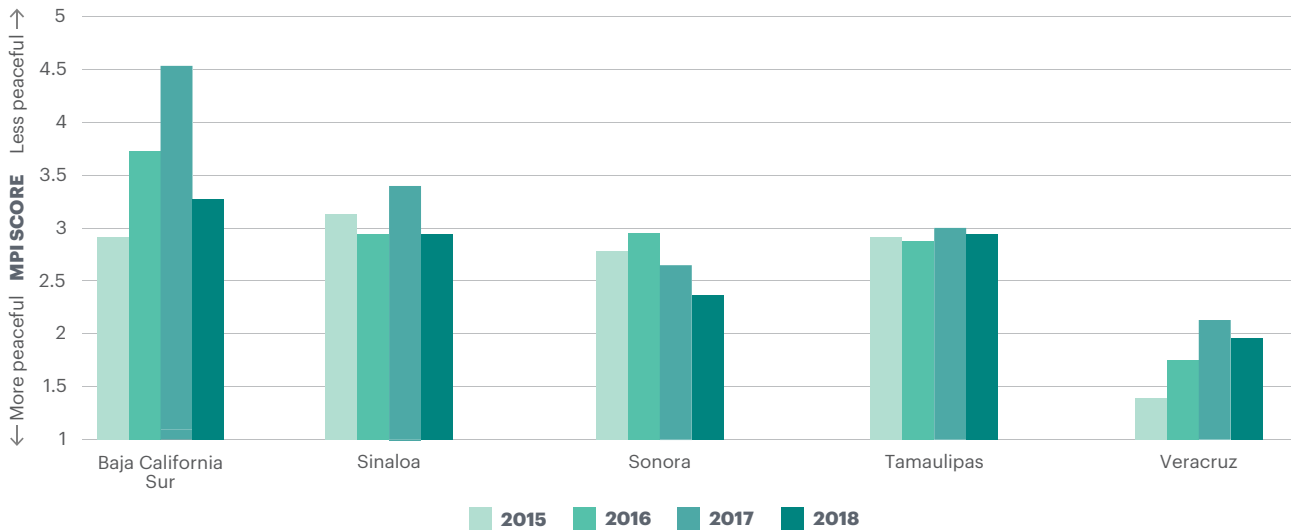
Source: IEP

and the Sonoran Institute for Women developed a protocol for preventing human trafficking. This protocol includes measures to educate youth and the vulnerable from believing phishers and falling into risky situations. Sonora has also implemented a state

program to prevent violence and delinquency (Programa Estatal de Prevención Social de la Violencia y la Delincuencia), which uses social development programs to dissuade violent and criminal actions.

"

Baja California Sur was the only state in the country to become more peaceful in every indicator, a major improvement from the situation in 2017, when it ranked as the least peaceful state.

DETERIORATIONS IN PEACEFULNESS

The five states that deteriorated the most in peacefulness in 2018 worsened in nearly every indicator of peacefulness. All five recorded increases in the firearms crime, homicide, and organized crime rates. Figure 1.14 visualizes the change in overall score from 2015 to 2018 by year for each state.

The analysis highlights that the states with the lowest levels of peace are becoming less peaceful and that even states that are relatively peaceful can quickly become unstable. Additionally, when states deteriorate quickly they tend to do so in all categories, with the exception of *detention without a sentence*.

TABLE 1.7
Five states with the largest deteriorations, 2017-2018

Guanajuato, which had the largest deterioration in peace, saw its homicide rate more than double in 2018, from 24 to 54 per 100,000 people.

STATE	CHANGE IN SCORE	2017 MPI RANK	2018 MPI RANK	CHANGE IN RANK
Guanajuato	0.991	19	27	↓ 8
Quintana Roo	0.906	23	29	↓ 6
Jalisco	0.379	15	19	↓ 4
Oaxaca	0.338	10	14	↓ 4
Nayarit	0.286	13	15	↓ 2

Source: IEP

The two states with the largest deteriorations, Quintana Roo and Guanajuato, doubled their homicide rates in 2018. Both now rank in the six states with the highest homicide rates in the country. The increase in homicide and firearm crime rates combined with an increase in the narcotics crime rates of all five states could point to a higher presence of cartels and gang warfare.

Guanajuato has deteriorated in overall score every year since 2015. Violence against police officers combined with low levels of pay have left the state with a severe deficit in police numbers. In 2017, the state had a total of 2,622 public security officers - roughly 43.5 per every 100,000 residents - compared to a national average of 176 public security officials per 100,000 residents. Efforts to

incentivize individuals to join the force, such as pay raises and increased benefits, have thus far failed, due to the dangers associated with police work.[31] At the same time, there have been increasing rates of homicide, firearms crime, violent, and organized crime. The homicide rate increased by 126 percent over the past year alone.

Quintana Roo's overall score deteriorated by approximately 30 percent in both 2017 and 2018. Since 2016, the state has experienced a sharp increase in the levels of violent crime, homicide, organized crime and firearms crime. Quintana Roo recorded the largest increase in its violent crime rate of any state in the country, rising by 47 percent from 1,975 to 2,799 per 100,000.

The rise in organized crime related violence fueled the spike in homicides in 2018, with over 500 deaths statewide attributed to inter-gang violence for the year to August in 2018.[32] The homicide rate doubled in 2018 alone, along with an 85 percent increase in the rate of firearms crimes.

Thus far, increasing rates of homicide and violent crime have not heavily impacted the tourist industry. The state is home to the major resort area of Cancún, which is one of Mexico's top tourist destinations. In 2018, Cancún received more visitors than any other city in Latin America, and the state's economy grew over three percent.[33]

In 2018, **Jalisco's** homicide rate rose by 51 percent, and its kidnapping and human trafficking rate nearly doubled. The rise of the Cartel Jalisco Nueva Generación (CJNG) over the past ten years has increased violence throughout Mexico, but has particularly impacted the stability of Jalisco. Ongoing competition between CJNG and other rival cartels could account for the increase in homicide and organized crime rates.[34] In March of 2018, the Nueva Plaza Cartel began challenging CJNG's power in Guadalajara, the state's capital. In March, three film students were kidnapped and killed by the CJNG, which mistook them for Nueva Plaza members.[35]

In 2015, **Oaxaca** ranked as the fifth most peaceful state. Since then, Oaxaca has seen increases in homicide, violent crime and firearms crime rates of over 250 percent each. The rate of violent crime alone has risen 629 percent, from 255 per 100,000 to 1,838 per 100,000. A marked increase in sexual assault occurred in 2018, as the state's overall rate rose by 42 percent. Political organizations were also targeted by increasing levels of violence. In 2018, there were 29 politicians killed in Oaxaca, the second most of any state in Mexico following Guerrero.[36] Additionally, organized crime activity increased by 72 percent in 2018, with 68

FIGURE 1.14

Overall score of top five "Fallers", 2015 – 2018

The five largest "fallers" of 2018 have shown consistent deteriorations in peacefulness over multiple years. Increasing cartel activity in these states has increased crime rates.
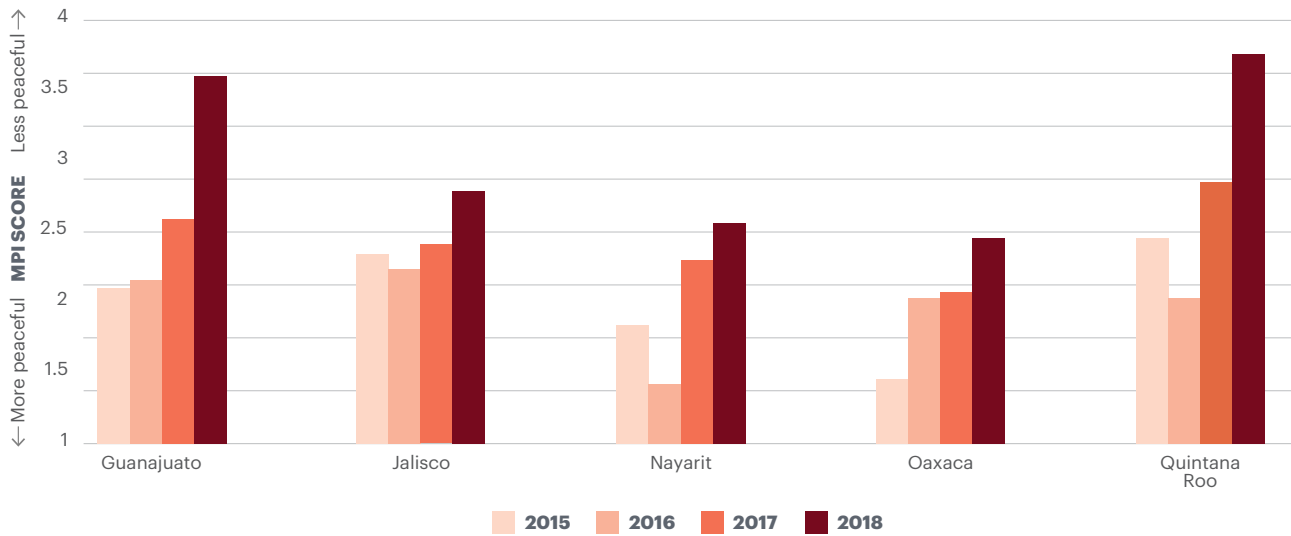
Source: IEP

percent of the homicides in the first nine months of the year attributed to organized crime groups.[37] The trend of increased violence against politicians and rates of organized crime, paired with a consistently deteriorating overall score, point to a concerning and potentially lasting rise in insecurity in the state.

Nayarit, like Oaxaca, was once one of the most peaceful states in Mexico. In 2016, it ranked third in the MPI. Since then, it has dropped 12 places. There has been a marked deterioration in both the homicide rate and the firearms crime rate since 2016, having

each increased by over 800 percent. Organized crime related homicides increased by 127 percent in 2018, second only to Coahuila.[38]

In February of 2018, two agents from the organized crime unit of Mexico's Attorney General Office were abducted by Cartel Jalisco Nueva Generación (CJNG).[39] In a video published online they were forced to denounce the security policy of the national government; both agents were subsequently killed.

> "
> Quintana Roo's overall score deteriorated by approximately 30 percent in both 2017 and 2018. Since 2016, the state has experienced a sharp increase in the levels of violent crime, homicide, organized crime and firearms crime.

THE ECONOMIC VALUE OF PEACE IN MEXICO

KEY FINDINGS

- The economic impact of violence in Mexico was 5.16 trillion pesos (US$268 billion) in 2018, equivalent to 24 percent of the country's GDP. This was ten percent higher than 2017.

- Homicide was the largest contributor at 51 per cent of the economic impact of violence or 2.63 trillion pesos in 2018. This increased by 15 percent from 2017.

- Mexico spends 0.81 per cent of its GDP on domestic security and the justice system. This is half of the OECD average and puts Mexico at the bottom of the 33 OECD countries.

- Mexico has 3.5 judges per 100,000 people compared to the global average of 16.2. This deficit limits the capacity of the judicial system.

- The federal government expenditure on violence containment activities increased three percent in 2018. This was significantly smaller than the 12 percent increase in overall budgetary expenditure.

- The economic impact of violence was ten times higher than public investments made in health and eight times higher than those made in education in 2018.

- A one percent decline in the economic impact of violence is equivalent to all federal government's investment in activities related to science, technology and innovation in 2018.

- On a per capita basis, the economic impact of violence was 41,181 pesos, more than five times the average monthly salary of a Mexican worker.

- The per capita economic cost of violence varies significantly from state to state, ranging from 10,808 pesos in Yucatán to 83,167 pesos in Colima.

- If violence and its consequential economic impact were reduced to the level of the five most peaceful states in Mexico, the resulting peace dividend would amount to 10 trillion pesos over a four-year period.

- The least peaceful states experiencing the highest levels of violence, as measured by the MPI, do not necessarily receive higher per capita funds for domestic security.

THE ECONOMIC VALUE OF PEACE IN 2018

The economic impact of violence in Mexico was estimated at 5.16 trillion pesos (US$268 billion) in 2018, equivalent to 24 percent of Mexico's GDP. This represents a ten percent increase from 2017, and a 38 percent increase since 2015. The rising economic impact of violence reflects Mexico's deterioration in peacefulness in the last four years.

To put this into perspective, the economic impact of violence was ten times higher than public expenditure on health and eight times higher than those made in education. This highlights that small reductions in violence can free up resources that can and have a meaningful, positive impact on the economy.

Violence and the fear of violence create significant economic disruptions. While violent incidents incur costs in the form of property damage, physical injury or psychological trauma, fear of violence alters economic behavior. It does this primarily by changing investment and consumption patterns as well as diverting public and private resources away from productive activities and towards protective measures.

Combined, violence and the fear of violence generate significant welfare losses in the form of productivity shortfalls, foregone earnings and distorted expenditure – all of which affect the price of goods and services. Measuring the scale and cost of violence has, therefore, important implications for assessing the effects it has on economic activity.

Figure 2.1 illustrates the share of the total economic impact of

> "
> Considerable gains in peacefulness can be made by increasing funding and security capacity.
> _____

violence by category in 2018. The data shows that the consequential costs from violence in Mexico are significantly larger than government expenditure on violence containment. Government spending on domestic security and the judicial system as a percentage of GDP is half that of the OECD.

Considering the higher levels of violence, considerable gains can be made by increasing funding to match the OECD average.

Homicide is the largest category in the model, at 51 percent of the total in 2018, up from 49 percent in 2017. The rising homicide rate in 2018 drove both the deterioration in peacefulness and the rising economic impact of violence, leading to an increase of 15 percent or 333 billion pesos from the year prior. The total economic impact of homicide on the Mexican economy amounted to 2.63 trillion pesos in 2018, equivalent to 12 percent of Mexico's GDP. This highlights the potential for large economic gains associated with reductions in the homicide rate in Mexico. A ten percent decline in the economic impact of homicide is equivalent to 263 billion pesos or five times what the government spent on science, technology and innovation in 2018.

KEY FINDINGS

ECONOMIC IMPACT

2.63tn

pesos in 2018. The total economic impact of homicide on the Mexican economy.

↗15%

increase in the economic impact of homicide from 2017

Category breakdown of the total economic impact of violence, 2018

Homicide and violent crime represent 82 percent of the economic impact of violence. The impact from the consequences of violence is far larger than containment spending in Mexico.

Legend:
- Homicide — 51%
- Violent Crime (Assault, Robbery and Sexual Violence) — 31%
- Government Expenditure (Military, Domestic Security and Justice System) — 10%
- Other — 2%
- Protection Costs — 6%
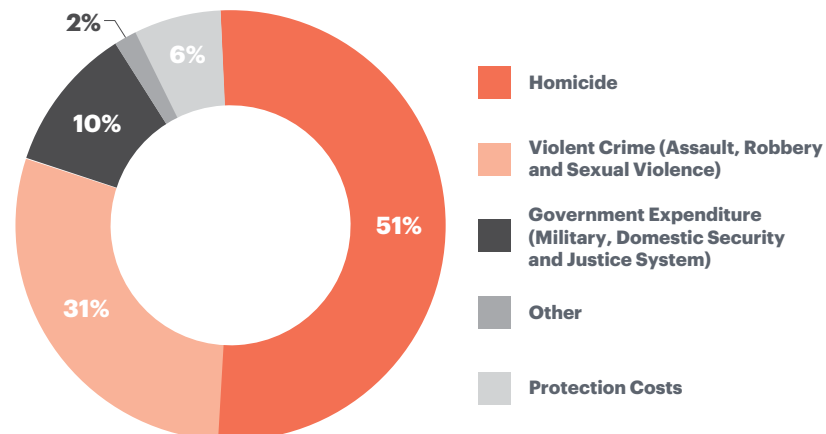
Source: IEP

Violent crime, which is comprised of robbery, assault and sexual violence, was the second most costly form of violence, representing 31 percent of the total economic impact, at 1.6 trillion pesos. Losses from violent crime include economic and health related costs incurred by Mexican businesses and households. This represents an update to the methodology from previous years, which used a unit cost to measure the direct effect of violent crime. Data for this methodology change is sourced from nationally representative victimization surveys (ENVIPE and ENVE) administered by the National Institute of Statistics and Geography (INEGI). Both surveys collect data on economic and health-related direct costs due to violent crime.

Violent crime and homicide add up to more than 80 percent of the total economic impact of violence. However, violent crime did not increase at the same rate as homicide. The increase in violent crime was 152 billion pesos or 11 percent from its 2017 level.

Government spending on activities aimed at reducing violence – military, internal security and justice system– amounted to 531 billion pesos, accounting for 10 percent of the total economic impact.

The economic impact model also includes protection costs incurred by households and businesses that consist of spending on measures to safeguard against high levels of violent and organized crime activity. Protection costs amounted to 316 billion pesos, at six percent of the total economic impact of violence. This category includes private security spending, the purchase of insurance and/

or firearms, changing place of residence or business due to violence, and installation of alarms, locks, doors, windows, bars and fences. Data for this category is sourced from INEGI.

The remaining two percent of economic losses are related to the indirect costs of organized crime, incarceration, and the fear of violence. The economic impact of organized criminal activity is calculated for two types of crimes, extortion and the combined rate of kidnapping and human trafficking, and amounted to 16.9 billion pesos in 2018. However, this is a conservative estimate, as the model does not include all of the losses imposed by organized criminal groups, in particular, commodity theft or drug trade related economic activity such as production, transport, and trade. Data on the economic impact of these types of crimes are extremely difficult to capture.

The economic impact of violence includes direct and indirect costs and a multiplier effect. Direct costs can be expenditures incurred by the victim, the perpetrator and the government. Indirect costs accrue after the fact and include the present value of long-term costs arising from incidents of crime, such as lost future income, and physical and psychological trauma. Table 2.1 presents a full breakdown of the economic impact included in the 2018 estimate.

The multiplier effect represents the foregone economic benefits that would have been generated if all relevant expenditure had been directed into more productive alternatives. The total economic impact of violence is the direct cost of violence, the indirect cost and the multiplier effect added together.

TABLE 2.1
The economic impact of violence in 2018, constant 2018 pesos, billions

Total economic losses, including lost opportunities, resulting from violence amounted to 5.16 trillion pesos in 2018.

INDICATOR	DIRECT	INDIRECT	MULTIPLIER EFFECT	TOTAL ECONOMIC IMPACT OF VIOLENCE
Homicide	228.4	2,174.2	228.4	2,631.0
Violent Crime	297.2	994.8	297.2	1,589.3
Organized Crime	-	16.9	-	16.9
Fear	-	74.5	-	74.5
Private Security & Weapons	157.8	-	157.8	315.7
Military Spending	106.4	-	106.4	212.7
Domestic Security Spending	47.3	-	47.3	94.5
Justice System Spending and Incarceration	112.0	2.5	112.0	226.6
Total	**949.1**	**3,262.9**	**949.1**	**5,161.2**

Source: IEP

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> Violent crime and homicide add up to more than 80 percent of the total economic impact of violence.

PER CAPITA

The nationwide economic impact of violence amounted to 41,181 pesos per person in 2018. These per capita losses surpass five months of income for an average Mexican worker.[1]

Table 2.2 contains the MPI score and the per capita economic cost of violence by state. As expected, where peacefulness is low, the economic cost of violence is higher. However, given the high cost of homicide for some states, the economic cost of violence is greater than their MPI rank would seem to predict.

Colima, which ranked the third least peaceful state in Mexico in 2018, has the highest per capita economic cost of violence, at 83,167 pesos. Colima had the highest homicide rate in Mexico in 2018, but also has a relatively small population. Yucatán had the lowest economic cost of violence per person, at 10,808 pesos.

> " On a per capita basis, the economic impact of violence was 41,181 pesos, more than five times the average monthly salary of a Mexican worker.

83,167

10,808

IMPACT PER CAPITA

The per capita economic cost of violence varies significantly from state to state, ranging from 10,808 pesos in Yucatán to 83,167 pesos in Colima.

TABLE 2.2

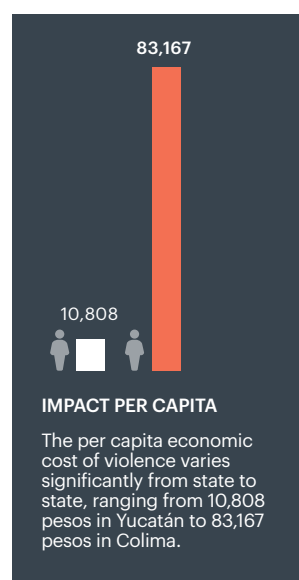## The per capita economic cost of violence, 2018

The per capita economic cost of violence varies significantly from state to state in Mexico.

| STATE	MPI SCORE	PER CAPITA ECONOMIC COST OF VIOLENCE (PESOS)	TOTAL ECONOMIC IMPACT OF VIOLENCE (BILLIONS OF PESOS)
YUCATÁN	1.066	**10,808**	37.8
CHIAPAS	1.641	14,752	105.7
CAMPECHE	1.374	15,046	21.6
TLAXCALA	1.390	17,815	32.1
COAHUILA	1.909	17,919	76.3
DURANGO	2.121	19,090	45.5
HIDALGO	1.808	21,532	81.3
VERACRUZ	1.975	22,146	232.4
QUERÉTARO	1.959	22,532	64.5
NUEVO LEÓN	2.592	25,780	180.9
PUEBLA	2.115	26,187	216.0
SAN LUIS POTOSÍ	2.438	27,493	100.6
AGUASCALIENTES	2.219	28,324	48.1
DISTRITO FEDERAL	2.767	28,875	352.1
MÉXICO	2.574	29,761	636.8
SONORA	2.369	29,952	115.2
NAYARIT	2.568	30,171	46.5
TABASCO	2.809	31,499	97.1
JALISCO	2.761	34,750	345.3
OAXACA	2.482	36,483	176.6
SINALOA	2.912	36,944	135.8
MICHOACÁN	2.714	37,930	218.4
TAMAULIPAS	2.916	39,036	164.8
ZACATECAS	3.392	41,792	81.7
BAJA CALIFORNIA SUR	3.247	44,271	41.6
QUINTANA ROO	3.720	48,961	96.8
MORELOS	2.926	51,468	122.2
GUANAJUATO	3.602	53,882	380.0
CHIHUAHUA	3.680	56,785	249.5
GUERRERO	4.063	62,115	258.3
BAJA CALIFORNIA	4.553	80,850	325.9
COLIMA	4.021	**83,167**	73.5
National			**5,161.2**

Source: IEP

The variation in the per capita economic impact of violence across Mexican states is better illustrated with a future scenario analysis, which highlights the different economic outcomes associated with the level of violence in Mexico. A reduction in violence and the per capita economic impact of violence to the level of the five most peaceful states in Mexico will result in a 2.5 trillion pesos peace dividend per year, or ten trillion pesos over a four-year period. The annual peace dividend is equivalent to 11 percent of Mexico's GDP in 2018. Figure 2.2 shows two future scenarios for the economic impact of violence.

Future economic impact of violence, 2015-2022

Assuming that violence in Mexico were reduced to the level of the five most peaceful states, the resulting peace dividend (economic losses avoided) would amount to approximately 10 trillion pesos over a four-year period.

