



MEXICO PEACE INDEX

2015

**ANALYZING THE CHANGING
DYNAMICS OF PEACE IN MEXICO**

INSTITUTE FOR
ECONOMICS
& PEACE



QUANTIFYING PEACE AND ITS BENEFITS

The Institute for Economics and 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.

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EXECUTIVE SUMMARY

The Mexico Peace Index, produced by the Institute for Economics and Peace, provides a comprehensive measure of peacefulness in Mexico from 2003 to 2014. This report aims to deepen the understanding of the trends, patterns and drivers of peace in Mexico while highlighting the important economic benefits that will flow from a more peaceful society.

The Mexico Peace Index (MPI) is based on the work of the Global Peace Index, the leading measure of global peacefulness that has been produced by the Institute for Economics and Peace (IEP) every year since 2007. The MPI is part of a series of National Peace Indices, which includes the United States Peace Index and the United Kingdom Peace Index.

The 2015 MPI presents a somewhat optimistic but cautious picture of the state of peace in the last two years. Mexico's peace has improved 10.5 percent since 2012, continuing the trend from 2011, however 2014 saw very little improvement, improving only 0.7 percent. It is too early to determine whether this is a new trend. Mexico's level of peace in 2014 approached 2007 levels, when homicide and violent crime began to increase rapidly.

The MPI indicators registering the largest improvements in the last two years were the homicide rate, which fell by 30 percent, and the level of organized crime, which improved by 25 percent. All three measures in the organized crime indicator; extortion, kidnapping and narcotics offenses

improved. There was also a significant reduction in the violent crime rate, which fell by 12 percent.

Furthermore, the recorded increase in peacefulness was widespread. In the last two years, 26 out of the 32 states saw improvements in peacefulness, with all of them recording reductions in the violent crime rate and 23 states recording reductions in the homicide rate. The biggest improvements were recorded in the least peaceful states; contrary to the overall trend, the most peaceful states became slightly less peaceful. These diverging trends resulted in a substantial narrowing of the gap between the least peaceful and the most peaceful states.

In contrast, during the same two-year period, weapons crime increased significantly and was up by 11 percent. The three other indicators that make up the MPI: justice efficiency, incarceration and police funding, have plateaued or slightly deteriorated and are now at record highs.

The justice efficiency indicator continued to decline, which is very concerning, with the number of homicides relative to the number of prosecutions doubling from 1.45 in 2006 to 3.43 in 2013. The justice efficiency indicator measures

the ratio of homicide convictions to homicides in a given year and is used as a proxy for impunity.

Additionally, the rate at which people were sentenced to prison fell from 210 per 100,000 people to 104 from 2003 to 2014. Combined with the deterioration in the justice efficiency indicator, this is a troubling trend that highlights the urgent need to fully implement the current justice reforms.

It should be noted that the declines in homicides and gang-related violence do not necessarily mean that criminal organizations are less powerful; they may have become more circumspect in their activities.

This reflects a paradox in Mexico: while indicators of peacefulness have greatly improved in the last four years, many Mexicans still report high perceptions of criminality. Additionally, officially recorded rates of homicide and violent crime are still very high by global standards.

Underreporting of violent crime and other criminal activities is a serious issue in Mexico, with IEP estimating that rape is reported only eight percent of the time and assault only 23 percent. To create a more accurate index, IEP has adjusted all indicators for underreporting rates.

For many, these concerns create doubt about the reliability of criminal justice statistics. To determine the veracity of the official data, IEP compared various alternative datasets and victimization surveys against the official data. The results tend to support the trend towards higher levels of peace, but with some qualifications.

- **The analysis strongly supports the improvement in the homicide rate, the most critical indicator of the MPI.**
- **There is little comparable data for violent crime, with victimization surveys not asking questions comparable to the MPI indicators.**
- **The survey data on some indicators, such as organized crime, reveal contradictory trends, with perceptions of gang activity going down but experiences of extortion, kidnapping and fraud going up.**
- **Survey data related to confidence in the police has shown an improvement over the last three years. This supports the trend in the official figures.**

The contradictions between perceptions and experience-based survey data when compared with official recorded data demonstrates the need for a more systematic approach to measurement. Official data needs to be validated by independent surveying, while appropriate questions need to be asked to clearly confirm or contradict official trends. Better funding for independent think-tanks and research organizations would provide greater certainty and assurance for the public debate.

To help inform policy, a Positive Peace Index was also developed for Mexico. The Mexico Positive Peace Index

(MPPI) measures the attitudes, institutions and structures that support and sustain peace, as opposed to a measure of actual violence or fear of violence. The MPPI tells a similarly positive yet cautious story. At the national level, Mexico scores relatively well on many measures of institutional strength and quality compared to other countries at similar levels of peace and development.

IEP's research has identified eight key Pillars that support and sustain peaceful societies. These Pillars act as a system, interacting with each other to create peace. Deeper analysis of the key drivers of positive peace at the sub-national level identifies three factors that have a statistically significant relationship with peace in Mexico today. All of the pillars need to be strengthened in unison to create lasting resilience and peace, however the following three are key areas of focus for Mexican states:

- **The functioning of government**
- **Levels of corruption**
- **Good relations with neighbors**

Critically, the report highlights that the economic benefits from improvements in peace are large. It is estimated that the total economic impact of violence in Mexico is three trillion pesos or US\$233 billion, which is equivalent to 17.3 percent of Mexico's GDP. This represents \$24,844 pesos, or almost US\$1,946 per person in Mexico.

The difference in GDP per capita between the 16 most peaceful and 16 least peaceful states in 2003 was 35 percent, rising to 58 percent in 2014. If the least peaceful states had the same economic growth as the most peaceful states, the Mexican economy would have been 13 percent larger in 2014.

If Mexico were to become more peaceful, then expenditure on violence containment could be redirected to more productive areas such as infrastructure, innovation or education. As such, the benefits of a peace dividend to Mexico could be very large.

The focus of this report is to present data and research on the patterns, trends, causes and benefits of peace in Mexico. It does not seek to make specific policy recommendations nor value judgments on the appropriateness of current government responses; rather it aims to inform a strategic discussion amongst policymakers, researchers, business leaders and the general public. This report is organized in five sections presenting results and findings of the 2015 MPI including a trend analysis of 2003 to 2014; the Mexico Positive Peace Index; the economic value of peace in Mexico; essay contributions from experts in Mexican civil society and the private sector; and a detailed description of the MPI methodology.

HIGHLIGHTS

- Mexico has experienced a large decrease in violence since 2011, with the national level of peace improving by 16 percent.
- Progress in peace has plateaued in the last year; it is too early to determine if this is the start of a new trend.
- The level of peace as measured by the 2015 MPI is still 18 percent lower than in 2003.
- The most peaceful state in Mexico is Hidalgo, followed by Yucatán, Querétaro, Campeche, Tlaxcala, and Chiapas.
- Of the 76 largest metropolitan areas of Mexico, the most peaceful is Orizaba in Veracruz and the least peaceful is Culiacán in Sinaloa.
- The eastern region remains the most peaceful in Mexico, while the northern region is still the most violent, although the gap between the north and the other regions is now at its lowest point since 2004.

TRENDS IN PEACE

- Peace improved in the majority of states in Mexico in the last two years, with 26 out of 32 states improving.
- The largest improvements were in the northern region, which improved 17.8 percent. The gap in the levels of peace between the least and most peaceful states is now at its lowest point since 2006.
- Over the last two years, the largest decreases in violence have been in the homicide rate, which fell almost 30 percent, and the level of organized crime, which fell by 25 percent.
- The only indicator that recorded a significant deterioration in the last two years is weapons crime, which increased by 11 percent.
- The police funding indicator and the justice efficiency indicator recorded very slight deteriorations, reaching their worst levels in 2014.
- The fall in the homicide rate is mainly due to a reduction in homicides related to organized crime, as the biggest reductions were recorded in the states with the worst levels of drug cartel activity.
- While there is some doubt about the accuracy of government crime statistics, multiple data sources do support a decline in the homicide rate over the last two years. This strongly suggests the progress in peace is real.
- On an international comparison, Mexico fell 45 places in the Global Peace Index between 2008 and 2013. It remains the least peaceful country in Central America and the Caribbean.

POSITIVE PEACE IN MEXICO

- The analysis includes measurement of positive peace at the subnational level in Mexico. Positive peace is defined as the institutions, structures and attitudes which build peace in the long term.
- At the sub-national level, the factors with the most statistically significant associations with peace fall into three categories: functioning of government, levels of corruption and relations with neighbors.
- The five states with the strongest Pillars of Peace on average are Yucatán, Colima, Aguascalientes, Nuevo León and Baja California.

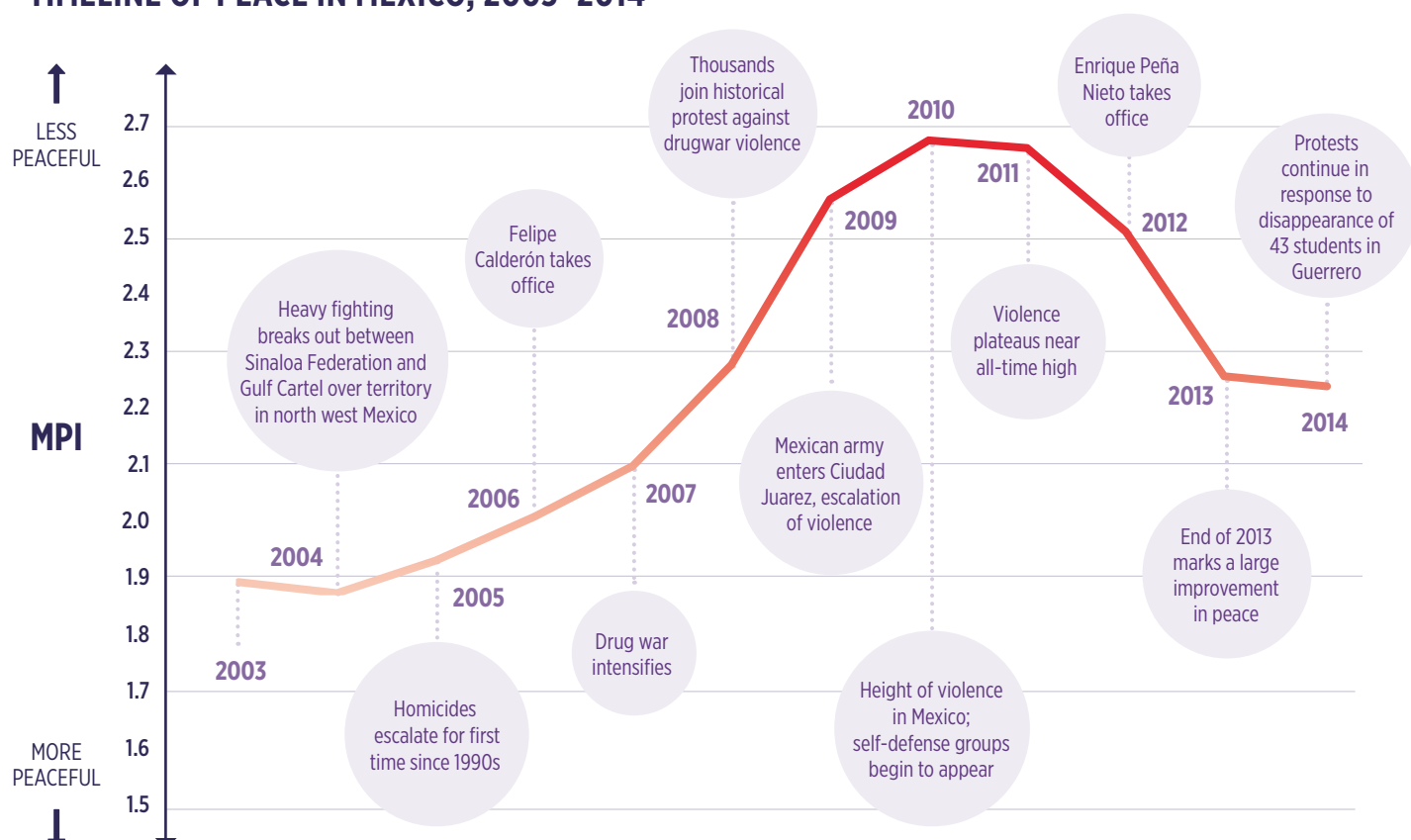
ECONOMIC VALUE OF PEACE IN MEXICO

- The total economic impact of violence in Mexico in 2014 is estimated to be \$3 trillion pesos or US\$233 billion, equivalent to 17.3 percent of GDP. This represents \$24,844 pesos, or almost US\$1,946, per citizen.
- This is a 16.7 percent decrease from 2012, when the total economic impact of violence in Mexico was \$3.57 trillion pesos.
- The states with the highest per capita economic impact from violence are Guerrero, Morelos, Baja California and Tamaulipas, with the economic impact in Guerrero per person at \$43,666 pesos.
- If the 16 least peaceful states in 2003 had the same economic growth as the 16 most peaceful states in 2003, then the Mexican economy in 2014 would be \$140 billion pesos or 13 percent larger.
- Of businesses surveyed, 24 percent reported the security situation was better in 2012 than in 2011. Subsequent data may show continued improvements.



THE TOTAL ECONOMIC IMPACT OF VIOLENCE IN MEXICO IN 2014 IS ESTIMATED TO BE **\$3 TRILLION PESOS** OR **US\$233 BILLION**, EQUIVALENT TO **17.3% OF GDP**.

TIMELINE OF PEACE IN MEXICO, 2003–2014





RESULTS & FINDINGS


Vision of Humanity
www.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 see how the states fare according to each indicator of peace.

2015

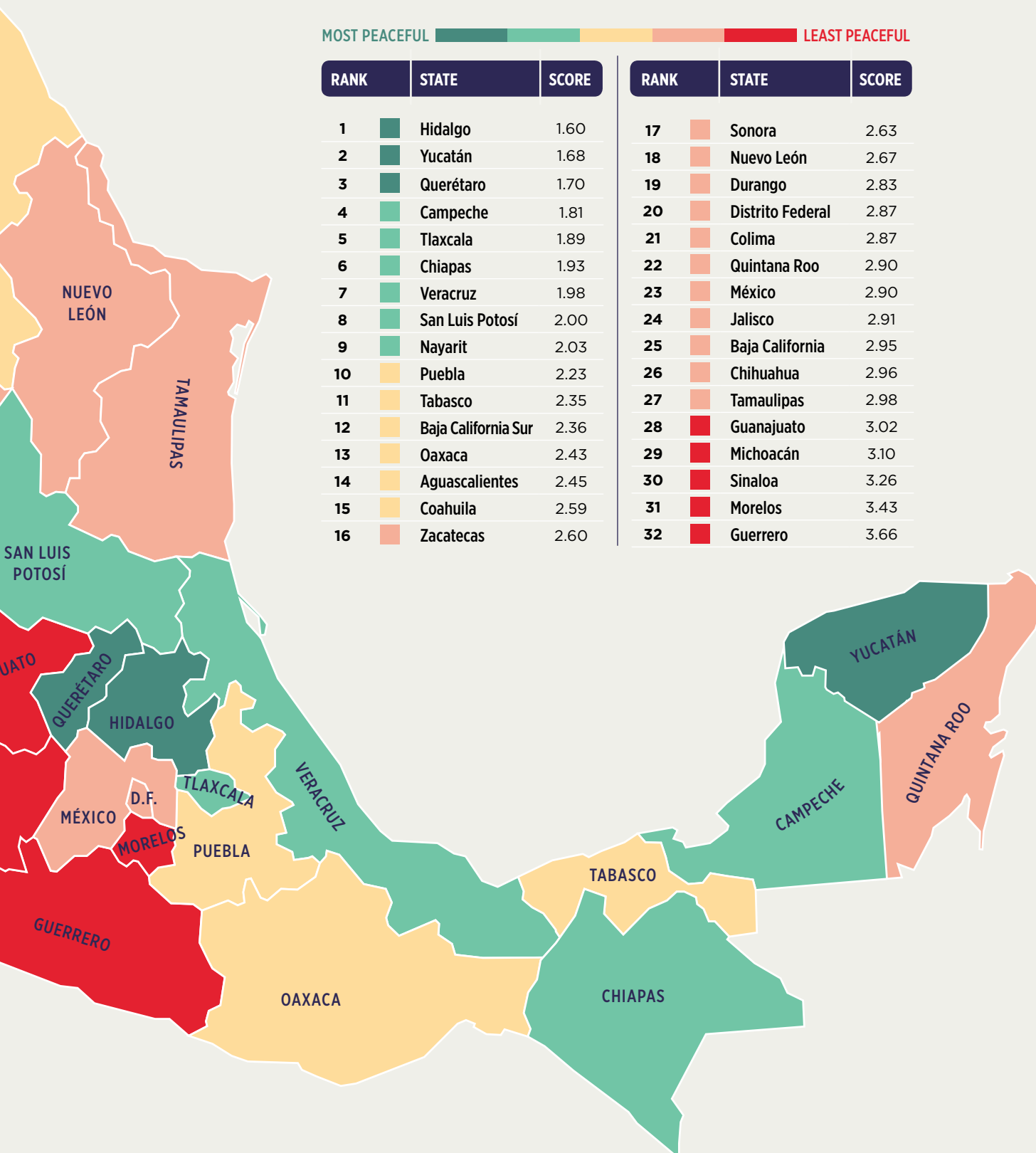
MEXICO PEACE INDEX

A SNAPSHOT OF THE STATE OF PEACE IN MEXICO

MOST PEACEFUL  LEAST PEACEFUL

RANK	STATE	SCORE
1	Hidalgo	1.60
2	Yucatán	1.68
3	Querétaro	1.70
4	Campeche	1.81
5	Tlaxcala	1.89
6	Chiapas	1.93
7	Veracruz	1.98
8	San Luis Potosí	2.00
9	Nayarit	2.03
10	Puebla	2.23
11	Tabasco	2.35
12	Baja California Sur	2.36
13	Oaxaca	2.43
14	Aguascalientes	2.45
15	Coahuila	2.59
16	Zacatecas	2.60

RANK	STATE	SCORE
17	Sonora	2.63
18	Nuevo León	2.67
19	Durango	2.83
20	Distrito Federal	2.87
21	Colima	2.87
22	Quintana Roo	2.90
23	México	2.90
24	Jalisco	2.91
25	Baja California	2.95
26	Chihuahua	2.96
27	Tamaulipas	2.98
28	Guanajuato	3.02
29	Michoacán	3.10
30	Sinaloa	3.26
31	Morelos	3.43
32	Guerrero	3.66



2015 MEXICO PEACE INDEX INDICATOR SCORES

There are significant variations in peace between Mexican states. The southeast tends to be much more peaceful and the northwest less peaceful, particularly along the border with the United States. A large exception to this trend is the state of Quintana Roo on the southeast, which is significantly less peaceful than surrounding states. The Zetas cartel operates heavily in Quintana Roo and the state acts as a trading port for narcotic trafficking from South America.

Quintana Roo is typical of the variation in peace across Mexico: although there are a number of reasons for this growing disparity in peacefulness, there is an undeniable tendency for states with the least cartel activity to be more peaceful. Violence is most acute when multiple cartels operate concurrently within a state. As such the MPI also acts as a heat map of greater cartel activity.

TABLE 1 2015 MEXICO PEACE INDEX INDICATOR SCORES

There is a wide range in levels of peacefulness across both indicators and states in Mexico. A higher score indicates lower peacefulness. Scores out of five.

OVERALL SCORE	STATE	HOMICIDE	VIOLENT CRIME	WEAPONS CRIME	INCARCERATION	POLICE FUNDING	ORGANIZED CRIME	JUSTICE EFFICIENCY
1.604	Hidalgo	1.3	1.9	2.0	1.0	2.4	1.2	2.4
1.680	Yucatán	1.0	1.8	2.0	1.0	2.9	1.3	3.2
1.703	Querétaro	1.3	2.4	1.5	1.0	2.7	1.0	3.1
1.810	Campeche	1.5	1.1	1.5	1.0	4.9	1.5	3.7
1.892	Tlaxcala	1.3	1.7	1.6	1.4	4.1	1.0	4.9
1.930	Chiapas	1.5	1.5	2.2	1.0	2.1	1.3	4.7
1.979	Veracruz	1.4	1.5	2.5	1.0	1.6	1.4	5.0
1.998	San Luis Potosí	1.6	1.8	2.3	1.4	2.8	1.3	4.4
2.028	Nayarit	1.7	1.2	2.7	1.0	4.5	1.0	4.3
2.230	Puebla	1.3	3.0	2.9	1.0	1.7	1.4	4.7
2.354	Tabasco	1.5	4.9	1.2	2.3	2.7	1.9	3.9
2.357	Baja California Sur	1.7	3.2	2.0	5.0	5.0	1.8	3.6
2.427	Oaxaca	2.2	2.6	2.7	1.1	2.2	1.4	5.0
2.445	Aguascalientes	1.1	4.7	2.1	2.1	3.4	1.9	3.9
2.591	Coahuila	2.0	3.0	3.2	1.0	2.6	1.7	5.0
2.604	Zacatecas	1.5	2.6	3.1	1.0	2.9	2.8	5.0
2.625	Sonora	2.5	1.9	3.9	3.9	3.8	1.4	4.6
2.670	Nuevo León	1.7	2.2	2.1	1.0	2.1	4.6	5.0
2.829	Durango	2.4	2.2	5.0	1.1	3.7	1.2	5.0
2.867	Distrito Federal	1.5	4.3	5.0	1.0	1.9	2.1	3.8
2.872	Colima	2.1	2.7	4.3	3.7	5.0	1.4	5.0
2.904	Quintana Roo	1.8	4.2	2.4	2.8	3.8	3.1	4.8
2.904	México	1.9	3.6	5.0	1.0	1.3	1.9	5.0
2.915	Jalisco	1.8	3.0	5.0	2.9	1.5	2.7	4.6
2.954	Baja California	2.7	3.6	3.2	5.0	3.2	2.0	5.0
2.960	Chihuahua	3.4	2.0	5.0	1.9	2.6	1.1	5.0
2.980	Tamaulipas	2.4	2.7	3.4	1.0	2.9	3.4	5.0
3.015	Guanajuato	1.9	5.0	5.0	1.6	1.7	1.2	4.8
3.104	Michoacán	2.6	2.2	5.0	1.0	2.2	3.0	5.0
3.256	Sinaloa	3.6	2.8	5.0	1.9	2.7	1.8	5.0
3.425	Morelos	2.8	5.0	3.4	1.1	3.2	2.9	5.0
3.657	Guerrero	4.5	3.3	5.0	1.5	2.4	2.3	5.0

METHODOLOGY AT A GLANCE

For a more in depth explanation of the methodology, please refer to section 5 on page 75.

The Mexico Peace Index (MPI) derives from the work of the Global Peace Index, a leading global measure of peacefulness that has been produced by IEP annually since 2007. The Index follows a similar methodology to the United Kingdom Peace Index and the United States Peace Index, also produced by IEP, and defines peace as 'the absence of violence or fear of violence'.

The MPI measures peace 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 powers allowing them to have a significant impact on the level of violence, therefore the response to violence may differ significantly from state to state.

The Index is composed of the following seven indicators:

1. HOMICIDE

- Homicide rate per 100,000 people

Source: Executive Secretary of the National System for Public Security (SESNSP)—cases being investigated by the State Prosecution Authorities

2. VIOLENT CRIME

- Violent crime rate per 100,000 people

Source: SESNSP

3. WEAPONS CRIME

- Weapons crime rate per 100,000 people

Source: SESNSP

4. INCARCERATION

- Number of people sent to prison per year, per 100,000 people

Source: National Institute of Statistics and Geography (INEGI)

5. POLICE FUNDING

- Federal Government funding to States for the Public Security Contribution Fund per 100,000 people

Source: Secretaría de Hacienda y Crédito Público (SHCP)

6. ORGANIZED CRIME

- The number of extortions, drug-trade related crimes, organized crime offenses, and kidnapping per 100,000

Source: SESNSP

7. EFFICIENCY OF THE JUSTICE SYSTEM

- Proportion of convictions for homicide to total homicides

Source: INEGI

All indicators are scored between 1 and 5, with 1 being the most peaceful score, and 5 the least peaceful. After the score for each indicator has been calculated, weights are applied to each of the indicators in order to calculate the final score.

Mexico Peace Index Expert Panel

An Expert Panel was established to provide independent advice and technical guidance to IEP researchers in developing the index methodology. The Panel is composed of experts from independent, nonpartisan civil society and academic organizations. For the 2015 MPI it included:

- Leonel Fernández Novelo, Researcher, México Evalúa
- Edgar Guerrero Centeno, Director of Governmental Information Policies, Instituto Nacional de Estadística y Geografía (INEGI)
- Carlos J. Vilalta Perdomo, Professor, Centro de Investigación Y Docencia Económicas, A.C. (CIDE)
- Guillermo Zepeda Lecuona, Socio Director, Jurimetria

MOST AND LEAST PEACEFUL STATES

With a few exceptions, states in the southern and eastern regions of Mexico are more peaceful than the western, central, and northern regions. Of the ten most peaceful states, only two, Querétaro and San Luis Potosí, are not from the south or the east, while Guerrero is the only southern or eastern state amongst the ten least peaceful.

In the last two years, the most peaceful states, while decreasing very slightly in peacefulness, have had only small changes in rank. There has been a much higher degree of variance amongst the least peaceful states. Guanajuato and Michoacán have steadily declined to

now be amongst the five least peaceful states. Juxtaposed to this, many of the least peaceful states have recorded large reductions in homicides and violent crime over the last two years. **Tables 2 and 3** show the scores and ranks for the most and least peaceful states, both for the overall index, and each of its seven indicators.