AT CURRENT LEVEL

PEACE DIVIDEND OF TEN TRILLION PESOS OVER A FOUR YEARS PERIOD

AT THE RATE OF FIVE MOST PEACEFUL STATES
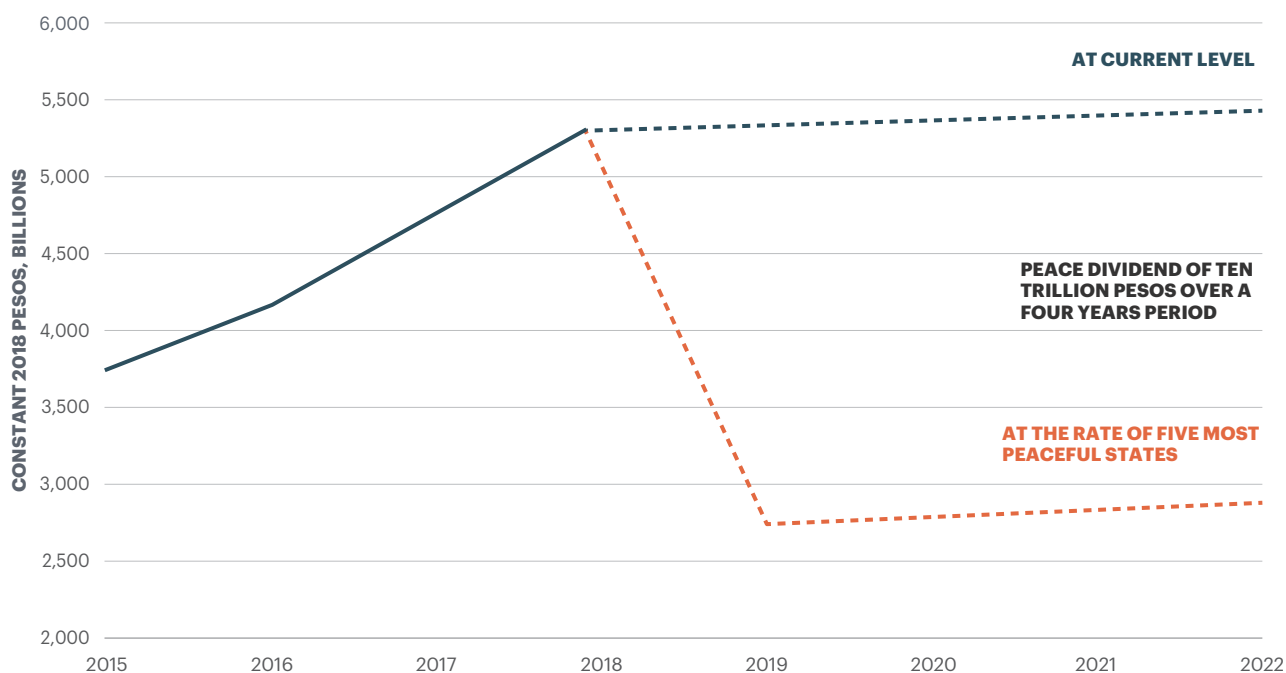
Source: IEP

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>
> If violence and its consequential economic impact were reduced to the level of the five most peaceful states in Mexico, the resulting peace dividend would amount to 10 trillion pesos over a four-year period.

TRENDS IN THE ECONOMIC IMPACT OF VIOLENCE

The economic impact of violence increased by 10 percent in 2018, resulting in 490 billion pesos in additional losses. This followed a 13 percent increase in the economic impact of violence from 2016 to 2017.

IEP's 2019 economic impact of violence model reflects the updated crime data from SESNSP. The new data only dates back to 2015, allowing four years of trend analysis. SESNSP changed the way it records crime data in 2018, allowing for only four years of direct comparison.

FIGURE 2.3
Trend in the economic impact of violence, 2015-2018, constant 2018 pesos, billions

The economic impact of violence increased 38 percent from 2015 to 2018. It increased from 3.7 trillion pesos in 2015 to 5.16 trillion pesos in 2018, increasing by 371 billion pesos in 2016 and 555 billion pesos in 2017.
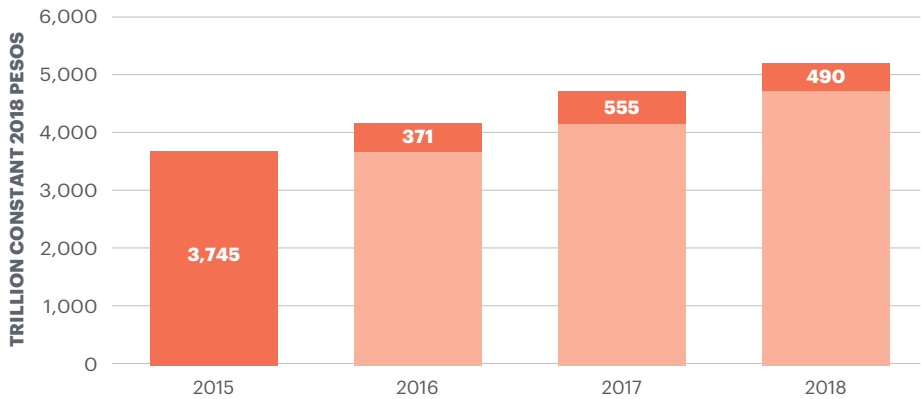
Source: IEP

TABLE 2.3
The economic impact of violence in 2018, constant 2018 pesos, billions

INDICATOR	2015	2016	2017	2018	CHANGE (2017 TO 2018)
Homicide	1,471.03	1,780.27	2,297.65	2,630.96	15%
Violent Crime	1,376.01	1,361.33	1,437.67	1,589.25	11%
Organized Crime	19.85	17.10	18.11	16.91	-7%
Fear	76.69	73.95	68.89	74.52	8%
Protection Costs	252.10	329.72	329.28	315.68	-4%
Military Spending	225.74	214.94	210.28	212.74	1.2%
Domestic Security Spending	113.19	103.33	94.41	94.51	0%
Justice System Spending and Incarceration	210.29	235.17	214.66	226.60	6%
Total	3,745	4,116	4,671	5,161	10%

Source: IEP

GOVERNMENT EXPENDITURE ON VIOLENCE CONTAINMENT

Direct government expenditure on containing and dealing with the consequences of violence accounted for ten percent of the total economic impact of violence in 2018, with an economic impact equivalent to 531 billion pesos.

Violence containment spending, which is comprised of spending on domestic security, the military and the justice system, increased by three percent from 2017 to 2018. However, this increase was significantly smaller than the 12 percent increase in overall budgetary expenditures.

Federal violence containment expenditure was 69 percent higher in 2018 than its level in 2007. Since 2011, the increase in government spending has slowed, and from 2016 to 2017 there was a decline of four percent. Increases in spending on the military and judicial systems have outpaced the increase in domestic security expenditure. This highlights a greater reliance on the military in response to the higher levels of violence in the country.

The federal budget in Mexico has recorded deficits greater than two percent of GDP every year since the global financial crisis, but the government has recently introduced efforts to balance the country's public finances. The resulting budgetary cuts have been more prominent for domestic security than for the military and the justice system. Domestic security spending was 17 percent

lower in 2018 compared to its level in 2012.[2] Figure 2.4 shows the trend in violence containment expenditure from 2007 to 2018.

In addition, Mexican public spending on justice and domestic security are well below regional and international averages. Mexico spent less than one percent (0.81 percent) of its GDP on the justice system and domestic security in 2016, which was only half of the average of the OECD countries. A similar trend emerges when Mexican spending on justice and domestic security is compared with other countries in Latin America and the Caribbean.[3] Figures 2.5 and 2.6 shows the justice system and domestic security spending for countries in the OECD and Latin American and the Caribbean region, with Mexico's relative position in both groups.

Considering that the direct losses from homicide and violent crime are so significant in Mexico and the rates of violence have been so high, an increase in violence containment spending is well justified. Evidence suggests that there is need to scale up the police force and the judicial sector, as well as improving

FIGURE 2.4

Trend in government spending on violence containment, 2007-2018, constant 2018 pesos, billions

Government expenditure on violence containment in 2018 was four percent lower than its 2016 level. However, spending has increased significantly since 2007.

Source: Secretaría de Hacienda y Crédito Público

265.5BN
PESOS
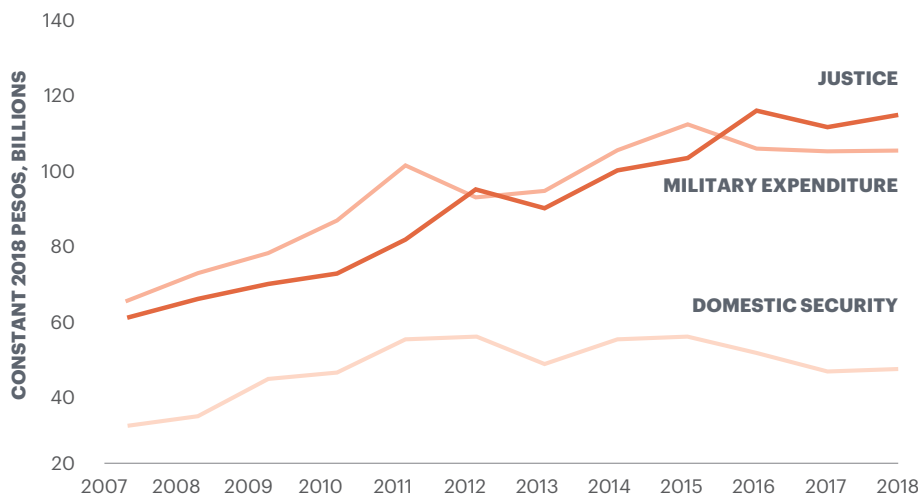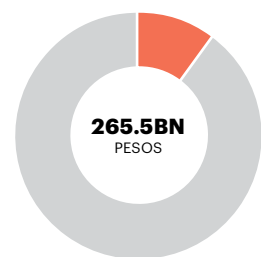
GOVERNMENT EXPENDITURE

10%

Direct government expenditure on containing and dealing with the consequences of violence accounted for ten percent of the total economic impact of violence in 2018, with an economic impact equivalent to 531 billion pesos.

TABLE 2.4

Government spending on violence containment, 2007-2018, constant 2018 pesos, billions

INDICATOR	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Military Expenditure	65.3	71.3	79.7	86.8	100.5	94.0	95.5	105.7	112.9	107.5	105.1	106.4
Domestic Security	30.0	34.4	45.7	47.0	56.2	57.0	49.8	55.6	56.6	51.7	47.2	47.3
Justice	61.5	66.7	70.9	73.4	82.6	95.0	90.0	100.8	103.9	116.3	106.1	112.0
Total	156.8	172.3	196.2	207.2	239.3	246.1	235.3	262.2	273.4	275.5	258.4	265.7

Source: Secretaría de Hacienda y Crédito Público

transparency and training. For instance, Mexico has found it difficult to build sufficient capacity in its judicial system. The country has 3.5 judges per 100,000 people compared to the global average of 16.2. This deficit limits the capacity of the judicial system to process cases, and creates backlogs of unsolved cases and persons incarcerated without a sentence.[4]

THE ECONOMIC IMPACT OF VIOLENCE

↘**1%**

A one percent decline in the economic impact of violence is equivalent to all federal government investment in activities related to science, technology and innovation in 2018.

"

Mexico has 3.5 judges per 100,000 people compared to the global average of 16.2. This deficit limits the capacity of the judicial system.

FIGURE 2.5

Domestic security and justice system expenditure in OECD countries as percentage of GDP

Mexico spends 0.81 percent of its GDP on public order and safety. This is half of the average for the OECD countries.

DOMESTIC SECURITY AND JUSTICE SYSTEM EXPENDITURE AS % OF GDP
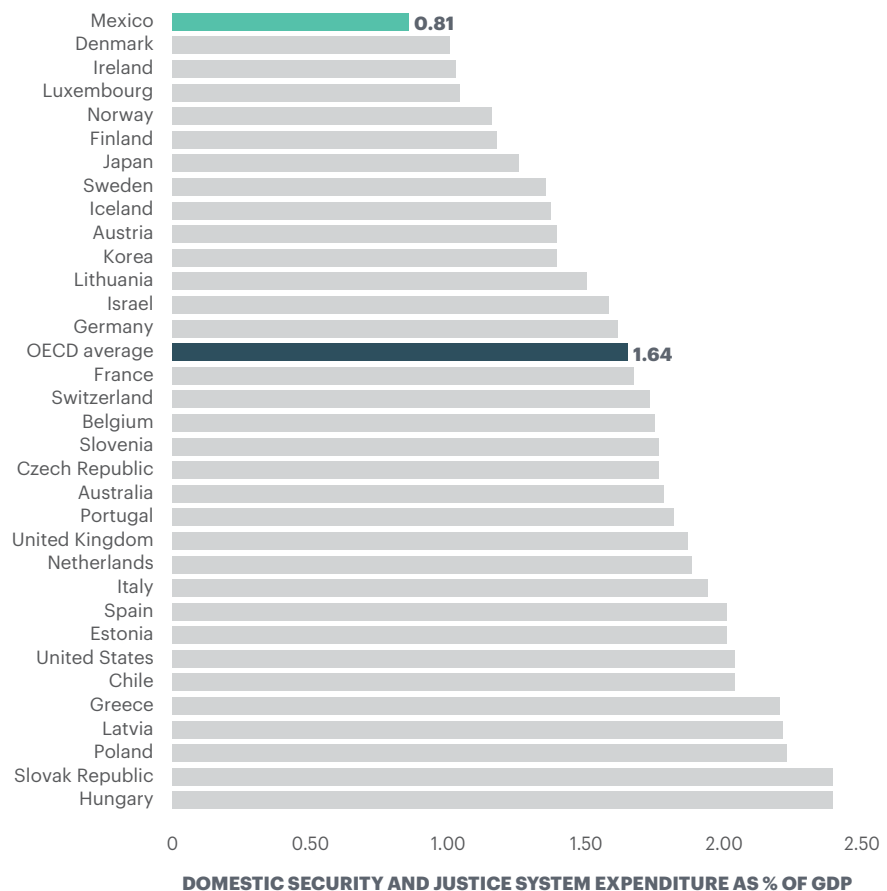
Note: Covers the 33 permanent member states for which data was provided.
Source: Secretaría de Hacienda y Crédito Público; OECD

FIGURE 2.6
Domestic security and justice system expenditure in Latin America and Caribbean countries as percentage of GDP

Mexico's expenditure on domestic security and justice as a proportion of GDP is 54 percent of the average for Latin American and Caribbean (LAC) countries.
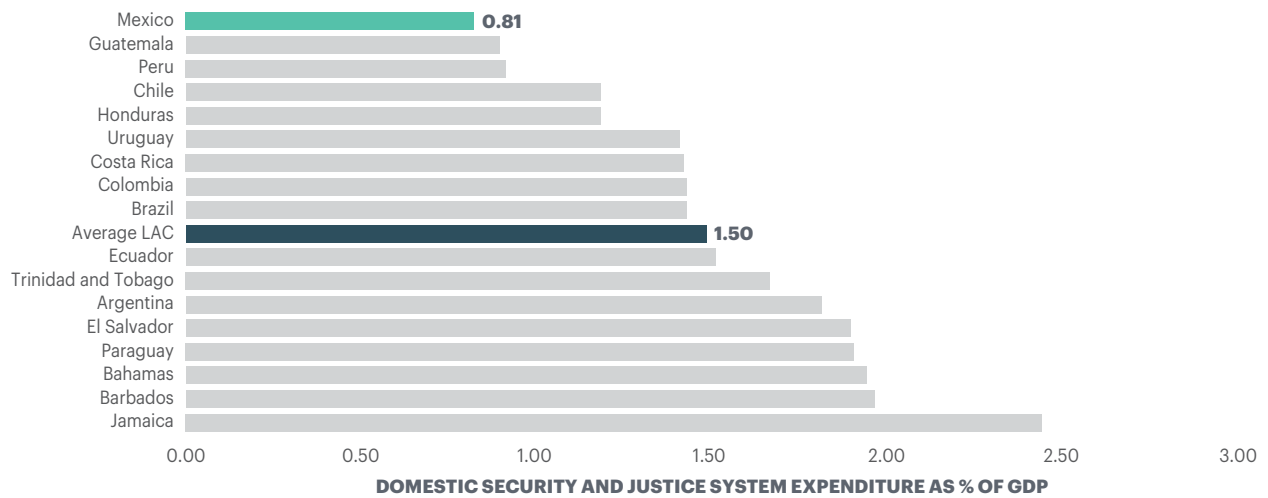

DOMESTIC SECURITY AND JUSTICE SYSTEM EXPENDITURE AS % OF GDP

Source: Jaitman, Laura, 'Frontiers in the Economics of Crime', Inter-American Development Bank, Dec 2018;
IEP calculations based on data from the Secretaría de Hacienda y Crédito Público, Mexico.

The pattern of federal expenditure on domestic security and justice by state does not closely match levels of violence as captured by state MPI scores. States such as Guerrero, Chihuahua and Guanajuato experience high levels of violence and have below average per capita spending on domestic security.

While effectiveness and efficiency of spending is more important than the amount allocated, spending levels signal the degree of policy response to violence. Figure 2.7 shows the level of peacefulness and per capita domestic security expenditure by state.

It is important to understand the efficiency and effectiveness of government spending on the justice and security sectors. Spending beyond an optimal level has the potential to

> " The federal government expenditure on violence containment activities increased three percent in 2018.

constrain a nation's economic development. However, underinvestment will create the conditions for excessive levels of crime, which in turn also negatively impacts the economy. These trade-offs are not easy to navigate and present an important policy challenge. Limited public resources mean that an increase in spending on containing violence has to be funded by either increased taxes or reallocating funds from other sectors.

In Mexico, the lack of resources in the judicial and security sectors leads to a security gap where the consequential costs of violence far exceed the containment costs. Therefore, achieving the optimal levels of spending on public security is important for making the most productive use of capital.

KEY FINDINGS
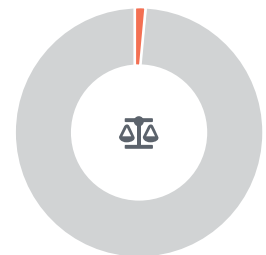
DOMESTIC SECURITY AND THE JUSTICE SYSTEM

0.81%

Mexico spends 0.81 per cent of its GDP on domestic security and the justice system. This is half of the OECD average and puts Mexico at the bottom of 33 OECD countries.

FIGURE 2.7

State MPI scores and expenditure on domestic security and justice

The least peaceful states that experience the highest levels of violence as measured by the MPI do not necessarily receive higher per capita funds for domestic security.
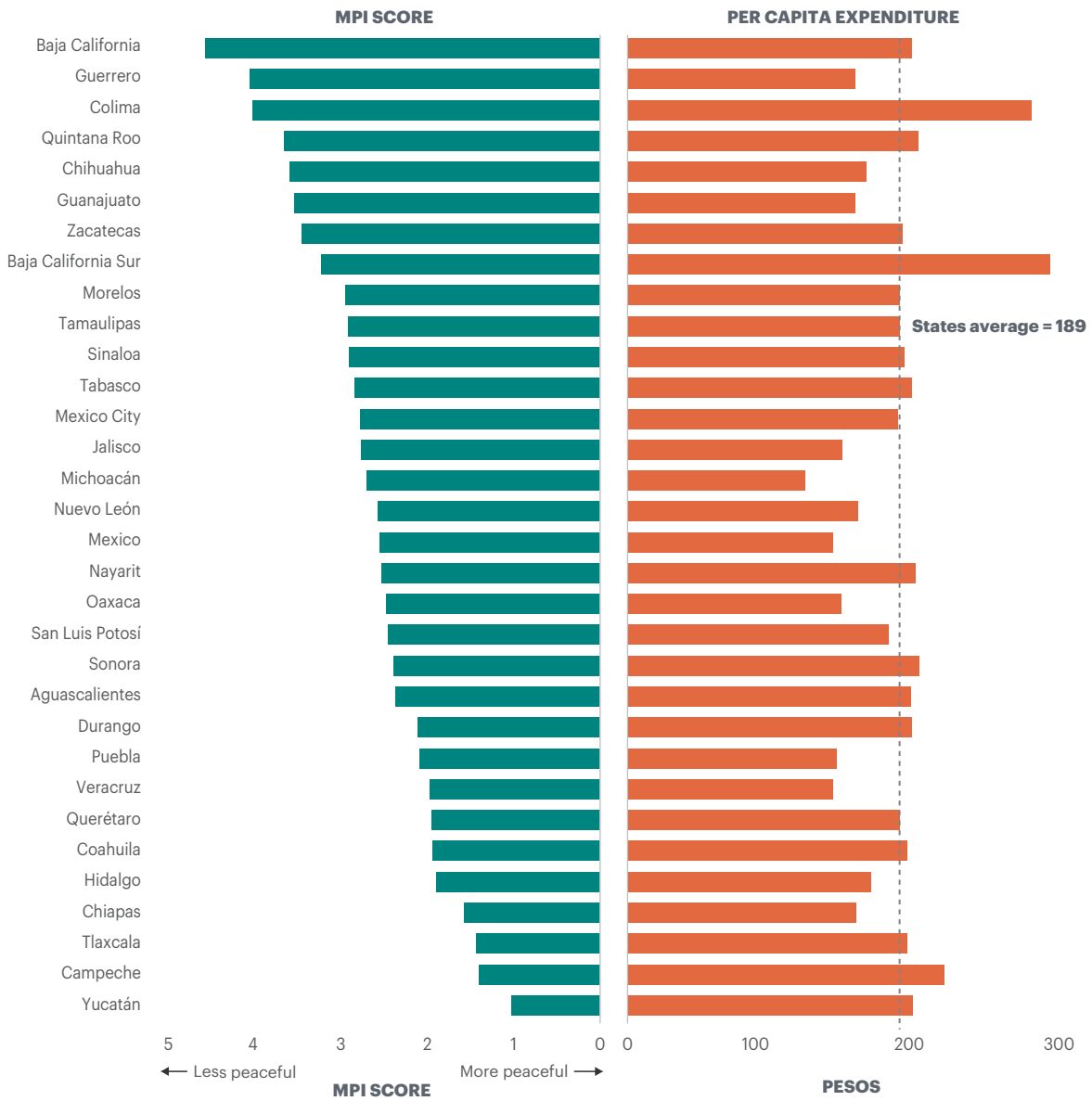
Notes: State MPI Scores for 2018. Per capita expenditure reflects federal expenditures in 2017.
Sources: INEGI; IEP

"

Underinvestment will create the conditions for excessive levels of crime, which in turn also negatively impacts the economy.

METHODOLOGY

The global economic impact of violence is defined as the expenditure and economic activity related to *"containing, preventing and dealing with the consequences of violence."* The estimates include the direct and indirect cost of violence as well as an economic multiplier. The multiplier effect calculates the additional economic activity that would have accrued if the direct costs of violence had been avoided.

Examples of direct costs include medical costs for victims of violent crime, capital destruction from violence and costs associated with the security and judicial systems. Indirect costs include lost wages or productivity from crime due to physical and emotional trauma. There is also a measure of the impact of fear on the economy, as people who fear that they may become a victim of violent crime alter their behavior.

The multiplier refers to the additional economic activity that would have occurred if the crimes had not been committed or where government expenditure for policing, the legal and judicial system had been directed to more productive uses.

IEP estimates the economic impact of violence in Mexico using a similar methodology to its global study, the Economic Value of Peace. The Mexican study uses a variety of measures including a comprehensive aggregation of costs related to violence and spending on military, judicial, policing and internal security services.

IEP's estimate of the economic impact of violence includes three components:

1. **Direct costs** are the costs of crime or violence to the victim, the perpetrator, and the government. These include direct expenditures, such as the cost of policing, medical expenses, funerals or incarceration.

2. **Indirect costs** are costs that accrue after the fact. These include physical and psychological trauma and the present value of future costs associated with the violent incident, such as lost future income.

3. The **multiplier effect** is a commonly used economic concept and describes the extent to which additional expenditure has flow-on impacts in the wider economy. Every time there is an injection of new income into the economy this will lead to more spending, which will in turn create employment, further income and encourage additional spending, thereby increasing GDP. This mutually reinforcing economic cycle explains the "multiplier effect," and why a dollar of expenditure can create more than a dollar of economic activity. Refer to box 2.1 for more detail on the peace multiplier.

Violence containment expenditure refers to the direct and indirect costs associated with preventing or dealing with the consequences of violence.

The **economic impact of violence** refers to the total cost of violence containment plus the peace multiplier, explained in box 2.1.

This study uses a cost accounting methodology to measure the economic impact of violence. Expenditures on containing

violence are totaled and unit costs are applied to the MPI estimates for the number of crimes committed. These crimes only include homicide, assault, sexual violence, robbery, extortion and kidnapping. A unit cost is also applied to the estimated level of fear of insecurity. The unit costs estimate the direct (tangible) and indirect (intangible) costs of each crime. Direct unit costs include losses to the victim and perpetrator and exclude costs incurred by law enforcement and health care systems, as these are captured elsewhere in the model. The direct costs for violent crime and organized crime are obtained from household and business surveys undertaken by the Mexican statistical office. The surveys include economic and health costs to the victim of the crime.

Indirect unit costs include the physical and psychological trauma, and the present value of future costs associated with the violent incident, such as lost lifetime wages for homicide victims.

The cost estimates provided in this report are in constant 2018 pesos, which facilitates the comparison of the estimates over time. The estimation only includes elements of violence where reliable data could be obtained. As such, the estimate can be considered conservative. The items listed below are included in the cost of violence methodology:

1. Homicide

2. Violent crime, which includes assault, violence within the family, sexual violence and robbery

3. Organized crime, which includes extortion, kidnapping, human trafficking

4. Indirect costs of incarceration

5. Fear of insecurity

6. Protections costs, including private security and firearms

7. Federal spending on violence containment, which includes the military, domestic security and the justice system

8. Medical and funeral costs

Some of the items not counted in the economic impact of violence include:

- State level and municipal public spending on security

- The cost of drug trade related crimes such as the production, possession, transport and supply of drugs

- Population displacement due to violence

- Medical expenses for domestic violence

Although data is available for some of these categories, it is either not fully available for all states or for all the years of analysis.

For more details on the methodology for estimating the economic impact of violence, please refer to the full methodology section on page 83.

BOX 2.1
The multiplier effect

The multiplier effect is a commonly used economic concept, which describes the extent to which additional expenditure improves the wider economy. Every time there is an injection of new income into the economy this will lead to more spending, which in turn creates employment, further income and additional spending. This mutually reinforcing economic cycle is known as the "multiplier effect" and is the reason that a dollar of expenditure can create more than a dollar of economic activity.

Although the exact magnitude of this effect is difficult to measure, it is likely to be particularly high in the case of expenditure related to containing violence. For instance, if a community were to become more peaceful, individuals and corporations would spend less time and resources protecting themselves against violence. Because of this decrease in violence, there are likely to be substantial flow-on effects for the wider economy, as money is diverted towards more productive areas such as health, business investment, education and infrastructure.

When a homicide is avoided, the direct costs, such as the money spent on medical treatment and a funeral, could be spent elsewhere. The economy also benefits from the inclusion of the lost lifetime income of the victim. The economic benefits from greater peace can therefore be significant. This was also noted by Brauer and Tepper-Marlin (2009) who argued that violence or the fear of violence may result in some economic activities not occurring at all. More generally, there is strong evidence to suggest that violence and the fear of violence can fundamentally alter the incentives for business. For instance, analysis of 730 business ventures in Colombia from 1997 to 2001 found that with higher levels of violence, new ventures were less likely to survive and profit. Consequently, with greater levels of violence, it is likely that we might expect lower levels of employment and economic productivity over the long-term, as the incentives faced discourage new employment creation and longer-term investment.

This study assumes that the multiplier is one, signifying that for every dollar saved on violence containment, there will be an additional dollar of economic activity. This is a relatively conservative multiplier and broadly in line with similar studies.[5]

> **"**
> A dollar of expenditure can create more than a dollar of economic activity

VICTIMIZATION, DOMESTIC SECURITY & JUSTICE IN MEXICO

KEY FINDINGS

- The homicide rate for men reached 49 per 100,000 in 2018, a 15 percent increase from 2017. The homicide rate for women rose seven percent to 5.5 per 100,000.

- Roughly nine out of ten homicide victims were men in 2018, while a third of homicide victims were between the ages of 15 and 29 each year.

- Survey results indicate that there were roughly 34 million crimes committed in Mexico in 2017.

- Only seven percent of crimes resulted in a criminal investigation in 2017.

- The most recent data shows that Mexico has only 3.5 judges and magistrates per 100,000 people, significantly below the global average of 16, and the OECD average of 17.9.

- States had a median of 110 public security officials per 100,000 in 2017. This rate is less than half of the average for the rest of Latin America.

- Police recorded 580 human trafficking victims in 2018, with four out of ten being children and 71 percent of victims being women and girls.

- 93 percent of extortions were conducted by phone and the extortionists' demands were met in 6.8 percent of cases.

- In 2018, assault victims were mostly male, at 49 percent; 35 percent were female and the sex of the victim was unknown in 16 percent of cases.

- Roughly 85 percent of all crimes were committed by a man or a group of men.

- Mexico's prison population has been declining since 2014, falling by 20 percent to a rate of 145.4 per 100,000 in 2017, roughly the same rate as the OECD average.

- Most of Mexico's incarcerated people are young men with families and some level of education.

- In 2017, 22 percent of incoming prisoners to state prisons had a known previous criminal history. The recidivism rate was higher than one in four in 12 states.

- The capacity of the justice system has improved in some areas. The number of staff in the offices of state attorneys general has risen three percent since 2016; and the per capita budget for these offices increased 20 percent over the same time.

VICTIMIZATION, DOMESTIC SECURITY & JUSTICE IN MEXICO

Mexico's current level of crime and violence has resulted in millions of victims and overwhelmed the justice system, leading to a pressing need for effective domestic security strategies and increased justice capacity. At least 20,000 people are the victim of a homicide each year and more than 90 percent of all crimes go unreported or uninvestigated.

This section of the report analyses data on victims, perpetrators, domestic security and the justice system. Understanding who is affected by violence and the shortcomings within the systems can lead to better policy decisions.

The major finding of this report is that the justice system is under-resourced given the high levels of violence. Spending on justice and domestic security are discussed in detail in Section 2,

while this section presents research on the experiences of victims and the needs and strategies for effective security and justice.

Figure 3.1 shows the process from the occurrence of a crime to an outcome in the criminal justice system. A little more than ten percent of crimes that occurred in 2017 were reported to the authorities. Of those reported, a criminal investigation was opened in 65 percent of cases, or seven percent of the total crimes that occurred. When there are low levels of reporting to authorities there is no effective deterrent for criminals to stop committing crime.

As can be seen in Figure 3.1, the country will have to overcome critical capacity challenges in the justice system if it is to adequately address violence.

FIGURE 3.1

Victimization and justice in Mexico, 2017

Only seven percent of crimes resulted in a criminal investigation in 2017.
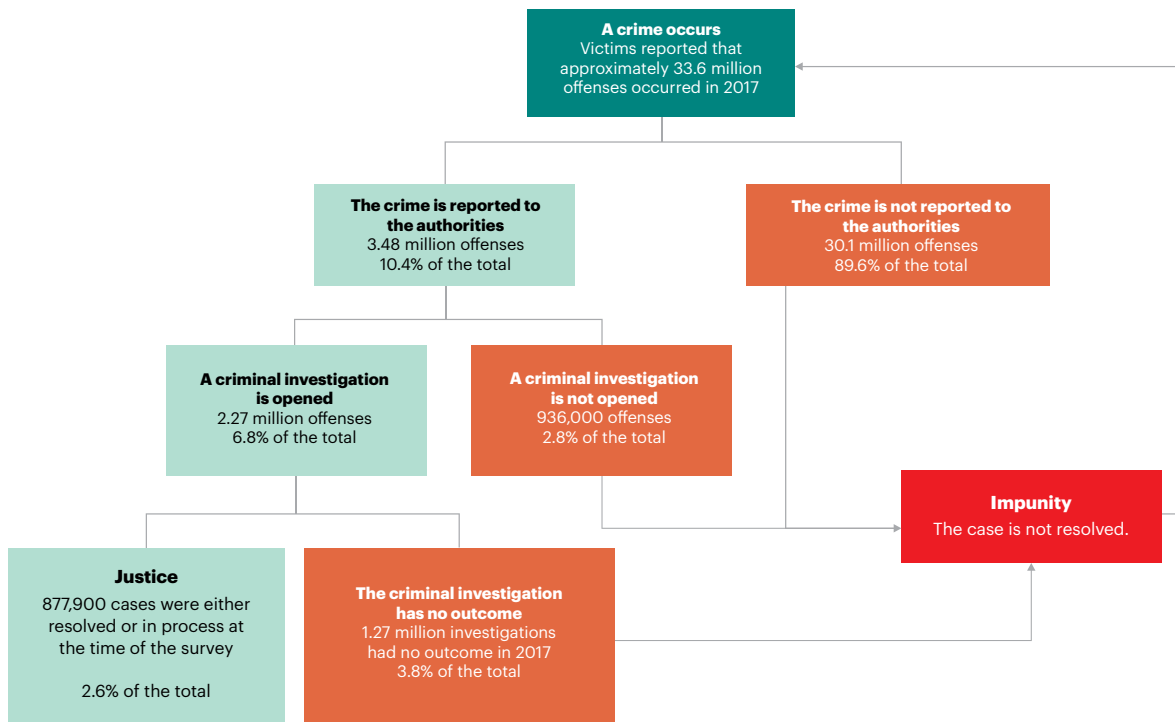
Note: percentages may not sum to 100 due to a small number of survey respondents not specifying the outcome of the case.
Source: ENVIPE 2018

VICTIMS OF CRIME

The national victimization survey found that there were roughly 34 million crimes committed in 2017.[1] The survey is conducted in over 100,000 households from all parts of the country.

The national victimization survey indicates that there were 29,750 crime victims per 100,000 people in 2017.[2] Nearly 36 percent of all families had one family member suffer from crime. Urban areas had higher crime rates than rural areas for all 32 states and for almost all types of crime.[3] Victims were present when 56 percent of the crimes were committed, while the remaining 44 percent included incidents such as car theft or breaking and entering. Of the cases where the victim was present, the perpetrator used physical aggression 17 percent of the time, according to the survey.

The recent rise in violence has significantly impacted men. However, both men and women have been affected in different ways. Men are much more likely to be victims of homicide, making up nearly nine out of ten victims. They are also the majority of assault and kidnapping victims. Survey data in Mexico indicates that four in ten women have experienced intimate partner violence during their lifetime. The family violence survey does not ask questions about whether men have experienced family violence. The absence of data on the experiences of both men and children is one of the shortcomings of these surveys. For example, data from the UK, shows that 35 percent of family violence victims were male in 2017/2018.[4]

BOX 3.1

Data Sources on Victimization

Data in this section comes from a selected group of the best available sources.

The most recent available data is generated from criminal investigations and published by SESNSP. This is the data used in the calculation of state and national MPI scores, and covers the period January 2015 to December 2018.

The most comprehensive victimization data comes from INEGI's annual victimization survey,

which is administered in March and April of each year and asks over 100,000 respondents to describe their experiences of crime and violence in the prior year. The most recent data from this survey, released in late 2018, covers victimization in 2017.

In 2016, INEGI published data from the National Survey on the Dynamics of Household Relationships (ENDIREH), which had a special module asking female respondents

about their experiences of violence both inside and outside of the family. This data does not include the experiences of men or children.

Data for trends in homicide come from INEGI's mortality database. These figures come from the public health system, rather than criminal investigations. A longer time series is available, as well as more information on the characteristics of the victim, but the data typically takes longer to collate and publish.

HOMICIDE

Most victims of homicide in Mexico are young men. In 2018, nine out of ten homicide victims were male. Meanwhile, youth make up a third or more of homicide victims each year.

In 2018, the rate of male victims of homicide per 100,000 men and boys showed a greater increase than the rate of female victims. Table 3.1 gives the number of homicide victims and the rate by sex for the last four years. Figure 3.2 shows the trend over time, using monthly data for a more detailed visualization. As can be seen in the chart and table, while homicide rates rose for male and female victims in 2016, when violence began to re-escalate, they rose

more slowly for female victims in the last two years.

Compared to 2015, men now face a higher homicide rate and make up a greater percentage of the total victims.

Youth also face a high homicide rate compared to the general population. Figure 3.3 gives the trend in the overall homicide rate and the rate for the youth population, ages 15 to 29. In 2017, the youth homicide rate was 36.8 per 100,000 people, a rate 42 percent higher than the general population. More than a third of homicide victims every year are between the ages of 15 and 29.

FIGURE 3.2

Monthly homicide rate by sex, 2015-2018

The homicide rate for men reached 49 per 100,000 in 2018, a 15 percent increase from 2017. The homicide rate for women rose seven percent to 5.5 per 100,000.
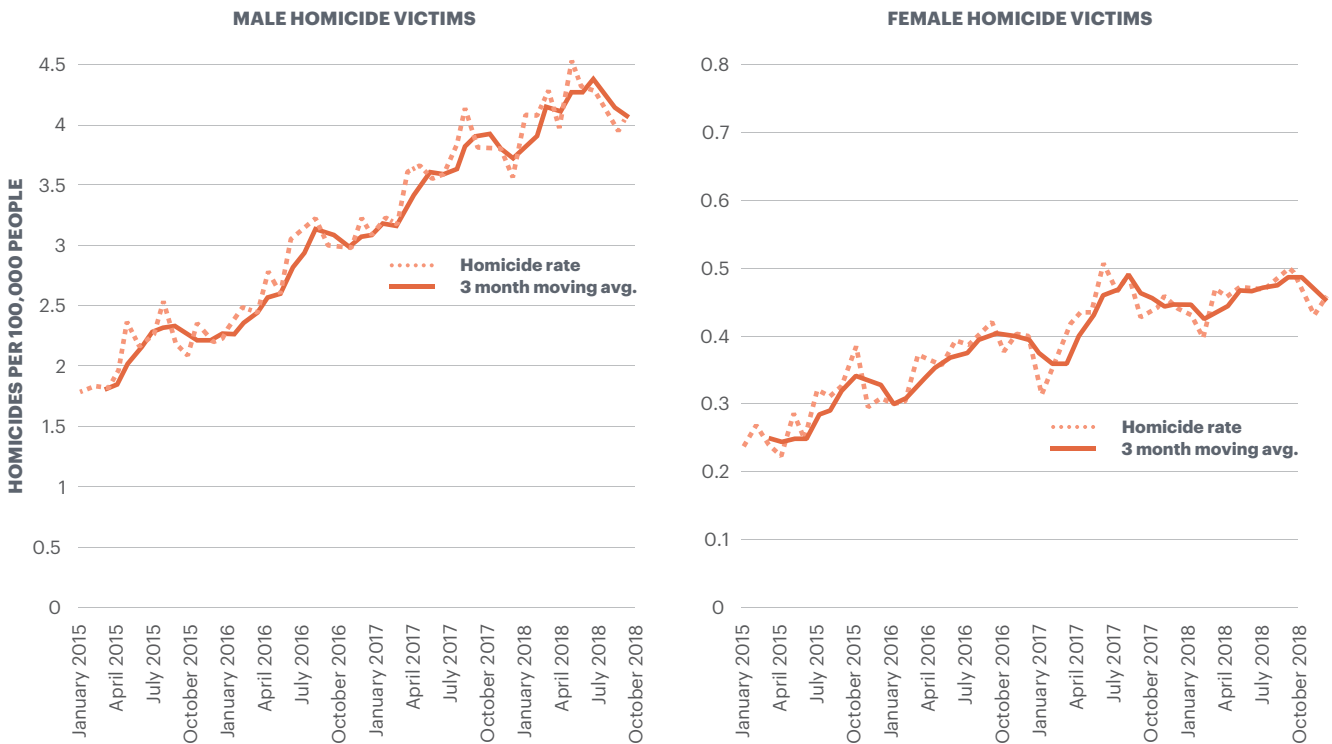
Source: SESNSP
Note: Values for December of 2018 are estimated based on the average of the prior 11 months.

TABLE 3.1

Homicide statistics by sex, 2015-2018

Year	Female homicide victims	Male homicide victims	Female victims per 100,000 women and girls	Male victims per 100,000 men and boys	Y-O-Y change, female	Y-O-Y change, male	Percent male victims
2015	2,159	15,135	3.5	25.5			87.5%
2016	2,828	19,950	4.5	33.2	30%	30%	87.6%
2017	3,296	25,892	5.2	42.6	15%	28%	88.7%
2018*	3,548	30,089	5.5	49.0	7%	15%	89.5%

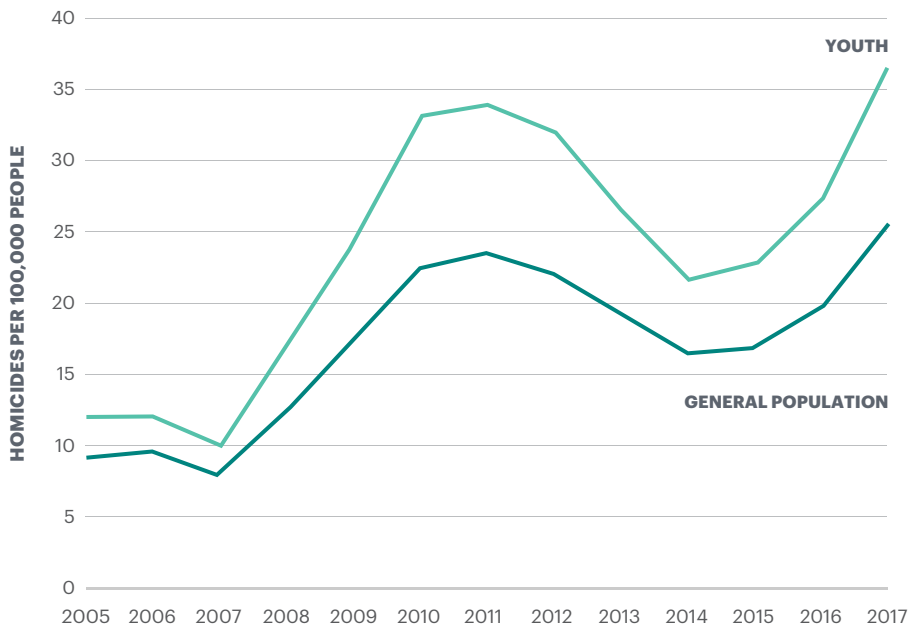Note: Values for December of 2018 are estimated based on the average of the prior 11 months
Source: number of victims reported by SESNSP

FIGURE 3.3

Youth homicide rate, 2005 – 2017

On average, more than a third of homicide victims every year are between the ages of 15 and 29.

HOMICIDE
36.8
per 100k people
In 2017, the youth homicide rate was 36.8 per 100,000 people, a rate 42 percent higher than the general population.

Source: INEGI, IEP calculations

Multiple homicides occur frequently in Mexico. Multiple homicides are usually associated with organized crime, and have been a characteristic of the drug wars of the last decade. Nationally, there were 1.15 victims per homicide investigation in 2018, down from 1.2 in 2017. SESNSP data does not report the number of victims in each homicide investigation, but rather the total number of investigations and the total number of victims. However, the ratio between these figures gives an indication of the prevalence of mass murder.

Figure 3.4 compares the number of homicide victims to the number of homicide investigations in each state in order to highlight the states that are more or less affected by multiple homicides. In the panel on the left, the further a state deviates to the left of the line, the more deaths per case it has, indicating a higher level of multiple homicides. The right hand panel shows the ratio in each state.

Tamaulipas and Guanajuato were the states most affected by multiple homicides in 2018, with ratios of 1.28 and 1.26, respectively. Additionally, Oaxaca, Zacatecas, Michoacán, Chihuahua, Nayarit and Jalisco have rates above 1.2. However, Nayarit's victim rate showed a notable improvement from 1.39 in 2017. Yucatán and Nuevo León both reported ratios of exactly one, suggesting either that there were no multiple homicides last year, that the legal systems in these states investigate one case per homicide victim or that these states have not complied with the new methodology for reporting crime data.

FIGURE 3.4

Homicide victim to case ratio, 2018

States with a higher victim to case ratio are likely to have more multiple homicides.

HOMICIDE INVESTIGATIONS

States above the line are affected by multiple homicides

RATIO OF INVESTIGATIONS TO VICTIMS

Source: SESNSP, IEP calculations

ORGANIZED CRIME RELATED OFFENSES

EXTORTION

Extortion appears to be one of the most widespread crimes in Mexico, affecting the majority of the country. It was the second most prevalent type of crime reported on the victimization survey, after robbery. The survey found that 93 percent of extortions were conducted by phone and the extortionists demands were met in only 6.8 percent of cases.[7] In 2017, 51 percent of extortion victims were female while 49 percent were male, roughly in line with Mexico's population distribution.

KIDNAPPING

Kidnapping statistics are hard to gather, but INEGI estimates that there were roughly 80,300 kidnapping incidents affecting roughly 72,650 victims in 2017.[8] Table 3.2 gives the upper and lower bounds of these estimates. In 2017, 58 percent of kidnappings lasted less than 24 hours, while nearly 19 percent lasted four days or more.[9]

The national kidnapping rate has declined significantly, from an estimated 110 incidents per 100,000 people in 2013, the highest rate measured, to an estimated 65 per 100,000 people in 2017, a

decline of 41 percent.[10] However, the ratio of incidents to victims indicates that at least some portion of victims have been kidnapped more than once.

The victimization survey does not disaggregate kidnapping cases by the sex of the victim, but roughly ten percent of incidents are captured in crime data. Criminal investigation data indicates that 74 percent of kidnapping victims in 2018 were male, as shown in Figure 3.5, while 85 percent were adults. These results are consistent with IEP's previous research into disappearances in Mexico, which showed that, much like homicide victims, most victims of disappearances were men of a working age.[11]
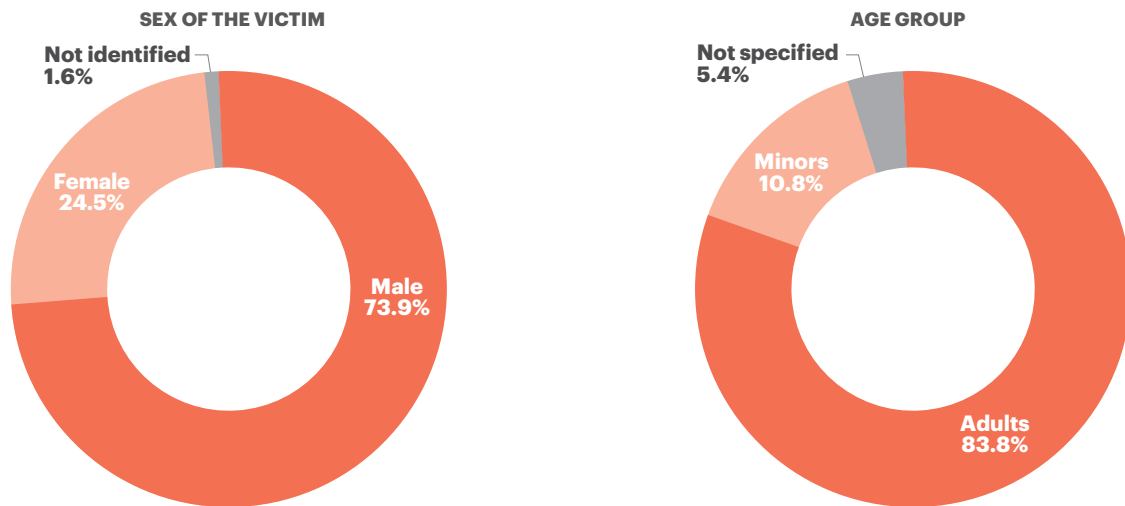
Estimates of kidnapping rates, 2017

INEGI's estimates of kidnapping prevalence are based on a small sample of survey respondents, meaning that the range of possible estimates varies considerably.