TABLE 2 FIVE MOST PEACEFUL STATES AND INDICATOR SCORES (2015 MEXICO PEACE INDEX)

The gap between the most and least peaceful states has decreased over the last few years.

RANK	STATE	OVERALL SCORE	HOMICIDE		VIOLENT CRIME		WEAPONS CRIME		INCARCERATION		POLICE FUNDING		ORGANIZED CRIME		JUSTICE EFFICIENCY	
			Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
1	Hidalgo	1.604	4.9	4	1,735	8	5.3	6	45.8	6	6,770,399	12	22.3	5	0.4	1
2	Yucatán	1.680	2.1	1	1,641	7	5.0	5	35.6	4	7,933,643	19	29.2	8	0.1	3
3	Querétaro	1.703	5.5	5	2,582	14	3.0	3	66.0	10	7,395,606	15	7.4	3	0.1	2
4	Campeche	1.810	7.3	9	427	1	2.9	2	74.3	14	13,485,517	30	48.3	16	0.2	5
5	Tlaxcala	1.892	4.9	3	1,407	5	3.6	4	111.0	20	11,145,977	28	6.5	2	0.7	17

TABLE 3 FIVE LEAST PEACEFUL STATES AND INDICATOR SCORES (2015 MEXICO PEACE INDEX)

There has been a much higher degree of variance amongst least peaceful states.

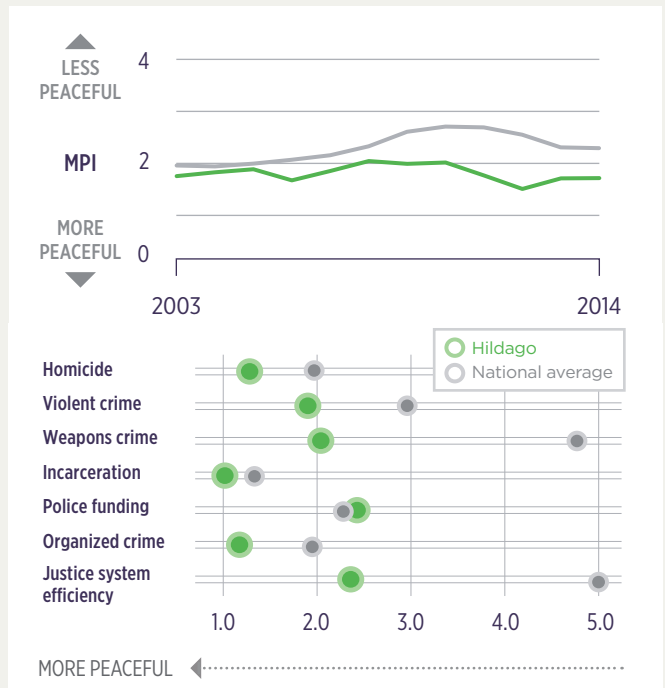
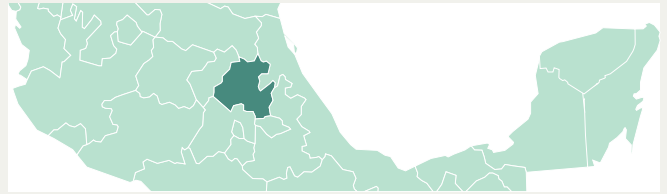
RANK	STATE	OVERALL SCORE	HOMICIDE		VIOLENT CRIME		WEAPONS CRIME		INCARCERATION		POLICE FUNDING		ORGANIZED CRIME		JUSTICE EFFICIENCY	
			Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
32	Guerrero	3.657	44.0	32	3,920.5	24	34.6	31	115.7	21	6,628,087	11	98.9	25	0.9	31
31	Morelos	3.425	23.8	29	7,372.2	32	11.3	21	80.3	16	8,748,343	22	143.5	28	0.9	32
30	Sinaloa	3.256	32.3	31	3,079.4	19	57.7	32	151.4	24	7,418,197	16	64.7	18	0.8	27
29	Michoacán	3.104	21.4	27	2,218.7	12	18.7	24	48.3	7	6,067,611	9	147.3	29	0.8	22
28	Guanajuato	3.015	12.3	20	6,502.6	31	27.5	28	130.0	22	4,770,720	5	22.4	6	0.6	15



The five most peaceful states

IN THE LAST TWO YEARS, THE MOST PEACEFUL STATES HAVE HAD ONLY SMALL CHANGES IN RANK.

1 HIDALGO



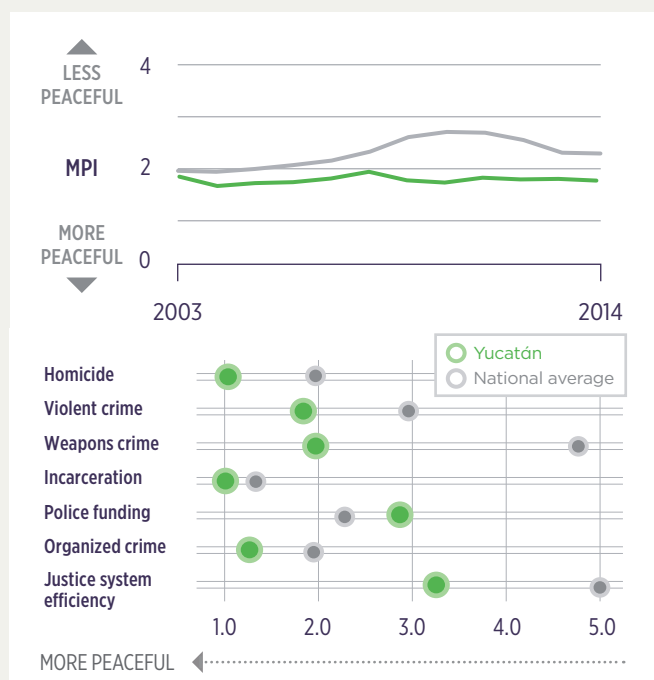
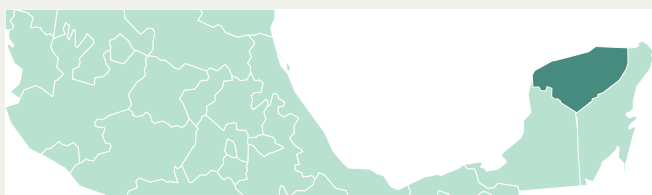
Hidalgo, the most peaceful state in Mexico, is a mid-sized state located in central Mexico with a population of approximately 2.8 million people. Hidalgo has been one of the five most peaceful states in Mexico for eight of the last 12 years, and has never been ranked lower than seventh.

Despite being ranked as the most peaceful state in Mexico in 2014, Hidalgo has actually become less peaceful over the last two years, with its MPI score falling 16 percent since 2012. Its level of peacefulness is approximately the same as it was in 2003. Hidalgo is one of only nine states to have the same or higher levels of peacefulness in 2014 than it had in 2003.

Hidalgo performs well on the majority of the MPI indicators. It has the fourth lowest homicide rate, the eighth lowest violent crime rate, the fifth lowest level of organized crime, and the most efficient judicial system, with the highest number of homicide prosecutions relative to actual homicides.

Levels of violence in Hidalgo peaked in 2010, when it had a score of 1.92, compared to 1.64 in 2003 and 1.60 in 2014.

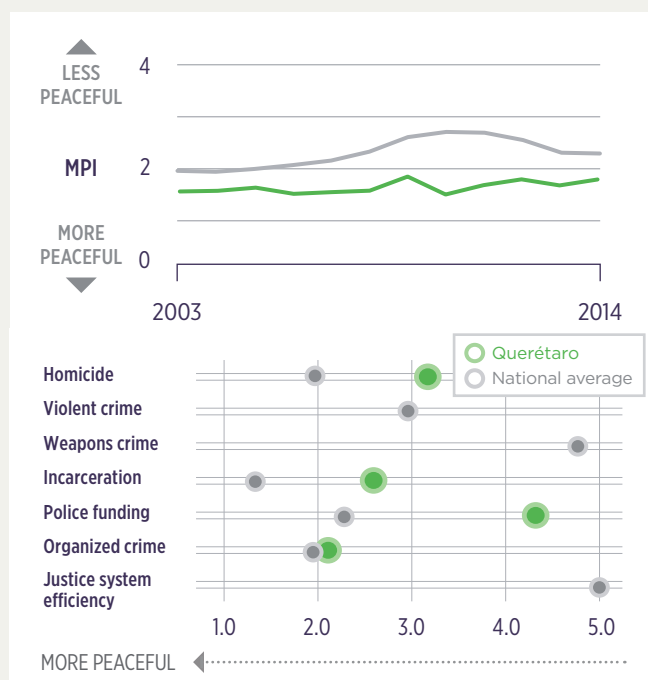
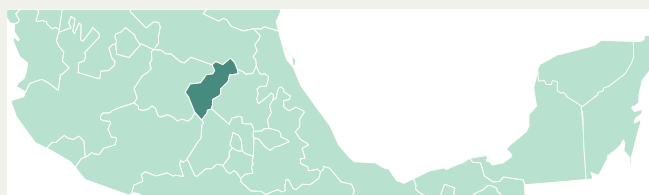
2 YUCATÁN



Yucatán is the second most peaceful state in Mexico. The level of peacefulness in Yucatán has remained steady over the last five years, as it has remained insulated from the violence that swept through many Mexican states post-2007. The level of violence in Yucatán peaked in 2008, and is one of only nine states that is more peaceful in 2014 than in 2003. Yucatán has been one of the five most peaceful states in Mexico every year since 2004, and has been one of the three most peaceful states every year since 2009.

Yucatán fares better than the national average on every indicator other than police funding, with homicide, violent crime, weapons crime, and justice system efficiency all being far more peaceful than the national average. Yucatán has the lowest homicide rate in Mexico. The level of organized crime is also notably low, although it has increased slightly over the last decade. As with most other states in Mexico, the number of people sentenced to a term in prison in Yucatán has declined significantly year on year since 2003, with large reductions in the yearly incarceration rate occurring in the last five years. Fittingly for such a peaceful state, the capital city of Yucatán, Mérida was declared a city of peace in 2011.

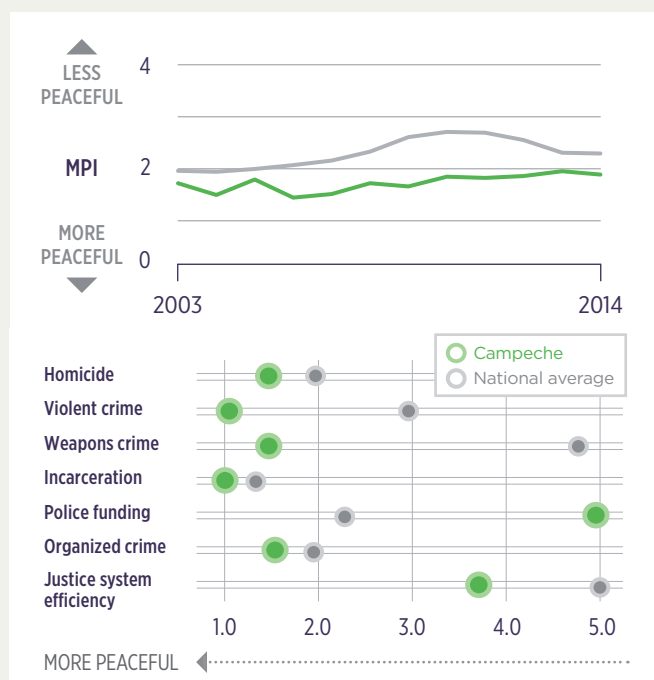
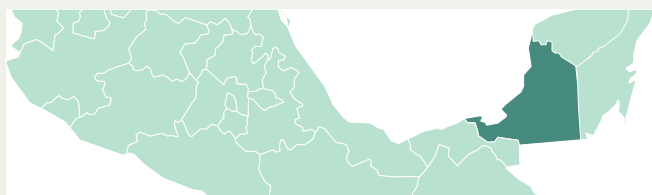
3 QUERÉTARO



Querétaro is the only state outside of the eastern and southern regions of Mexico to be amongst the five most peaceful states. However, even though Querétaro is one of the most peaceful states in Mexico, it has become less peaceful over the last five years and it experienced the largest percentage deterioration in peacefulness of any Mexican state from 2010 to 2014. This fall in peacefulness saw Querétaro slip in the rankings from first to third, although it has never been ranked lower than fifth since 2003, and has been the most peaceful state in Mexico for six of the last twelve years.

Querétaro has the third lowest level of organized crime, the fifth lowest homicide rate, and the third lowest level of weapons crime in Mexico. Querétaro's violent crime rate is only slightly better than the national average, and is ranked 14th overall. Only one indicator has a score that is higher than the national average: police funding, where it is ranked 17th out of the 32 states. Querétaro has also experienced above average levels of population growth in the last decade, one source of which has been people fleeing drug-trade related violence in states to the north, which would alter the rates of crime and violence relative to the state's population.

4 CAMPECHE

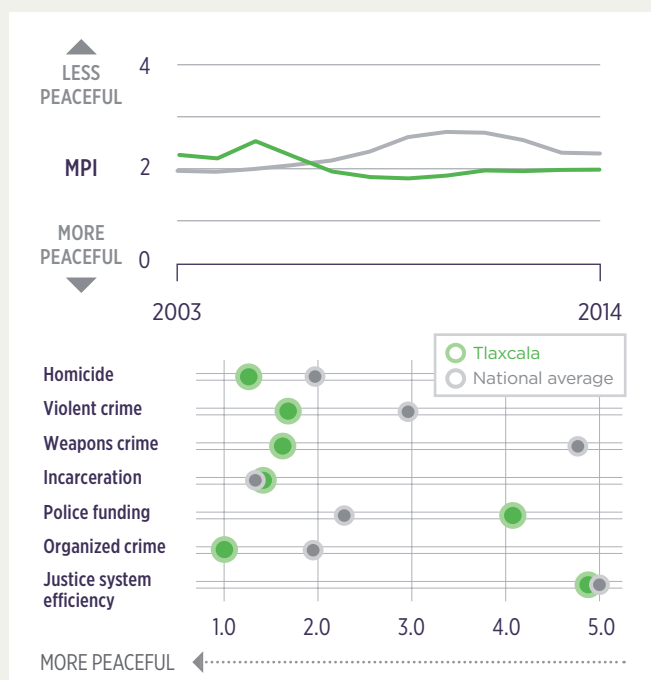
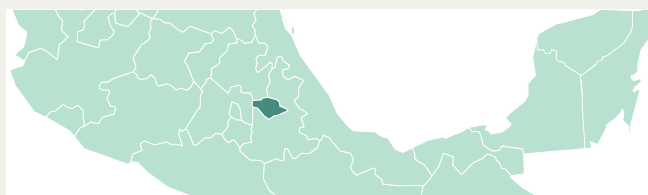


Despite being the fourth most peaceful state in Mexico, Campeche has experienced a steady decrease in its levels of peacefulness since 2006, although the trend has begun to show some signs of slowing down over the past year. Campeche has been in the top five most peaceful states in Mexico for every year since 2003, and has been the most peaceful state during that time period on three separate occasions. Campeche remains one of the least densely populated states in Mexico, despite steady population growth. Campeche's GDP per capita is one of the highest in Mexico, owing largely to the presence of significant oil reserves off its coastline.

In spite of the recent decreases in peacefulness, Campeche remains one of the safest states in Mexico, and it has the lowest violent crime rate of any Mexican state by a considerable margin.

Campeche also has the second lowest level of weapons crime, the ninth lowest homicide rate and an organized crime rate below the national average. However, its level of police funding per capita is well above the national average and is in fact the third highest in Mexico.

5 TLAXCALA



Tlaxcala has seen significant increases in peacefulness over the last 12 years. It is the only state amongst the five most peaceful that has ever been ranked lower than eighth since 2003, and it was at one stage the 20th most peaceful state. The improvement started in 2005, contrary to the national trend. This improvement continued till 2008, after which its peacefulness slightly declined, again moving in the opposite direction of the national trend. It has been ranked amongst the five most peaceful states since 2007.

Contrary to most peaceful states in Mexico and nations across the world, Tlaxcala remains relatively poor. Its GDP per capita was the third lowest in Mexico in 2007. Tlaxcala has the third highest population density of any Mexican state.

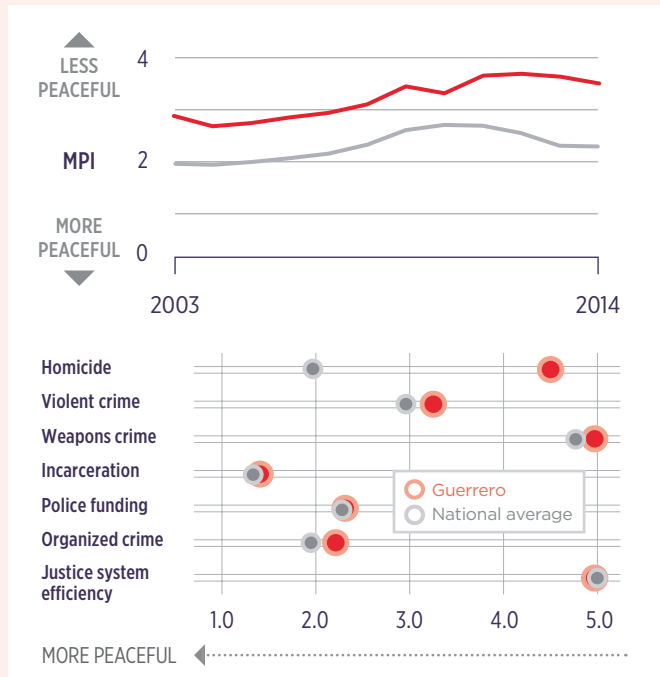
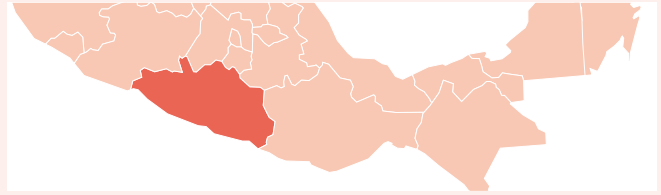
Tlaxcala has lower than average levels of homicide, violent crime, weapons crime, and organized crime. It has the third lowest homicide rate in Mexico, the fifth lowest level of violent crime, and the second lowest level of organized crime. However, police funding and incarceration are above the national average and the level of impunity in its justice system is high.



The five least peaceful states

MANY OF THE LEAST PEACEFUL STATES HAVE RECORDED LARGE REDUCTIONS IN HOMICIDES AND VIOLENT CRIME OVER THE LAST TWO YEARS.

32 GUERRERO

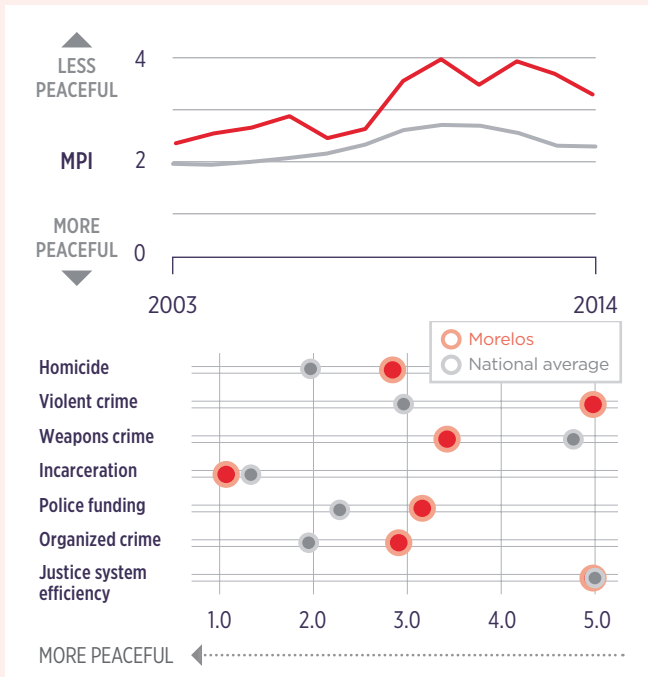
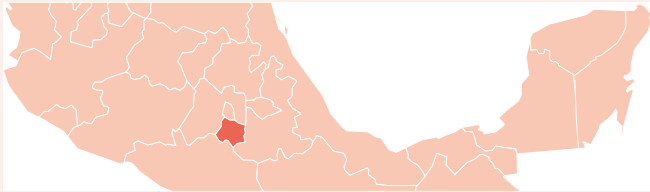


Guerrero is ranked as the least peaceful state in Mexico, which is mainly due to its very high homicide rate. The violent crime rate and organized crime rate are also above the national average.

However, there are signs that the level of violence in Guerrero has peaked, with small year-on-year increases in peacefulness for the last three years. The homicide rate has also fallen rapidly over the last two years, with homicides now at their lowest level since 2009, albeit still significantly higher than the national average. Violent crime in Guerrero is also beginning to fall, and is now only slightly above the national average.

Unlike most of the states in the north that have also suffered from high levels of drug-trade violence, Guerrero is relatively poor. It had the fourth lowest GDP per capita of any Mexican state in 2007, and it also scores very poorly on the United Nations Human Development Index, on which it had the third worst score of any Mexican state in 2014. Guerrero has suffered from increasing levels of cartel activity over the last decade, and its largest city, Acapulco, is one of the least peaceful metropolitan areas in Mexico.

31 MORELOS

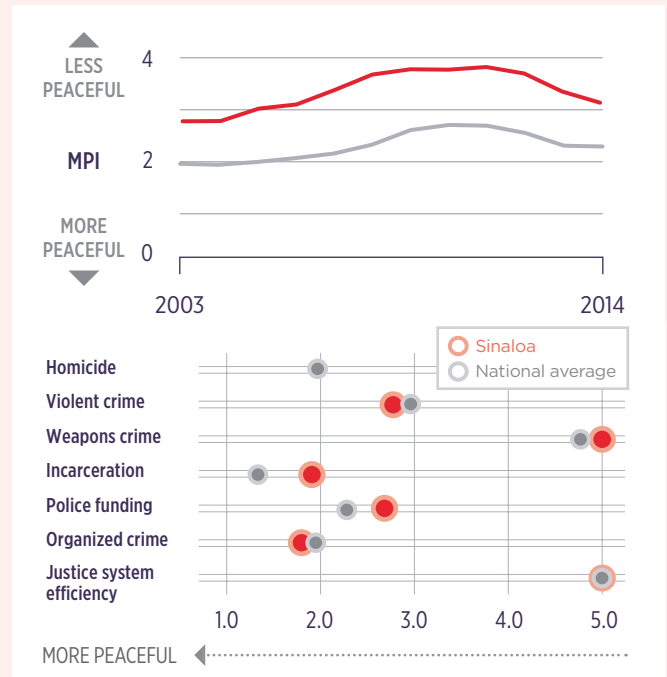
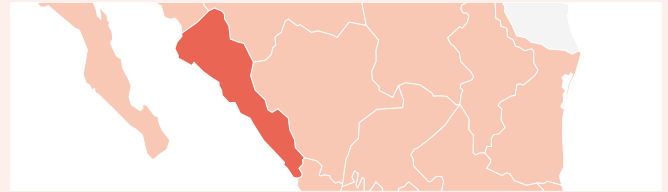


Morelos is the second least peaceful state in Mexico, despite large increases in peacefulness over the last two years. Morelos was a reasonably peaceful state in 2007, ranking 16th out of 32, however, there was a large increase in violence between 2007 and 2009 and Morelos has been one of the least peaceful states since then. In 2012 and 2013, it was the least peaceful state in Mexico. Along with Guanajuato, Morelos is one of only two states amongst the five least peaceful that is not coastal.

Morelos has the worst violent crime rate in Mexico, which is over 17 times higher than that of Campeche, the state with the lowest violent crime rate. It also has the fourth worst homicide rate, although homicides have declined significantly in the last two years. In 2012, the homicide rate was 46.6 per 100,000, however by 2014, it had halved to 23.8 per 100,000.

Morelos has more police funding per capita than the national average, and an organized crime rate that also exceeds the national average, however, the weapons crime rate and incarceration score are better than average.

30 SINALOA



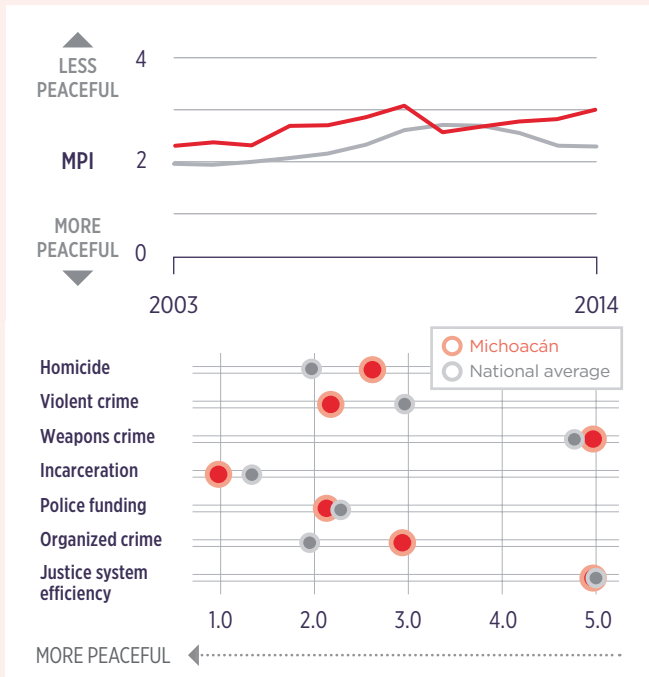
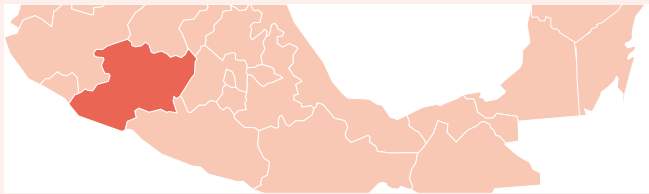
Historically, Sinaloa has been one of the most violent states in Mexico and a hotbed of cartel activity and drug-trade related violence. In the last twelve years, Sinaloa has only been ranked outside of the bottom three most violent states once, in 2003, and has been the second most violent state on four occasions.