	Low estimate	Moderate estimate	High estimate
Kidnapping victims	58,250	72,645	87,040
Kidnapping incidents	63,826	80,319	96,812
Ratio	1.10	1.110	1.110

Source: ENVIPE 2018

FIGURE 3.5

Kidnapping victims, 2018

Criminal investigation data indicates that 74 percent of kidnapping victims in 2018 were male and 84 percent were adults.

SEX OF THE VICTIM

Not identified 1.6%
Female 24.5%
Male 73.9%

AGE GROUP

Not specified 5.4%
Minors 10.8%
Adults 83.8%

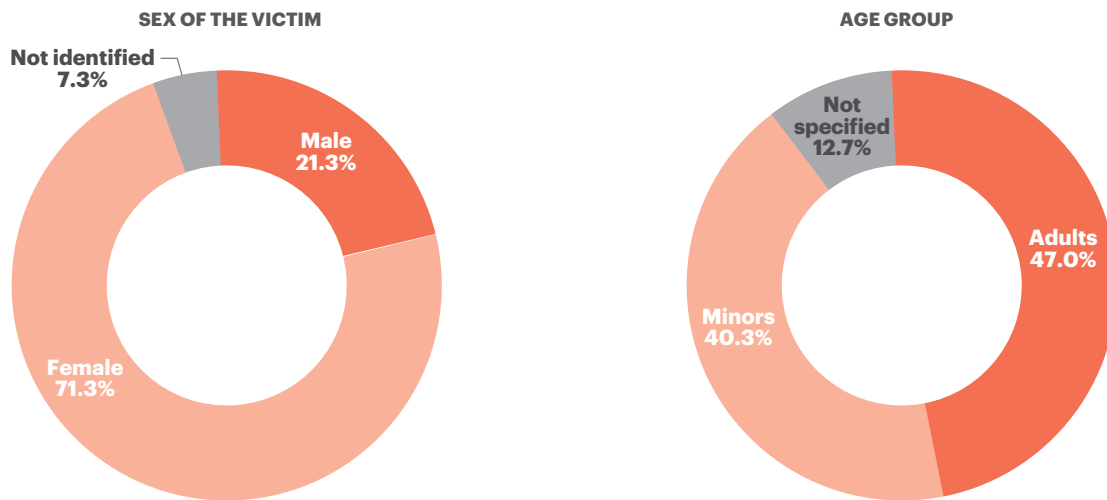Source: SESNSP

HUMAN TRAFFICKING

State authorities reported approximately 580 human trafficking victims in 2018.[12] Of those, 71 percent of victims were female and 21 percent were male, as shown in Figure 3.6. Adults accounted for 47 percent of victims, while minors made up 40 percent.[13] These cases may include a range of activities, from labor trafficking to prostitution, sex slavery, trafficking in organs, illegal adoption, forced marriage or child sexual exploitation.[14] The crime database does not provide additional information about the nature of each case.

> "
> Nearly two thirds of human trafficking victims were women and girls.

FIGURE 3.6

Human trafficking victims, 2018

Four in ten human trafficking victims were children in 2018, with women and girls accounting for 71 percent of victims.

SEX OF THE VICTIM

Not identified
7.3%

Male
21.3%

Female
71.3%

AGE GROUP

Not specified
12.7%

Adults
47.0%

Minors
40.3%

Source: SESNSP

INTERPERSONAL VIOLENCE

ASSAULT

Assault victims were mostly male in 2018, according to records based on criminal investigations. Figure 3.7 gives the percentage of cases by age and sex of the victim. Notably, the sex of the victim was not recorded 16 percent of the time. At least 49 percent of victims were male and 35 percent were female. Data from the victimization survey shows similar results, with men representing 59 percent of victims and women 41 percent in 2017.

While almost a fifth of assault cases did not record the sex of the victim, the data is even less complete for the age of the victim.

Also, crime data from SESNSP only indicates whether the victim was an adult or a minor. Given the high impact of violence on people aged 15 to 29, more finely disaggregated age data is important for understanding the dynamics of violence.

Figure 3.7 shows that 33 percent of assault cases either did not specify or could not identify the age of the victim. Another six percent of cases affected minors, while the remaining 61 percent of cases affected adults.

FIGURE 3.7

Assault victims, 2018

In 2018, 49 percent of assault victims were male, while 35 percent were female. The sex of the victim was not identified in 16 percent of cases.

SEX OF THE VICTIM

AGE GROUP
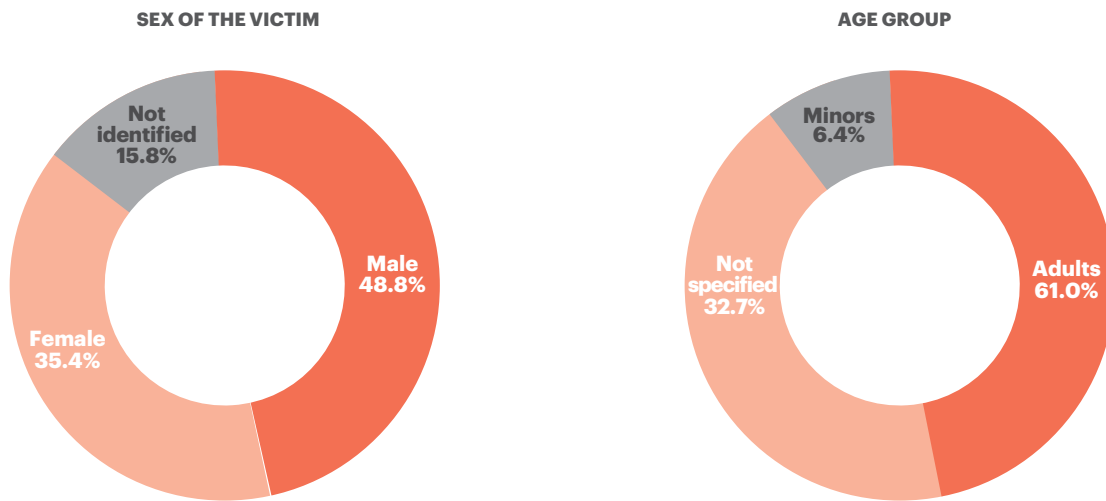
Source: SESNSP

Family violence

Family violence increased by 5.7 percent from 2017 to 2018.[15] The new crime database includes the number of investigations, although it does not report data on the number, age and sex of victims.

A survey of women's experiences of violence showed that 25.6 percent of women experienced violence by a partner or spouse in 2016 and 10.3 percent experienced violence at the hand of another family member, usually a sibling or parent.[16] The survey did not include data on the experiences of men or children. For a full picture of family violence, the experiences of men and children are important to record. Data from the UK, for example, show that 35 percent of family violence victims were male in 2017/2018.[17]

Sexual violence

Sexual violence has been on the rise in Mexico since at least 2015.[18] Only six states have reduced rates of sexual violence since 2015, while 26 have seen it increase. A survey of women 15 years and older conducted by INEGI showed that 41.3 percent had experienced sexual violence in their lifetimes.[19]

Data is available for the types of sexual violence in criminal investigations, as shown in Figure 3.8. These cases include victims and perpetrator of any gender. Sexual assault is the most prevalent, at 42.5 percent of cases. This category includes sexual acts without consent other than rape, which made up 36.5 percent of cases. Abuse of power accounted for 10 percent of cases, which refers to situations when someone in a position of power, like a teacher, employer or doctor sexually assaults or harasses a subordinate.

Women who have experienced sexual violence reported in survey data that it most often occurred in the community, rather than at school, at work or at home. Table 3.3 gives the results of the previously mentioned survey of women's experiences of violence. Sixty-seven percent of violence that women experienced on the street was sexual in nature, indicating that public spaces can be made safer.[20]

FIGURE 3.8

Types of sexual violence investigations, 2018

Sexual assault is the most prevalent type of criminal investigation for sexual violence, at 42.5 percent of cases. This category includes sexual acts without consent other than rape, which made up 36.5 percent of cases.
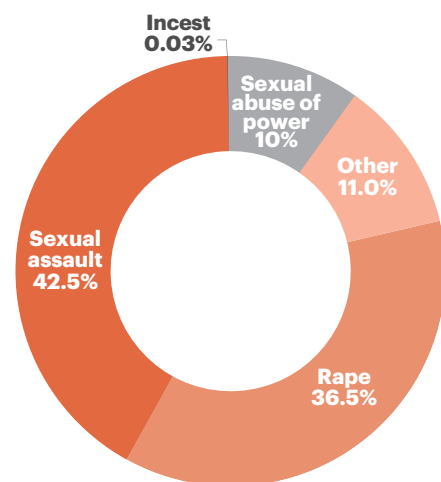
Source: SESNSP

TABLE 3.3

Sexual violence prevalence, women 15 years and over, 2016

Setting	Percent of women experiencing violence over their lifetime	Percent of women experiencing violence in the last 12 months	Most common aggressor	Sexual violence as a percent of total events...
School	10.9%	10.7%	Male classmates	At school: 38.3%
Work	11.2%	6.6%	Co-worker (male or female, all types of violence)	At work: 47.9%
Community	34.3%	20.2%		On the street: 66.8%
Family		1.1%	Uncles and cousins	In the home: 6%

Source: ENDIREH 2016

PERPETRATORS

With only seven percent of crimes investigated in Mexico, data on perpetrators is limited.

The national victimization survey includes some data on perpetrators in situations where victims were present at the time of the crime. Across the country, victims were present for 56 percent of crimes. Of those 18.7 million incidents, the perpetrator used physical aggression 17 percent of the time.

The perpetrator was armed in 44 percent of cases, and armed with a gun in 30 percent of cases. However, the weapon was used in only 8.3 percent of those incidents.[21]

Roughly 43 percent of crimes are committed by an individual, while 32 percent involved two perpetrators and 20 percent involved three or more people.[22] It cannot necessarily be assumed that all group crimes are related to criminal organizations, but the fact remains that more than half of incidents reported by victims involved some level of collusion.

Roughly 85 of crimes were committed by a man or a group of men for every year that Mexico's victimization survey has been conducted. In 2017, eight percent of crimes were committed by women.

Figure 3.9 shows the steady trend. High rates of crimes experienced by and committed by men suggest that Mexico's young male population is trapped in violent interactions and involved in violent organizations. Interrupting this cycle will prove critical for reversing the rising trend of violence in the country.

FIGURE 3.9

Perpetrators by sex, 2012-2018

Roughly 85 percent of crimes were committed by a man or a group of men.

Source: ENVIPE

> It cannot necessarily be assumed that all group crimes are related to criminal organizations, but the fact remains that more than half of incidents reported by victims involved some level of collusion.
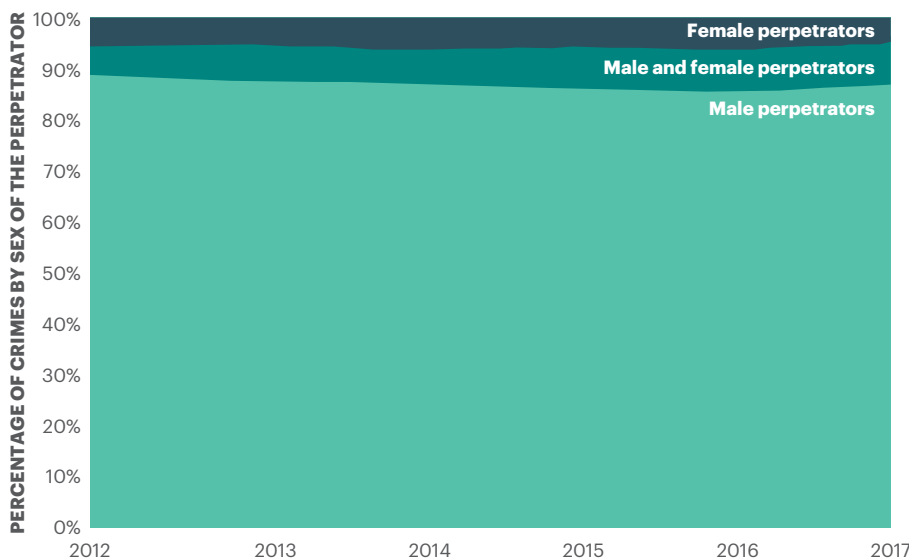
Most of Mexico's incarcerated people are young men with families and some level of education, indicating that crime and violence are removing working-age men from the formal economy and from their families.

In 2016, 95 percent of the incarcerated population was male[23] and 68 percent were between the ages of 18 and 39.[24] Ninety-four percent of prisoners were literate, 72 percent had completed a basic level of education, and 64 percent had a child who was economically dependent on them at the time of their arrest.[25] Research from the US shows that children of incarcerated parents are more likely to be incarcerated themselves, or be otherwise involved in the justice system, in their own adulthood.[26]

Recidivism

Between one in four and one in five prisoners have been convicted of a crime or have been in jail before. In 2017, 22 percent of

incoming prisoners to state prisons had a known previous criminal history.[27] Recidivism data for Mexico is hard to come by, but INEGI arrived at a similar estimate in 2016 via the survey of state and federal prisoners, which was that 24.7 percent of inmates had been previously convicted and/or incarcerated. Of those inmates, 52.4 percent had been out of prison for less than two years before being rearrested.[28]
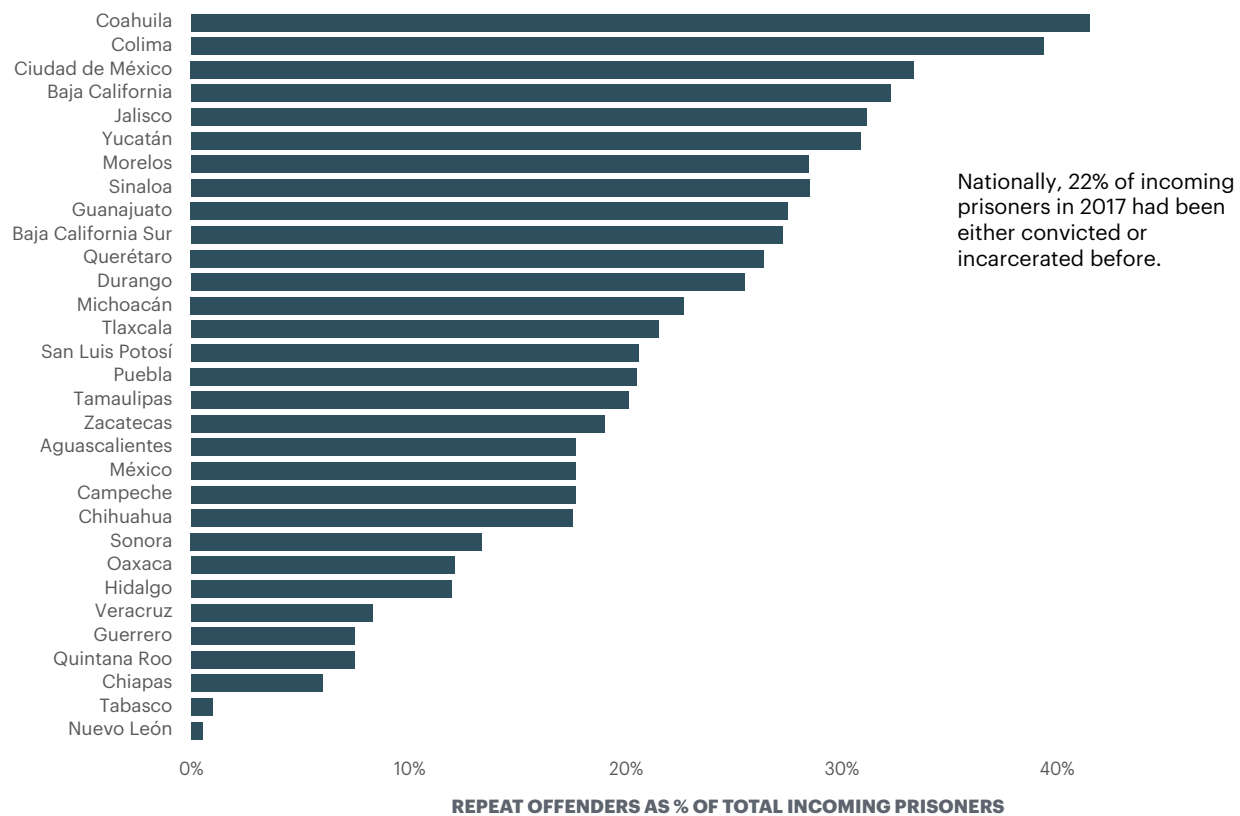
It is important to note that these statistics only account for individuals who are arrested and incarcerated for a second time, and not those who commit additional crimes without being discovered.

Rates varied significantly by state in 2017, as seen in Figure 3.10. The reincarceration rate was more than one out of four in 12 states.

Recidivism by state, 2017

Rates of recidivism varied greatly by state, with 12 states reporting a rate higher than 25 percent.

Nationally, 22% of incoming prisoners in 2017 had been either convicted or incarcerated before.

REPEAT OFFENDERS AS % OF TOTAL INCOMING PRISONERS

Note: Nayarit did not report data on the number of incoming prisoners with a previous conviction or incarceration record.
Source: Censo Nacional de Gobiernos, 2018

DOMESTIC SECURITY

IEP's research finds that Mexico is underinvested in its criminal and justice system. Increasing the capacity and capabilities of government and society to contain violence are critical.

Mexico only spent 50 percent of the average of OECD countries on its justice system, policing and prisons as a percentage of GDP.

Mexico had a median of 110 public security officials per 100,000 in 2017. This rate is less than half of the rest of Latin America.[29] IEP's research on internal security finds that policing is most effective where the public perceives there is a high level of legitimacy in law enforcement and justice processes.[30] It is difficult to identify an ideal police rate, but increasing the capacity of the police force, given the high levels of violence, is an important step for Mexico in improving internal security.

To be effective, the increased capacity must coincide with professional training, remuneration and vetting.

Figure 3.11 gives the rate of public security officers and employees per 100,000 people by state.

Over the last decade, Mexico has relied on its military to fill the gap in its law enforcement capacity, deploying 30,000 troops in 2007.[31] The military was deployed by President Calderón in 2006 to address the infiltration of the police by cartel members, and while deployments were meant to be temporary, soldiers still remain on the streets of Mexico. The military are trained for armed conflict, not policing, and replacing them with properly trained police is becoming more necessary. Although the military might be better equipped to combat heavily armed criminals, soldiers lack basic law enforcement skills, such as evidence gathering, conducting investigations and interviewing witnesses and suspects.

The continuing rise in levels of violence also indicates that the extensive use of the military, although useful, has limits. If it is to be effective, the use of the military needs to be integrated into a much broader strategic plan that addresses both the causes and the symptoms of violence.

FIGURE 3.11

Public security officials by state, 2017

The majority of Mexican states have less than 170 public security officials per 100,000 people. Mexico City is a statistical outlier, with over 975 officials per 100,000.

PUBLIC SECURITY OFFICIALS PER 100,000
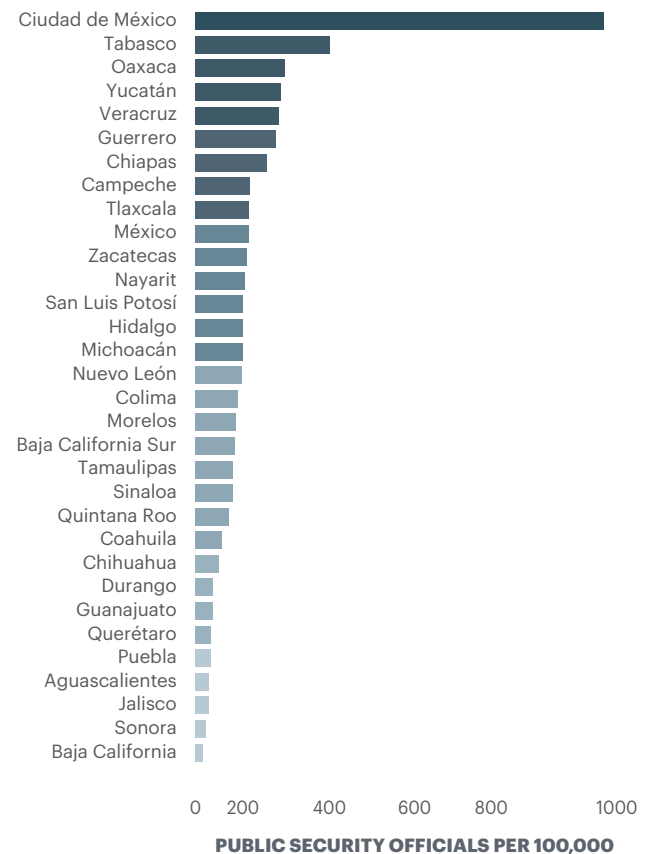
Source: Censo Nacional de Gobiernos (CNG)

> " Policing is most effective where the public perceives there is a high level of legitimacy in law enforcement and justice processes.

Positive Peace pillars for reducing homicide rates

The 2017 MPI analyzed which of the eight pillars of Positive Peace have the strongest relationship with homicide rates in Mexico. The five pillars listed below stand out. More detail on Positive Peace and each of the eight pillars is provided in Section 4 of this report.

It is important to understand that Positive Peace works as a system, and that the most peaceful countries in the world demonstrate strength in all eight pillars. The pillars are mutually reinforcing, and increasing the strength of any pillar benefits the others.

Mexico is especially weak in corruption and well-functioning government. These weaknesses hold the entire system back. Investing in these pillars can contribute to reducing homicide rates, building Positive Peace and ultimately improving the entire national system.

1. **Well-functioning government:** Every state in Mexico faces some level of impunity. However, where the homicide rate is low, more homicides as a percentage of the overall homicides are successfully prosecuted. This highlights the lack of capacity in many states.

2. **Low levels of corruption:** Homicide rates in 2016 were lower when a smaller percentage of citizens reported perceiving frequent acts of corruption in the prior year.

3. **Equitable distribution of resources:** Human development, in particular the health component of the Human Development Index, correlated strongly with homicide rates at 0.6. Communities where everyone can access high-quality health care have lower rates of lethal violence.

4. **Good relations with neighbors:** Where net incoming migration is higher, homicide rates tend to be lower. This pattern suggests that safety will attract human capital and a lack of it will erode it.

5. **Sound business environment:** High rates of formal employment are correlated with lower homicide rates, at -0.37. Taken together with the relationship to migration, this demonstrates a relationship between good relations with neighbors, high levels of human capital and sound business environment. This pillar is also related to well-functioning government and low-levels of corruption.

SUCCESSFUL STRATEGIES FROM MEXICO AND LATIN AMERICA

IEP research has uncovered examples of effective violence reduction programs working to improve peacefulness.

Latin America as a region faces disproportionately high levels of violence, especially homicide rates. Brazil, Mexico, Colombia, and Venezuela account for a quarter of the world's total homicides annually.[32] However, there have been some effective policy initiatives that have reduced homicide and crime rates in some of the region's most violent areas.

1. EFFECTIVE POLICING

The low rates of officers, coupled with corruption, have resulted in low levels of public trust in the police. More effective training policies, multi-sectoral coordination and increased capacity of public security forces could improve trust between the police and the public. Nationwide, only 62 percent of state-level public security employees have received full training, according to the latest government data.[33]

Brazil halved the homicide rate in areas where it has used integrated approaches.[34] In the Fica Vivo program, special task forces consisting of local and state police, judicial officials and university researchers, are trained and sent to specific favelas where they develop relationships with the communities. This relationship, paired with heightened training and ongoing data collection and analysis, made for effective long-term policy.[35]

Examples from Mexico's most improved states echo what has also worked elsewhere. The three most improved states in the 2019 MPI – Baja California Sur, Sinaloa and Sonora – all used government programs targeting the state's specific challenges. These programs incorporated either different government agencies, government agencies cooperating with the private sector, or both.

2. LOCAL SOLUTIONS TO LOCAL PROBLEMS

Violence in Mexico and Latin America generally tends to be highly localized. As such, targeted local solutions have proven effective. IEP's 2018 Mexico Homicide Data Quality Index identified several strategies that have been considered effective, all of which make use of strong crime data and empirical evidence.

- **Hot-spot policing** focuses law enforcement resources on specific areas with high levels of crime, known as "hot spots." Hot-spot policing may be particularly applicable when a large majority of crime occurs in a small minority of places, such as neighborhoods, city blocks or specific apartment complexes. Hot-spot policing is most useful when combined with community-oriented policing frameworks, which include a diverse range of initiatives to understand and address the underlying causes of crime.[36]

- **Focused deterrence** involves a mix of incentives and sanctions designed to deter past and potential offenders from engaging in criminal activity. Importantly, these programs incorporate social and community services alongside law enforcement. The underlying tactic is to dissuade high-risk offenders from committing crimes both by reducing opportunities for offense, by communicating with them about the risks they face, and mobilizing available support to help them.[37]

- **Geographic profiling** uses diverse sources of data to create a geographic profile for a specific offender. Distinct from hot-spot policing, geographic profiling looks for all of the places a specific suspect visits, rather than all of the crimes associated with a specific place. This approach is useful for locating serial offenders based on where they conduct their activities. It has also been found to be an effective predictor of the location of their criminal behavior.[38]

- **Predictive policing** employs quantitative analysis to anticipate the risk of crime before it occurs. Much like how online advertisers use consumer information to target consumers, predictive policing algorithms use certain datasets to predict crime. While almost all algorithms utilize police records, some algorithms can base their predictions off social media profiles, criminal records, level of social isolation or financial status. Predictive policing does not replace traditional tactics, but enhances them with greater police intelligence, thus allowing law enforcement to act proactively.[39]

3. PUBLIC PARTICIPATION

The 2017 MPI found that bringing people together who represent different interests and groups generates stronger support for community improvements. Section 4 of this report finds that where community cooperation is higher, levels of peace tend to be better.

By working at a community level, policies can take advantage of existing strengths. Effective engagement helps at-risk groups to stay away from illicit behavior. This comes from building trust between the community and public security officials. In the Fica Vivo program, community groups are established with government funding to hold programs for youth at risk of participating in violent crime. Not only do the programs benefit the targeted youth, but they also add investment into the community; the leaders of the groups are paid and live in the communities.[40] It is important to note that community-driven solutions often need lasting funding.

4. DETAILED AND RELIABLE DATA

Looking across examples of successful programs, reliable data has played a crucial role in designing an effective security response.[41] Poor quality data can lead to misinformed policing, which leads to a less efficient police force.

JUSTICE

In 2008, Mexico passed sweeping judicial reforms to bring the system more in line with international standards, including converting to an open trial system that would streamline procedures and better protect the rights of the accused, and the independence of judges.[42]

By the deadline in 2016, all 32 states had implemented the new system in some form. However, progress across the country has been mixed and the full implementation will take some time. A 2017 report by Mexico Evalúa, estimated that it would be another nine years before Mexico fully met the standards of integrating the new system.[43]

This report covers four aspects of the justice system:

- impunity
- reporting and investigation of crimes
- capacity in the justice system
- incarceration.

Impunity

Only a small percentage of crimes in Mexico are brought to justice. The Global Impunity Index estimated Mexico's national conviction rate to be three percent, meaning that 97 percent of crimes were not solved. Figure 3.12 gives conviction rates by state. Even the best performing state – Sinaloa – achieves a conviction in less than 14 percent of cases.

Reporting & criminal investigations

The ideal process when a crime occurs includes a report, investigation, and ultimately a solved case that brings justice. This process can break down at any step if the victim does not report the crime or if authorities do not investigate, solve the case, or arrive at a conviction.

FIGURE 3.12

Convicted persons as a percentage of perpetrated crimes, 2016 or most recent year available

Just three percent of crimes resulted in a criminal justice conviction in 2017.
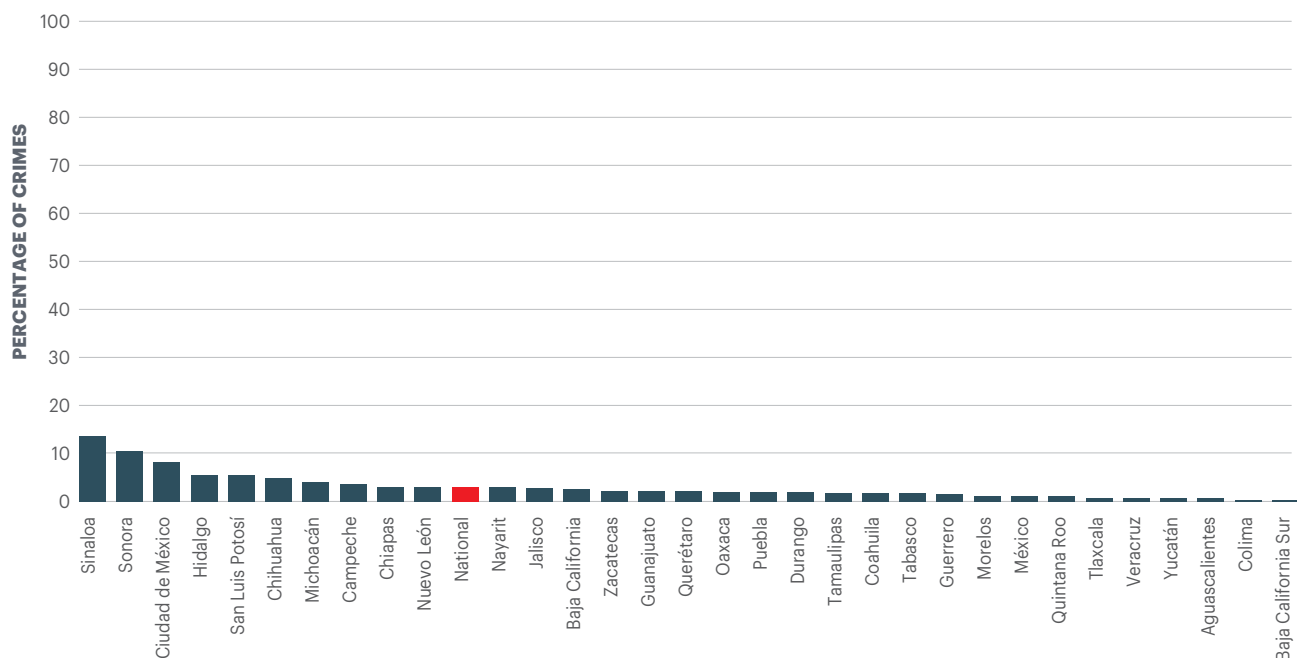
Source: UDLAP Índice Global de Impunidad 2018

As shown in Figure 3.11 at the start of this section, only seven percent of crimes are investigated and a small fraction reach a conclusion. The so-called "cifra negra" – the "black number" of crimes that do not appear in official statistics because they are not reported or investigated - was 93.2 percent of crimes in 2017.

Approximately 10 percent of the estimated total number of crimes were reported to the authorities. Of those reported, a criminal investigation was opened in approximately two thirds of cases. There was no outcome in over half of the cases, while another fifth were still being processed at the time the data was collected.[44] Barring those in process, this left 96.2 percent of crimes committed in 2017 without a conviction.

Both practical realities and lack of trust in the police act as barriers to crime reporting. The reasons citizens do not report a crime to the police or Public Ministry are broken down in table 3.4. In two thirds of cases of non-reporting, the reason cited was attributable to the authorities.

Reasons for not reporting crime, 2017

Reason for not reporting a crime		% of all victims	% of men	% of women
Reasons attributable to the authorities	It would be a waste of time	34.2	35.7	32.7
	Lack of trust in authorities	16.5	18.8	14.3
19.4 million victims	Long and difficult procedures	7.7	7.4	7.9
64%	Hostile attitude from authorities	4.7	4.9	4.5
	Fear of extortion	1.4	0.6	2.2
Reasons not attributable to the authorities	Lack of proof	10.5	8.8	12.2
	Low relevance of the crime	10.1	10.5	9.7
10.7 million victims	Fear of the aggressor	5.3	3.7	6.9
36%	Other causes	9.1	9.1	9.1
	Not specified	0.5	0.4	0.5

Source: ENVIPE 2018

The time it takes to report a crime has been increasing. The percentage of victims who said that reporting a crime to the Public Ministry took more than an hour, but less than two, rose from 26.5 to 30.4 percent. The percentage of victims who required less than one hour fell from 16.7 to 14.3.[45] Meanwhile, over 65 percent of Mexicans perceived the Public Ministry to be corrupt. This figure is higher among people who have been the victim of a crime, reaching 78.4 percent of survey respondents.[46, 47]

Justice Capacity

Mexico has struggled to develop the justice system's capacity to address the high levels of crime in the country. The most recent data found that Mexico has only 3.5 judges and magistrates per 100,000 people, significantly below the global average of 16.[48] OECD countries, of which Mexico is one, have an even higher average, at 17.9. The deficit in judges means that fewer cases go before the bench and contributes to low conviction rates.

There have been some improvements in justice capacity in recent years, which are detailed in Table 3.5. For example, the number of Public Ministry offices where citizens report crime, is up eight percent. The share of Public Ministries with specialists in "grave" crimes, such as homicide and rape, has risen from 15 percent of all the offices to nearly a third since 2016. The number of staff in the offices of state attorney generals has risen three percent in the last two years and the per capita budget for these offices increased by 20 percent over the same time.

TABLE 3.5

## Key justice system indicators, 2016 & 2018

Indicator	2016	2018	Percent change
Judges and magistrates, per 100,000 people	3.5	3.5	0.0%
Public Ministry agencies, per 100,000 people	3.2	3.5	8.6%
Personnel in the Public Ministry, per 100,000 people	33.9	31.2	-8.7%
Percent of Public Ministries specializing in grave crimes	14.8	32.42	54.3%
Experts in the Public Ministry, per 1,000 registered crimes	1.73	2.8	38.2%
Personnel in the attorney general's office, per 100,000 people	75.7	78	2.9%
Budget of the attorney general's office, per capita	241	301.91	20.2%
Judicial police, per 100,000 people	11.1	8.12	-36.7%
Judicial police, per 1,000 registered crimes	7.72	6.4	-20.6%
"Black figure": Percentage of crimes neither reported not investigated	92.8	93.7	1.0%

Source: UDLAP Índice Global de Impunidad 2017

FIGURE 3.13

Incarceration rate, state prisons, 2013 – 2017

In 2017, the incarceration rate in state prisons fell 20 percent from its peak in 2014.
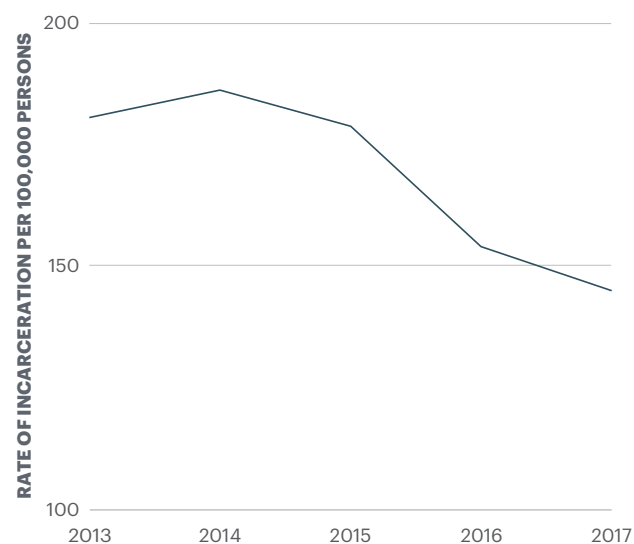
Source: INEGI

Incarceration

Mexico's prison population has been declining since 2014, falling by 20 percent to a rate of 145 per 100,000 in 2017.[49] The downward trend in the incarceration rate represents progress, but new challenges are arising as Mexico's new justice system is implemented.

On the positive side, reductions in incarceration represent progress in tackling the overcrowding problem that has plagued Mexico's prisons for years. The new system is designed to reduce the number of false convictions and increase the use of what are known as alternative justice processes, which can deliver justice outside of traditional courts and prisons and alleviate some of the burden on the criminal justice system.

However, at the same time, the transition to a new legal system requires training for every judge, lawyer and court clerk in the country. Justice officials have to master new legal proceedings and adhere to new legal standards. It may also mean that a higher bar for the burden of proof will lower the conviction rate.

POSITIVE PEACE IN MEXICO

KEY FINDINGS

- Mexico shows higher levels of Positive Peace than actual peace, as measured by the Global Peace Index (GPI), indicating that it has the capacity to improve its level of peacefulness and its GPI ranking if it can improve its weakest Positive Peace pillars.

- Mexico is ranked 62 out of 163 countries in the 2018 Positive Peace Index (PPI), compared to 140 on the GPI.

- Corruption is Mexico's worst performing pillar when compared to either the rest of the world or Latin America. Mexico's *low levels of corruption* score has deteriorated by 12 percent since 2005.

- *Equitable distribution of resources* recorded the largest deterioration in score of any pillar, deteriorating by 12.3 percent from 2005 to 2017.

- *Free flow of information* and *well-functioning government* have also deteriorated since 2005, six and five percent respectively.

- The Freedom of the Press Index, an indicator in *free flow of information*, deteriorated by 40 percent, driven mainly by violence against journalists.

- Violence against journalists continues to increase, with 389 attacks recorded in the first six months of 2018, over 40 percent more than the same period of the previous year.

- Community cooperation continues to improve, with the proportion of Mexicans reporting that their communities organize to solve problems increasing ten percentage points from 2012.

- The level of education is also improving: over 77 percent of Mexican teenagers were enrolled in secondary school in 2016, an increase of nearly nine percentage points since 2011.

- The number of youth not in education, employment or training (NEET) is well above the OECD average.

- Mexico's gender equality score improved by 14 percent over the last 12 years, compared to a nine percent improvement in the global average.

INTRODUCTION: WHAT IS POSITIVE PEACE

There are two common conceptions of peace, each of which has a long history in peace studies – Negative Peace and Positive Peace. IEP's definition of Negative Peace is the absence of violence or fear of violence – an intuitive definition that many agree with, and one that enables peace to be measured more easily. Measures of Negative Peace are used to construct the MPI.

A more ambitious conceptualization of peace is Positive Peace. Well-developed Positive Peace represents the capacity for a society to meet the needs of its citizens, reduce the number of grievances that arise and resolve remaining disagreements without the use of violence.

Human beings encounter conflict regularly – whether at home, at work, among friends, or on a more systemic level, between ethnic, religious or political groups. The majority of these conflicts do not result in violence. Most of the time individuals and groups can reconcile their differences without resorting to violence by using mechanisms such as informal societal behaviours, constructive dialogue or legal systems designed to reconcile grievances. Conflict provides the opportunity to negotiate or renegotiate a social contract and as such it is possible for constructive conflict to involve nonviolence.[1] Positive Peace can be seen as providing the necessary conditions for adaptation to changing conditions, a well-run society and the nonviolent resolution of disagreements.

THE PILLARS OF POSITIVE PEACE

IEP has identified eight key factors, or pillars, that comprise Positive Peace:

Well-functioning government – A well-functioning government delivers high quality public and civil services, engenders trust and participation, demonstrates political stability and upholds the rule of law.

Sound business environment – The strength of economic conditions as well as the formal institutions that support the operation of the private sector determine the soundness of the business environment. Business competitiveness and economic productivity are both associated with the most peaceful countries, as is the presence of regulatory systems that are conducive to business operations.

Equitable distribution of resources – Equity in access to resources such as education and health, as well as, although to a lesser extent, equity in income distribution are common characteristics of highly peaceful countries.

Acceptance of the rights of others – Formal laws that guarantee basic human rights and freedoms and the informal social and cultural norms that relate to behaviours of citizens serve as proxies for the level of tolerance between different ethnic, linguistic, religious and socio-economic groups within the country. Similarly, gender equality and worker's rights are important components of societies that uphold acceptance of the rights of others.

Good relations with neighbours – Peaceful relations with other countries are as important as good relations between groups within a country. Countries with positive external relations are more peaceful and tend to be more politically stable, have better functioning governments, are regionally integrated and have lower levels of organized internal conflict. This factor is also beneficial for business and supports foreign direct investment, tourism and human capital inflows.

Free flow of information – Free and independent media disseminates information in a way that leads to greater openness and helps individuals and civil society work together. This is reflected in the extent to which citizens can gain access to information, whether the media is free and independent and how well-informed citizens are. This leads to better decision making and more rational responses in times of crisis.

High levels of human capital – A skilled human capital base reflects the extent to which societies care for the young, educate citizens and promote the development of knowledge, thereby improving economic productivity, enabling political participation and increasing social capital. Education is a fundamental building block through which societies can build resilience and develop mechanisms to learn and adapt.

Low levels of corruption - In societies with high corruption, resources are inefficiently allocated, often leading to a lack of funding for essential services. The resulting inequities can lead to civil unrest and in extreme situations can be the catalyst for more serious violence. Low corruption can enhance confidence and trust in institutions.

These pillars interact together systemically to build a society's attitudes, institutions and structures. High levels of Positive Peace occur where attitudes make violence less tolerated, institutions are more responsive to society's needs and structures underpin the nonviolent resolution of grievances.

- **Attitudes** refer to norms, beliefs, preferences and relationships within society. Attitudes influence how people and groups cooperate in society, and can both impact and be impacted upon by the institutions and structures that society creates.

- **Institutions** are the formal bodies created by governments or other groups, such as companies, industry associations or labor unions. They may be responsible for supplying education or rule of law, for example. The way institutions operate is affected by both the attitudes that are prevalent within a society and the structures that define them.

- **Structures** can be both formal and informal and serve as a shared code of conduct that is broadly applicable to most individuals. Informally, it could be as simple as the protocol for queuing or formally as complex as tax law. Interactions are often governed by informal rules and structures, such as politeness, societal views on morality or the acceptance or rejection of other's behaviours.

Attitudes, institutions and structures are all highly interrelated and can be difficult to distinguish. However, what is more important than drawing clear lines between them is the understanding of how they interact as a whole.

IEP does not attempt to define the specific attitudes, institutions and structures necessary for Positive Peace, as these will very much be dependent on the cultural norms of a specific society and its current trajectory. What is appropriate in one country may not be appropriate in another. Rather, it aims to provide a framework that each country can adopt and adapt to local contexts. This is critical because approaches to peace are best developed locally.

CHARACTERISTICS OF POSITIVE PEACE

Positive Peace has the following characteristics:

- **Systemic and complex:** it is complex; progress occurs in non-linear ways and can be better understood through its relationships and communication flows rather than through events.

- **Virtuous or vicious:** it works as a process by which negative feedback loops ("vicious" cycles) or positive feedback loops ("virtuous" cycles) can be created and perpetuated, respectively.

- **Preventative:** though overall Positive Peace levels tend to change slowly over time, building strength in relevant pillars can prevent violence and violent conflict.

- **Underpins resilience and nonviolence:** Positive Peace builds the capacity for resilience and incentives for non-violent means of conflict resolution. It provides an empirical framework to measure an otherwise amorphous concept, resilience.

- **Informal and formal:** it includes both formal and informal societal factors. This implies that societal and attitudinal factors are equally as important as state institutions.

- **Supports development goals:** Positive Peace provides an environment in which development goals are more likely to be achieved.

IMPROVING PEACE IN MEXICO: GLOBAL INSIGHTS

IEP's global study of Positive Peace has several important implications for improving peacefulness in countries like Mexico:

- There is no "silver bullet". Rather than relying on a single policy or intervention, building and sustaining peace requires a large number of society-wide improvements progressing concurrently and over a long period of time. Successful peacebuilding is characterized by sustained effort and improvements in many areas at once. The eight pillars of Positive Peace provide a framework for engagement.

- Because societies work as self-regulating systems, it is important to understand and build the right formal and informal rules and regulations that govern how societies behave and operate. These rules and regulations are called 'encoded norms' in systems thinking. These encoded norms generate societal momentum and once a system is moving in a particular direction, the actions of the system reinforce the direction through the encoded norms. This creates a self-perpetuating cycle. When these cycles are improving they are called virtuous cycles and when they are deteriorating they are called vicious cycles. Mexico appears to be caught in a vicious cycle.

- Stopping or preventing violence is not an end in itself, because ending violence without building peace has often proved short-lived. Simply addressing the factors that led to violence in the past will not be enough to sustain peace. Mexico needs a critical combination of both effective law enforcement in the short-term, and progress in Positive Peace for the long-term.

- Preventing violence should be the first priority. However, recovery requires a widespread, long-term effort to build Positive Peace. Through focusing on the factors that are most vulnerable, it is possible to build resilience in the most cost-effective manner - by proactively fostering Positive Peace.

BOX 4.1

The properties of systems thinking

IEP's research has shown that Positive Peace works as a system and can be best understood through "systems thinking". Systems thinking looks at how social systems self-regulate, respond to changes or shocks, and how 'encoded norms' attempt to bring the system back to homeostasis or equilibrium. Encoded norms are the formal and informal rules and regulations of a society. Relationships between peace factors are not linear, where one thing leads directly to another. Rather, they are interconnected and interdependent, with social dynamics taking the form of complex feedback loops. Consequently, understanding the patterns and relations of the system is more important than understanding direct causal factors.

There are four major properties associated with systems thinking:

1. **The system is a whole.** It cannot be reduced to its parts, as individually the parts will have a different pattern of behavior.

2. **The system is self-regulating.** It aims to maintain a steady state by stabilizing itself through feedback loops. The system adjusts, using encoded norms, to create balance between inputs, outputs and internally coded requirements to maintain an equilibrium known as homeostasis.

3. **The system is self-modifying.** When there is a persistent mismatch between inputs and its codes, the system searches for a new pattern by which it can function. This creates differentiation from the original system and can increase complexity.

4. **The system does not stand on its own.** It is part of a larger system, but also contains its own sub-systems. It also interacts with other similar systems. Systems adapt together.

POSITIVE PEACE IN MEXICO

Mexico ranked 62 out of 163 countries in the 2018 Positive Peace Index (PPI), placing it in the top 40 percent globally. However, at 140 in the Global Peace Index, Mexico was one of the 25 least peaceful countries in the world in 2018. High levels of Positive Peace compared to levels of actual peace suggest that Mexico has the potential to reduce its level of violence, if it can overcome certain critical challenges.