In spite of this high level of violence, Sinaloa has seen a large increase in peacefulness over the last four years that closely mirrors the national trend. Even as the national trend shows signs of leveling off, violence has continued to decline in Sinaloa, with increases in peacefulness year-on-year for every year since 2011.

The homicide rate in Sinaloa is the second highest in Mexico, at 24, down from a peak of 81 in 2010. Sinaloa's weapons crime rate is the highest in Mexico, although somewhat surprisingly, the violent crime rate is lower than the national average and is ranked 12th out of the 32 states.

The level of organized crime is also lower than the national average. By contrast, justice system inefficiency is remarkably high, with more than 80 percent of homicides in Sinaloa not resulting in a conviction.

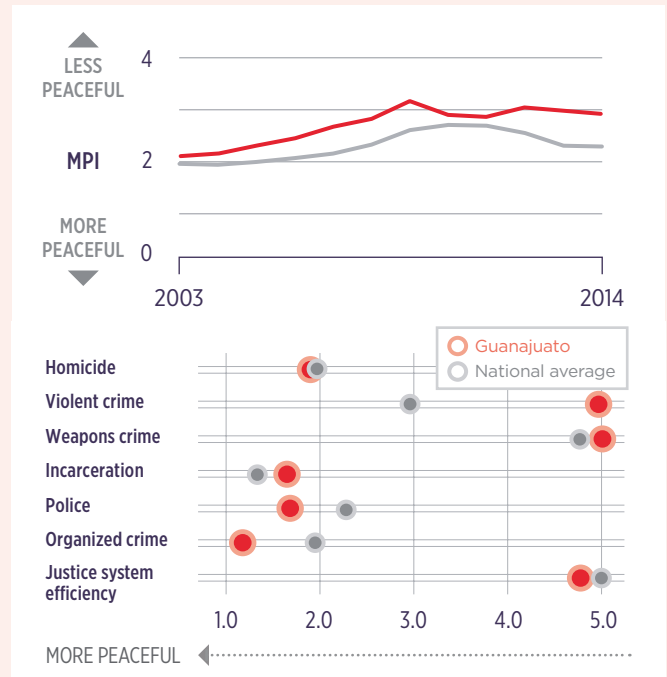
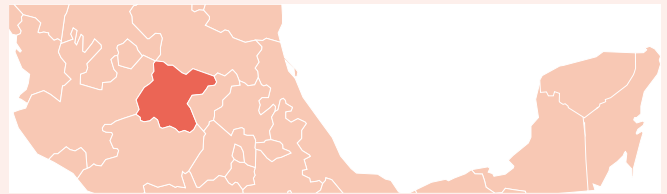
29 MICHOACÁN



Michoacán, a coastal state that borders Guerrero, is the fourth least peaceful state in Mexico and has suffered from an upsurge in drug-trade related violence, especially in the past five years. Michoacán is the only state amongst the five least peaceful states in Mexico that has seen a deterioration in its peacefulness over the last two years. In 2011, Michoacán was ranked 13th on the Mexico Peace Index, with a score that was better than the national average. Since then, violence has increased drastically, counter to the general trend of increased peacefulness experienced by states with similar levels of cartel activity and drug-trade related violence. Michoacán has seen a rise in violent clashes between cartels and citizen self-defense groups since 2012.

Michoacán has one of the highest levels of weapons crime in the country, a level of organized crime that is well above the national average, and a justice system that is inefficient. It does, however, have a lower than average level of violent crime. Michoacán is one of only six states that saw an increase in its homicide rate over the last two years, from 16.8 per 100,000 people in 2012 to 21.4 in 2014.

28 GUANAJUATO



In 2014, Guanajuato became one of the five least peaceful states in Mexico. In 2003, Guanajuato was ranked 15th on the Mexican Peace Index. The fall in ranking is mainly related to the improvements in peace in other poorly ranked states, while Guanajuato has remained unchanged since 2010. Unlike most of the least peaceful states, Guanajuato is not located on the coast, and a smaller proportion of its violence is directly related to cartel activity and drug-trade related crimes than other poorly ranked states.

Guanajuato has the second highest violent crime rate in Mexico, behind only Morelos, with 6,502 violent crime incidents per 100,000 people. If an even distribution of violent crime incidents is assumed, this means that over 6.5 percent of people living in Guanajuato were the victim of a violent crime in 2014.

Although Guanajuato has a high violent crime rate, one of the worst weapons crime rates and a highly inefficient justice system, it actually has a homicide rate that is lower than the national average, and an organized crime rate that is the sixth lowest in Mexico.

TRENDS IN PEACE

2003–2014

FIGURE 1 PERCENTAGE CHANGE IN MPI SCORES, 2003–2014
A negative change indicates an increase in peacefulness.



STATE	SCORE CHANGE
-------	--------------

Oaxaca	-24%
Chiapas	-22%
Tlaxcala	-14%
Baja California	-9%
Yucatán	-4%
Nayarit	-4%
Quintana Roo	-3%
Hidalgo	-2%
Puebla	-2%
Chihuahua	1%

Veracruz	8%
Distrito Federal	10%
Campeche	11%
San Luis Potosí	12%
Sinaloa	14%
Baja California Sur	15%
México	15%
Tabasco	16%
Querétaro	16%
Durango	21%
Zacatecas	21%

Guerrero	23%
Sonora	24%
Tamaulipas	29%
Michoacán	33%
Jalisco	35%
Aguascalientes	42%
Guanajuato	42%
Morelos	43%
Nuevo León	54%
Coahuila	60%
Colima	72%

CHANGES IN PEACE OVER THE LAST TWELVE YEARS

Mexican states have seen some significant changes in peace over the last twelve years. Nine states increased in peace, including Oaxaca and Chiapas, which have increased by more than 20 percent from 2003 to 2014. However, of the 23 states that deteriorated in peace there were 13, which deteriorated by more than 20 percent.

The central, north and west regions had the most significant deteriorations. On average the central states deteriorated by 23 percent, the north states deteriorated by 25 percent and the west states deteriorated by 34 percent. In contrast there were only three states in the south and none in the east that saw a deterioration. The south and east regions both averaged an increase in peace over the last twelve years.

The last decade has been a period of significant upheaval in Mexico. The number of homicides increased significantly in the early stages of the drug war, driven by competition between the major criminal cartels and clashes with Mexican military and law enforcement. Mexico's homicide rate quickly became one of the highest in the world, and the worst of any country in the OECD. Other crimes related to organized criminal activity also soared, with violent crime, kidnapping and extortion all following the homicide trend. However, whilst the increase in violence has been undeniable, the last two years have seen a marked decrease in all types of violent and organized crime, with most indicators moving towards pre-drug war levels (see **Figure 2**).

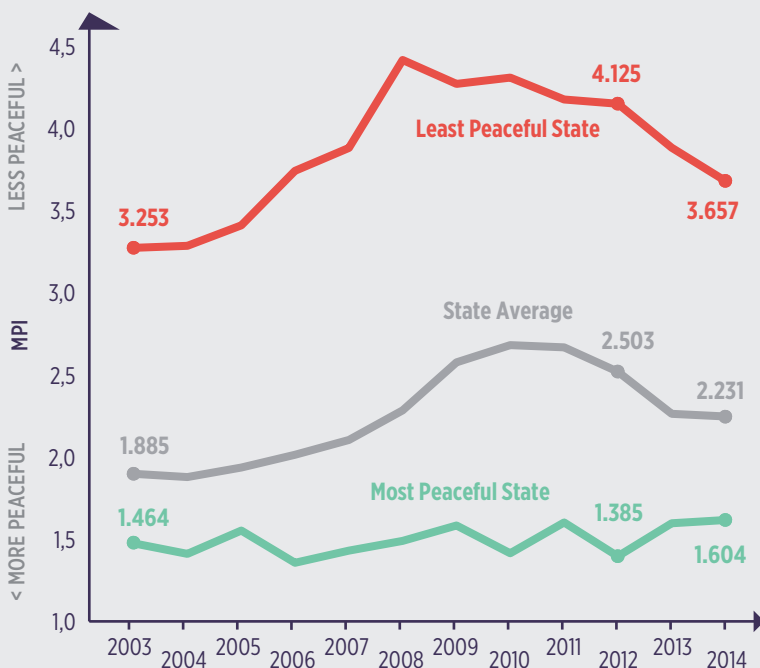
The overall MPI trend shows that the level of peacefulness in Mexico has declined by 18 percent since 2003. However, whilst there was a rapid increase in the level of violence from 2005 to 2011, the increase peaked in 2010, followed by substantial decreases until 2014 where the trend plateaued. It is too early to determine if the declining rates of violence will prove a long-term trend.

Figure 2 highlights the trend in peacefulness in Mexico from 2003 to 2014.

THE LEVEL OF
PEACEFULNESS
IN MEXICO HAS
DECLINED BY
18% SINCE 2003.

FIGURE 2 OVERALL TREND IN PEACEFULNESS, MOST AND LEAST PEACEFUL STATES, 2003-2014

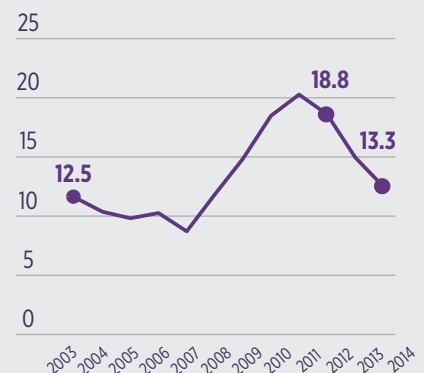
The gap between the most and least peaceful state is closing.



Source: IEP

FIGURE 3 HOMICIDE RATE IN MEXICO, 2003-2014

HOMICIDE
(INCIDENTS PER 100,000 PEOPLE)



Source: SESNSP, INEGI, IEP

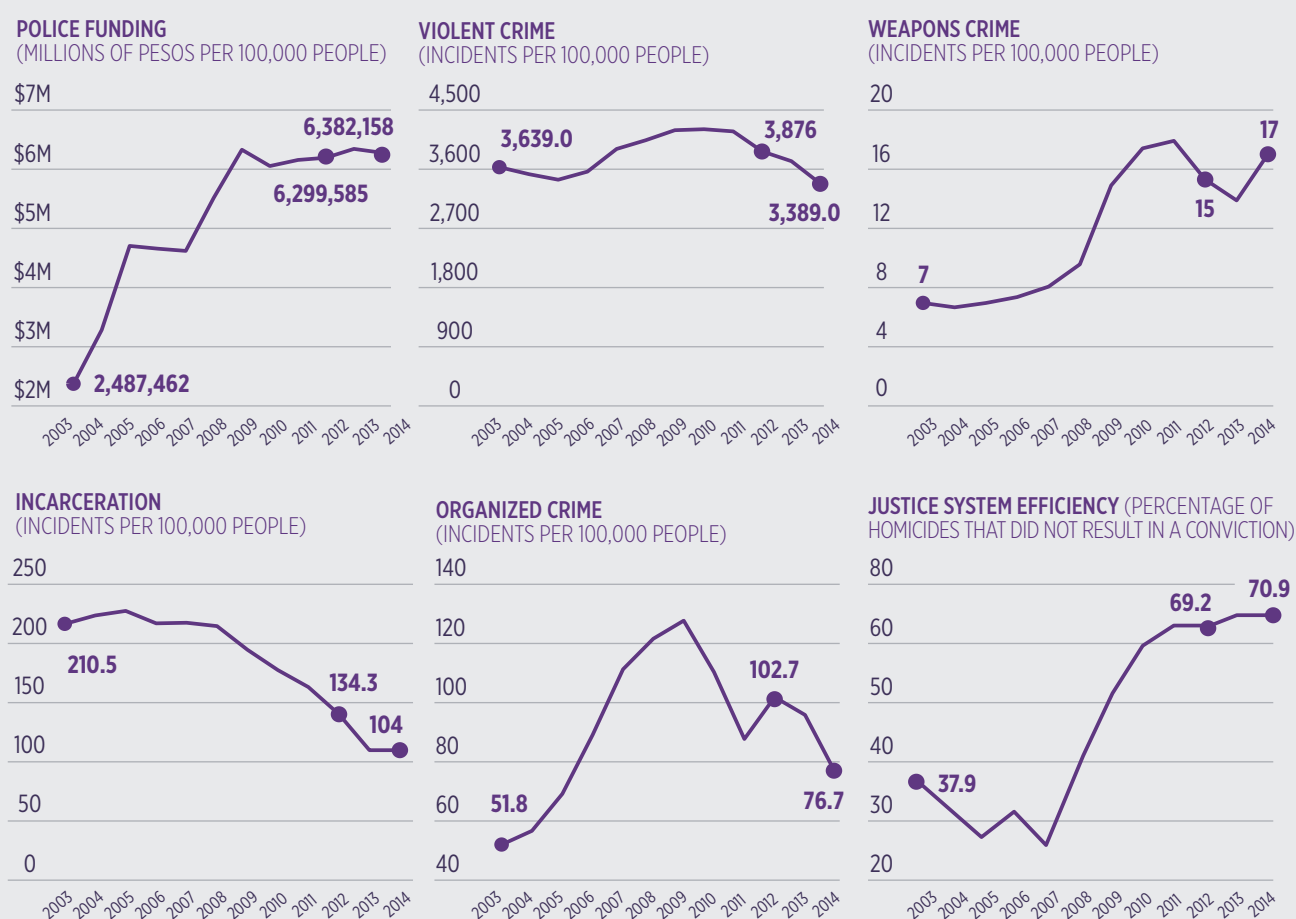
Figure 2 also highlights the fact that the gap between the least and most peaceful states in Mexico is beginning to close. In fact, the gap between the most and least peaceful state is now at its smallest since 2005. This has mainly been driven by improvements in peace in the least peaceful states, but also by a slight increase in violence in the most peaceful states. The areas which have suffered the most from drug-trade related violence have seen the biggest increases in peacefulness over the last two years, although levels of violence remain substantially higher in states with the largest levels of cartel activity.

Figure 2 shows that the peak level of violence in a single state was reached in 2008, when the state of Baja California received a score of 4.39 out of 5.

The national homicide rate peaked in 2011, and has fallen every year since, according to police data. **Figures 3 and 4** shows the trends for each of the Mexico Peace Index indicators from 2003 to 2014. The majority of states experienced their highest homicide rates in 2010 or earlier and only two states had homicide rates at their highest in 2013 or later.

FIGURE 4 2015 MEXICO PEACE INDEX, INDICATOR TRENDS, 2003–2014

Homicide, violent crime and organized crime have decreased sharply in the last three years. However, there have been increases in the weapons crime, police funding and justice system efficiency indicators.



Source: SESNSP, INEGI, IEP

There have been substantial decreases in the recorded level of homicide and violent crime over the last two years, with the violent crime rate falling below its 2003 level in 2014. In 2003, there were 3,639 violent crimes recorded per 100,000 Mexican citizens. It should be noted the MPI's definition of violent crime consists of assault, robbery and rape. Police-

recorded violent crime is down by more than 20 percent from its peak in 2010, with the single biggest drop occurring between 2013 and 2014, falling over nine percent. Such a dramatic decrease in recorded incidents naturally raises concerns about the reliability of violent crime data, and is reviewed in more detail on the following pages.

The fall in violent crime has been generally consistent across the states within Mexico, with 26 of 32 states and territories recording falls in the violent crime rate from 2012 to 2014, ranging from two percent in Tlaxcala to 42 percent in Yucatán. The fall in violent crime was also recorded across each of the three measures that compose violent crime, with a 15 percent fall in the total number of reported rapes, a six percent fall in total recorded assaults, and an 11 percent fall in the total number of robberies from 2012 to 2014.

Police recorded data shows a drop in the national homicide rate from 19 per 100,000 people in 2012 to 13 in 2014. IEP analysis suggests that the homicide rate peaked in 2011 at 20 per 100,000, and whilst there are concerns regarding police recorded homicide data, all of the homicide datasets that track Mexico's national homicide rate show a decrease in 2012 and 2013. There were a total of 15,855 homicides from December 2013 to November 2014, as compared to 18,331 over the same time period in 2013.

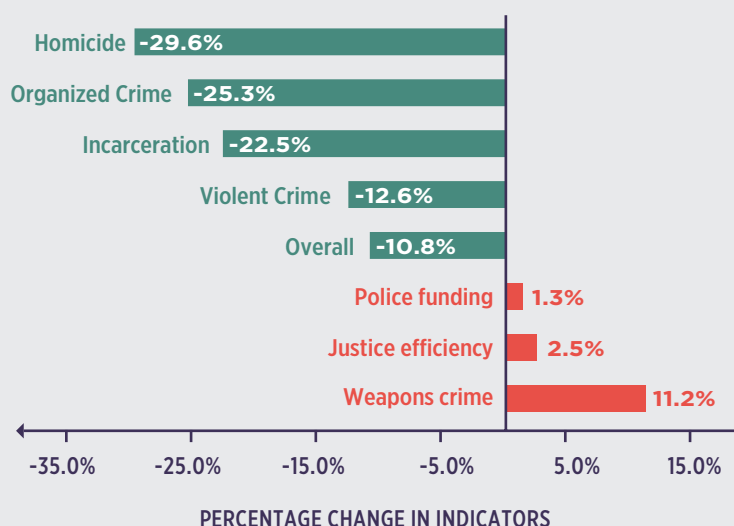
The fall in homicides was also widespread across Mexico, with 23 states having lower homicide rates in 2014 than 2012. However, there was also a moderate, but statistically significant ($r=0.33$), correlation between changes in the homicide rate and the violent crime rate, with only four states experiencing an increase in violent crime concurrent with a decrease in homicide.

Three of the five most peaceful states experienced increases in their homicide rate from 2012 to 2014, as opposed to only one of the five least peaceful states.

Organized crime was the other indicator to experience a notable drop in the last two years. According to IEP calculations, organized crime, which consists of extortion, kidnapping and narcotics offenses, peaked in 2009 at a rate of 129 offences per 100,000 Mexican citizens, before falling over the next five years to a rate of 76. However, this fall in organized crime was not evenly dispersed through the states of Mexico. Eighteen states saw a decrease in organized crime, whilst 14 did not. Four of the five largest falls in recorded organized crime were in northern and central states. Two of the three measures of organized crime decreased, extortion and narcotic offenses, while kidnappings increased slightly between 2012 and 2014. The greatest decrease was for narcotics offences.

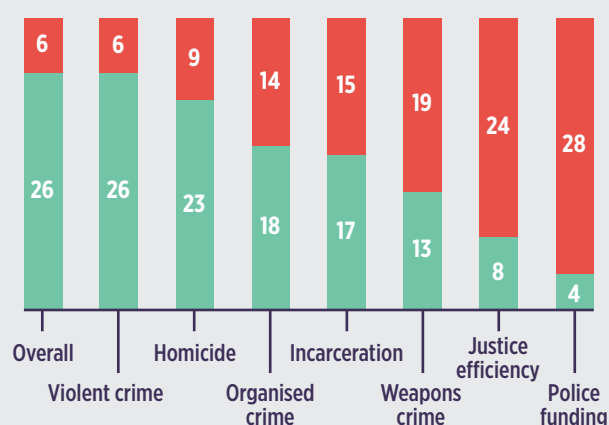
FIGURE 5
PERCENTAGE CHANGE IN INDICATORS, 2012-2014

Only one indicator has seen a significant increase in the last two years.



Source: SESNSP, INEGI, IEP

FIGURE 6
NUMBER OF STATES THAT IMPROVED (GREEN)
OR WORSENE (RED) BY INDICATOR, 2012-2014



Source: IEP

26 of 32 states increased in peacefulness from 2012 to 2014, as shown in **Figure 6**. When comparing the improving states to declining states, the average improvement in peace was almost double the average decline over the last two years. Only one state had a decline in score of over 2.5 percent, as opposed to 15 states that improved their MPI score by more than 2.5 percent.

THE IMPROVEMENTS IN OVERALL PEACE IN MEXICO ARE SIGNIFICANT. HOWEVER, NOT ALL INDICATORS HAVE RECORDED AN IMPROVEMENT AND A SMALL MINORITY OF STATES HAVE DETERIORATED IN PEACE.

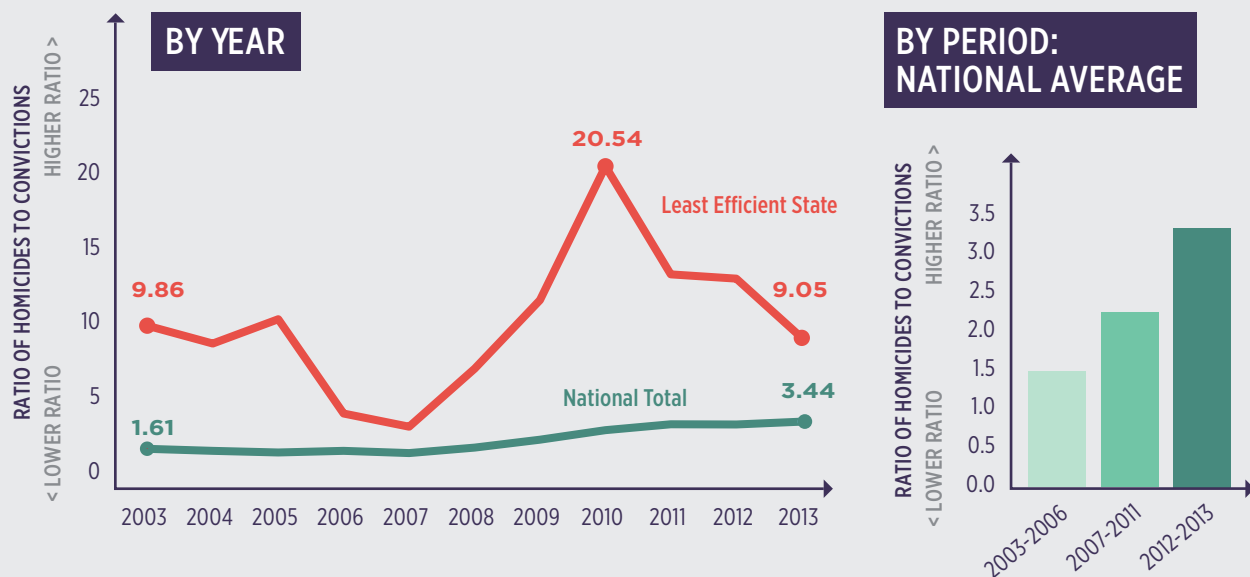
The deterioration in the justice efficiency indicator is concerning, with 24 states recording a deteriorating trend and only eight improving. The justice efficiency indicator measures the ratio of homicide convictions to homicides in a given year and is used as a proxy for impunity. The dramatic fall in convictions is highlighted by the change in the homicide to conviction ratio. Between 2003-2006 the ratio was 1.47, by 2012 to 2013 the ratio had doubled to 3.33. The rise in impunity is found even when yearly fluctuations are smoothed out by grouping impunity into pre-drug war, drug war, and post-drug war periods.

The police funding indicator, which measures federal government contributions to state governments for policing, has deteriorated in 28 states, indicating the level of federal funding for police has increased in these states. The need for greater funding reflects state government demand and the need for better policing and is reflective of a lower peace environment.

FIGURE 7

RATIO OF INTENTIONAL HOMICIDES (SESNSP) TO HOMICIDE CONVICTIONS (INEGI) BY YEAR AND PERIOD, 2003-2012

Although justice system efficiency has not improved in the last two years, the gap between the least efficient states and the national average is beginning to close.



Source: SESNSP, INEGI, IEP

VERIFYING THE TREND: IS VIOLENCE REALLY DECLINING IN MEXICO?

Given the large decreases in recorded homicide and violent crime rates there has been considerable debate about the reliability of the government data in Mexico. The public perception of violent crime is that it is high and has been further heightened by the recent mass kidnapping and likely murder of 43 students in Iguala, Guerrero. There are also legitimate concerns regarding the way in which violent crime data is captured and recorded, particularly with regard to kidnapping and extortion. This section assesses the veracity of the trends in the official recorded data comparing the most reliable alternate sources currently available.

IEP has assessed the validity of the increase in peacefulness in four ways:

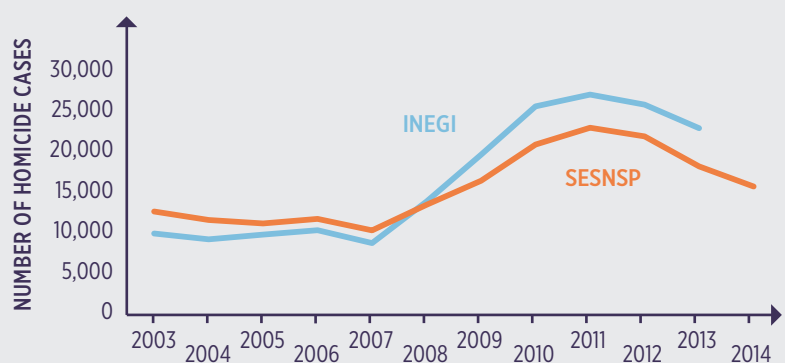
- 1 Compared the data sources used by IEP to other government and civil society sources.
- 2 Compared the trend in peacefulness to the trend in survey data.
- 3 Correlated the MPI against other data sources, to see if significant state level discrepancies should undermine confidence in official sources.
- 4 Looked at perceptions of corruption and trust in the police, the judiciary, and the civil service.