As seen in Figure 4.1, Mexico outperforms the global average in five of the eight pillars: *sound business environment, high levels of human capital, good relations with neighbors, acceptance of the rights of others* and *equitable distribution of resources.* However, it underperforms in *low levels of corruption, well-functioning government* and *free flow of information.*
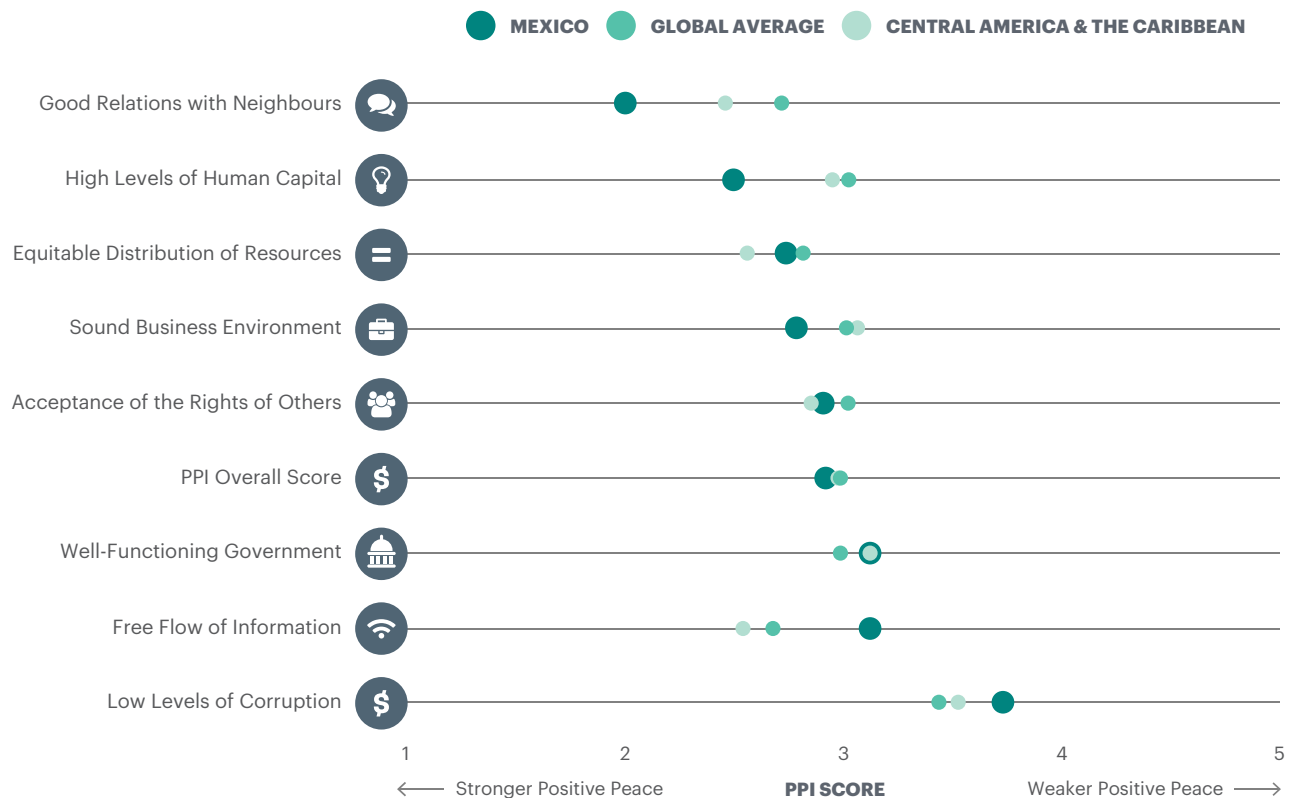
Mexico's weakest pillar is *low levels of corruption,* a pillar that strongly correlates with peace in all regions of the world. A high level of corruption is a common characteristic of low peace countries. This is particularly relevant to the dynamics of violence in Mexico.

IEP research has shown that imbalances between pillar scores weaken the Positive Peace system. The remainder of this section emphasizes Mexico's need to improve its weak pillars to be more in line with its strong pillars.

Positive Peace pillar scores, Mexico vs global average and region, 2017

Mexico outperforms both the regional and global averages in five of the eight pillars. However, the country consistently scores poorly in *low levels of corruption, free flow of information* and *well-functioning government.*
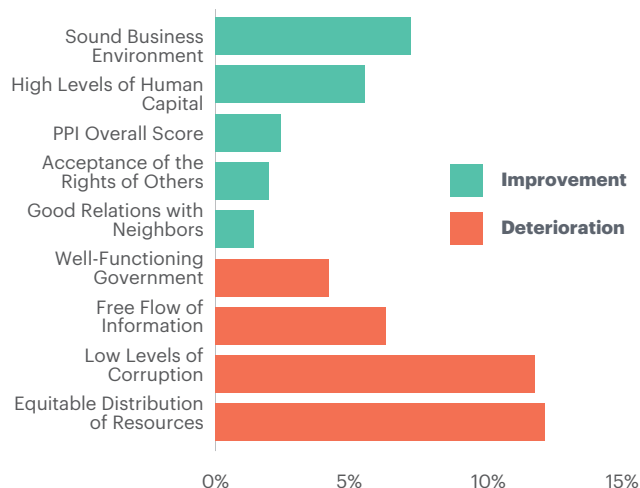

Source: IEP

Figure 4.2 highlights the changes in the eight pillars in Mexico since 2005. Mexico has made strong improvements in *sound business environment* and *high levels of human capital*. However, *low levels of corruption, well-functioning government, free flow of information* and *equitable distribution of resources* have all deteriorated over the same period. Mexico's lagging performance in these pillars relative to the others impedes its improvement in peacefulness.

Pillar changes in Mexico, 2005-2017

Since 2005, Mexico's largest deteriorations were in *low levels of corruption* and *equitable distribution of resources,* while the greatest improvements were in *sound business environment* and *high levels of human capital*.

Source: IEP

While Mexico shows strength in four of the eight pillars, low performance in the three key pillars of *well-functioning government, low levels of corruption* and *free flow of information* is relevant to IEP's studies of national systems.

Correlation analysis helps to identify the pillars that are most important at different levels of peace, as shown in Figure 4.3. While all eight pillars correlate strongly in high peace countries, indicating a common set of strengths, low and mid-peace countries show more variation.

In low peace countries, poor scores in *low levels of corruption* and *well-functioning government* correlate most strongly, indicating that these are common challenges faced by low peace countries. The analysis below demonstrates that this scenario is highly applicable to Mexico.

Performance in *free flow of information* is also associated with levels of peacefulness in low peace countries. Considering that these represent three of the four pillars deteriorating in Mexico, it is useful to explore these in detail.

> **❝**
>
> Corruption is Mexico's worst performing pillar when compared to either the rest of the world or Latin America. Mexico's *low levels of corruption* score has deteriorated by 12 percent since 2005.

Correlation coefficients between Positive Peace and internal GPI score in high, mid, and low peace countries, 2018

Well-functioning government, low levels of corruption and *free flow of information* correlate strongly in low-peace countries. This is especially relevant to Mexico.

	Low Levels of Corruption	Well–Functioning Government	Good Relations with Neighbors	Acceptance of the Rights of Others	Free Flow of Information	Sound Business Environment	High Levels of Human Capital	Equitable Distribution of Resources
Low-Peace Countries	0.56	0.53	0.51	0.48	0.32	0.29	0.23	0.07
Mid-Peace Countries	0.55	0.35	0.44	0.36	0.4	0.33	0.18	0.23
High-Peace Countries	0.73	0.69	0.48	0.7	0.54	0.7	0.72	0.62

r   [0.45,1)   [0.3,0.45)   [0,0.3)

Source: IEP

KEY AREAS OF FOCUS: GOVERNANCE, CORRUPTION AND INFORMATION

While Mexico has shown improvements in four of the eight pillars it has shown deteriorations in the other four. A weakness in one pillar undermines the capacity of the whole system, as the strength of the system is dependent on the strength of all of its parts. Based on global results, the focus in Mexico should be placed on three specific pillars:

• *low levels of corruption*

• *well-functioning government*

• *free flow of information.*

Figure 4.1 shows Mexico's national pillar scores for 2017.[2] The country scored most poorly in the pillars of *low levels of corruption*, and *free flow of information* and *well-functioning government*. While Mexico ranked 62 out of 163 countries in the 2018 PPI, it ranked 89th, 124th and 86th those pillars respectively.

LOW LEVELS OF CORRUPTION

Since 2005, Mexico's national *low levels of corruption* score has deteriorated by 12 percent, with all three indicators showing a deterioration, as seen in Figure 4.4. Corruption is one of the few factors that plays a role in both improvements and deteriorations in peacefulness.

The 2018 PPI found that, out of the 20 countries with the largest improvements in their actual peace as measured by the GPI, 11 improved in *perceptions of corruption* and eight improved in *control of corruption* and *factionalized elites* in the years prior to their improvement in the GPI. The *factionalized elites* indicator measures "the fragmentation of state institutions along ethnic, class, clan, racial or religious lines,"[3] which can enable corruption.[4] Deteriorations in the corruption indicators are commonly associated with large deteriorations in the GPI.

FIGURE 4.4

Low levels of corruption indicators, Mexico, 2005—2017

Between 2005 and 2017, Mexico deteriorated on all three indicators of low levels of corruption.
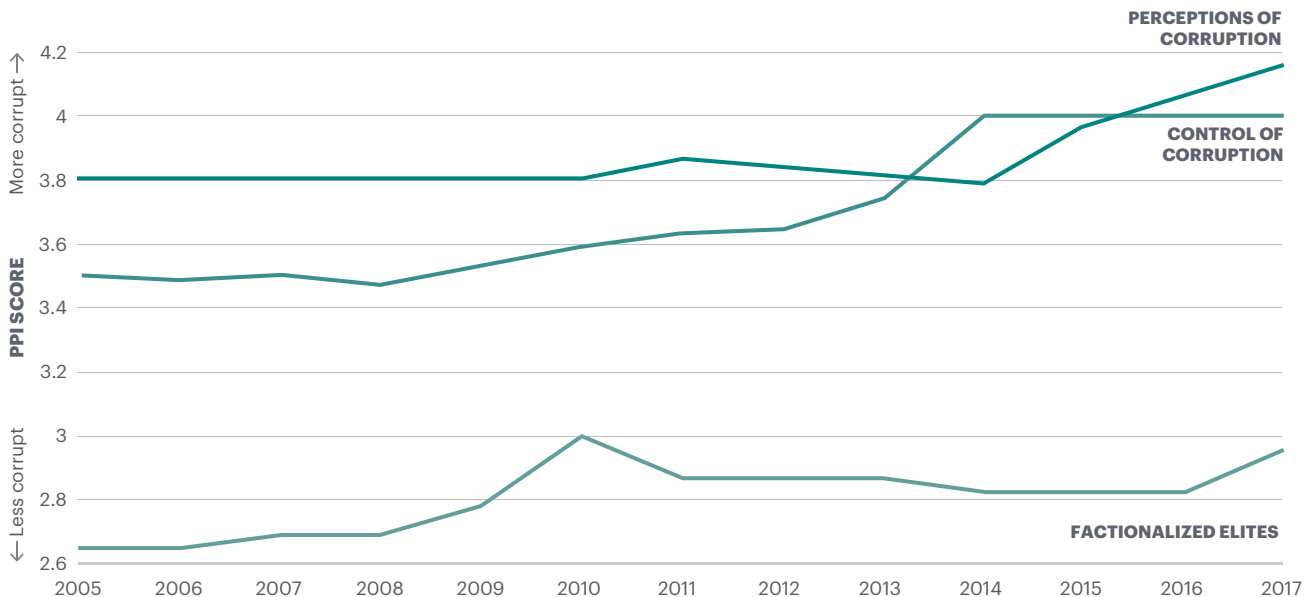
Source: IEP

Mexico has been the most poorly ranked OECD country on Transparency International's Perceptions of Corruption Index since 2012, and ranked 27 out of 32 countries in the Americas in 2018. Globally, the country ranked 138 out of 180 last year.[5]

When asked about specific institutions, nearly 70 percent of Mexicans believed judges were corrupt, and over 65 percent of Mexicans perceived the Public Ministry, the institution to which they are meant to report a crime, as corrupt. This figure is higher among people who have been the victim of a crime, reaching 78 percent of survey respondents.[6]

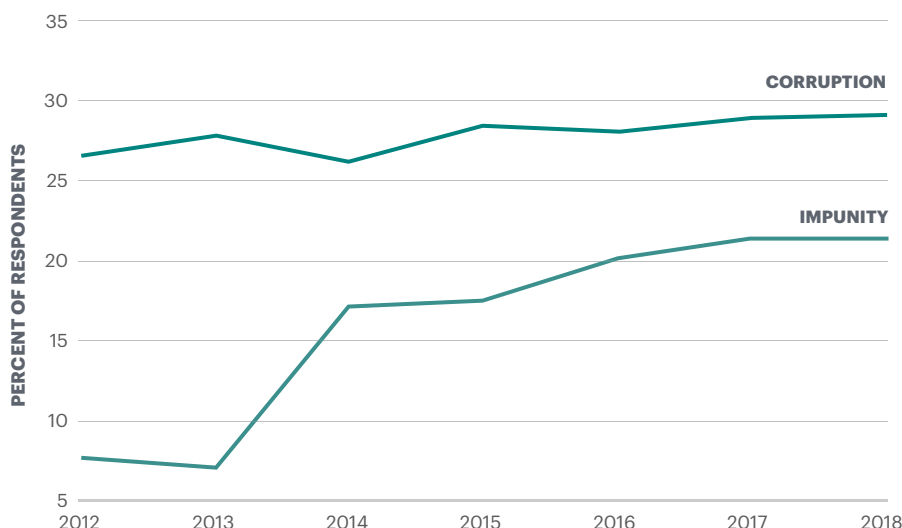While the perception of corruption is high, data on actual encounters differ according to the source. A survey administered by the national statistics office, a government agency, found that 14.6 percent of Mexicans who interacted with a public official in 2017 said they experienced corruption, compared to 12.6 percent in 2015. Less than five percent reported the act of corruption to authorities.[7] Alternatively, Transparency International, an international NGO, reported that 51 percent of Mexicans paid a bribe for public services in 2017.[8]

With corruption comes concerns about impunity. Corruption represents a direct impediment to reducing impunity. As seen in Figure 4.5, the proportion of Mexicans ranking impunity as one of their main concerns has increased by nearly 14 percentage points since 2013.

Impunity and corruption as most worrisome issues, 2012—2018

The proportions of Mexicans who ranked corruption and impunity as one of their top three concerns have increased since 2012. Concerns about impunity rose nearly 14 percentage points.

Source: IEP

PERCEPTION OF CORRUPTION

70%

nearly 70 percent of Mexicans believed judges were corrupt, and over 65 percent of Mexicans perceived the Public Ministry, the institution to which they are meant to report a crime, as corrupt.

Public acknowledgement of the need to address corruption in Mexico has continued to grow. However, individuals that speak out find themselves at tremendous risk. The 2018 election marked the most violent campaign ever seen in Mexico, as discussed in Section 1. Many of the targeted candidates were running on anti-corruption platforms and their deaths are believed to be connected to organized crime groups. The majority of these political assassinations occurred in states and areas with a strong presence of organized crime.[9] Seventy-five percent of these events targeted municipal level political figures, compared to 18 percent that targeted state figures, and seven percent that targeted federal figures.

Nonetheless, Mexico has recently implemented reforms to reduce corruption in government. In July 2016, a National Anti-corruption System was put in place to prevent, uncover and discipline corruption and other administrative wrongdoing in Mexico.[10] As of 2017, 15 states had implemented anti-corruption programs in public institutions, with five more in the process of integration, and three states have implemented similar programs in their judiciaries.[11, 12]

WELL-FUNCTIONING GOVERNMENT

Mexico's score in *well-functioning government* has deteriorated nearly five percent since 2005. As shown in Figure 4.1, Mexico scores poorly in this pillar when compared to the Central America and Caribbean region. However, the data shows a mix of progress and challenges.

The score is based on assessments of Mexico's rule of law, government effectiveness and democratic political culture, as assessed by the World Bank and the Economist Intelligence Unit. All three indicator scores deteriorated last year, but some of their sub-indices have improved. Government effectiveness has improved in the areas of infrastructure and primary education, which are tangible measures that can improve the perceptions of the effectiveness of public institutions.

Levels of perceived effectiveness and trustworthiness of public security and justice institutions have increased on average since 2011. These agencies, which include local police forces and the judiciary, have been the targets of extensive government reforms in recent years. However, public perceptions of corruption are on the rise.

Continued improvements in public service provision and other areas of governance will capitalize on increased trust and bolster the relationship between citizens, police and government.

Highlighting one of the challenges for government institutions, a survey in 2017 found that over 40 percent of Mexicans reported they had been denied access to public services over the previous five years.[13] This finding gives new governments something tangible to focus on. Social program support and medical care were the most commonly inaccessible services, closely followed by attention in government offices.

Results were similar for the perception of security agencies. The percentage of the population that found public security institutions "somewhat" or "very" effective improved eight percentage points from 2011 to 2017. However, perceptions of effectiveness varied across agencies. Figure 4.6 shows citizen perceptions of effectiveness for each of the major public security

forces, highlighting the poor rating of local police.

Many public institutions in Mexico lack the necessary resources to fulfil their mandate. For example, a government report on police functioning in December 2017 found that all but two states failed to meet the federal government's standard for minimum police capacity of 1.8 officers per 1,000 citizens. Additionally, no state was able to provide officers with all the benefits to which they were legally entitled.[14] Section 2 of this report, on the economic impact of violence, identifies that Mexico shows significant underinvestment in domestic security, compared to the rest of the OECD. The findings here strongly indicate that an investment in policing combined with a strong focus on corruption within the police and security forces will not only help to reduce the economic impact of violence, but also bolster Positive Peace in the long-term.

FIGURE 4.6

Perception of effectiveness of public security institutions, 2018

The effectiveness of public institutions in Mexico is perceived to be low, with only the army and navy receiving a favorable rating.
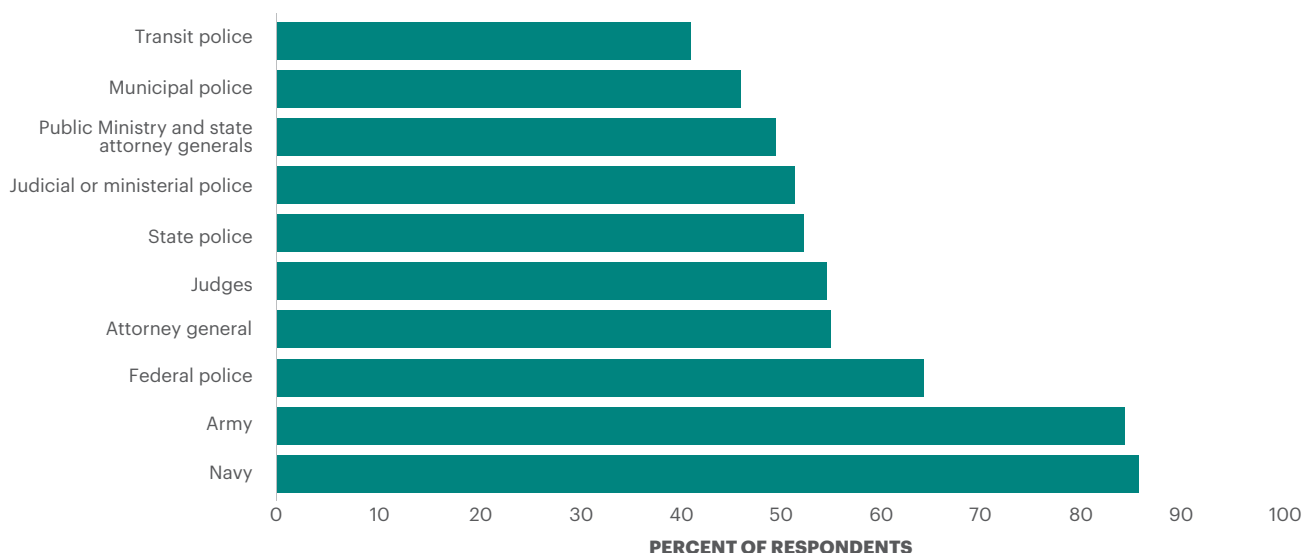
Source: ENVIPE

FREE FLOW OF INFORMATION

Free flow of information in Mexico has deteriorated over six percent since 2005. This was largely driven by a 40 percent deterioration in the *Freedom of the Press Index*, a composite measure of the degree of print, broadcast and internet freedom. Violence against journalists was a key factor in the deterioration. Along with Brazil, Colombia and Honduras, Mexico ranks among the most dangerous places in the world for journalists.[15]

Freely disseminated data and information is a key aspect of peaceful societies and Mexico can improve this pillar in two regards:

• the rigorous prosecution of violent attacks against journalists

• better government data.

Violence against journalists has been rising. In 2017, 507 cases of attacks against journalists were recorded, up by 19 percent from 2016.[16] By July of 2018, 389 attacks had already been registered in

the year, over 40 percent more than in that time period in the previous year.[17] The Special Prosecutor for Attention to Crimes Committed against the Freedom of Expression (FEADLE) has been able to rule on only eight cases, while 1,120 investigations have been initiated since its inception in 2017.[18] Mexico ranked seventh worst on the Committee to Protect Journalists' Global Impunity Index in 2018, which measures the proportion of unsolved murders of journalists against the country's total population.[19]

A society with good government transparency and well-distributed information is more likely to make informed decisions.

Mexico's statistical capacity is high, scoring 97 out of 100 in the World Bank's assessment. This existing institutional capacity means that improvements in both *free flow of information* and *well-functioning government* are attainable. Working together, improvements in the indicators of *free flow of information* and *well-functioning government* and *low levels of corruption* could greatly assist in creating a virtuous cycle for Mexico.

EQUITABLE DISTRIBUTION OF RESOURCES

Mexico's score in *equitable distribution of resources* has deteriorated more than any other pillar since 2005. This phenomenon was primarily driven by a sharp deterioration in its social mobility sub-indicator. This indicator measures the ability of people to move between social classes based on their own merit.

However, this deterioration in social mobility was partly offset by improvements in the poverty gap. The poverty gap indicator measures how far below the poverty line the average poor household is. Progress on this indicator means that, while poverty remains a challenge, it is becoming less severe.

In 1997, Mexico launched its multidimensional antipoverty and social inclusion program known as Prospera.[20] The program provides funding to impoverished families on the condition that it is used for educational, nutritional, and/or medical services. By 2016, this program had reached six million of the country's poorest families and the share of the population with some college education had doubled.[21]

Between 2010 and 2016, Mexico's poverty rate fell by 2.5 percentage points, from 46.1 percent to 43.6 percent.[22] A 2018 study found that higher rates of drug trade related homicides was associated with a three percent higher poverty rate. In areas facing high rates of organized crime violence, a significant number of non-poor households fell into poverty, and many existing impoverished households fled due to violence.[23]

IMPROVING PILLARS OF PEACE IN MEXICO

While Mexico does face challenges in *well-functioning government*, *low levels of corruption* and *free flow of information*, it has continued to show improvements in the following four pillars:

- *sound business environment*
- *high levels of human capital*
- *acceptance of the rights of others*
- *good relations with neighbors*.

SOUND BUSINESS ENVIRONMENT

Mexico is an upper middle income country, with a GDP per capita of US$8,900 in 2017, up ten percent over the prior decade.[24] Unemployment has been declining for years and as of October 2018, Mexico's unemployment rate was the lowest it had been since 2006.[25] Figure 4.7 shows that Mexico made the largest improvement in the business environment indicator, which measures the environment for entrepreneurship and innovation.

FIGURE 4.7

Sound business environment indicators, Mexico, 2005-2017

Mexico has increased its GDP per capita and strengthened the environment for entrepreneurship and innovation over the last decade.
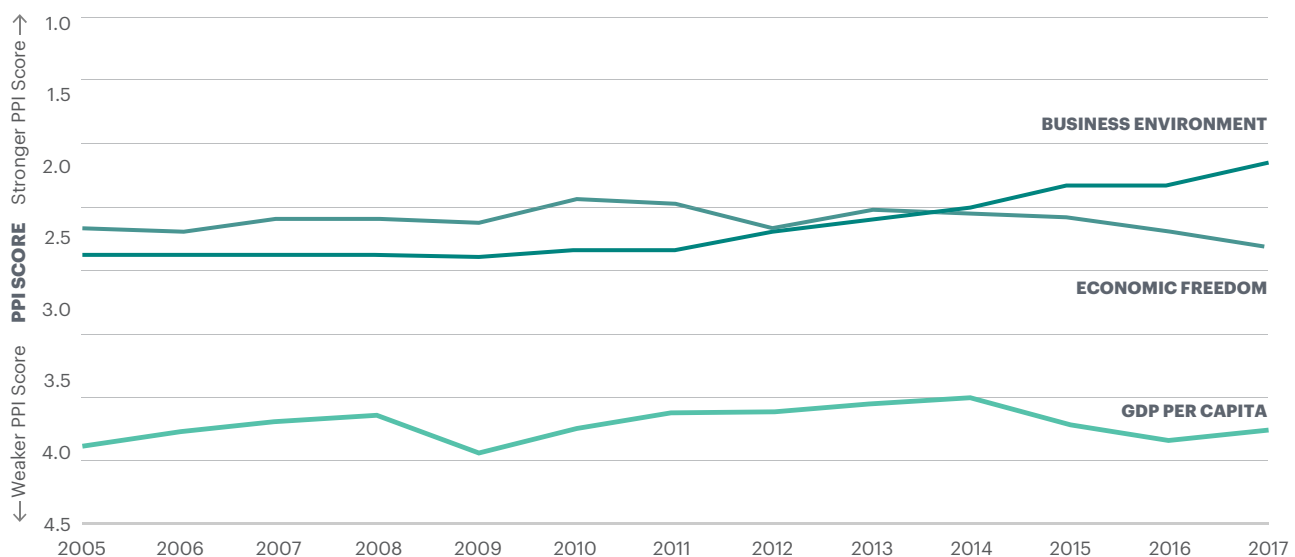
Source: IEP

This interconnection between *sound business environment* and *low levels of corruption* shows the importance of systems analysis. The country's performance in *low levels of corruption* and *well-functioning government* needs to be strengthened to match that of *sound business environment*, to reduce levels of violence and enhance the country's economic situation.