ASSESSING THE HOMICIDE TREND

Analyzing homicide data is the best measure to determine accuracy of the official data as it is the most difficult type of crime to conceal. There are several sources of homicide data in Mexico. SESNSP data, which is used by IEP in the MPI, looks at the number of open police investigations into homicides started during the measurement period. The INEGI homicide dataset, which is not updated as frequently as the SESNSP data, uses a health system rather than police assessments to determine whether an incident is classed as a homicide or not. Whilst there is a discrepancy between the total number of homicides in the SESNSP and INEGI data, the general trend in the data is the same between the two datasets, as seen in **Figure 8**.

FIGURE 8 HOMICIDE, SESNSP AND INEGI, 2003-2013

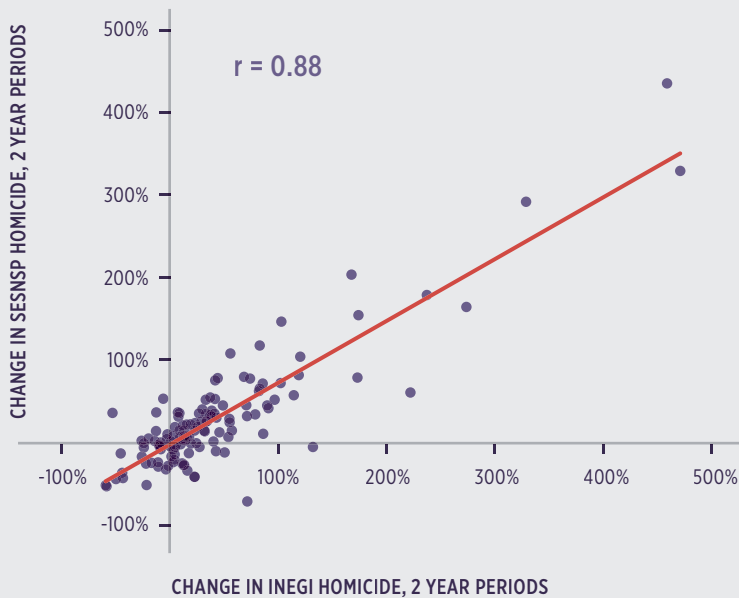
The trend between the two different homicide datasets is broadly comparable.



Source: INEGI, SESNSP

FIGURE 9 PERCENT CHANGE IN TOTAL INEGI HOMICIDE VS PERCENT CHANGE IN SESNSP TOTAL INTENTIONAL HOMICIDE, TWO YEARLY INCREMENTS, 2004-2013

There is a strong correlation between state level changes in homicide data between both homicide datasets.



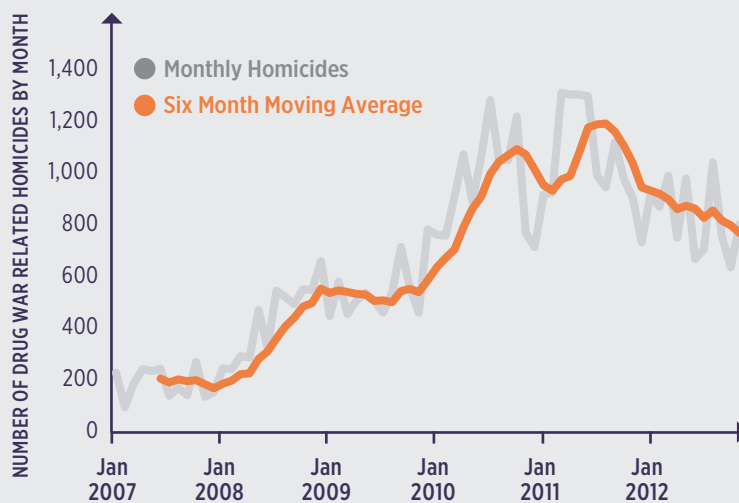
Source: SESNSP, INEGI, IEP

There is also a strong correlation ($r=0.88$) between changes in the two homicide datasets at the state level.

Figure 9 shows the correlation between the percentage changes in two yearly increments.

FIGURE 10 MONTHLY TOTAL DRUG WAR RELATED HOMICIDES, 2007-2012

According to the Reforma database, drug war homicides declined from late 2011 onwards.



Source: REFORMA, IEP

Whilst data is not yet available for INEGI for 2014, the fact that there is strong correlation between state level changes, as well as the year on year trend between the two datasets, strongly suggests that INEGI data will show a decrease in total homicides for 2014, confirming the downward homicide trend and thus the increase in peacefulness in Mexico.

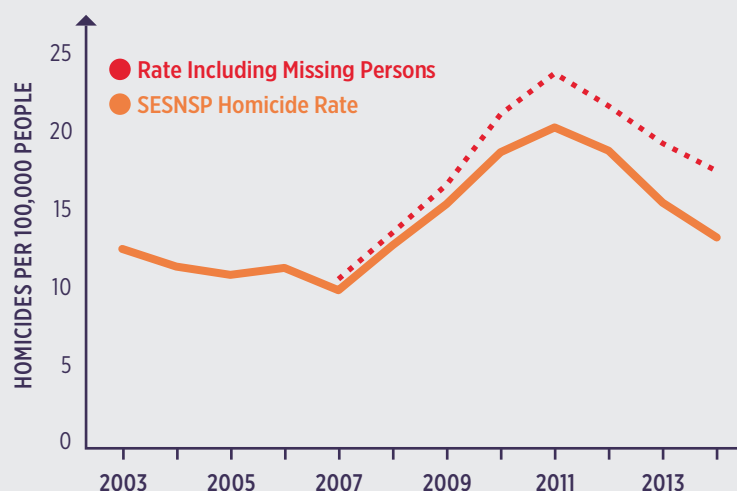
There is also some homicide data from civil society organizations that shows a downward trend in homicide. The Reforma newspaper collated monthly data on drug-trade and cartel related homicides between 2007 and 2012. This data shows a downward trend in monthly homicides from late 2011 onwards, which matches the trend in the INEGI and SESNSP data.

Although multiple datasets confirm that there has been a decrease in recorded homicide, there has also been a substantial number of people who have disappeared in Mexico since 2007. The number of recorded disappearances has increased every year since 2007, with over 5,000 people recorded as having gone missing in 2014. Although not every one of these missing people is likely to have been murdered, given the nature of violence related to the drug war in Mexico, it is highly probable that a percentage of those missing have been killed and would have been included in the homicide figures. **Figure 11** adds the missing persons data to the SESNSP homicide data in order to construct a hypothetical homicide rate, which assumes that all missing persons were murdered in the year that they disappeared.

Even if all the missing persons are assumed to have been killed, the homicide rate would still have declined significantly after 2011. However, as the number of missing people has increased year on year over the past few years, the rate of the decrease in the homicide rate would not have been as great.

FIGURE 11 HYPOTHETICAL HOMICIDE RATE WHEN MISSING PERSON DATA IS INCLUDED, 2007-2014

The homicide rate would have declined even if all missing persons were assumed to have been murdered.



Source: SESNSP

TRENDS IN TOTAL RECORDED CRIME

The official recorded data, which has been used in the MPI, shows a sustained decrease in violent crime over the past two years with drops in assault, rape and robbery in the majority of Mexican states between 2012 and 2014. In contrast, the ENVIPE victimization survey which is mainly a perception based survey shows a contradictory trend of increasing perceptions of violence.

The ENVIPE victimization survey data is the best source available to confirm the trend, but unfortunately this is of limited use for a number of reasons. There are several key concerns:

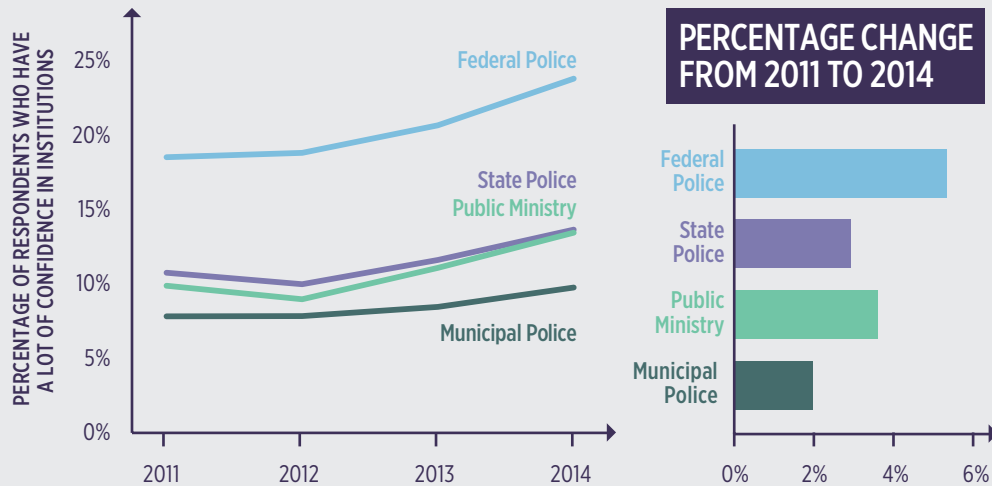
- The ENVIPE data does not uniformly cover all categories of violence, and only one category closely corresponds to the MPI violence measures: a question on whether the citizen has experienced

an injury from crime, which serves as a proxy for assault. Data on this category is only available between 2011 and 2013. Injuries from crime have increased from 2011 to 2012 and then decreased from 2012 to 2013. Unfortunately there is no comparable category for rape or violent robbery, the two other components of the MPI violent crime indicator. It is particularly important to note the lack of a comparable violent robbery category hinders verification of official data as 78 percent of total violent crime in the MPI is robbery related.

- The remaining ENVIPE data is mainly perceptions-based survey responses. While perceptions are important, they cannot be wholly relied upon to verify the actual incidence of violence.
- There are questions on individuals' direct experience of violent crime in Mexico but the data is not available at a disaggregated state level.
- Aggregated statistics on national victimization across all types of crime are skewed by outliers like the state of México, where reported victimization is much higher than the national average and the reliability is more questionable than the rest of the country.
- The ENVIPE shows notable improvements in the confidence of police and civil service over the same four-year period, which would suggest that police reporting is in fact getting better, not worse.

FIGURE 12 ENVIPE PERCENT OF RESPONDENTS WHO SAY THAT THEY HAVE A LOT OF CONFIDENCE IN THE INSTITUTION, 2011-2014

Confidence in the police and the civil service has risen over the last four years.



Source: ENVIPE

THE CONTRADICTIONS BETWEEN PERCEPTIONS AND EXPERIENCES WITH OFFICIAL RECORDED DATA DEMONSTRATE THE NEED FOR ENHANCING THE AMOUNT OF DATA COLLECTED, AND DEVELOPING MORE QUESTIONS ON CITIZENS' DIRECT EXPERIENCE OF VIOLENCE.

The ENVIPE data not only contradicts the MPI trend but also other criminal statistics. Official SESNSP data on total recorded non-violent crimes shows a gradual fall in the last three years, whereas the ENVIPE victimization survey shows a very large increase in perceptions of total crimes.

The contradictions between perceptions and experiences with official recorded data demonstrate the need for enhancing the amount of data collected, and developing more questions on citizens' direct experience of violence.

The ENVIPE survey does suggest a more positive trend in institutional performance. Confidence in institutions has increased, perceptions of corruption in the police and the civil service have declined and the percentage of Mexicans who

feel very confident in the police and the public ministry has increased accordingly, as shown in **Figure 12**.

ENVIPE data highlighting the improved perceptions of government agencies does provide some evidence that violence-related data is not being manipulated or incorrectly gathered. The improvement in the level of confidence in the police and other institutions has been widespread across Mexico with perceptions of corruption declining in 29 states for the federal police, declining in 28 states for the state police and declining in 25 states for the municipal police.

WHAT IS DRIVING THE LARGE IMPROVEMENTS IN THE HOMICIDE RATE IN MEXICO?

One of the major drivers of the positive overall trend in peace recorded by the MPI is the substantial improvement in the national homicide rate. The improvement in the homicide rate from 20.3 homicides per 100,000 people in 2011 to 13.3 per 100,000 in 2014 equates to a very significant 34.5 percent improvement. Based on analysis presented on page 22, IEP is confident that the data produced by Mexican authorities reflects a real and positive change in the rate of homicide in Mexico.

While it is still too early to determine whether this is a permanent trend, it is important to better understand the main drivers behind this improvement. IEP used two methods to understand what might be driving the significant decline in Mexico's homicide rate from 2011 to 2014:

- **The different rate of change in states with high levels of homicides and high levels of organized crime compared to states with low levels of homicides and low levels of organized crime**

- **Changes in homicide rates by gender.**

Both methods demonstrate that the vast improvement in the homicide rate is a result of reductions in organized crime-related violence.

According to the TransBorder Institute several of the states that had the highest rates of homicides linked to organized crime in 2011 were also the states that had the largest decreases in their total homicide rates after 2011. Data that distinguishes between

TABLE 4 CHANGE IN HOMICIDE RATES IN STATES WITH HIGHEST /LOWEST RATES OF HOMICIDE RELATED TO ORGANIZED CRIME (PER 100,000)

States with greater numbers of homicides related to organized crime in 2011 had greater declines in total homicide rates from 2011 to 2014.

RANK BY ORGANIZED CRIME-RELATED HOMICIDE RATE	STATE	Total number of organized crime-related homicides, 2011	Rate of organized crime-related homicides, 2011	2011 Homicide rate	2014 Homicide rate	Change in homicide rate, 2011-2014
1	Yucatán	2	0.1	2.3	2.1	-8.9%
2	Tlaxcala	4	0.3	6.0	4.9	-18.4%
3	Campeche	4	0.5	7.1	7.3	3.6%
4	Guanajuato	36	0.6	10.8	12.3	13.5%
5	Querétaro	16	0.9	5.2	5.5	5.3%
6	Puebla	54	0.9	10.6	5.7	-46.2%
7	Chiapas	26	0.9	23.6	13.5	-42.7%
8	Hidalgo	40	1.5	4.1	4.9	20.6%
9	Baja California Sur	10	1.5	5.7	9.9	73.5%
10	Oaxaca	58	1.5	16.7	16.0	-4.6%
CHANGE IN THE AVERAGE RATE:						-10.9%
23	Zacatecas	152	10.1	7.9	7.9	-0.8%
24	Jalisco	776	10.4	16.4	11.4	-30.3%
25	Coahuila	595	12.2	12.5	7.8	-37.5%
26	Nayarit	217	19.7	41.4	9.8	-76.2%
27	Tamaulipas	675	20.3	25.7	18.4	-28.7%
28	Nuevo León	1789	37.7	42.3	10.0	-76.2%
29	Guerrero	1536	45.0	63.2	44.0	-30.4%
30	Sinaloa	1412	50.7	68.4	32.3	-52.8%
31	Durango	947	57.4	62.8	18.0	-71.4%
32	Chihuahua	1940	293.2	24.9	15.3	-38.6%
CHANGE IN THE AVERAGE RATE:						-52.2%

total homicides and homicides linked to organized crime is not available from 2012 to 2014.

However, in the ten states with the highest rates of organized crime-related homicides in 2011, the average homicide rate declined by 52 percent from 2011 to 2014. In contrast, in the ten states that had the lowest rates of organized crime-related homicides in 2011, the average homicide rate declined by only 11 percent.

The difference between these two groups of states supports the finding that both the dramatic rise and subsequent fall in homicide rates is associated with activities related to organized crime. It should be noted that declines in homicides do not necessarily mean that the criminal organizations are less powerful; they may have become less violent in their activities.

Changing ratios of male and female homicide victims offer further insight into changes in homicides related to organized crime. Both men and women experience high rates of violence in Mexico, but often for different reasons. Although women are involved in drug-trade related crime and violence, by and large, Mexican women are more likely to experience violence in their homes and Mexican men are more likely to be victims of homicides related to organized crime. Homicide data disaggregated by gender further supports the analysis that violence related to organized crime is declining while interpersonal violence is not declining in Mexico.

The percentage change in the number of victims by gender shows that the rate at which men have been victims of homicides is declining faster than the rate at which women have been victims of homicides, 16 percent versus two percent respectively, from 2011 to 2013. This is the period that saw the biggest improvement in the homicide rate.

TABLE 5
HOMICIDE DATA BY GENDER, 2007–2013

The share of total homicides of which victims are male rises along with the acceleration of the drug war.

YEAR	Total Homicides	Female Homicides	Male Homicides	Percent Female	Percent Male
2007	8,859	1,083	7,776	12.2%	87.3%
2008	13,999	1,425	12,574	10.2%	89.8%
2009	19,763	1,925	17,838	9.7%	90.3%
2010	25,703	2,418	23,285	9.4%	90.6%
2011	26,950	2,693	24,257	10.0%	90.0%
2012	25,750	2,764	22,986	10.7%	89.3%
2013	22,920	2,647	20,273	11.5%	88.5%
PERCENT CHANGE 2011–2013	-14.9%	-2%	-16%		

Additionally, between 1990 and 2014 the lowest level of homicides in Mexico was in 2007 while the highest level was in 2011. However, the percentage of homicide victims that were male rose from 87 percent in 2007 to 90 percent in 2011, consistent with the rise in homicides linked to organized crime over the same period. As homicide levels declined after 2011, the percentage of male victims also declined, back down to 88 percent in 2013.

Taken together with the changes in the MPI's organized crime indicator, a consistent pattern can be seen: an improvement in peace coinciding with a decrease in organized crime from 2011 to 2014.

METROPOLITAN PEACE INDEX

To further analyze the texture of peace in Mexico IEP has measured 76 of Mexico's major cities to create the Mexico Metropolitan Peace Index. The Mexico Metropolitan Peace Index (MMPI) consists of two indicators: homicide rate and violent crime rate. This is a subset of the state level peace index, with homicide and violent crime being the only two indicators with the most applicable data at the metropolitan level. The MMPI has used data from the three years from 2011 to 2013 and then averaged the data to create the index.

Much of the media covering the increase in violence in Mexico over the past decade has focused on Mexican cities in the Border States, with a particular focus on the homicide

rate in these cities and how they compare to other violent metropolises from other countries. Many publications, including some INEGI reports, have reviewed which cities in the world are the most violent, with Mexican cities being prominent amongst the rankings. However, these rankings of the most violent cities usually only focus on the homicide rate, which does not give a holistic picture of the level of violence in Mexican cities. By combining violent crime and homicide it is possible to develop a more holistic picture of violence at the city level and identify which cities are successful at maintaining peace.

TABLE 6 MEXICO METROPOLITAN PEACE INDEX (MMPI), AVERAGE OF 2011-2013

The Metropolitan Peace Index ranks 76 of the largest metropolitan areas in Mexico, using homicide and violent crime as indicators.

MMPI RANK	METROPOLITAN AREA	MMPI SCORE	HOMICIDE RATE (PER 100,000)		VIOLENT CRIME RATE (PER 100,000)		POPULATION
			Score	Rank	Score	Rank	
1	Orizaba	1.141	1.8	4	1,067	1	583,502
2	Tulancingo	1.192	0.8	2	2,552	13	245,540
3	Campeche	1.205	2.9	7	1,328	2	265,449
4	Los Cabos	1.259	0.4	1	3,919	26	244,421
5	Pachuca	1.277	1.4	3	3,530	21	524,939
6	Tula	1.325	4.1	9	2,425	12	210,933
7	Minatitlán	1.329	4.4	10	2,314	9	213,602
8	Apizaco	1.344	5	15	2,148	6	208,395
9	Xalapa	1.369	5.2	17	2,425	11	601,933
10	Acayucan	1.399	7.2	26	1,494	4	115,807
11	Tlaxcala	1.423	6.8	22	2,151	7	303,601
12	Coatzacoalcos	1.424	6.9	23	2,079	5	355,897
13	Tehuacan	1.463	2.7	6	5,605	41	304,286
14	Córdoba	1.47	7.7	28	2,289	8	323,895
15	Mérida	1.482	2.6	5	5,992	44	997,255
16	Poza Rica	1.498	8.3	29	2,334	10	502,227
17	San Martín Texmelucan	1.514	3.5	8	5,949	43	173,749
18	Ciudad del Carmen	1.538	10.6	40	1,396	3	226,595
19	La Paz	1.543	4.8	13	5,499	39	258,138
20	Zamora-Jacona	1.546	8.8	32	2,747	14	256,336
21	Guaymas	1.571	8.6	30	3,281	17	208,491
22	Tuxtla Gutiérrez	1.573	7.1	25	4,373	32	656,924
23	Hermosillo	1.581	6.3	20	5,030	34	803,856
24	Tehuantepec-Salina Cruz	1.596	7.5	27	4,505	33	165,351
25	Tianguistenco	1.602	6.7	21	5,159	35	140,162
26	Ensenada	1.622	7	24	5,225	36	478,428
27	Toluca	1.643	4.6	12	7,252	48	1,856,279
28	Tepic	1.676	10.1	35	3,997	29	440,033
29	Reynosa-Río Bravo	1.694	10.9	43	3,709	23	745,241
30	Tampico	1.716	11.7	47	3,531	22	880,801
31	Veracruz	1.767	13.4	51	3,194	15	760,634
32	Tapachula	1.778	12.5	50	3,983	28	328,424
33	Rioverde-Ciudad Fernández	1.786	5	16	9,258	60	138,822
34	Villahermosa	1.789	4.9	14	9,428	63	774,220
35	Matamoros	1.827	14.7	55	3,250	16	501,364
36	Puebla-Tlaxcala	1.846	5.8	19	9,728	65	2,329,620

MMPI RANK	METROPOLITAN AREA	MMPI SCORE	HOMICIDE RATE (PER 100,000)		VIOLENT CRIME RATE (PER 100,000)		POPULATION
			Score	Rank	Score	Rank	
37	La Piedad	1.855	11.7	48	5,756	42	255,720
38	Valle de México	1.86	10.2	36	6,926	47	20,606,824
39	Durango	1.879	14.6	54	4,128	31	596,754
40	Uruapan	1.903	15.8	58	3,727	24	323,196
41	Saltillo	1.92	8.7	31	8,936	57	843,607
42	Ocotlán	1.948	11	45	7,738	51	144,892
43	Mexicali	1.957	10.2	38	8,462	53	960,134
44	Tijuana	1.977	14.9	57	5,523	40	1,691,411
45	Monclova-Frontera	1.983	10.7	41	8,572	54	325,208
46	Moroleón-Uriangato	2.003	10.2	37	9,230	59	111,373
47	Guadalajara	2.025	11	44	8,991	58	4,545,217
48	Guanajuato	2.027	5.7	18	12,720	72	175,981
49	León	2.031	10.6	39	9,400	62	1,649,548
50	San Francisco del Rincón	2.041	10.7	42	9,480	64	186,902
51	San Luis Potosí (SGS)	2.059	9.1	33	10,857	69	1,066,329
52	Zacatecas-Guadalupe	2.078	13.6	52	8,051	52	305,585
53	Monterrey	2.08	17.5	59	5,371	37	4,103,124
54	Irapuato	2.097	10	34	10,901	70	542,612
55	Salamanca	2.112	12	49	9,739	67	267,219
56	Colima-Villa de Álvarez	2.163	21.5	62	4,021	30	273,499
57	Puerto Vallarta	2.177	14.7	56	8,895	56	389,338
58	Piedras Negras	2.222	14.6	53	9,738	66	185,231
59	Manzanillo	2.262	24.2	64	3,752	25	165,436
60	Celaya	2.279	11.5	46	12,794	73	559,854
61	Morelia	2.29	21.1	61	6,326	46	828,002
62	Ciudad Obregon	2.438	28	65	3,976	27	419,494
63	Oaxaca	2.61	18.2	60	13,538	74	559,434
64	Juárez	2.665	34.1	68	3,437	20	1,218,817
65	Cuautla	2.672	23.5	63	10,849	68	427,994
66	Aguascalientes	2.692	4.5	11	47,813	76	918,907
67	Los Mochis	2.787	34	67	5,477	38	426,656
68	Ciudad Victoria	2.961	35.5	69	7,287	50	329,963
69	Nuevo Laredo	3.133	41.2	70	6,076	45	393,588
70	Cuernavaca	3.134	28.7	66	14,775	75	880,108
71	Chihuahua	3.211	47	72	3,329	19	873,762
72	Acapulco	3.531	41.4	71	12,415	71	884,913
73	La Laguna	3.639	51.4	73	7,261	49	1,246,066
74	Tecomán	3.705	58.6	75	3,322	18	144,940
75	Chilpancingo	4.022	57.5	74	9,277	61	247,731
76	Culiacán	4.049	63.5	76	8,892	55	880,001



The five most peaceful metropolitan areas



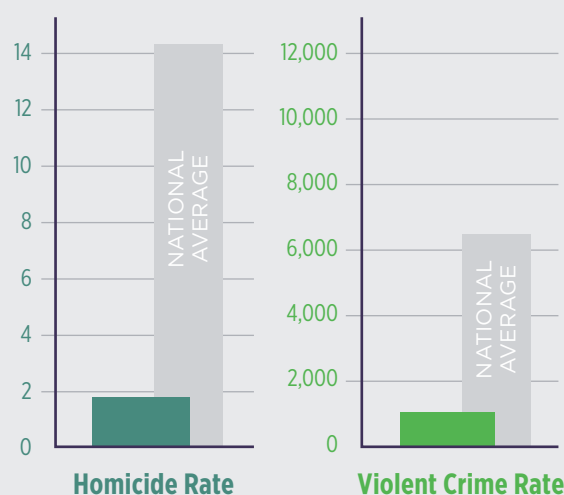
1 ORIZABA

INDICATOR	VALUE	RANK /76
Overall Score	1.14	1
Homicide Rate	1.77	4
Violent Crime Rate	1,067	1
Population	583,502	28
State	Veracruz	

With an MMPI score of 1.14, Orizaba is ranked the most peaceful metropolitan area in Mexico. Orizaba is in the eastern region of Mexico, an area that generally performs better in the MPI. On average, eastern states are 41 percent more peaceful than states in the north of the country. Orizaba is located in the state of Veracruz, the seventh most peaceful state in the 2015 MPI.