Mexican businesses reported that corruption, crime and theft were the most problematic factors for business in 2017. In 2017, five percent of businesses in Mexico reported experiencing extortion and five percent reported corruption. In Baja California Sur and Guerrero, two of Mexico's least peaceful states, 12.7 percent and 11.4 percent of businesses reported extortion, respectively, and in Mexico City, 11.2 percent reported corruption.

HIGH LEVELS OF HUMAN CAPITAL

High levels of human capital in Mexico improved by 5.6 percent since 2005. High levels of human capital measures the "stock" of human potential in a society by looking at educational, health and technological capacity, as well as the presence of a youthful population. Strong performance in these areas builds social capacity to increase levels of stability, peace and economic development in a society.

Driving Mexico's improvement in this pillar is an increase in secondary school enrollment. Over 77 percent of Mexican teenagers were enrolled in secondary school in 2016, an increase of nearly nine percent since 2011.[26] This is notable, as a well-educated population promotes innovation, stability and development. Education is also an example of where *high levels of human capital* relates to other pillars, as an educated population creates a better *free flow of information* and builds institutional capacity, which improves *well-functioning government*.

However, despite gains in secondary school enrollment, the number of youth aged 15 to 29 years not employed, in education, or in training (NEET) was 6.78 million, or roughly 21 percent of the total youth population. The youth population is a key component of *high levels of human capital*. The health and economic, political and civic empowerment of the youth population influences levels of peacefulness. Mexico's youth population faces a homicide rate that is on average 6.6 points higher than that of the general population. As violence has escalated in recent years, this gap has grown.

Figure 4.8 shows that in 2016, 26.1 percent of Mexico's population was aged 15 to 29, compared to the OECD average of 18.8. Youth bulges have traditionally been seen as a driver of violence. However, IEP research has found that while there is a moderate, statistically significant relationship between youth as a percent of overall population and levels of violence, the relationship is complex, and a youth bulge is not necessarily the cause of heightened violence.[27] The overall level of Positive Peace matters more than a society's demographics.

FIGURE 4.8

Age demographics in Mexico, 2016

In Mexico, 26.1 percent of the population was aged 15 to 29, compared to the OECD average of 18.8 percent.

Source: OECD

A large proportion of any age group results in a large number of people needing many of the same things at the same time. Fertility booms can quickly increase the need for food, schools, hospitals, and, later, jobs, to name a few tangible examples. High levels of Positive Peace describe scenarios where these challenges can be met, by creating the optimum environment for human potential to flourish. A *sound business environment* has the capacity to absorb a large population into the economy, a *well-functioning government* can deliver public services in response to society's growing needs, and *acceptance of the rights of others* fosters inclusive and legitimate political processes.

The percentage of youth aged 15 to 29 years not employed, in education, or in training has historically been significantly higher in Mexico than the OECD average, representing one of the country's challenges. NEET youth are vulnerable to falling into poverty and violence. In the case of Mexico, this is often organized crime.

FIGURE 4.9

NEET youth aged 15-29 by gender, Mexico and OECD average, 1999-2017

Between 1999 and 2017, the rate of NEET youth in Mexico compared to the OECD average differed by gender; while the rate of male NEET in Mexico was lower than the OECD average, the rate of female NEET in Mexico was twice the OECD average.
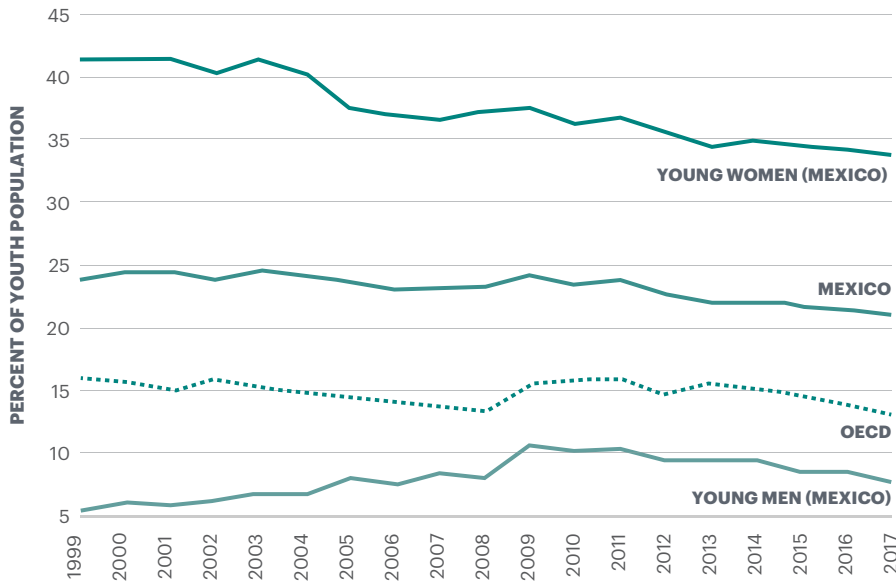
Source: OECD

LEVEL OF EDUCATION

77%

Over 77 percent of Mexican teenagers were enrolled in secondary school in 2016, an increase of nearly nine percentage points since 2011.

ACCEPTANCE OF THE RIGHTS OF OTHERS

Mexico's score for *acceptance of the rights of others* has improved two percent since 2005, driven by improvements in gender equality. However, the group grievance indicator deteriorated substantially over this period.

From 1995 to 2017, Mexico's gender equality score improved by 14 percent, compared to a nine percent improvement in the global average. In the 2018 elections, a record number of women ran for office and were elected, resulting in the highest proportion of positions held by women in congressional, state and local offices in Mexico yet. Women now make up nearly 50 percent of both the lower and upper houses of congress, and Mexico ranks fourth globally in terms of female representation in national parliaments. However, the percentage of women that work at or below minimum wage is higher than men. Women are over six percent more likely to work in unskilled labor positions than men.[28]

Gains in gender equality have been offset by an increase in *group grievances*, which measures the extent and severity of grievances between groups in society, including religious, ethnic, sectarian and political discrimination and division. The national group grievance score deteriorated by 37 percent from 2005 to 2017. The group grievance indicator uses expert assessments to measure equality, divisions within society, and communal violence. Experts assess factors such as whether victims of past mistreatment are compensated, whether resources are equitably distributed, whether ethnic or religious intolerance of violence exists in society and whether there are reports of mass violence. To look at particular groups in Mexico, data from the ENAIDS survey on perceptions of the respect of rights of various groups is shown in Figure 4.11.

FIGURE 4.10

Acceptance of the rights of others indicators, Mexico, 2005-2017

Mexico's improvement in acceptance of the rights of others was driven by improvements in gender equality. However, deteriorations in the group grievance indicator offset some of the gains.
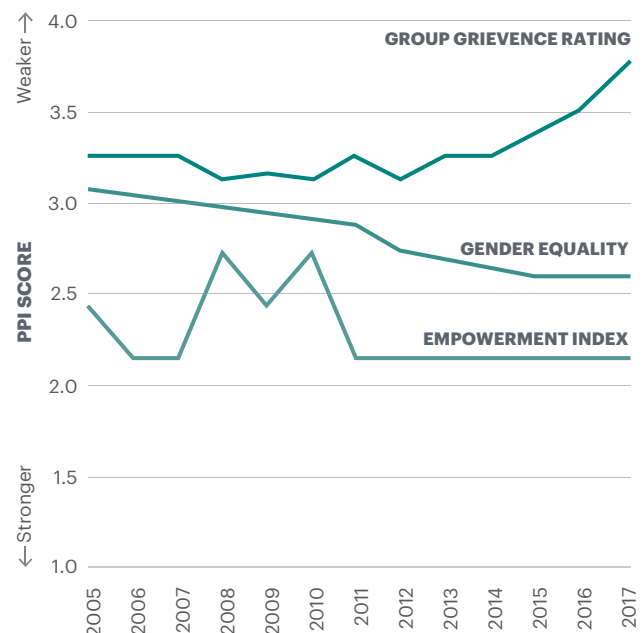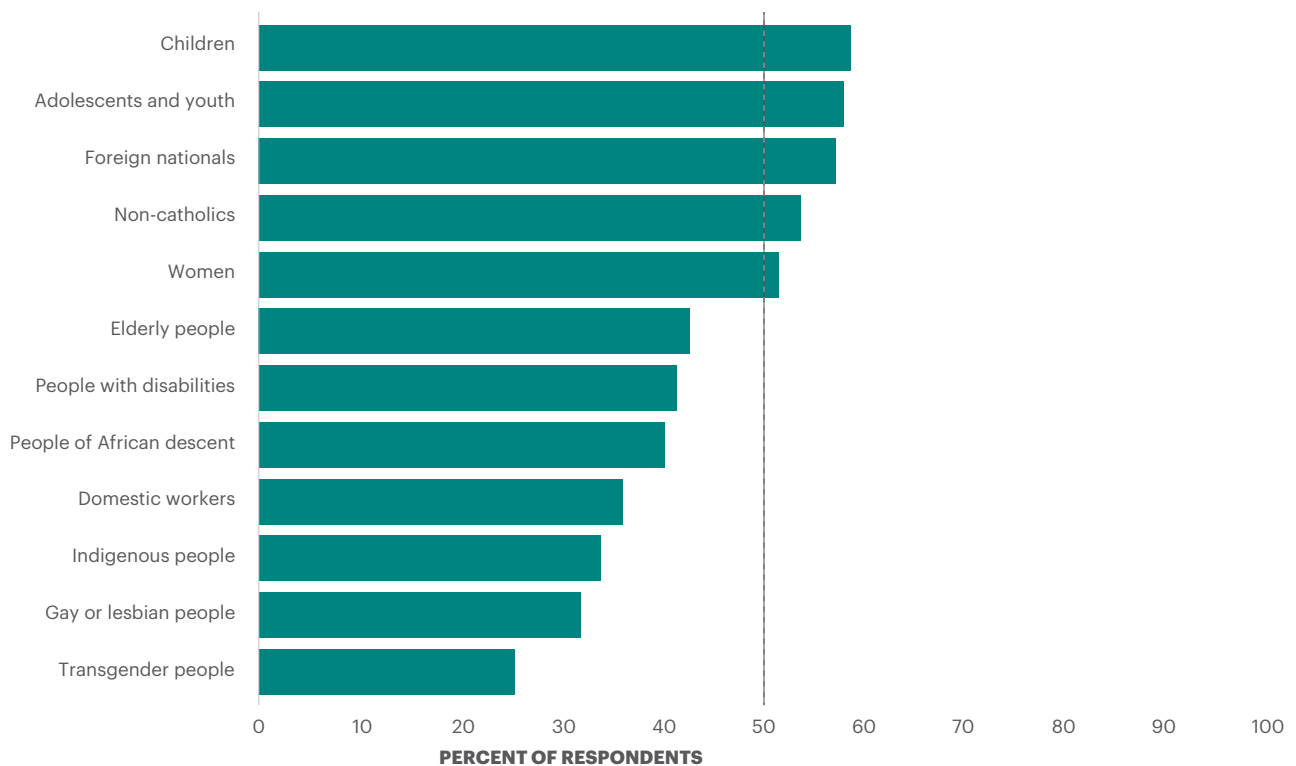

Source: IEP

FIGURE 4.11

Perception of respect for rights by group, 2017

The majority of Mexicans believe that the rights of children, adults and youth and women are respected in Mexico.

PERCENT OF RESPONDENTS

Source: ENADIS

GOOD RELATIONS WITH NEIGHBORS

The world's most peaceful countries have constructive relationships with neighboring countries and domestically. At the global level, the *good relations with neighbors* pillar looks at international relationships, finding that good relations with neighboring countries are a good predictor of political stability, regional integration, and levels of peace both within and between states.

IEP's analysis for this pillar looks at relations within and between communities and finds that communities that cooperate have better levels of peacefulness.

International relations

At the national level, *good relations with neighbors* is Mexico's strongest Positive Peace pillar, with strong regional integration and low levels of *hostility to foreigners*. Mexico's location between Central America and the United States makes its relations with neighbors particularly complex, but the country has taken measures to maintain strong international relations.

Three of Mexico's closest Central American neighbors, Guatemala, Honduras and El Salvador, are some of the most impoverished, violent and disaster-affected countries in the world.[29] Asylum seekers from Venezuela have also been on the rise, surpassing those from El Salvador and Guatemala in 2017 for the first time.[30]

In 2018, Mexico took several steps to address these growing migration flows. The "Estás en tu Casa," or the "You are Home," initiative is meant to increase migrants' access to education, employment and other services.[31] In December 2018, in an effort to curb the migration flows, Mexico signed an agreement with the

Northern Triangle countries to implement programs to improve the economic situations in those countries.[32]

Mexico has also historically participated in security cooperation with the United States. The Merida Initiative, for example, is an agreement between the US, Mexico and Central America that aims to disrupt the capacity of organized crime, and strengthen the capacity of communities and public security institutions to reduce crime and violence. Under the initiative, the US has granted US$2.8 billion in aid to Mexico, delivering US$1.6 billion between 2008 and 2017.[33] The money has been used in different ways, from providing aircraft, detection canines and border security technology, to funding education on the rule of law, the transition to an improved criminal justice system, and training and equipment to root out corruption and improve institutional capacity. The initiative includes goals to improve Mexico's *well-functioning government*, as well as its *good relations with neighbors* at the local level to "build strong and resilient communities."[34]

The Mexican government has estimated that 63 percent of the wealth created in Mexico is based on international trade,[35] which supports both *good relations with neighbors* and *sound business environment*. Mexico and the US are particularly close trading partners, with a total of US$522.3 billion in imports and exports in 2017, making up 63 percent of Mexico's total trade.[36] Millions of jobs in both countries rely on this trade relationship directly and indirectly.[37] In terms of direct impacts, for example, the latest available figures show that affiliates of US corporations employed 1.38 million people in Mexico in 2016.[38] As of 2017, Mexico was party to 57 international tariff agreements and engaged in trade with over 200 countries.[39]

FIGURE 4.12

Community organization to solve problems, 2012—2018

The proportion of Mexicans reporting that their communities organize to solve problems has increased ten percentage points since 2012.
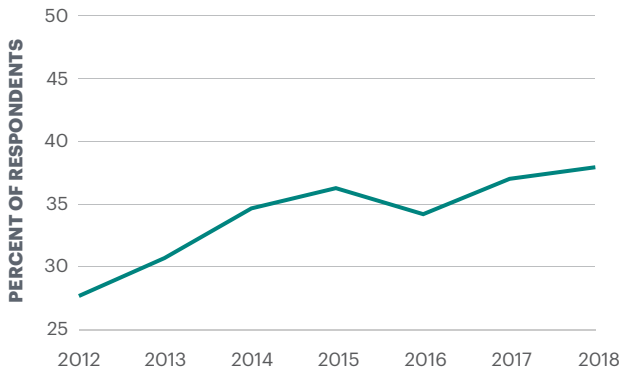
Note: Average percent of respondents replying 'yes' for various types of community organization.
Source: ENVIPE

Relations between communities

At a more local level, *good relations with neighbors* reflects the strength and resilience of communities. Community cooperation is indicative of the level of Positive Peace, Communities with high levels of cooperation are more likely to withstand negative external shocks and recover more quickly from challenges.

The proportion of Mexicans reporting trust in their friends and neighbors has hovered around 65 percent since 2012. However, community cooperation to solve problems has risen by 10 percentage points in the same time period, from 27.7 percent to 37.6 percent in 2017 as depicted in Figure 4.12. Figure 4.13 shows that states that have better MPI scores tend to have more community cooperation geared at tackling robbery. Similarly, peaceful states are also more likely to cooperate at the community level toward solving public service problems, such as street lighting defects and water shortages.

FIGURE 4.13

Community cooperation to tackle robbery vs MPI score, 2015 – 2018

Where states reported a higher level of community cooperation to tackle robberies, MPI scores were better for the years 2015 to 2018 inclusive.
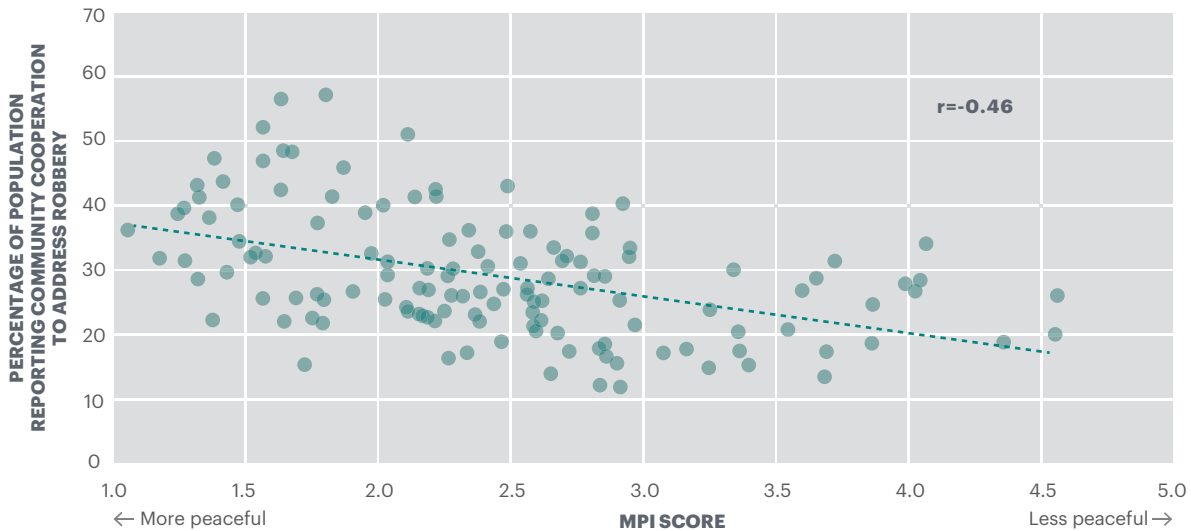
Source: ENVIPE; IEP

> "
> Community cooperation continues to improve, with the proportion of Mexicans reporting that their communities organize to solve problems increasing ten percentage points from 2012.

2019 MEXICO PEACE INDEX METHODOLOGY

The Mexico Peace Index (MPI) is based on the work of the Global Peace Index (GPI), the leading global measure of peacefulness, produced by IEP annually since 2007. The MPI follows a similar methodology to the United Kingdom Peace Index (UKPI) and the United States Peace Index (USPI), also produced by IEP, and measures negative peace, defined as "the absence of violence or fear of violence."

This 2018 edition is the fifth iteration of the MPI and uses the improved, more transparent data on crime and violence released this year by the Executive Secretary of the National System for Public Security (*Secretariado Ejecutivo del Sistema Nacional de Seguridad Pública*, SESNSP).

The MPI measures peacefulness at the state level in Mexico. A key reason for choosing this unit of analysis is that, similar to the United States, Mexico's state governments have wide-ranging autonomous powers, allowing them to have a significant impact on the level of violence. The response to violence may therefore differ significantly from state to state.

The MPI is composed of five indicators. The *homicide* and *violent crime* indicators are the same as those used in the USPI and UKPI, based on the US Federal Bureau of Investigation's standard definition of violent crime. The *detention without a sentence* indicator in the MPI captures the excessive use of incarceration in some states. The *firearms crime* indicator represents gun use and availability, using the best available data. This is similar to the approach used in the USPI as well. Lastly, the *organized crime* indicator is specific to Mexico, because of the problems the country faces with organized criminal activity.

All data used to calculate the MPI comes from government bodies in Mexico. IEP then uses survey data collected by the national statistics office to adjust the figures for underreporting. Where possible, the data source used for this study is from the Executive Secretary of the National System for Public Security (*Secretariado Ejecutivo del Sistema Nacional de Seguridad Pública*, SESNSP).

2019 MPI INDICATORS

DATA SOURCES

The MPI is composed of the following five indicators, scored between 1 and 5, where 1 represents the most peaceful score and 5 the least peaceful. Population data is used for estimating rates per 100,000 people. The data runs from 2015 to 2018.

Homicide

The number of victims of intentional homicide per 100,000 people.

Source: SESNSP

Violent Crime

The number of robbery, sexual assault, and family violence cases, as well as the number of violent assault victims per 100,000 people, adjusted for underreporting. Robbery cases must meet one of two criteria to be included:

- types of robbery that rely on the threat of violence, such as a mugging

- robbery incidents where the database indicates violence was used.

Source: SESNSP

Organized Crime

The number of extortions, drug trade related crimes, and kidnapping or human trafficking investigations per 100,000 people. Extortion, kidnapping and human trafficking rates are adjusted for underreporting. Drug trade and major organized crime offenses include:

- the federal crimes of production, transport, trafficking, trade, supply, or possession of drugs or other crimes under the Crimes Against Public Health law

- retail drug crimes, as a proxy indicator of the size of the market fueled by illegal drug production and distribution

- and crimes classed under the Law Against Organized Crime, which includes all of the above crimes when three or more people conspire to commit them.

Source: SESNSP

Firearms Crime

The number of victims of an intentional and negligent homicide or assault committed with a firearm per 100,000 people.

Source: SESNSP

Detention without a Sentence

The ratio of persons in prison without a sentence to the number of homicides and violent crimes.

Source: National Security Commission / *Comisión Nacional de Seguridad* (CNG)

Source: National Security Commission / Comisión Nacional de Seguridad (CNS)

Population data

The estimated population of each state in each year.

Population data is used to calculate the rate per 100,000 people for homicide, violent crime, organized crime and weapons crime.

Source: National Population Council / *Consejo Nacional de Población* (CONAPO)

Source: CONAPO

UNDERREPORTING

Only about ten percent of crimes in Mexico are reported to the authorities.[1]

Two of the MPI indicators – *violent crime* and *organized crime* – are adjusted for underreporting. IEP uses ENVIPE data to calculate underreporting rates for each state and adjusts the official statistics for robbery, assault, sexual violence, extortion and kidnapping and human trafficking to better reflect actual rates of violence. This approach helps to counterbalance the high rates of underreporting, known as the "dark figure" (*cifra negra).*

IEP calculated the underreporting rates for each state and crime based on the information from ENVIPE. The survey asks each respondent if they were a victim of a particular type of crime and whether or not they reported it to the authorities. IEP gathers this data from each victimization survey for the years 2015 to 2018 and takes the total number of each crime in each state for the four years. IEP then divided the total numbers of crimes reported by survey respondents by the number of crimes that survey respondents said they reported to the authorities. This produces a multiplier for adjusting the official statistics. The adjustments are made for the crimes of robbery, assault, sexual violence, extortion and kidnapping and human trafficking.