Orizaba has the lowest violent crime rate of any metropolitan area in Mexico. Robberies fell by a quarter between 2011 and 2013, and there were slightly fewer reports of rape. Orizaba has a relatively low homicide rate, the fourth lowest amongst metropolitan areas. The number of homicides peaked in 2012 with 13 but dropped down to seven in 2013. This puts the homicide rate using the average of 2011 to 2013 at 1.8 per 100,000 people, approximately 62 percent lower than the homicide rate for the United States.

FIGURE 13 RATE OF HOMICIDE AND VIOLENT CRIME IN ORIZABA (PER 100,000)



2 TULANCINGO

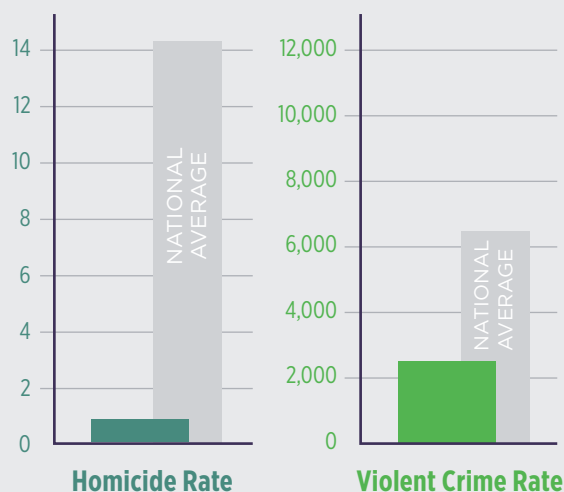
INDICATOR	VALUE	RANK /76
Overall Score	1.19	2
Homicide Rate	0.81	2
Violent Crime Rate	2,552	13
Population	245,540	56
State	Hidalgo	

Tulancingo is the second most peaceful metropolitan area in Mexico, with an MMPI score of 1.19. Tulancingo is located in the eastern state of Hidalgo, which was the most peaceful state in the 2015 MPI, and the third most peaceful in the 2013 MPI.

Tulancingo has the second lowest homicide rate of any Mexican metropolitan area. From 2011 to 2012 there were a total of six homicides, with no homicides recorded in 2013. The homicide rate in Tulancingo is half that of Canada, the seventh most peaceful country in the 2014 Global Peace Index.

The rate of violent crime is also relatively low in Tulancingo, with 2,552 cases per 100,000 people, which is 1.6 times lower than the metropolitan average. This means Tulancingo is ranked 13 out of the 76 metropolitan areas for violent crime. Robberies constitute the majority of violent crime in

FIGURE 14 RATE OF HOMICIDE AND VIOLENT CRIME IN TULANCINGO (PER 100,000)



Tulancingo, accounting for 80 percent of all violent crime incidents. Robberies declined seven percent between 2011 and 2013, and there have been less than 5,000 robberies a year on average for the period from 2011 to 2013. The number of assaults has remained fairly steady, with approximately 1,000 per year over the same period.

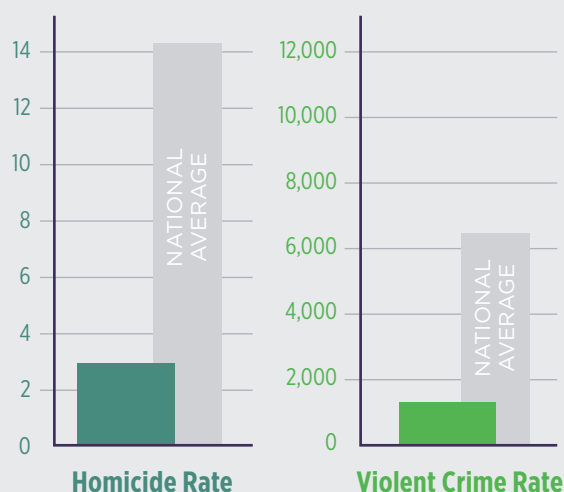
3 CAMPECHE

INDICATOR	VALUE	RANK /76
Overall Score	1.21	3
Homicide Rate	2.89	7
Violent Crime Rate	1,328	2
Population	265,449	53
State	Campeche	

Campeche is the third most peaceful metropolitan area in Mexico, and the only metropolitan area in the five most peaceful cities that is in the southern region. It is located in its namesake state of Campeche, which was the fourth most peaceful state in the 2015 MPI, and has been the most peaceful state in Mexico for four out of the last 13 years.

It has the second lowest rate of violent crime out of all the metropolitan areas with 1,328 violent crimes per 100,000 people. In comparison, the average metropolitan violent

FIGURE 15 RATE OF HOMICIDE AND VIOLENT CRIME IN CAMPECHE (PER 100,000)



crime rate was over 6,500 incidents per 100,000 people for the same period. Two-thirds of violent crimes are in the form of assaults, with robbery and rape constituting 19 and 12 percent respectively. There has been a slight increase in assaults, with around 400 more cases every year from 2011 to 2013. Nevertheless, Campeche still has a relatively low level of assaults compared to the rest of Mexico. Out of the 76 metropolitan areas assessed, there were 58 areas with more assaults. There has been a large decline in the number of rapes reported, with cases in 2013 down 37 percent from 2011.

For the period from 2011 to 2013, Campeche averaged eight homicides per year, with a homicide rate of 2.9 per 100,000 people. This was the seventh lowest homicide rate for metropolitan areas in Mexico, and is 63 percent lower than the homicide rate for the United States.

4 LOS CABOS

INDICATOR	VALUE	RANK /76
Overall Score	1.26	4
Homicide Rate	0.41	1
Violent Crime Rate	3,919	26
Population	244,421	59
State	Baja California Sur	

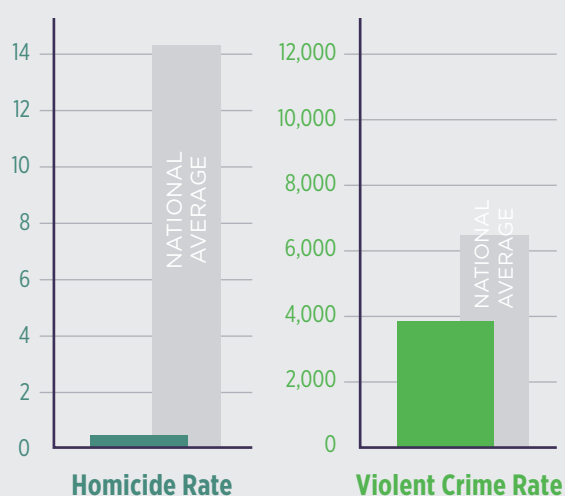
Los Cabos is the fourth most peaceful metropolitan area in Mexico with a score 1.26, and the only metropolitan area from the northern region of the country to be ranked in the five most peaceful areas. It is located in Baja California Sur, which is the 12th most peaceful state in Mexico.

Los Cabos has the lowest homicide rate of any metropolitan area in Mexico, with an average of 0.4 deaths per 100,000 people for the period from 2011 to 2013. This is almost three times lower than the homicide rate of Canada, the most peaceful country from the Americas in the 2014 Global Peace Index. There were only three recorded homicides in Los Cabos from 2011 to 2013.

However, despite its very low homicide rate, Los Cabos has a relatively high violent crime rate. There were on average 3,919 cases of violent crime for every 100,000 people in Los Cabos from 2011 to 2013, giving it the 26th highest violent crime rate of any metropolitan area. Whilst this violent crime rate is still much lower than the national average, it is higher than any area amongst the ten most peaceful.

The vast majority of crime is in the form of robbery. There were an average of 8,000 robberies every year from 2011 to 2013 in Los Cabos, representing the 34th highest number of incidents in the MMPI. However, there are far fewer assaults in Los Cabos than the national average.

FIGURE 16 RATE OF HOMICIDE AND VIOLENT CRIME IN LOS CABOS (PER 100,000)



THE FIVE MOST PEACEFUL METROPOLITAN AREAS IN MEXICO ARE ORIZABA, TULANCINGO, CAMPECHE, LOS CABOS AND PACHUCA. THREE OF MEXICO'S MOST PEACEFUL METROPOLITAN AREAS ARE IN TWO OF THE TOP FIVE MOST PEACEFUL STATES.

5 PACHUCA

INDICATOR	VALUE	RANK /76
Overall Score	1.28	5
Homicide Rate	1.40	3
Violent Crime Rate	3,530	21
Population	524,939	32
State	Hidalgo	

Pachuca is located in the eastern region of Mexico in Hidalgo, which is the most peaceful state in the 2015 MPI. It is the fifth most peaceful metropolitan area, and it is the second city in Hidalgo to be ranked amongst the five most peaceful cities, largely due to its very low homicide rate. Pachuca averaged 1.4 homicides per 100,000 people over the period from 2011 to 2013, which was the third lowest homicide rate in Mexico.

Despite its low homicide rate and overall peaceful ranking, Pachuca does not rank as well with other forms of violent crime. Pachuca's violent crime rate is 3,530 incidents per 100,000 people.

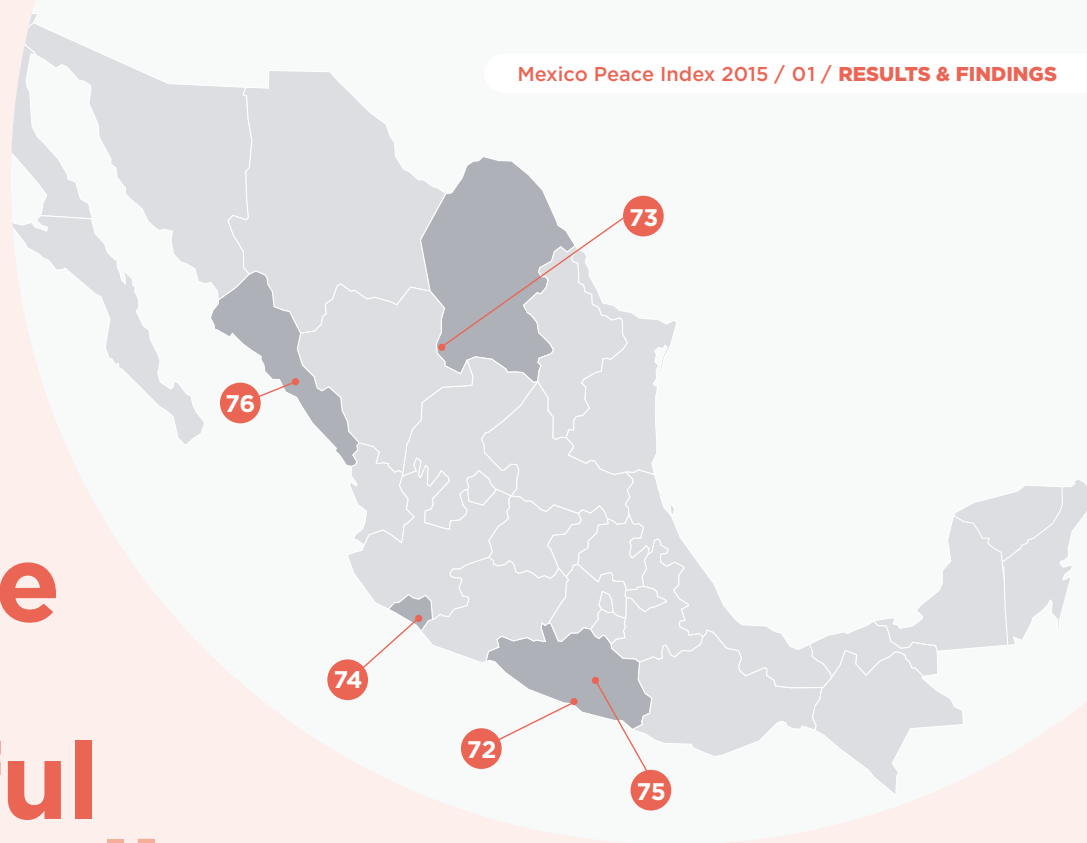
Pachuca does not perform well for violent crime largely because of its relatively high level of rape. Of the five most peaceful metropolitan areas, Pachuca has the highest total number of rapes. Despite this fact, the violent crime rate in Pachuca is still about half of the metropolitan area average.

FIGURE 17 RATE OF HOMICIDE AND VIOLENT CRIME IN PACHUCA (PER 100,000)





The five least peaceful metropolitan areas



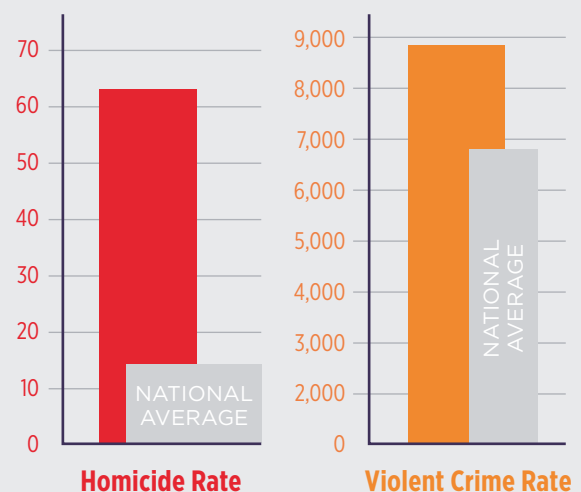
76 CULIACÁN

INDICATOR	VALUE	RANK /76
Overall Score	4.05	76
Homicide Rate	63.49	73
Violent Crime Rate	8,892	55
Population	880,001	17
State	Sinaloa	

Culiacán is the least peaceful metropolitan area in Mexico. It is located in the northern region, in Sinaloa, which is the third least peaceful state in Mexico. The area has experienced a high level of cartel activity and drug-trade related violence over the past decade. The major driver of Culiacán's lack of peace is its very high homicide rate.

Culiacán has the highest homicide rate of any metropolitan area in Mexico at 63.5 deaths per 100,000 people. There are almost 49 more homicides per 100,000 people in Culiacán than the metropolitan average, a difference of around 77 percent. Whilst this is a very high total, the number of homicides has decreased significantly year on year, declining 26 percent from 2011 to 2013. This mirrors the trend in Sinaloa as a whole, where the number of total homicides has declined from a high of 2,250 in 2010, to less than 1,000 in 2014.

FIGURE 18 RATE OF HOMICIDE AND VIOLENT CRIME IN CULIACÁN (PER 100,000)



The violent crime rate in Culiacán is also high, and closer to the metropolitan average, with 8,892 violent crimes per 100,000 people. Of these violent crimes, 60 percent were robberies. Assaults, which make up 39 percent of the violent crime figure, have been increasing by 2,000 each year from 2011 to 2013, with 3,458 assaults per 100,000 people, a total of 91,300 assaults.

75 CHILPANCINGO

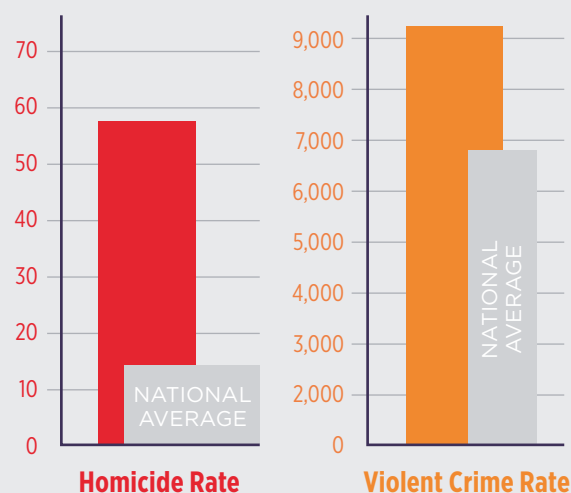
INDICATOR	VALUE	RANK /76
Overall Score	4.02	75
Homicide Rate	57.45	74
Violent Crime Rate	9,277	61
Population	247,731	57
State	Guerrero	

Chilpancingo is located in the southern region of Mexico in the state of Guerrero, the least peaceful state in the 2015 MPI. Guerrero has also been one of the five least peaceful states for all but three of the last 12 years and is the only state with two metropolitan areas ranked in the five least peaceful.

Chilpancingo has the third highest homicide rate of any Mexican metropolitan area, with 57 homicides per 100,000 people for the period from 2011 to 2013. This is 74 percent higher than the metropolitan average and equivalent to the 15th highest homicide rate of any city in the world in 2014, although the number of homicides in Chilpancingo has been trending downwards over the last three years.

The violent crime rate is 9,277 per 100,000 people, which is also the 15th highest and is 29 percent higher than the metropolitan average. Of the three violent crime categories of robbery, assault and rape, robbery accounts

FIGURE 19 RATE OF HOMICIDE AND VIOLENT CRIME IN CHILPANCINGO (PER 100,000)



for 54 percent, assault 45 percent and rape one percent of violent crimes. Like the majority of metropolitan areas, robbery is the largest component of violent crime, however, in Chilpancingo assaults constitute a relatively high proportion of the violent crime rate.

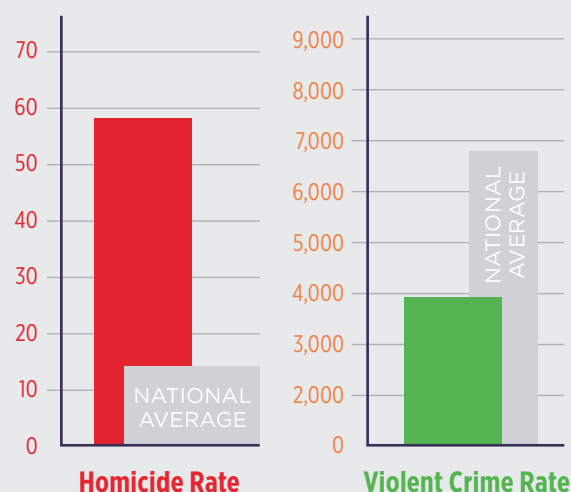
74 TECOMÁN

INDICATOR	VALUE	RANK /76
Overall Score	3.71	74
Homicide Rate	58.65	75
Violent Crime Rate	3,322	18
Population	144,940	71
State	Colima	

Tecomán is located in the western region of Mexico in the state of Colima, which is ranked 21st in the 2015 MPI. Colima has seen an increase in violence over the past five years, and has dropped from a ranking of fifth in 2003, to ninth in 2008, down to 21st in 2014.

Surprisingly, the violent crime rate in Tecomán is lower than Los Cabos and Pachuca, the fourth and fifth most peaceful metropolitan areas in Mexico, and is well below the metropolitan average. With a rate of 3,322 violent crimes per

FIGURE 20 RATE OF HOMICIDE AND VIOLENT CRIME IN TECOMÁN (PER 100,000)



100,000 people, Tecomán is ranked 18 out of the 76 metropolitan areas for violent crime. However, it has the seventh highest rape rate amongst metropolitan areas in Mexico, with rape accounting for 10 percent of all violent crime. In comparison, rape accounts for just one percent of violent crime in the other metropolitan areas in the bottom five, and is usually less than 5 percent of total recorded violent crime. To what extent these differences are due to reporting and trust in police cannot be verified.

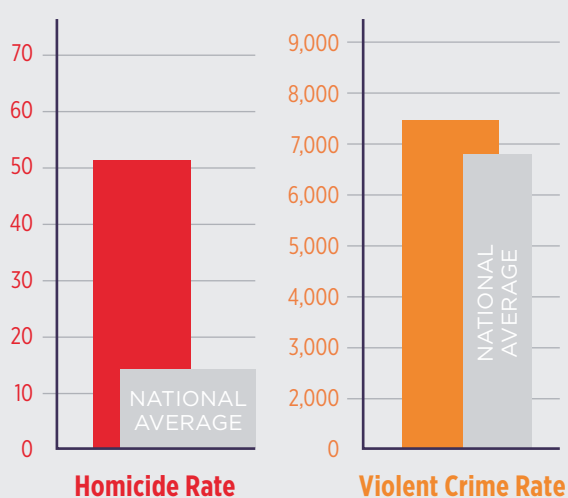
The homicide rate in Tecomán is the second highest in Mexico, with 58 homicides per 100,000 people. This is 75 percent higher than the metropolitan average. This is also one of the highest homicide rates of metropolitan areas worldwide. However, the state homicide rate has been declining in recent years, and the most recently available data for the state of Colima shows that the homicide rate has fallen from 41.9 to 15.3 over the past two years, which is a greater decrease than the overall trend in Mexico.

73 LA LAGUNA

INDICATOR	VALUE	RANK /76
Overall Score	3.64	73
Homicide Rate	51.39	73
Violent Crime Rate	7,261	49
Population	1,246,066	8
State	Coahuila/Durango	

The La Laguna metropolitan area straddles the border of Coahuila and Durango in the northern region in Mexico. Coahuila is the 15th most peaceful state out of the 32 states in Mexico, down from the second most peaceful state in 2003. Durango is ranked 19th in the 2015 MPI. Whilst La Laguna has a violent crime rate only nine percent higher than the metropolitan average, the homicide rate is significantly higher than most other metropolitan areas in Mexico.

FIGURE 21 RATE OF HOMICIDE AND VIOLENT CRIME IN LA LAGUNA (PER 100,000)



La Laguna's low ranking on the Metropolitan Peace Index is due to its homicide rate, which was the fourth highest in Mexico at 51 homicides per 100,000 people. La Laguna is also one of the largest Metropolitan areas in Mexico with a population of over 1.2 million people, and therefore has one of the highest numbers of total homicides. It averaged 640 homicides a year for the period from 2011 to 2013, which was the third highest total in Mexico.

The average violent crime rate for the period from 2011 to 2013 was 7,261 per 100,000 people with robberies accounting for 56 percent, assault 43 percent and rape one percent of violent crimes. Although this rate was significantly higher than the metropolitan average, it did not rank amongst the ten highest metropolitan violent crime rates for this period. In 2013 both robberies and assaults had declined significantly from the levels in 2011.

THE FIVE LEAST PEACEFUL METROPOLITAN AREAS IN MEXICO ARE CULIACÁN, CHILPANCINGO, TECOMÁN, LA LAGUNA AND ACAPULCO. THREE OF MEXICO'S LEAST PEACEFUL METROPOLITAN AREAS ARE IN TWO OF THE FIVE LEAST PEACEFUL STATES.

72 ACAPULCO

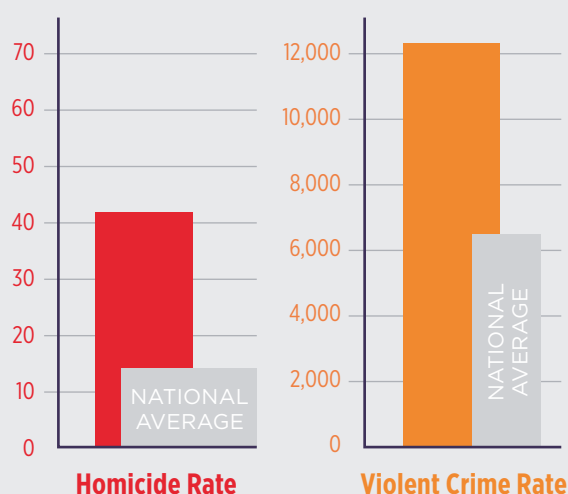
INDICATOR	VALUE	RANK /76
Overall Score	3.53	72
Homicide Rate	41.40	71
Violent Crime Rate	12,415	71
Population	884,913	14
State	Guerrero	

Acapulco, situated in the southern region of Mexico in Guerrero state, is the fifth least peaceful metropolitan area in Mexico. Acapulco ranks in the bottom six metropolitan areas for both homicide and violent crime, with a violent crime rate that is approximately double the metropolitan average, and a homicide rate that is just under triple the metropolitan average.

Contrary to the trend in a majority of metropolitan areas and states, the homicide rate in Acapulco has significantly increased in recent years. Between 2011 and 2012 there was an average of 100 homicides a year in Acapulco. In 2013 this increased eightfold to 900 homicides a year, which is equivalent to a rate of over 100 homicides per 100,000 people. In 2013, the state of Guerrero experienced a slight reduction in its homicide rate.

Whilst the violent crime rate in Acapulco is also relatively high, there have been some improvements in the last three years, with robberies decreasing eight percent and assaults decreasing 18 percent between 2011 and 2013. Whilst metropolitan data is not available for 2014, state level data for Guerrero suggests that this trend may continue, with Guerrero's violent crime rate falling 7.1 percent over the last two years. Robberies account for 65 percent of violent crime in Acapulco, followed by assault and then rape, which account for 34 percent and one percent, respectively.

FIGURE 22 RATE OF HOMICIDE AND VIOLENT CRIME IN ACAPULCO (PER 100,000)



2 POSITIVE PEACE IN MEXICO

This section of the report looks at Mexico's positive peace. Positive peace is the set of attitudes, institutions and structures that create and sustain peaceful societies. The methodology used to analyze positive peace is derived from global statistical analysis conducted by IEP to determine what factors are most closely associated with peaceful societies.

This analysis provides an empirical basis for the development of a positive peace measurement that can then provide further insight into the factors that sustain peace. The work informs the development of a Mexico Positive Peace Index (MPPI) that enables measurement of the potential for sustainable peace at the sub-national level. While the MPI measures what is termed negative peace, defined as 'the absence of violence or fear of violence', it does not in itself inform us about the key long-term attributes associated with creating a more peaceful society. To better understand the long-term structural aspects that build peace, IEP has explored the concept of Positive Peace in the Mexican context at both the national and sub-national level.

At the national level the research shows that Mexico can support a much higher level of peace than it is currently experiencing. This is because compared to other countries at a similar level of peace and development, Mexico's institutions and structures are assessed much stronger and more resilient than other low peace countries. This underlines the fact that Mexico has the attitudes, institutions and structures in place to improve on peace in the long term.

An analysis of 58 state-level indicators shows that violence in Mexico is most strongly associated with poor governance, high levels of corruption and low levels of social capital and life satisfaction. This underscores the fact that these elements are most significant in underpinning the long-term development of peace.

THE PILLARS OF PEACE

The Pillars of Peace, developed by IEP, is a comprehensive taxonomy that describes the attitudes, institutions and structures associated with peaceful societies. Viewing violence in Mexico through the lens of the Pillars of Peace allows for a better understanding of the structural factors that are needed to build higher levels of peace.

The Pillars were derived by IEP from a rigorous assessment comparing over 4,700 variables with the Global Peace Index. As such, they represent a uniquely holistic study based on empirical techniques, to arrive at a framework for describing the aspects of positive peace. The Pillars of Peace provides a framework from which to view Mexican society and governmental policies to ascertain the current potential for maintaining peace and security.

Positive peace can also be used to assess how supportive the underlying conditions are towards development, as they are positively associated with developmental outcomes. Thus the Pillars of Peace also form the basis to understand and develop other aspects of human potential. The Pillars provide a benchmark against which to measure the performance of the country's overall resilience and the broader aspects of its social development. The stronger a country's Pillars, the more likely it is to recover from major shocks and be resilient against both internal and external stresses.

Based on the Pillars of Peace framework, IEP developed a Positive Peace Index (PPI) that measures the strength of the attitudes, institutions and structures of 126 countries to determine their capacity to create and maintain a peaceful society. The PPI is composed of 24 indicators, using three sub-indicators to measure each of the eight Pillars of Peace.

Usually a country's rank on the PPI is close to its Global Peace Index (GPI) rank, however, in certain circumstances countries may have a 'positive peace surplus' or 'positive peace deficit'. Countries with a positive peace surplus have high levels of institutional strength, which suggests that they should be more peaceful. The inverse applies for countries with positive peace deficits, they are more peaceful than what their attitudes, institutions and structures would imply.

FIGURE 23 PILLARS OF PEACE

The Pillars of Peace describe the attitudes, institutions and structures that underpin peaceful societies.



Source: IEP

When comparing the levels of positive and negative peace at the national level in Mexico and the relationship of those factors to other countries, it can be observed that Mexico has a 'positive peace surplus': the relative strength of the country's attitudes, institutions and structures imply that it should have a higher level of peace than it is experiencing.

The analysis suggests that Mexico can become more peaceful based on the strength and quality of its institutions, which are ranked much higher than Mexico's actual level of peace. **Table 7** shows the five countries in the world with the largest positive peace surpluses when comparing their PPI score to their GPI internal peace score, and which therefore have the highest potential to improve their peace.

TABLE 7 THE FIVE COUNTRIES WITH THE LARGEST POSITIVE PEACE SURPLUS COMPARED TO GPI INTERNAL PEACE

The significant positive peace surplus in Mexico shows the country has the institutional capacity to improve its level of peace.

COUNTRY	POSITIVE PEACE SURPLUS	PPI RANK 2010	GPI RANK 2013	REGION	GOVERNMENT TYPE	INCOME LEVEL
Mexico	52	55	107	Central America and Caribbean	Flawed democracy	Upper middle income
South Africa	50	52	102	Sub Saharan Africa	Flawed democracy	Upper middle income
Colombia	42	64	106	South America	Flawed democracy	Upper middle income
Israel	41	35	76	MENA	Flawed democracy	High income
El Salvador	40	47	87	Central America and Caribbean	Flawed democracy	Lower middle income

As shown in **Table 7**, Mexico has one of the largest positive peace surpluses in the world. This helps to illustrate the full extent of the improvement that Mexico could experience if the current levels of violence decreased. It also suggests, in the long-term, that there is great potential for reducing violence, improving developmental outcomes and improving well being, provided that appropriate reforms are undertaken.

MEXICO HAS ONE OF THE LARGEST POSITIVE PEACE SURPLUSES IN THE WORLD. IN THE LONG-TERM, THERE IS GREAT POTENTIAL FOR REDUCING VIOLENCE.

BOX 1 MEASURING THE PILLARS OF PEACE OF THE STATES OF MEXICO

Comparing positive peace between countries is useful in understanding country differences and to help inform policy at the national level to emulate the most peaceful countries. However, all states and districts within any national jurisdiction are not the same. Applying this methodology at the state level within Mexico helps to inform policy makers of the appropriate focus areas for improving peace and development.

The Mexico Positive Peace Index (MPPI) has been developed to help with answering the following questions:

- Which Pillars are most important when analyzing violence and conflict within Mexican states?
- Which factors within Mexico and which Mexican states perform the poorest in the Pillars?

- What are the strengths of each state that could be leveraged to counter conflict and violence and improve development?

To explore these questions, IEP has developed the MPPI, which covers the 32 states of Mexico. Indicators have been selected from national statistics and census data, surveys and Mexico studies conducted by international organizations and academic institutions. All indicators have been selected to conceptually align with the global Pillars of Peace framework. A positive peace score has been calculated for each state. Additionally, state scores are broken down by each Pillar to allow for a more detailed analysis.

CORRELATES OF PEACE

Tables **Table 8** and **9** show the correlations of state-level indicators with the MPI in 2003 and 2014 respectively.

The indicators that correlate most significantly in both 2003 and 2014 are;

- **Perceptions of local safety**
- **Confidence in the government and justice system to improve public safety**
- **Low levels of corruption**
- **Community participation in local problem solving.**

These correlating factors can be grouped under the Pillars of Well Functioning Government, Low Levels of Corruption and Good Relations with Neighbors.

TABLE 8
CORRELATES OF PEACEFULNESS IN 2003

Factors associated with governance and corruption are most strongly linked to peacefulness. There are also notable correlations with other pillars of peace.

INDICATOR	MPI 2003
Percentage that feel that their town is unsafe	0.45
Houses with no floor	0.26
Older than 15 secondary school completed	-0.26
In the last 12 months, did any government employee solicit a bribe? (No)	-0.28
Houses with proper floor	-0.31
Do you have confidence in the justice system? (A lot)	-0.36
WB Doing Business (Higher is stronger)	-0.44
Have you been attending community meetings about some problem or some improvement? (Frequently)	-0.45
Do you have confidence in the media? (A lot)	-0.48
To what extent would you say the current government fights government corruption? (A lot)	-0.53
To what extent would you say the current government improves public safety? (A lot)	-0.53

States that have higher levels of this indicator are more peaceful

States that have higher levels of this indicator are less peaceful

TABLE 9
CORRELATES OF PEACEFULNESS IN 2014

Factors associated with governance and corruption are most strongly linked to peacefulness. Importantly, deprivation indicators are not good predictors of recent violence.

INDICATOR	MPI 2014
Percentage that feel that their town is unsafe	0.63
Houses with some kind of bathroom	0.49
Houses with all basic services	0.45
Houses with mobile phone	0.42
INEGI - Not deprived in any dimensions	0.39
HDI - Income	0.38
Life expectancy at birth	0.31
HDI - Health	0.29
Older than 18 with some tertiary education	0.29
HDI - Education	0.28
Do you think the current economic situation of the country has gotten better in the past 12 months?	-0.28
Do you think that at times, bribes can be justified? (No)	-0.29
To what extent would you say the current government is handling the economy well? (Well)	-0.29
Do you have confidence in the police? (Yes)	-0.3
Do you have confidence in the justice system? (Yes)	-0.3
Average number of people per house	-0.31
In the last 12 months, did any government employee solicit a bribe? (No)	-0.31
Average number of people per room	-0.35
Houses with no running water	-0.35
Proportional mortality of nutritional disease	-0.37
People older than 15 with no schooling	-0.37
Have you been attending community meetings about some problem or some improvement? (Yes)	-0.42
Houses with no electricity	-0.44
People older than 15 illiterate	-0.45
Houses with no connection to the public drainage system	-0.46
OPHI - Percentage of the population vulnerable to poverty	-0.46
Houses with no basic goods	-0.47

Table 9 continues >

> Table 9 continued

INDICATOR	MPI 2014
To what extent would you say the current government improves public safety? (A lot)	-0.48
Do you feel the justice system would punish the culprit if you were a victim of assault or robbery? (Yes)	-0.5
To what extent would you say the current government fights government corruption? (A lot)	-0.6

In 2003 the Pillars that correlated with peace in Mexican states were:

- Well Functioning Government
- Low Levels of Corruption
- Strong Business Environment
- Equitable Distribution of Resources
- Good Relations with Neighbors
- Free Flow of Information

Importantly, the nature of the correlation corresponds to global trends. In 2003, violence was linked to measures of deprivation. In particular, violence was more likely to occur in regions where education was low and housing was poor. Furthermore, in areas of violence the business sector was weaker. Confidence in the government and the judiciary was lower and corruption was more prevalent. Such relationships are not only similar to global trends but also correspond to national trends in the United States and the United Kingdom.

However, between 2003 and 2014 a shift had occurred in the correlates of peace. While corruption and governance indicators still correlated as they did in 2003, socio-economic indicators reversed their relationship.

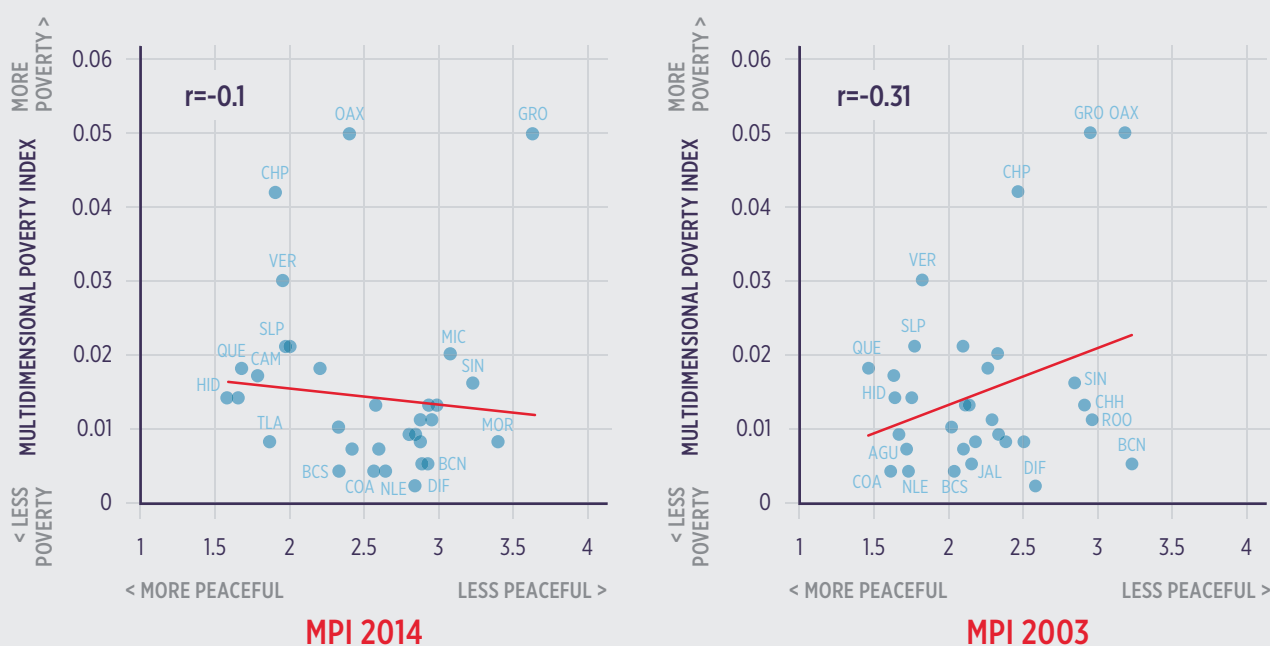
Violence in Mexico in 2014 occurred in more affluent places where; ordinarily, better living conditions would correlate to lower levels of violence. Income, health, housing and education are all correlated positively with the MPI, meaning the higher a state performs in these the less peaceful it tends to be. This is counter-intuitive, running contrary to developmental theory. Furthermore, measures of deprivation in housing, education, health and poverty are negatively correlated with peace in Mexico.

This highlights the distorting effect of the drug war on the distribution of violence throughout Mexico, as the drug cartels follow the best distribution points, which have generally been higher in socio-economic status and along the US border or near suitable distribution points on the coast.

Further explanations can be found by looking at the demographic and geographical makeup of the poorest states in Mexico. Most are located in the south and east of the country, and have low levels of urbanization. Even though many of these states have a high percentage of their population who are extremely vulnerable to poverty, this lack of income is not in of itself a predictor of violence in Mexico, as very poor rural states with low urbanization have avoided most of the cartel-related activity.

FIGURE 24 2014 AND 2003 MPI VS MULTIDIMENSIONAL POVERTY

Before the start of the drug war there was a stronger association between poverty and peacefulness.



Source: IEP based on data from OPHI

In 2003, peace in Mexico acted according to observed global trends and the Pillars of Peace framework. Therefore it seems reasonable to assume that in the absence of such a destabilizing event as the outbreak of organized crime and violence within Mexico, peace would follow more common patterns. To illustrate this, **Figure 24** plots poverty versus peace in Mexico. In 2014, these two factors exhibit a statistically insignificant negative correlation. However, in 2003 the relationship was a positive, statistically significant correlation. Therefore, when drug-trade related violence is factored out, there is an association between more peaceful environments having less poverty, although still not as strong as the association found globally or in countries like the United Kingdom and the United States.

THE PILLARS THAT MOST CLOSELY CORRELATE WITH PEACE IN MEXICO ARE WELL FUNCTIONING GOVERNMENT, LOW-LEVELS OF CORRUPTION AND GOOD RELATIONS WITH NEIGHBORS.

MEASURING POSITIVE PEACE IN MEXICO

The global PPI is empirically derived by selecting indicators that had the strongest correlation with peace at the global level within the framework of the Pillars of Peace. At the subnational level, the factors that correlated with peace in Mexico in 2003 are different to the ones that correlate in 2014. This is to be expected at the sub-national levels. What Pillars are most relevant to a country at any given time is dependent on the nature of violence and conflict within the country. As such, the relevance of the eight Pillars at the sub-national level will shift as a country's circumstances change with time. However, only by measuring all eight Pillars can the whole set of factors relevant to peace at any given time be assessed. Therefore, the indicators of the MPPI have been selected based on their relevance to the conceptual frameworks of each of the global Pillars rather than their correlation to peace in Mexico.

The MPPI measures positive peace according to 58 indicators within the Pillars of Peace framework. All indicators are equally weighted within each Pillar. A state's

overall score is calculated by averaging the eight Pillars. To capture as many aspects as possible, indicators have been selected from both the national statistics agency and external survey responses with preference given to the former where possible.

There was a smaller sample than optimal for some survey questions, therefore to maximize the number of respondents to survey questions in some cases very similar questions have been included. Increasing the number of respondents in this manner serves to reduce the uncertainty associated with the results of any survey and analysis has determined that this does not create a distortion in the index.

Table 10 lists the indicators within the MPPI while **Table 11** presents the scores of each state. A detailed description of the methodology used to develop the MPPI can be found in Appendix C.

TABLE 10 MEXICO POSITIVE PEACE INDEX (MPPI) INDICATORS

Indicators used in the MPPI calculations.

PILLAR	INDICATOR	YEAR	SOURCE
WELL FUNCTIONING GOVERNMENT 1) Effectiveness of government 2) Rule of law 3) Political culture	Do you feel the justice system would punish the culprit if you were a victim of assault or robbery?	Responses aggregated between 2006-2012	Americas Barometer
	Do you have confidence in the justice system?	Responses aggregated between 2006-2012	Americas Barometer
	Do you have confidence in your municipality/delegation?	Responses aggregated between 2006-2012	Americas Barometer
	Do you have confidence in the police?	Responses aggregated between 2006-2012	Americas Barometer
	In order to capture a criminal, do you think the authorities should always act within the law or have the ability to act outside the law?	Responses aggregated between 2006-2012	Americas Barometer
	To what extent would you say the current government improves public safety?	Responses aggregated between 2006-2012	Americas Barometer
	To what extent would you say the current government is handling the economy well?	Responses aggregated between 2006-2012	Americas Barometer
	To what extent would you say the current government promotes and protects democratic principles?	Responses aggregated between 2006-2012	Americas Barometer
SOUND BUSINESS ENVIRONMENT 1) Ease of doing business 2) Economic freedom 3) GDP per capita	Do you think that the country's economic situation is very good, good, neither good nor bad, bad or very bad?	Responses aggregated between 2006-2012	Americas Barometer
	Do you think the current economic situation of the country has gotten better, stayed the same or has got worse in the past 12 months?	Responses aggregated between 2006-2012	Americas Barometer
	Do you think your economic situation has improved, stayed the same or gotten worse over the past 12 months?	Responses aggregated between 2006-2012	Americas Barometer
	GDP per capita	2008	INEGI-National Account Statistics
	Human Development Index - Income	2010	UNDP
	Unemployment rate	2010	INEGI Census
	Doing business	2013	World Bank
EQUITABLE DISTRIBUTION OF RESOURCES 1) Life expectancy 2) GINI coefficient 3) Poverty	Average number of people per house	2010	INEGI Census
	Not deprived in any dimensions (as defined by INEGI)	2010	INEGI
	Percentage population vulnerable to poverty	2006	OHPI
	Proportional mortality: nutritional diseases	2012	INEGI
	Average number of people per room	2010	INEGI Census
	Houses with all basic services	2010	INEGI Census
	Houses with no connection to the public drainage system	2010	INEGI Census
	Houses with no basic goods	2010	INEGI Census
	Houses with no electricity	2010	INEGI Census
	Houses with no running water	2010	INEGI Census
	Houses with some kind of bathroom	2010	INEGI Census
	Houses with no flooring material	2010	INEGI Census
	Houses with proper floor	2010	INEGI Census

> Table 10 continued

PILLAR	INDICATOR	YEAR	SOURCE
ACCEPTANCE OF THE RIGHTS OF OTHERS	Do you think citizens' rights are well protected by the political system in Mexico?	Responses aggregated between 2006-2012	Americas Barometer
1) Hostility to foreigners	Gender Equality Index in Mexican States (GEIMS)	2007	University of Texas*
2) Adherence to human rights	How much do you agree with the government (country) providing social services such as health care, education, and housing for foreigners who come to live or work in the country?	Responses aggregated between 2006-2012	Americas Barometer
3) Gender equality			
GOOD RELATIONS WITH NEIGHBORS	Percentage that feel that their town is unsafe	2009	INEGI
1) Life satisfaction	Are you proud of being Mexican?	Responses aggregated between 2006-2012	Americas Barometer
2) Satisfaction with community	Has the community helped you with your own work or labor?	Responses aggregated between 2006-2012	Americas Barometer
3) Community engagement	Have you been attending community meetings about some problem or some improvement?	Responses aggregated between 2006-2012	Americas Barometer
	Have you donated money or materials to help solve a problem in the community, neighborhood or suburb?	Responses aggregated between 2006-2012	Americas Barometer
	Have you tried to help organize a new group to resolve a neighborhood problem or to find some improvement?	Responses aggregated between 2006-2012	Americas Barometer
	In the last year have you contributed or attempted to contribute to the solution of a problem in your community or residents of your neighborhood?	Responses aggregated between 2006-2012	Americas Barometer
	In general, how satisfied are you with your life?	Responses aggregated between 2006-2012	Americas Barometer
FREE FLOW OF INFORMATION	Books available public libraries per capita	2010	INEGI
1) Freedom of the press	Do you have confidence in the media?	Responses aggregated between 2006-2012	Americas Barometer
2) World press freedom	How often do you follow the news, whether on TV, radio, newspapers or the Internet?	Responses aggregated between 2006-2012	Americas Barometer
3) Mobile phones per 1,000	Journalists killed	Total number between 2000-2013	University of San Diego**
	Houses with mobile phone	2010	INEGI Census
HIGH LEVELS OF HUMAN CAPITAL	HDI - Education	2010	UNDP
	HDI - Health	2010	UNDP
1) Youth development	Life expectancy at birth	2010	INEGI Census
2) Education	People older than 15 with no schooling	2010	INEGI Census
3) Health	Total fertility rate	2010	INEGI Census
	Older than 15 primary school completed	2010	INEGI Census
	Older than 15 secondary school completed	2010	INEGI Census
	Older than 18 with some tertiary education	2010	INEGI Census
LOW LEVELS OF CORRUPTION	Did any police officer ask you for a bribe in the last 12 months?	Responses aggregated between 2006-2012	Americas Barometer
1) Prevalence of corruption	Do you think that at times, bribes can be justified?	Responses aggregated between 2006-2012	Americas Barometer
2) Perceptions of corruption	Perceived level of corruption of public officials	Responses aggregated between 2006-2012	Americas Barometer
	In the last 12 months, did any government employee solicit a bribe?	Responses aggregated between 2006-2012	Americas Barometer
	To what extent would you say the current government fights government corruption?	Responses aggregated between 2006-2012	Americas Barometer

* Published in Social Indicators Research Journal ** Drug Violence in México Report 2014, Justice in México Project.

2015 MEXICO POSITIVE PEACE INDEX

The MPPI highlights existing differences in the attitudes, institutions and structures between Mexican states. This provides important insight into the ability of the states of Mexico to build peace in the long term and highlights institutional strengths and weaknesses that are currently present. By building positive peace, Mexico will be better able to not only address its levels of violence but also build economic prosperity, improve human wellbeing and tackle developmental issues.

While no one state performs well in all eight Pillars, the MPPI shows that Positive Peace is weakest in the southern states. The states with the strongest Pillars of Peace are Yucatán, Colima, Aguascalientes, Nuevo León, Campeche and Baja California. Of these Baja California is the most surprising given it ranks as the eighth least peaceful state in Mexico. This significant gap between Positive Peace and levels of violence suggests that Baja California has the capacity to be significantly more peaceful than it currently is.

While there is a very close connection between overall positive peace and negative peace at the global level, **Figure 25** shows the same relationship is not as significant at the sub-national level in Mexico in 2014. There are several important reasons for this that have been covered earlier in this section. As can be seen in the correlates section and through analysis of the patterns of violence in Mexico, external factors associated with the drug war drive a significant amount of the violence that Mexico experiences today. This can be seen from **Figure 26**, which also shows that in 2003 the relationship between positive and negative peace was much stronger. Further analysis shows that in 2014 there are three specific Pillars that most strongly determine peace in Mexico. These are:

- 1 — Well Functioning Government,
- 2 — Low Levels of Corruption, and
- 3 — Good Relations with Neighbors.

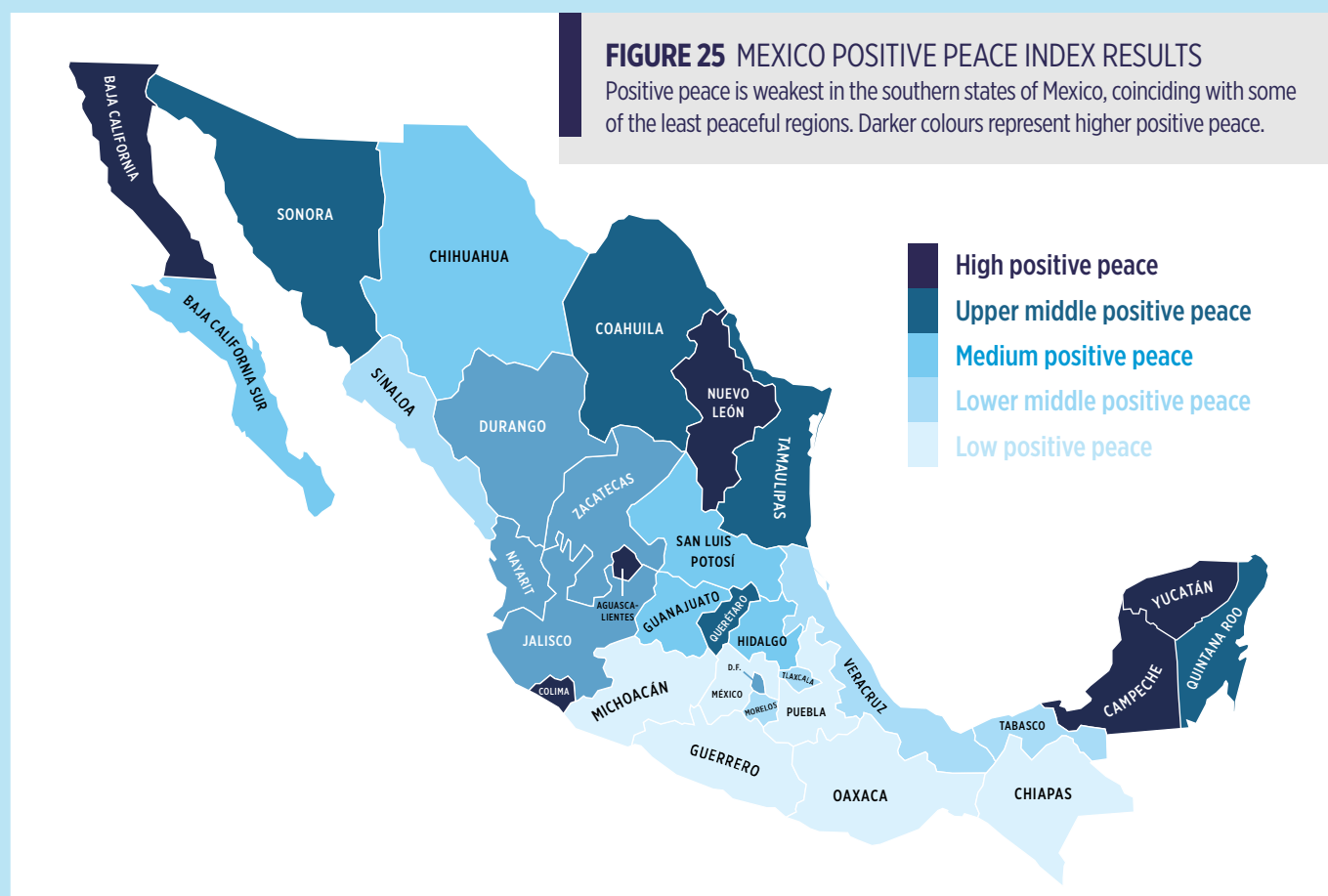


TABLE 11 MEXICO POSITIVE PEACE INDEX RESULTS

The Pillars of Peace scores for all Mexican states. No one state does well in all Pillars.
Scores are out of five, where closer to one represents greater positive peace.