The underreporting rates use four years of data because, in some states, there were crimes where none of the victims reported the crime to the authorities. If none of the crimes were reported, the reporting rate of zero percent cannot be used to adjust the police-recorded numbers. Additionally, combining the data over time smooths out any large fluctuations in underreporting rates that may be the result of complex and imperfect surveying methodologies, rather than a true change in reporting.

Underreporting rate

Definition: Number of crimes reported by victims on the victimization survey divided by the number of those crimes that victims stated they reported to the authorities.

Source: National Survey of Victimization and Perceptions of Public Security (ENVIPE), 2015-2017

INDICATOR SCORE & OVERALL CALCULATIONS

The MPI indicators are scored between 1 and 5, with 5 being the least peaceful score and 1 being the most peaceful score. Banded indicator scores are calculated by normalizing the range of raw values based on each state's average value over the period 2015 to 2018. First, the average value for each state over the four years of the study is calculated. Then the outliers are removed from the range of average state values in order to identify the min and max of normally distributed average values. Outliers in this case are defined as data points that are more than three standard deviations greater than the mean. Next, the values for each year are normalized using the min and max of the normal range and are banded between 1 and 5. The calculation for banded scores is:

$$Banded\ score_x = \left(\frac{raw\ value_x - min_{sample}}{max_{sample} - min_{sample}}\ x\ 4 \right) + 1$$

Finally, if any of the banded values are above 5, the state is assigned a score of 5 and if any values are below 1, the state is assigned a score of 1.

There is one additional step used to calculate the *organized crime* score: in the case of the *organized crime* indicator, raw values are multiplied by the indicator sub-weights listed in Table 5.2. The sub-weights are used so that the indicator score reflects the more serious societal impact of particular crimes and to correct for the uneven distribution of crimes. In 2018, extortion and retail drug crimes made up 88.6 percent of crimes, which means that the trend in these crimes would overshadow any changes in kidnapping, human trafficking or major drug crime rates.

Major organized crime offenses, such as drug trafficking, kidnapping and human trafficking have the highest weights in the *organized crime* score. These crimes reflect more severe acts of violence and provide an indication of the strength and presence of major criminal organizations. Retail drug crimes serve as a proxy indication of the size of the drug market. However, some portion of the retail drug market will represent small individual sellers or reflect personal drug use, both of which are less threatening. Human trafficking and major drug trafficking offenses are more destabilizing to Mexican society because these crimes:

- reflect large revenue sources for criminal organizations
- absorb more human and physical resources into violent, illicit economic activity
- depend upon a greater level of corruption
- indicate the presence of organizations that pose a greater threat to the Mexican state.

After the score for each indicator has been calculated, weights are applied to each of the five indicators in order to calculate the overall MPI score. The overall score is calculated by multiplying each indicator score by its index weight and then summing the weighted indicator scores.

There are many methods for choosing the weights to be applied to a composite index. In order to maintain consistency across IEP's various peace indices, the weights in the MPI mirror those used in the GPI, USPI and UKPI as closely as possible.

The weights for the GPI indicators were agreed upon by an international panel of independent peace and conflict experts; and are based on a consensus view of their relative importance. To complement this approach and reflect the local context of Mexico, a second expert panel was formed consisting of leading Mexican academics and researchers to determine the final weights for the five indicators in the MPI. With direction from the expert panel at the time of the design of the index, a number of different methods, such as equal weighting, principal component analysis and

analytical hierarchical processing, were used to test the robustness of the results. The final weights as determined by the IEP research team and the expert panel are shown in Table 5.1. The indicator weights in the 2019 MPI are the same as those that have been used since 2016.

TABLE 5.1
Indicator Weights in the MPI

INDICATOR	WEIGHT	% OF INDEX
Homicide	4	30%
Violent Crime	3	21%
Firearms Crime	3	20%
Detention without a Sentence	1	8%
Organized Crime	3	21%

TABLE 5.2
Composition of the MPI organized crime score

MPI Indicator	Description	Weight as % of overall MPI score	Indicator sub-type	Variables included	Sub-weight relative to other crimes in the indicator
Organized crime	Extortions, kidnappings and cases of human trafficking, and narcotics crimes per 100,000 people	21%	Extortion (adjusted for underreporting)	Extortion	3
			Kidnapping & human trafficking (adjusted for underreporting)	Kidnapping	5
				Human trafficking	
				Trafficking of minors	
			Retail drug crimes	Possession, commerce and supply in small amounts	1
			Major organized crime offenses	Violations of the law prohibiting crimes against public health, which criminalizes drug trafficking	20
				Violations of the organized crime law, which criminalizes organized crime related offenses committed by three or more people	

Source: IEP

2019 MPI EXPERT PANEL

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METHODOLOGY FOR CALCULATING THE ECONOMIC IMPACT OF VIOLENCE

The global economic impact of violence is defined as the expenditure and economic activity related to "*containing, preventing and dealing with the consequences of violence.*" The estimates include the direct and indirect cost of violence as well as an economic multiplier. The multiplier effect calculates the additional economic activity that would have accrued if the direct costs of violence had been avoided.

Examples of direct costs include medical costs for victims of violent crime, capital destruction from violence and costs associated with the security and judicial systems. Indirect costs include lost wages or productivity from crime due to physical and emotional trauma. There is also a measure of the impact of fear on the economy, as people who fear that they may become a victim of violent crime alter their behavior.

The multiplier refers to the additional economic activity that would have occurred if the crimes had not been committed or where government expenditure for policing, the legal and judicial system had been directed to more productive uses.

IEP estimates the economic impact of violence in Mexico using a similar methodology to its global study, the Economic Value of Peace. The Mexican study uses a variety of measures including a comprehensive aggregation of costs related to violence and spending on military, judicial, policing and internal security services.

IEP's estimate of the economic impact of violence includes three components:

1. **Direct costs** are the costs of crime or violence to the victim, the perpetrator, and the government. These include direct expenditures, such as the cost of policing, medical expenses, funerals or incarceration.

2. **Indirect costs** are costs that accrue after the fact. These include physical and psychological trauma and the present value of future costs associated with the violent incident, such as lost future income.

3. The **multiplier effect** is a commonly used economic concept and describes the extent to which additional expenditure has flow-on impacts in the wider economy. Every time there is an injection of new income into the economy this will lead to more spending, which will in turn create employment, further income and encourage additional spending, thereby increasing GDP. This mutually reinforcing economic cycle explains the "multiplier effect," and why a dollar of expenditure can create more than a dollar of economic activity. Refer to Box 5.1 for more detail on the peace multiplier.

Violence containment expenditure refers to the direct and indirect costs associated with preventing or dealing with the consequences of violence.

The **economic impact of violence** refers to the total cost of violence containment plus the peace multiplier, explained in box 5.1.

This study uses a cost accounting methodology to measure the economic impact of violence. Expenditures on containing violence are totaled and unit costs are applied to the MPI estimates for the number of crimes committed. These crimes only include homicide, assault, sexual violence, robbery, extortion and kidnapping. A unit cost is also applied to the estimated level of fear of insecurity. The unit costs estimate the direct, or tangible, and indirect, or intangible, costs of each crime. Direct unit costs include losses to the victim and perpetrator and exclude costs incurred by law enforcement and health care systems, as these are captured elsewhere in the model. The direct costs for violent crime and organized crime are obtained from household and business surveys undertaken by the Mexican statistical office. The surveys include economic and health costs to the victim of the crime.

Indirect unit costs include the physical and psychological trauma, and the present value of future costs associated with the violent incident, such as lost lifetime wages for homicide victims.

The cost estimates provided in this report are in constant 2018 pesos, which facilitates the comparison of the estimates over time. The estimation only includes elements of violence where reliable data could be obtained. As such, the estimate can be considered conservative. The items listed below are included in the cost of violence methodology:

1. **Homicide**
2. **Violent crime, which includes assault, violence within the family, sexual violence and robbery**
3. **Organized crime, which includes extortion, kidnapping and human trafficking**
4. **Indirect costs of incarceration**
5. **Fear of insecurity**
6. **Protections costs, including private security and firearms**
7. **Federal spending on violence containment, which includes the military, domestic security and the justice system**
8. **Medical and funeral costs**

The analysis incorporates federal level public spending on the military because Mexico's military has been extensively involved in fighting the organized criminal groups domestically. Therefore, IEP considers spending on the Mexican military to be included in the cost of internal security.

Some of the items not counted in the economic impact of violence include:

- state level and municipal public spending on security
- the cost of drug trade related crimes such as the production, possession, transport and supply of drugs
- population displacement due to violence
- medical expenses for domestic violence.

These items were not included for two reasons. First, some items have been captured elsewhere in the model. For example, the costs associated with drug trade related crimes are included in the cost of domestic security, including law enforcement, incarceration and the justice system. Secondly, reliable data could not be sourced at a state level for the entire study.

Although data is available for some of these categories, it is either not fully available for all states, or for all years of analysis.

BOX 5.1

The multiplier effect

The multiplier effect is a commonly used economic concept, which describes the extent to which additional expenditure improves the wider economy. Every time there is an injection of new income into the economy this will lead to more spending, which in turn creates employment, further income and additional spending. This mutually reinforcing economic cycle is known as the "multiplier effect" and is the reason that a dollar of expenditure can create more than a dollar of economic activity.

Although the exact magnitude of this effect is difficult to measure, it is likely to be particularly high in the case of expenditure related to containing violence. For instance, if a community were to become more peaceful, individuals and corporations would spend less time and resources

protecting themselves against violence. Because of this decrease in violence, there are likely to be substantial flow-on effects for the wider economy, as money is diverted towards more productive areas such as health, business investment, education and infrastructure.

When a homicide is avoided, the direct costs, such as the money spent on medical treatment and a funeral, could be spent elsewhere. The economy also benefits from the inclusion of the lost lifetime income of the victim. The economic benefits from greater peace can therefore be significant. This was also noted by Brauer and Tepper-Marlin (2009) who argued that violence or the fear of violence may result in some economic activities not occurring at all. More generally, there is strong evidence to suggest that violence and the fear of

violence can fundamentally alter the incentives for business. For instance, analysis of 730 business ventures in Colombia from 1997 to 2001 found that with higher levels of violence, new ventures were less likely to survive and profit. Consequently, with greater levels of violence, it is likely that we might expect lower levels of employment and economic productivity over the long-term, as the incentives faced discourage new employment creation and longer-term investment.

This study assumes that the multiplier is one, signifying that for every dollar saved on violence containment, there will be an additional dollar of economic activity. This is a relatively conservative multiplier and broadly in line with similar studies.[2]

ESTIMATION METHODS

A combination of approaches are used to estimate the economic cost of violence to Mexico's economy. The analysis involved three components:

1. Financial information detailing the level of expenditure on items associated with violence was used wherever possible.

2. Unit costs were used to estimate the cost of violent activities. Specifically, an estimate of the economic cost of a violent act was sourced from the literature and applied to the total number of times such an event occurred to provide an estimate of the total cost of categories of violence.

3. Where data on the incidences of a particular type of violence was missing, the figure was either estimated based on an appropriate proxy or excluded from the study.

IEP uses federal government expenditure data for military, domestic security and the justice system as federal government

violence containment costs. Data is sourced from Secretariat of Public Finance and Credit (SHCP). State and municipal level spending are excluded from the study due to data unavailability.

The federal government expenditure data does not provide details of the spending at the state level. Therefore, a combination of state population size and MPI scores is used to estimate the likely distribution between states.

A unit cost approach is used to estimate the economic cost of homicide, violent crime, organized crime, fear of insecurity and firearms. Unit costs for the homicide, violent crimes and organized crimes are based on a study by McCollister (2010) that estimated the tangible and intangible cost of violent crimes in the United States.

1. Direct costs or tangible costs of crime include medical expenses, cash losses, property theft or damage, and productivity losses.

2. Indirect costs include physical and psychological trauma as well as long-term costs due to a violent incident.

In addition to the breakdown by tangible and intangible costs, McCollister (2010) offers further details of the costs by victim, perpetrator and justice system. Such itemization enables IEP to exclude the justice system costs to avoid double counting with expenditure data used for the justice system and domestic security.

IEP also uses Dolan & Peasgood's (2006) estimate of the unit cost of fear of crime to calculate the cost of perceptions of insecurity in Mexico. The unit cost of firearms in the Mexican black market is used to calculate the total cost of firearms. Goodman & Marizco (2010) suggest that the price of a weapon in Mexico is two to three times higher than the price of the same weapon in the US market.

To ensure that cost estimates appropriately represent relative income levels in Mexico, they were scaled according to Mexico's GDP per capita relative to the US before being converted to 2018 Mexican pesos. This was based on the aforementioned US study suggesting that the indirect cost of a homicide approximates US$8.4 million. The equivalent cost in Mexico was then calculated based on purchasing power adjusted GDP per capita of US$17,107 for Mexico as compared to US$54,629 for the US in 2014. This is called the adjusted unit cost.

All the costs are adjusted to constant 2018 pesos using consumer price index (CPI) data from the central Bank of Mexico. The base year of 2018 was chosen because it is the most recent year for which CPI data was available. Estimating the economic impact in constant prices facilitates comparisons over time.

Any GDP-related analysis uses the most recent available GDP data from INEGI.

CALCULATING THE COST OF HOMICIDE, VIOLENT CRIME AND ORGANIZED CRIME

To calculate the cost for the categories of crime used in this study, IEP uses the data from the MPI.

Data on the incidence of homicide is sourced from the SESNSP. Homicides are multiplied by adjusted unit costs to calculate the total cost of homicide in Mexico.

Violent crime, which includes incidents of sexual violence, robbery and assault are also sourced from SESNSP and are adjusted for underreporting. For more details on the data and underreporting adjustment refer to page 81. The economic costs of each category of violent crime are calculated using the respective adjusted unit costs.

The cost of organized crime is based on the number of incidents of extortion and kidnapping or human trafficking. To estimate the total cost of extortions and kidnapping in Mexico, IEP assumes that extortions and robbery - as well as kidnapping and assault - are equivalent in terms of their economic impact on the victim. Therefore, unit costs for indirect cost are sourced from McCollister (2010) and applied to extortion and kidnapping. Direct cost for violent and organized crime are sourced from Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE) a national household survey of victimisation and perception of public safety and Encuesta Nacional de Victimización de Empresas (ENVE) a national survey of business victimisation. These surveys collect data on the economic and health-related losses to the victim of violent and organized crime.

COST OF FEAR OF INSECURITY

ENVIPE data is used to estimate the perception of insecurity at the state level in Mexico. IEP uses the proportion of respondents who felt insecure, multiplied by the state's population to arrive at the number of people who reported a fear of insecurity.

Victimization survey estimates are available for 2015 and 2016 to 2017. Therefore, IEP estimates the fear of insecurity for the years for which data is not available. The unit cost of fear is taken from Dolan and Peasgood (2006), from which the adjusted unit cost is derived.

PROTECTION COSTS

Protection costs represent spending by households and businesses on measures that reduces victimization from violent and organized crime. Both households and businesses take measures such as hiring private security, purchasing firearms or insurance, installing alarms, locks and changing place of residence or business to protect themselves in the face of high levels of crime and violence. This category replaces private security expenditure and the cost of firearms.

Data for protection costs is sourced from the National Institute of Statistics and Geography (INEGI) both for household and businesses. INEGI provides state level summaries of protection costs developed from the ENVIPE (household survey) and ENVE (business survey).

CALCULATING THE INDIRECT COST OF INCARCERATION

The direct cost of incarceration is included in the government expenditure on domestic security and the justice system. Therefore, IEP only includes the indirect cost of incarceration, which is the lost income due to imprisonment. This is calculated using the Mexican minimum wage and the number of inmates that would have been in full-time employment. Data on the minimum wage for Mexico is sourced from the Department of Labor and Social Welfare (*Secretaría del Trabajo y Previsión Social*, STPS). Literature suggests that 60 percent of people who were sentenced to prison had full-time employment prior to being in prison and 20 percent of them have some employment inside prison. Therefore, IEP considers that 40 percent of the inmates would have been in full time employment. Minimum wage lost is calculated for 40 percent of the prison population in Mexico.

ECONOMIC IMPACT OF VIOLENCE CONTAINMENT

To estimate the total economic impact of violence, IEP uses a peace multiplier to estimate the additional economic activity that would have resulted if violence was avoided. The conceptual underpinning of the multiplier is the opportunity cost of the resources lost by the victim, perpetrator, and the law enforcement agencies due to the crime. Therefore, the peace multiplier represents the flow-on effects of redirected expenditure from violence containment to more economically enabling activities, such as business investment or education.

RESULTS TABLES

MPI RESULTS

Table A.1

Mexico Peace Index Scores, 2015 - 2018

A lower score indicates a better level of peacefulness.

STATE	2015	2016	2017	2018
AGUASCALIENTES	1.789	1.654	2.037	2.219
BAJA CALIFORNIA	3.340	3.356	4.350	4.553
BAJA CALIFORNIA SUR	2.861	3.688	4.545	3.247
CAMPECHE	1.570	1.540	1.482	1.374
CHIAPAS	1.676	1.573	1.570	1.641
CHIHUAHUA	2.649	2.967	3.544	3.680
COAHUILA	2.271	1.727	1.755	1.909
COLIMA	2.470	3.856	3.856	4.021
DURANGO	2.173	2.113	2.216	2.121
GUANAJUATO	2.196	2.270	2.611	3.602
GUERRERO	3.653	4.043	3.990	4.063
HIDALGO	1.336	1.418	1.652	1.808
JALISCO	2.326	2.252	2.382	2.761
MEXICO CITY	2.390	2.383	2.617	2.767
MEXICO STATE	2.223	2.270	2.482	2.574
MICHOACÁN	2.181	2.417	2.572	2.714
MORELOS	2.855	2.944	2.810	2.926
NAYARIT	1.779	1.436	2.281	2.568
NUEVO LEÓN	2.342	2.597	2.677	2.592
OAXACA	1.478	2.023	2.144	2.482
PUEBLA	1.832	1.642	1.879	2.115
QUERÉTARO	1.529	1.578	1.774	1.959
QUINTANA ROO	2.476	2.030	2.814	3.720
SAN LUIS POTOSÍ	1.799	2.033	2.342	2.438
SINALOA	3.162	2.911	3.361	2.912
SONORA	2.717	2.841	2.595	2.369
TABASCO	2.644	2.695	2.950	2.809
TAMAULIPAS	2.863	2.837	3.076	2.916
TLAXCALA	1.252	1.279	1.330	1.390
VERACRUZ	1.381	1.694	2.164	1.975
YUCATÁN	1.324	1.279	1.181	1.066
ZACATECAS	2.165	2.591	3.254	3.392
NATIONAL	**2.191**	**2.262**	**2.538**	**2.661**

ECONOMIC IMPACT OF VIOLENCE BY STATE

Table B.1

Economic impact of violence by state, constant 2018 pesos, 2018

STATE	Total impact (millions)	Impact per capita	Economic impact cost as % GDP
AGUASCALIENTES	48,129.4	34,481.7	14.1%
BAJA CALIFORNIA	325,895.8	92,551.4	42.0%
BAJA CALIFORNIA SUR	41,567.3	53,892.9	18.3%
CAMPECHE	21,604.4	22,334.3	2.2%
CHIAPAS	105,744.5	19,005.6	23.3%
CHIHUAHUA	249,505.8	66,927.8	30.6%
COAHUILA	76,345.5	24,375.8	7.3%
COLIMA	73,543.2	96,725.0	48.0%
DURANGO	45,547.7	24,801.9	14.0%
GUANAJUATO	379,999.5	62,119.8	36.6%
GUERRERO	258,284.7	71,158.0	76.5%
HIDALGO	81,293.9	26,969.8	19.6%
JALISCO	345,316.8	41,912.5	19.3%
MEXICO CITY	352,083.5	38,941.3	6.9%
MEXICO STATE	636,801.7	37,334.5	26.3%
MICHOACÁN	218,357.1	45,897.6	34.5%
MORELOS	122,178.4	61,073.1	41.0%
NAYARIT	46,549.0	37,168.9	24.9%
NUEVO LEÓN	180,876.1	33,158.8	8.8%
OAXACA	176,586.3	43,101.4	48.5%
PUEBLA	215,985.7	33,337.2	23.2%
QUERÉTARO	64,539.7	29,363.7	9.9%
QUINTANA ROO	96,777.2	58,822.6	23.5%
SAN LUIS POTOSÍ	100,641.9	35,623.5	17.4%
SINALOA	135,822.6	43,748.7	24.0%
SONORA	115,205.7	38,400.3	12.6%
TABASCO	97,135.3	38,608.2	12.6%
TAMAULIPAS	164,833.5	45,908.4	22.9%
TLAXCALA	32,128.2	23,835.2	20.1%
VERACRUZ	232,416.0	27,556.5	18.9%
YUCATÁN	37,813.9	17,124.0	7.6%
ZACATECAS	81,670.2	49,726.5	35.4%
NATIONAL	**5,161,180.4**	**41,181.0**	**24.0%**

Table B.2

Total economic impact of violence by state, constant 2018 pesos, millions, 2015-2018

STATE	2015	2016	2017	2018
AGUASCALIENTES	35,472.0	35,166.2	42,462.1	48,129.4
BAJA CALIFORNIA	172,533.5	180,200.0	266,065.5	325,895.8
BAJA CALIFORNIA SUR	37,559.4	47,123.8	87,864.6	41,567.3
CAMPECHE	17,857.3	22,172.7	20,223.4	21,604.4
CHIAPAS	100,531.8	95,080.6	96,802.1	105,744.5
CHIHUAHUA	152,952.1	175,715.0	218,369.4	249,505.8
COAHUILA	75,879.8	70,551.3	70,274.9	76,345.5
COLIMA	26,078.5	60,371.7	80,675.3	73,543.2
DURANGO	51,810.1	51,203.5	48,356.4	45,547.7
GUANAJUATO	189,644.5	198,811.3	228,866.6	379,999.5
GUERRERO	236,013.2	242,881.1	261,624.0	258,284.7
HIDALGO	55,929.7	61,641.8	72,188.9	81,293.9
JALISCO	232,093.5	266,561.4	290,344.2	345,316.8
MEXICO CITY	290,341.9	285,934.7	302,572.3	352,083.5
MEXICO STATE	571,179.4	565,736.4	619,709.7	636,801.7
MICHOACÁN	154,518.5	187,478.2	198,905.1	218,357.1
MORELOS	101,209.9	110,314.2	105,489.9	122,178.4
NAYARIT	21,814.3	15,983.2	39,687.3	46,549.0
NUEVO LEÓN	134,796.6	155,194.2	154,182.2	180,876.1
OAXACA	58,872.8	145,152.0	145,249.7	176,586.3
PUEBLA	146,570.0	159,295.6	173,164.4	215,985.7
QUERÉTARO	54,696.9	52,160.1	56,047.9	64,539.7
QUINTANA ROO	53,910.8	42,569.0	60,264.7	96,777.2
SAN LUIS POTOSÍ	61,165.9	68,472.8	86,240.3	100,641.9
SINALOA	130,213.8	139,514.7	175,140.9	135,822.6
SONORA	99,072.0	106,776.2	110,193.7	115,205.7
TABASCO	72,122.8	77,697.4	90,353.1	97,135.3
TAMAULIPAS	146,249.5	152,712.6	168,462.3	164,833.5
TLAXCALA	25,315.0	24,851.4	27,819.1	32,128.2
VERACRUZ	148,274.6	205,206.9	254,627.2	232,416.0
YUCATÁN	40,195.9	42,669.7	36,588.0	37,813.9
ZACATECAS	50,023.6	70,613.2	82,123.0	81,670.2
NATIONAL	**3,744,899.6**	**4,115,813.2**	**4,670,938.1**	**5,161,180.4**

ENDNOTES

SECTION 1: RESULTS

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