STATE	WELL FUNCTIONING GOVERNMENT	SOUND BUSINESS ENVIRONMENT	EQUITABLE DISTRIBUTION OF RESOURCES	ACCEPTANCE OF THE RIGHTS OF OTHERS	GOOD RELATIONS WITH NEIGHBORS	FREE FLOW OF INFORMATION	HIGH LEVELS OF HUMAN CAPITAL	LOW LEVELS OF CORRUPTION	MEXICO POSITIVE PEACE INDEX
Yucatán	1.359	2.287	2.525	2.457	3.17	2.321	3.029	1.461	2.326
Colima	2.071	2.374	1.492	2.527	2.612	2.552	2.579	2.414	2.327
Aguascalientes	2.731	3.17	1.425	2.954	2.78	2.583	2.367	2.926	2.617
Nuevo León	2.566	2.811	1.304	3.487	3.267	2.07	2.231	3.4	2.642
Campeche	2.022	1.669	2.628	3.555	2.859	3.436	3.012	1.974	2.644
Baja California	2.9	3.002	1.453	2.846	3.085	2.778	2.167	3.031	2.658
Quintana Roo	2.749	2.629	1.992	2.631	3.329	2.574	2.325	3.105	2.667
Coahuila	2.382	2.992	1.33	2.622	2.9	2.469	2.402	4.255	2.669
Sonora	2.929	2.871	1.814	2.925	2.987	2.253	2.531	3.212	2.69
Querétaro	2.938	3.38	2.055	2.474	2.569	2.788	2.478	2.943	2.703
Tamaulipas	2.83	3.182	1.748	2.767	2.928	2.672	2.641	3.41	2.772
Nayarit	2.354	3.309	2.039	2.911	2.824	2.875	2.944	2.979	2.779
Zacatecas	3.497	3.481	2.095	3.519	2.287	2.711	2.644	2.428	2.833
Distrito Federal	4.428	3.425	1.045	2.866	3.374	2.362	1.774	3.857	2.891
Jalisco	3.017	3.808	1.63	3.328	3.239	2.846	2.5	2.877	2.906
Durango	2.946	3.176	2.229	2.727	3.766	2.764	2.876	3.212	2.962
Guanajuato	3.323	3.482	2.311	3.404	3.098	2.928	2.811	2.396	2.969
San Luis Potosí	3.385	3.381	2.849	2.665	2.169	2.953	2.959	3.489	2.981
Baja California Sur	3.522	3.679	1.875	4.508	2.499	2.757	2.312	2.786	2.992
Chihuahua	3.285	3.482	1.657	2.875	3.684	3.528	2.304	3.346	3.02
Hidalgo	3.356	4.017	2.611	2.727	2.699	3.368	3.02	2.741	3.067
Tlaxcala	3.173	4.353	2.004	4.155	2.599	3.34	2.133	2.789	3.068
Morelos	4.005	4.122	2.061	3.288	2.458	3.112	2.405	3.737	3.149
Sinaloa	3.311	3.29	1.991	3.109	4.147	3.013	3.04	3.713	3.202
Tabasco	3.247	3.473	2.553	3.88	2.781	2.719	2.94	4.132	3.216
Veracruz	3.277	3.409	3.069	3.612	2.362	3.53	3.668	3.214	3.268
Chiapas	2.448	3.164	4.077	3.367	3.002	3.165	4.476	2.821	3.315
México	4.5	3.538	1.896	3.73	3.18	3.243	2.217	4.354	3.332
Oaxaca	2.906	3.953	4.427	2.788	2.824	3.604	3.973	2.768	3.405
Michoacán	4.087	3.825	2.464	3.831	2.651	3.685	3.424	3.825	3.474
Puebla	4.437	3.556	2.894	4.099	2.843	3.553	3.041	4.312	3.592
Guerrero	4.185	3.844	4.555	3.84	2.892	3.787	4.474	3.625	3.9

WHAT PILLARS ARE MOST RELEVANT TO PEACE IN MEXICO?

Correlating the MPPI scores to the MPI shows that three Pillars have a statistically significant relationship with peace in Mexico. These are:

- **Well Functioning Government**
- **Low Levels of Corruption**
- **Good Relations with Neighbors**

In the context of the drug war in Mexico, this is not a surprising result. What is interesting is that the remaining five Pillars do not show statistical relationships with the type of conflict and violence occurring in Mexico. In Mexico, violence is not statistically linked to inequalities in health, education, or wealth. This differentiates Mexico from countries such as the United Kingdom and the United States where levels of deprivation can be linked to lower levels of peace. **Table 12** shows the correlations of the MPPI pillars with MPI scores.

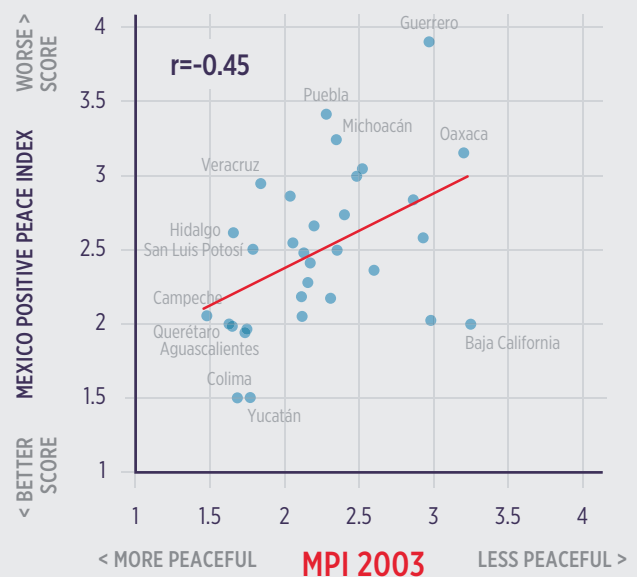
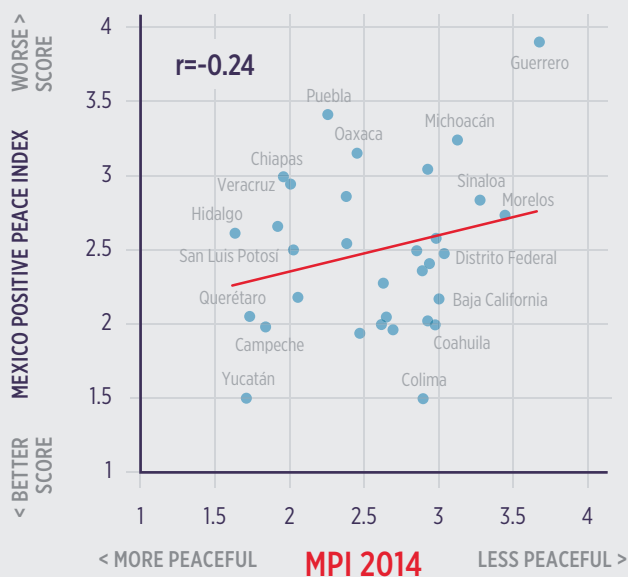
TABLE 12 THE PILLARS OF PEACE CORRELATION WITH THE MPI

Three Pillars correlate with peace in Mexico at the state level. These are Well Functioning Government, Low Levels of Corruption and Good Relations with Neighbors.

PILLAR OF PEACE	CORRELATION WITH MPI 2003	CORRELATION WITH MPI 2014
Low levels of corruption	0.25	0.42
Well Functioning government	0.36	0.42
Good relations with neighbours	0.46	0.39
Sound business environment	0.28	0.17
Acceptance of the rights of others	0.06	0.07
Free flow of information	0.32	0
High levels of human capital	0.16	-0.11
Equitable distribution of resources	0.24	-0.17
Mexico Positive Peace Index Overall Score	0.45	0.24

FIGURE 26 MEXICO PEACE INDEX VS MEXICO POSITIVE PEACE INDEX

In 2014 positive peace across all eight pillars has a moderate correlation with negative peace in Mexico. However, in 2003 the correlation was significant.



Source: IEP

These trends can be explained historically. The level of violence in Mexico did not increase in a steady linear fashion, but rather exploded over a very short time frame. As a result of this increase in violence in a short period of time, a number of the factors that correlate with peacefulness at the global level do not correlate with peacefulness at the state level in Mexico.

These results suggest that the increase in violence in Mexico is linked to specific failures in governance and the state, rather than underlying social issues such as health, inequality and education. For example the Pillar that had the largest increase in statistical significance between 2003 and 2014 was Low Levels of Corruption. Therefore, in the short term, issues with governance and corruption would be higher priorities than inequality.

Looking at **Figure 26**, it can be seen that the development and wellbeing factors were important to peace prior to the drug war in 2003. This shows that for sustainable peace to develop in the long term, all eight of the Pillars are important and thus included in the MPPI.

THE MEXICO POSITIVE PEACE INDEX HIGHLIGHTS EXISTING DIFFERENCES IN THE ATTITUDES, INSTITUTIONS AND STRUCTURES BETWEEN MEXICAN STATES. THIS PROVIDES IMPORTANT INSIGHT INTO THE ABILITY OF THE STATES OF MEXICO TO BUILD PEACE IN THE LONG TERM AND HIGHLIGHTS INSTITUTIONAL STRENGTHS AND WEAKNESSES THAT ARE CURRENTLY PRESENT.

POSITIVE PEACE IN THE LAST DECADE

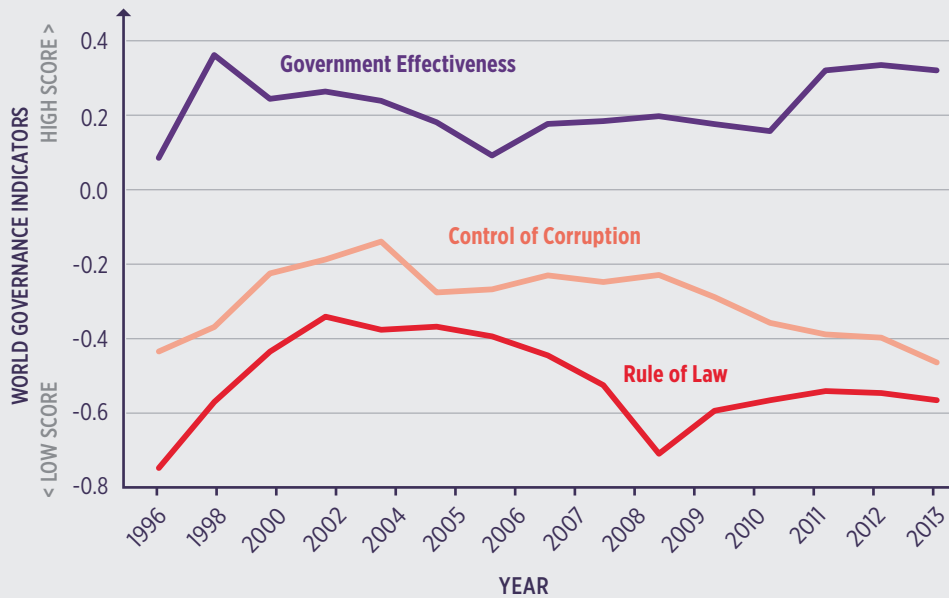
Calculating the MPPI gives a snapshot of positive peace in Mexico today. However, given the paucity of state-level data, it is not possible to calculate a reliable time series of positive peace at sub-national level year-by-year. Estimates of how positive peace has changed in Mexico in recent years therefore can only be done at the country level. Given that Well Functioning Government, Low Levels of Corruption and Good Relations with Neighbors are most correlated to peace in Mexico, it is important to look at trends in these Pillars.

The World Bank's World Governance Indicators (WGI) measure various aspects of governance at the country

level on a scale of -2.5 (worst) to 2.5 (best). One of these indicators is government effectiveness, which captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. **Figure 27** shows the trend of this measure in Mexico since 1996. This suggests that effectiveness of the government in Mexico was on a steady decline in the period prior to the drug war. From 2010 onwards, effectiveness increased in Mexico and is now better than it has been for the last decade.

FIGURE 27**GOVERNANCE, RULE OF LAW AND CORRUPTION IN MEXICO, 1996-2013**

While governance has been assessed by the World Bank as having improved in Mexico since 2010, control of corruption and rule of law continue to deteriorate.



Source: World Bank

Rule of law, in terms of quality of contract enforcement, property rights and the effectiveness of the police and the courts, as well as the likelihood of crime and violence, is also measured within the WGI. In Mexico, this measure saw a significant improvement in the late nineties but has since been deteriorating steadily, reaching a low in 2008. Control of corruption as measured by the WGI has seen a similar trend.

To get a further perspective on the institutions within a Well Functioning Government and adherence to the rule of law, Gallup World Poll asks whether a respondent has confidence in the national government or the local police. **Figure 28** shows that the numbers of respondents answering affirmatively has significantly declined since 2006, by at least ten percent. The evidence suggests that the Pillars of Peace that are most strongly correlated with conflict and violence in Mexico have deteriorated significantly in the last decade. While government effectiveness has improved since 2010, rule of law and control of corruption have been deteriorating.

When more recent data from the World Bank is available, it may reflect the improving levels of trust that is being picked up in the ENVIPE survey run by INEGI. Continuing deterioration of the Pillars of Peace will erode the mechanisms that can be used to combat and recover from the kinds of conflict and violence that Mexico is currently experiencing.

THE PILLARS THAT ARE MOST STRONGLY CORRELATED WITH CONFLICT AND VIOLENCE IN MEXICO HAVE DETERIORATED SIGNIFICANTLY IN THE LAST TEN YEARS.

FIGURE 28 PERCEPTIONS OF INSTITUTIONS AND LIFE SATISFACTION, 2006-2012

Corresponding to the increase in violence and conflict in Mexico, confidence in the police and the national governments has fallen. Life satisfaction has also decreased in Mexico at the country level.



Source: Gallup World Poll

BY BUILDING POSITIVE PEACE, MEXICO WILL BE BETTER ABLE TO ADDRESS NOT ONLY ITS LEVELS OF VIOLENCE BUT ALSO BUILD ECONOMIC PROSPERITY, IMPROVE HUMAN WELLBEING AND TACKLE DEVELOPMENTAL ISSUES.

PILLARS OF PEACE AND THE LEAST PEACEFUL STATES: TAILORING POLICY TO STRENGTHS IN THE SHORT TERM

Knowing the strengths and weaknesses of the significant Pillars in each state offers a more tailored approach to thinking about policies to alleviate violence. To illustrate, Guerrero and Morelos rank as the two least peaceful states on the MPI. Perceptions of governance and control of corruption are poor in both states. However, Guerrero and Morelos score better than most in Good Relations with Neighbors. In fact, Morelos performs better in this Pillar than the five most peaceful states in Mexico. This suggests that people within these states have a comparatively strong sense of community and participate in problem solving at local levels. Policy in these regions could seek to leverage such existing community ties.

Residents of Tamaulipas and Baja California score more positively in their confidence in the government, police and judiciary than the most peaceful state in Mexico. Furthermore, corruption is not as prevalent in these two states as in other regions. This sense of trust within communities would allow for more open and productive dialogues between governments and the public than would be possible in regions where confidence is much lower. In areas where relations with neighbors are low, grassroots community building may be able to assist in creating more peaceful societies.

PILLARS OF PEACE



The Pillars of Peace remains the leading conceptual framework for understanding and describing the factors that are associated with peaceful societies.

The research is based on an analysis of over 4,000 data sets, surveys and indices; it is the first empirical framework that aims to measure positive peace. The Pillars of Peace was released by IEP in September 2013.

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ECONOMICSANDPEACE.ORG/PUBLICATIONS

TABLE 13 STRENGTHS AND WEAKNESSES OF THE PILLARS OF PEACE BY STATE

Some of the least peaceful states perform well in at least one of the three Pillars most correlated with peace in Mexico. Strengths could be leveraged in tailored regional policy recommendations.

MPI RANK	STATE	Well-Functioning Government	Low Levels of Corruption	Good Relationships with Neighbors
1	Hidalgo	Poor	Good	Good
2	Yucatán	Good	Good	Poor
3	Querétaro	Average	Average	Good
4	Campeche	Good	Good	Average
5	Tlaxcala	Average	Good	Good
6	Chiapas	Good	Good	Average
7	Veracruz	Average	Average	Good
8	San Luis Potosí	Poor	Poor	Good
9	Nayarit	Good	Average	Average
10	Puebla	Poor	Poor	Average
11	Tabasco	Average	Poor	Average
12	Baja California Sur	Poor	Good	Good
13	Oaxaca	Average	Good	Average
14	Aguascalientes	Good	Average	Good
15	Coahuila	Good	Poor	Average
16	Zacatecas	Poor	Good	Good
17	Sonora	Average	Average	Average
18	Nuevo León	Good	Average	Poor
19	Durango	Average	Average	Poor
20	Distrito Federal	Poor	Poor	Poor
21	Colima	Good	Good	Good
22	Quintana Roo	Good	Average	Poor
22	México	Poor	Poor	Poor
24	Jalisco	Average	Good	Poor
25	Baja California	Good	Average	Poor
26	Chihuahua	Average	Average	Poor
27	Tamaulipas	Good	Poor	Average
28	Guanajuato	Poor	Good	Poor
29	Michoacán	Poor	Poor	Good
30	Sinaloa	Average	Poor	Poor
31	Morelos	Poor	Poor	Good
32	Guerrero	Poor	Poor	Average

3 ECONOMIC VALUE OF PEACE IN MEXICO

Although the increases in violence in Mexico have come at a great cost, there is little research that estimates the impact of violence on the Mexican economy. The aim of this section is to calculate the cost of violence containment in Mexico.

This section presents conservative estimates for the economic impact of violence in Mexico, as only information that could be reasonably sourced or deduced has been counted. Some of the items not counted in the study include costs associated with burglaries, domestic violence, insurance against injury and alarm systems. The first study on the economic impact of violence in Mexico was carried out as part of the 2013 Mexico Peace Index. This updated estimate reflects the fact that Mexico was slightly more peaceful in 2014, with a decline in homicide and violent crime, which has the effect of reducing the economic impact of violence. However, the costs of violence remain significantly higher than before the drug war began in 2007, demonstrating that there is still a significant, ongoing economic impact.

The analysis also incorporates military expenditure, as the aim of the military is to either act as a deterrent to violence or to control violence. Mexico's military has been deeply involved in combatting violence as part of the drug war. For a full list of items included in the analysis, refer to the economic methodology on page 81.

Violence and the fear of violence impact individuals and societies in many different ways. First there are the direct costs from the short-term emotional and physical impacts. This can manifest itself in lost workdays or reduced productivity. There is also the longer-term impact on victims of crime, particularly through lower economic output, psychological trauma and fear. There are also direct costs associated with damage to property and medical costs.

High crime and violence rates foster a sense of fear that affects the day-to-day quality of life and the economic choices that individuals might make. Even the fear engendered by violence has a cost, potentially resulting in more defensive expenditures on personal security items and avoidance of areas that are considered dangerous. For example, a young man who knows of someone his age being kidnapped at a set of traffic lights may then alter his routine and limit his transportation routes and the time he spends outside of his house. This fear would have personal and economic consequences and potentially alter his participation in the local economy.

These expenditures are important to count, as development theory and literature on peace indicate that direct violence has a serious negative effect on both social and economic development. This holds true for both high and low income countries and is made more pertinent in Mexico because of the impact of drug-trade related violence. Violence also impacts business productivity and cost structures, as well as diverting government expenditures that otherwise may have been spent on funding infrastructure, lowering taxes and providing stimulus.

Counting the economic benefits that accrue to more peaceful societies is notoriously difficult. Despite this, it is important to undertake the exercise in order to better understand the magnitude of the benefits that might accrue from pursuing peace. In recognition of this, a detailed analysis of the likely economic impact of violence has been conducted to accompany the MPI.

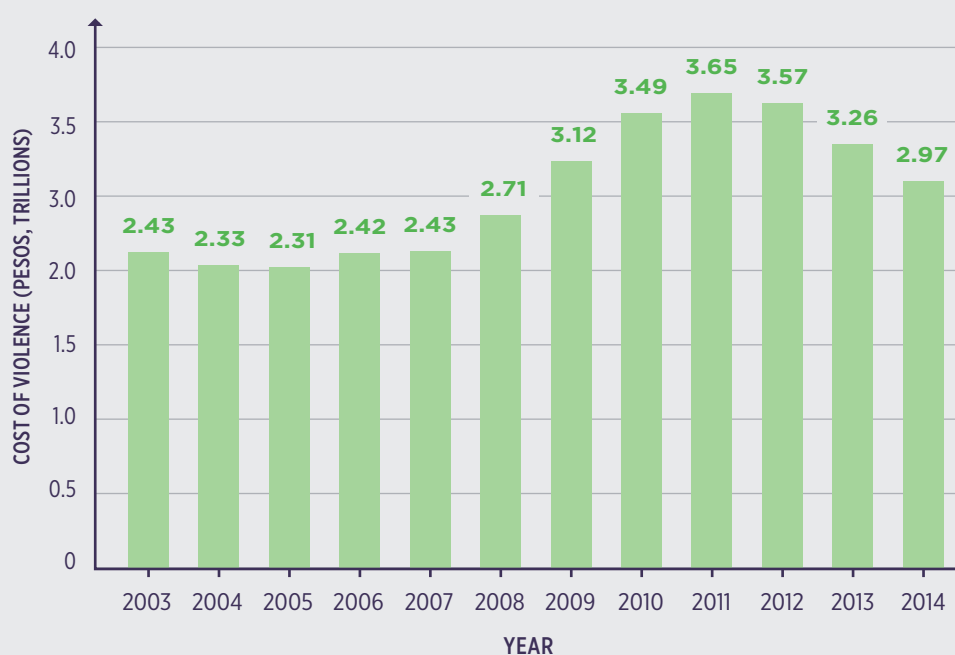
There are at least two types of economic gains associated with increases in peace:

- Direct benefits are cost savings associated with reductions in violence. Costs will be reduced for items such as medical expenses, incarceration, justice expenditures, policing and the military.
- Indirect benefits are generated from the additional economic activity gained from more productive expenditure in other areas of the economy such as the additional economic activity of victims who would be deceased, injured or incapacitated.

IEP's analysis finds that economic activity related to violence containment in 2014 reached \$2.97 trillion pesos (US\$233 billion), which is equivalent to 17.3 percent of Mexican GDP in 2014. To put this figure in perspective, \$2.97 trillion pesos is \$24,844 pesos (US\$1,946) for every Mexican citizen and is three times the level of government funding to health.

FIGURE 29 ECONOMIC IMPACT OF VIOLENCE CONTAINMENT TO MEXICO, 2003-2014 (PESOS, TRILLIONS)

The economic impact of violence has increased by 22 percent since 2003.



Source: IEP

This is compared to \$3.57 trillion pesos or 23.1 percent of GDP, which was the impact of violence in 2012, and represents a reduction of 16.7 percent or \$596 billion pesos. These savings directly equate to improved economic prosperity. Although it is difficult to directly analyze the underlying drivers of economic growth, it is possible to assess Mexico's economic performance compared to other countries. Given the turbulent economic conditions of the last decade, comparing year-on-year economic growth may not be the most reliable form of comparison. A better mechanism to determine whether reductions in violence have had a positive impact on the economy is to compare Mexico's share of global economic growth prior to the drug war, during the period that includes the drug war and for the four-year period 2010–2013. The following figures are expressed in Purchasing Power Parity (PPP) and sourced from the World Bank;

- Between 1990 and 1999 Mexico was the 9th largest contributor to global economic growth
- Between 2000 and 2009 Mexico was the 15th largest contributor to global economic growth
- For the years 2010 to 2013 Mexico was the 12th largest contributor to global economic growth

Although it is difficult to accurately determine the underlying drivers of economic growth, it is clear that the years in which Mexico's violence was at its greatest also corresponded with a lower contribution to global economic growth.

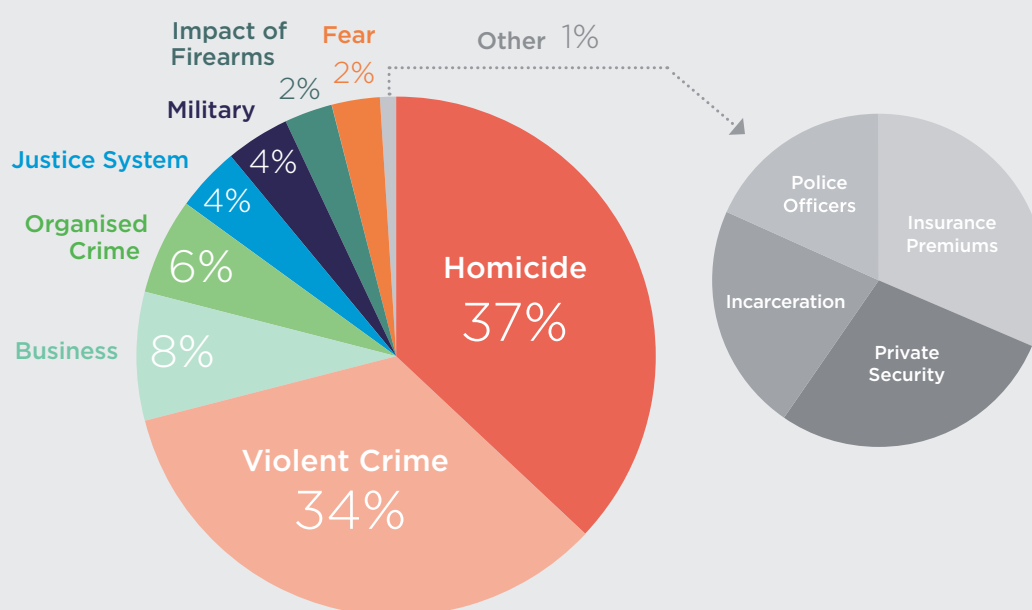
The cost of containing violence in 2014 is at the lowest levels since 2008. This is illustrated in greater detail in **Figure 29**.

The economic impact of three trillion pesos in 2014 is comprised of the direct and indirect costs of violence and a one-for-one multiplier that represents the additional economic benefits of the additional economic activity that would take place if the violence did not occur.

The cost of homicides was the major contributor, accounting for 37 percent of the total economic impact of violence. In 2014 homicide, violent crime, cost to business and organized crime constituted 85 percent of the total violence containment costs being 34 percent for violent crime, eight percent for cost to business and six percent for organized crime. This is followed by the costs of the justice system and the military, which accounted for four percent each. Details on the overall composition of violence containment expenditure are provided in **Figure 30**.

FIGURE 30 MAKEUP OF VIOLENCE CONTAINMENT COSTS, 2014

Homicide, violent crime and organized crime are the biggest contributors to violence costs.



Source: IEP

Many different types of crimes have relatively high indirect costs as compared to their direct costs. For instance, the medical costs of an assault tend to be relatively low when compared to the lost productivity of the victim. Indirect costs represent the lost lifetime income, lost productivity from the suffering of friends and family and other costs such as crime-avoidance activities. Furthermore, the significant indirect costs that result from violence do not necessarily accrue in the year the violence occurs. For instance, homicides that occur in the current year will continue to represent a cost well into the future. This is because the potential economic contributions that would have been made by the victim throughout their life no longer occur. In recognition of this, future financial flows are recorded in the year in which the homicide occurs.

The economic benefit to the government from avoiding violent crime is dependent on how much more productively the money could have been used if it had not been spent on dealing with the consequences of violence. For instance, if the money spent on medical costs had been invested in education or infrastructure then there would have been an additional contribution to economic development and overall well-being.

Alternatively, indirect costs, which represent suffering and lost productivity as a consequence of violence, only enter into the economy if violence is avoided. Consequently, when an act of violence does not occur the full additional economic activity accrues to the economy. This has been reflected in the calculations below and includes the application of an 'economic multiplier.' Therefore, the estimates go beyond measuring only the recorded costs of violence to holistically account for the economic impact of violence on the Mexican economy. An explanation of the multiplier effect is provided in **Box 2**.

BOX 2 THE MULTIPLIER EFFECT

The multiplier effect is a commonly used economic concept, that describes the extent to which additional expenditure has flow-on impacts on 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 additional spending. This mutually reinforcing economic cycle is why 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. If a community were to become more peaceful, individuals would spend less time and resources protecting themselves against violence. Thus, a decrease in violence is likely to have substantial flow-on effects for the wider economy, as money is diverted towards more productive areas such as health, business investment, education and infrastructure.

For instance, when a homicide is avoided the direct costs, such as the money spent on medical treatment and a funeral, could be spent elsewhere. Furthermore, in avoiding a death the economy also stands to gain the

lost lifetime income of the victim. The economic benefits from greater peace can therefore be highly 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 faced by 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 (Hiatt & Sine, 2013).

This study assumes that the multiplier equals one, signifying that for every peso saved on violence containment, there will be an additional peso of economic activity. This is a relatively conservative multiplier and broadly in line with similar studies (Brauer & Tepper-Marlin, 2009).

TABLE 14 THE DIRECT AND INDIRECT COSTS OF VIOLENCE IN MEXICO, 2014 (PESOS, BILLIONS)

The economic impact of violence containment expenditure was 17.3 percent of Mexico's GDP in 2014.

INDICATOR	DIRECT (\$)	INDIRECT (\$)	MULTIPLIER (\$)	TOTAL ECONOMIC IMPACT (\$)
Homicide	0.2	551.4	1,102.8	1,102.9
Violent Crime	82.1	466.3	932.5	1,014.6
Cost to Business	0	113.2	226.4	226.4
Justice System	130.2	0	0	130.2
Military	110.6	0	0	110.6
Organized Crime	170.8	0	0	170.8
Impact of Firearms	98.5	0	0	98.5
Fear	0	37.5	75	75
Insurance Premiums	13.1	0	0	13.1
Private Security	11.8	0	0	11.8
Incarceration	0	4.6	9.2	9.2
Police Officers	7.6	0	0	7.6
TOTAL (\$)	624.8	1,173	2,346	2,970.8
% of GDP	3.6%	6.8%	13.6%	17.3%

A detailed approximation of the costs of violence to the Mexican economy since 2003 has been provided in **Table 15**. **Table 15** includes both direct and indirect costs but does not include the multiplier effect.

The biggest direct cost of violence containment expenditure comes from the cost of organized crime. The cost of organized crime has been very high since 2012, when it increased 57 percent from 2011 to \$196.2 billion pesos. Overall, the cost of organized crime has increased 142 percent from 2003 to 2014.

The cost of the justice system is the second biggest contributor to the direct cost of containing violence and has also increased substantially in recent years. The direct costs of the justice system peaked in 2014 at \$130 billion pesos up from the previous high of \$122 billion pesos in 2013. There is insufficient data on the costs of the judicial system before 2009, which explains why the recorded costs were not available from 2003 to 2008.

TABLE 15 THE DIRECT AND INDIRECT VIOLENCE CONTAINMENT EXPENDITURE EXCLUDING MULTIPLIER, 2003-2014 (PESOS, BILLIONS)

The composition of expenditures on violence containment has altered significantly over the period.

INDICATOR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Homicide	444.4	408	392.6	412.4	363.2	473	576.3	731.9	804.5	766.8	637.7	551.6
Cost to Business	98.7	94.2	92	95.8	95.2	108.2	121.3	141.4	148.5	140.8	125.7	113.2
Violent Crime	576.8	565.4	557.1	575.1	618.7	625.5	641.8	652.6	645.2	616.6	583.4	548.3
Impact of Firearms	40.7	39.1	40.7	42.9	47.1	56.1	86.6	101	104.2	88.6	80.6	98.5
Incarceration	4.8	4.8	4.8	4.9	4.7	4.9	4.9	4.7	4.8	4.6	4.6	4.6
Police Officers	3.8	5.1	7	6.7	6.5	7.4	8.1	7.7	7.7	7.7	7.6	7.6
Private Security	10	10.1	10.2	10.3	10.4	10.5	10.6	11.1	11.2	11.5	11.7	11.8
Organized Crime	70.5	77.3	101.8	120.6	137.5	147.9	162.4	127.9	124.6	196.2	218.2	170.8
Justice System	n/a	n/a	n/a	n/a	n/a	n/a	100.4	110.2	113.7	117.8	121.9	130.2
Military	53	51	54.9	59.7	67.4	67.5	75	76.6	80.9	84	100.1	110.6
Fear	30.6	30.2	30.4	32.5	35.3	36.6	36	41.7	42.3	41.8	41.2	37.5
Insurance Premiums	8.4	9.1	9.4	10.2	10.6	10.9	10.2	10.8	11.4	11.8	12.3	13.1
TOTAL (\$)	1,341.8	1,294.2	1,300.8	1,371	1,396.5	1,548.4	1,833.7	2,017.5	2,099.1	2,088.3	1,945	1,797.8

TABLE 16 THE INDIRECT IMPACT OF VIOLENCE EXCLUDING MULTIPLIER, 2003-2014

The indirect costs of violence containment expenditure related to homicides have increased by \$107 billion pesos since 2003.

INDICATOR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Homicide	444.3	407.9	392.5	412.2	363.1	472.9	576.1	731.7	804.2	766.5	637.5	551.4
Violent Crime	506.3	496.3	488.7	503.3	538.6	540.5	552.2	557.1	548.1	524.3	493.2	466.3
Business Losses	98.7	94.2	92	95.8	95.2	108.2	121.3	141.4	148.5	140.8	125.7	113.2
Fear	30.6	30.2	30.4	32.5	35.3	36.6	36	41.7	42.3	41.8	41.2	37.5
TOTAL (\$)	1,084.7	1,033.3	1,008.3	1,048.7	1,036.9	1,163	1,290.5	1,476.5	1,548	1,478.1	1,302.2	1,173

The indirect costs of violence have increased by \$88.3 billion pesos since 2003, chiefly as a consequence of increases in homicide and the cost to business. From 2003 to 2014 the indirect costs of homicide increased by \$107 billion pesos, however the indirect cost of violent crime decreased by \$40 billion pesos. The nature of these costs means they are likely to materially impact the economy over time, be unevenly distributed and affect states differently.

The direct and indirect costs of violence containment expenditure have an immediate impact on state economies. States that are more peaceful devote the least amount of economic resources to dealing with violence. **Figure 31** highlights the positive relationship between a state's score on the MPI and its per capita violence containment expenditure. Detailed per capita estimates of violence containment expenditure by state have been provided in **Table 17**.

FIGURE 31 PER CAPITA ECONOMIC IMPACT OF VIOLENCE, 2014 (PESOS)

States with lower levels of peace on the MPI tend to have higher per capita costs of violence.



Source: IEP

TABLE 17 THE PER CAPITA ECONOMIC IMPACT OF VIOLENCE, 2014 (PESOS)

States with lower levels of peace on the MPI tended to have higher per capita costs of violence.

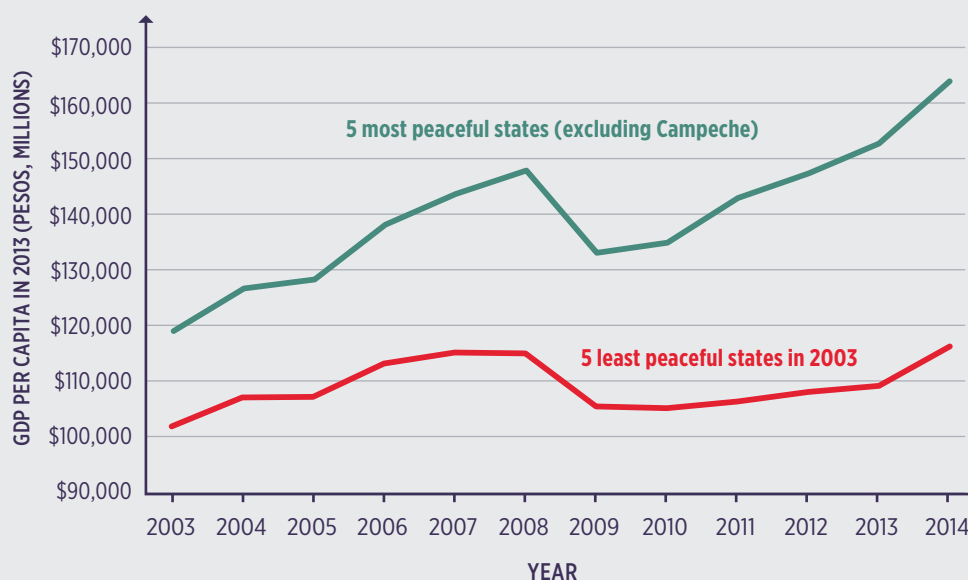
STATE	STATE MPI SCORE	PER CAPITA ECONOMIC IMPACT OF VIOLENCE (\$)
Hidalgo	1.604	12,764
Yucatán	1.680	13,835
Querétaro	1.703	16,431
Campeche	1.810	13,860
Tlaxcala	1.892	9,494
Chiapas	1.930	12,151
Veracruz	1.979	10,054
San Luis Potosí	1.998	14,876
Nayarit	2.028	15,305
Puebla	2.230	17,031
Tabasco	2.354	24,224
Baja California Sur	2.357	17,010
Oaxaca	2.427	21,263
Aguascalientes	2.445	21,856
Coahuila	2.591	22,572
Zacatecas	2.604	19,033
Sonora	2.625	22,151
Nuevo León	2.670	23,004
Durango	2.829	22,279
Distrito Federal	2.867	25,476
Colima	2.872	32,783
Quintana Roo	2.904	31,771
México	2.904	25,673
Jalisco	2.915	19,565
Baja California	2.954	36,731
Chihuahua	2.960	31,092
Tamaulipas	2.980	33,482
Guanajuato	3.015	24,967
Michoacán	3.104	24,230
Sinaloa	3.256	33,414
Morelos	3.425	41,313
Guerrero	3.657	43,666

The positive relationship between a state's MPI and its per capita expenditure on violence is to be expected and provides further evidence of the detrimental impact that violence has on economic and social development. Furthermore, it reaffirms that the benefits of peace extend beyond the absence of violence. Peacebuilding also involves the creation of the attitudes, institutions and structures that encourage lower levels of violence, greater increased social cohesion and resilience. This in turn fosters human development and can have a positive impact on economic growth.

THE POSITIVE RELATIONSHIP BETWEEN A STATE'S MEXICO PEACE INDEX SCORE AND ITS PER CAPITA EXPENDITURE ON VIOLENCE PROVIDES FURTHER EVIDENCE OF THE DETRIMENTAL IMPACT THAT VIOLENCE HAS ON ECONOMIC AND SOCIAL DEVELOPMENT.

FIGURE 32 DIFFERENCE IN GDP PER CAPITA FROM 2003 LEVELS, 2003-2014 (PESOS, MILLIONS)

The five states which were more peaceful in 2003 (excluding Campeche) had 16.6 percent higher GDP per capita than the five least peaceful states in 2003. This increased 24 percent by 2014 to a 40.4 percent difference between the states from 2003 levels.



Source: IEP

PEACE CAN HAVE ECONOMIC DIVIDENDS, AS MONEY WHICH WOULD HAVE BEEN SPENT ON CONTAINING VIOLENCE CAN BE DIVERTED TO OTHER MORE PRODUCTIVE AREAS OF THE ECONOMY.

As well as having less expenditure related to violence, more peaceful states also have significantly higher GDP per capita. The difference in GDP per capita between the five most peaceful and five least peaceful states in 2003 was 16.6 percent, rising to 40.4 percent in 2014. Campeche has been removed from this analysis even though it was the third most peaceful state in 2003. Campeche is an outlier due to its large oil revenues and because it has GDP per capita almost five times the average level, hence its inclusion would skew the results.

From 2003 to 2014 the GDP per capita for the five most peaceful states grew by 37 percent, whereas the GDP per capita for the five least peaceful states only grew by 14 percent. If the economies of the five least peaceful states grew at the same rate as the five most peaceful states they would have a GDP per capita \$23,400 pesos higher in 2014.

Similarly, if the 16 least peaceful states in 2003 had the same economic growth as the 16 most peaceful states in 2003 the Mexican economy would be \$140 billion pesos

larger in 2014. This is equivalent to 13 percent of the Mexican economy and could be viewed as the opportunity cost arising from violence. This reflects that peace can have economic dividends, as money which would have been spent on containing violence can be diverted to other more productive areas of the economy.

Peace creates a virtuous cycle. Effective expenditure in reducing violence frees capital that can then be directed to areas that spawn additional economic benefits, in turn helping to reduce violence. This virtuous cycle will then improve business profits and increase tax receipts, thereby allowing government to devote additional funds to further reductions in violence.

The case for peace is therefore extremely strong, particularly as many social investments, such as education, also have spin-off effects such as improvements in human capital, reduced recidivism rates and a lower teenage pregnancy rate. This then helps in reducing the need for policing, judiciary and incarceration costs, as well as increasing labor market productivity and taxation receipts.

FIGURE 33**THE VIRTUOUS CYCLE OF PEACE AND ECONOMIC GROWTH**

Investing in peace can pay clear economic dividends.



Source: IEP

This virtuous cycle of investments in peace has been illustrated in more detail in **Figure 33**.

By understanding the social and economic drivers of violence, policymakers and business leaders in Mexico can have a better understanding of the costs and benefits of particular social and economic investment programs. Furthermore, by directing resources towards addressing the root causes of violence, society can begin to make long-term investments in the creation of a virtuous cycle of peace and economic prosperity. As this section has shown, the economic benefits are also clearly significant, with the equivalent of 17.3 percent of Mexico's annual GDP being consumed by violence and dealing with the consequences of violence.

ECONOMIC COST OF VIOLENCE CONTAINMENT



The Economic Cost of Violence Containment calculates the cost of violence in over 150 countries according to 13 different types of violence. The report seeks to categorically identify and understand the economics of peace by quantifying the costs of violence and economic opportunities of more peaceful societies. The report was released by IEP in February 2014.

DOWNLOAD THE FULL REPORT:
ECONOMICSandPEACE.ORG/PUBLICATIONS

IMPACT OF VIOLENCE ON BUSINESS

This section of the report uses data from two business surveys. The National Business Victimization Survey (ENVE) produced bi-annually by INEGI has been used to gauge the impact of crime on business. This survey contains over 3.7 million respondents, which include business owners, employees and organizations, taken from a range of both private and public enterprises across all states in Mexico from 2011 to 2013.

Additionally, the American Chamber of Commerce in Mexico has also produced a Business Security Survey (BSS) that was based on the results of 531 questionnaires, which were given to a range of organizations operating in various sectors and locations of Mexico's economy from 2011 to 2012.

Crimes directed toward business have the ability to decrease economic growth and investment, affect revenue streams and create an environment that is ripe for corrupt behavior. According to the two business surveys, total business crimes have decreased from 1.38 million cases to 1.27 million cases from 2011 to 2013. High-end crimes such as cases of corruption, extortion and fraud have decreased since 2011. The BSS survey conducted by the American Chamber of Commerce in 2013 stated that 24 percent of the businesses surveyed experienced that the security situation of their business was better off in 2012 than 2011.

Changes in business crimes varied by state with the biggest decreases being in Nuevo León and Durango which both fell by 43 percent for the period from 2011 to 2013. The largest deteriorations for the same period occurred in Puebla with 40 percent deterioration and Guerrero with 31 percent.

Not surprisingly, the states that incur the highest level of business crime also have higher GDP. This is because trade is a major sector targeted by business crime accounting for more than half of total business crime. According to the BSS survey, four percent of businesses that faced attacks on their supply chain suffered losses between US\$1 million and \$5 million.

THE TOTAL COST TO BUSINESS AS A RESULT OF CRIME HAS DECREASED ON AVERAGE BY 2% SINCE 2011.

KEY FINDINGS

- Security costs for businesses averages four percent of their operating costs in Mexico, and a significant number of businesses decreased activity as a direct result of crime.
- The majority of business crime occurs in areas where business activity is strongest, as demonstrated by a statistically significant correlation between the total number of business crimes and GDP.
- There have been slight improvements in the levels of business crime with a reduction in acts of corruption, fraud and extortion. The total cost to business as a result of crime has decreased on average by two percent since 2011.
- This is reflected in the fact that 24 percent of businesses surveyed reported the security situation was better in 2012 than 2011. Subsequent data may show continued improvements.

Spending on protective measures against crime has increased since 2011. Examples of protective measures include hiring of security guards, implementation of security systems, purchase of locks, bars on windows and insurance. A high proportion of Mexican businesses have introduced protective measures as a response to crime, with the most common measure being electronic or mechanized security. This includes 30 percent, which have installed video surveillance or alarms and placed locks, and 13 percent, which have changed to windows or doors with higher levels of security. However these protective expenditures are still in the minority with 58 percent of businesses stating that they still did not have any form of security on their premises.

Businesses spend on average four percent of their operating costs on security measures. The impact of crime to businesses can extend the cost of protective measures. In extreme circumstances businesses have had to relocate for security purposes. Relocations have been concentrated in three locations: Mexico City, Querétaro and Nuevo León which together account for 55 percent of all business that have relocated for security reasons.

Figure 35 overleaf shows the number of businesses that have reported various acts of business crime. The largest improvement since 2011 has been in corruption. Improvements have also been in the levels of fraud and extortion. According to the BSS, 35 percent of those who suffered some level of extortion increased their security measures as a result of the crime.

FIGURE 34 NUMBER OF CRIMES REPORTED BY INDUSTRY, 2013

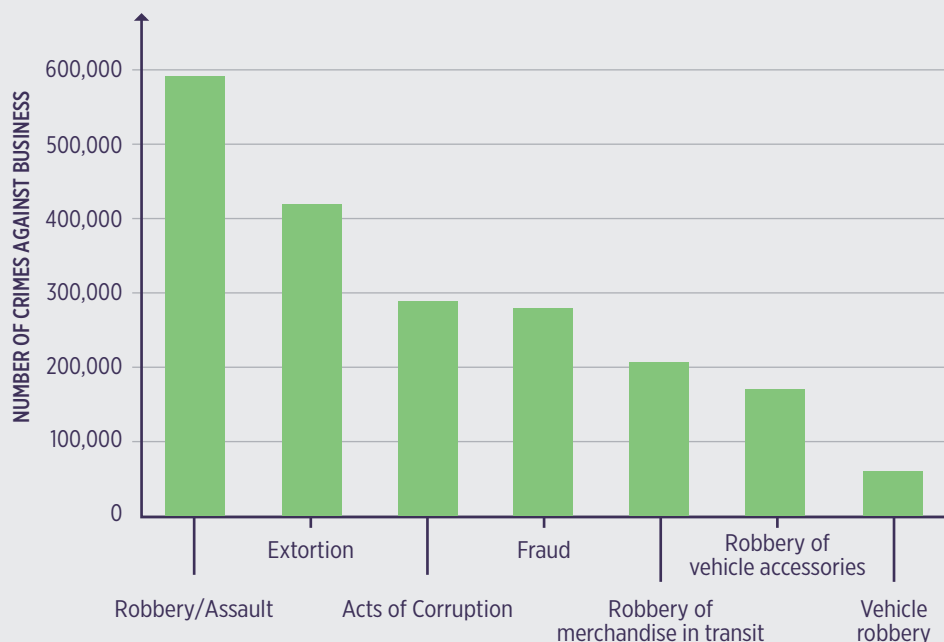
The trade industry accounted for the majority of business crime in Mexico. On a positive note, all industries experienced a slight decrease in business crime from 2011 to 2013.



Source: ENVE Survey, INEGI

FIGURE 35 NUMBER OF CRIMES AGAINST BUSINESS BY CATEGORY OF CRIME, 2013

The crimes most reported by businesses are robbery and assault, followed by extortion, corruption and fraud.



Source: ENVE Survey, INEGI

The majority of business crime occurs in areas where business activity is strongest. The 2013 total costs of business crime by state was positively correlated with state GDP at $r=0.90$ while the total number of business crimes was correlated with GDP at $r=0.71$. These are both statistically significant correlations and demonstrate the states which had the largest level of business crime, also had the largest levels of economic production in Mexico. However, this does not mean that business crime has no effect on economic performance. Rather, business crime affects flows to where the economy is strongest.

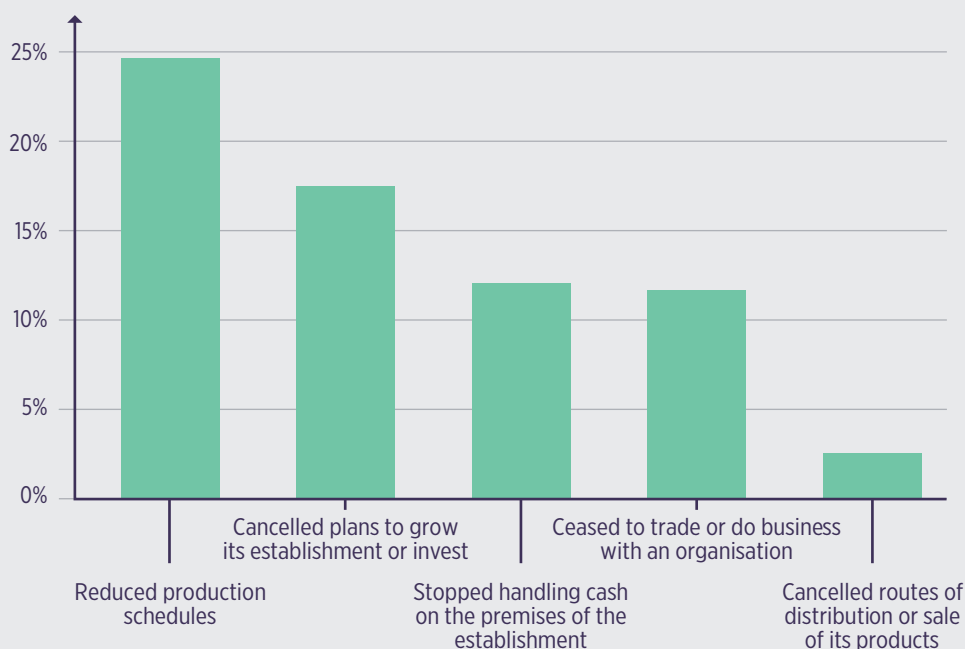
As well as burdening businesses through increased spending costs for security measures, crimes against business can also have significant impact on the growth of businesses. According to the ENVE survey 18.9 percent of businesses who had been victims of crime reported that they cancelled plans to grow or invest as a result. This was specifically as a consequence of crime and not just due to normal business outcomes. Of these businesses, almost 40 percent were medium to large enterprises, which

employ at least 101 people. This has significant implications for business growth and employment within Mexico. Businesses that were victims of crime also restricted trade, with 5.9 percent of businesses cancelling trade routes and nine percent ceased trading or dealing with another company due to an experience of crime.

While crime against business continues to have a significant impact on economic growth in Mexico, there has been an increase in the perception of safety within the business environment. The 2014 ENVE survey highlights large improvements in cases of corruption, fraud and extortion. These improvements could be linked to decreased activity by organized crime.

FIGURE 36 PERCENTAGE OF BUSINESS ENTERPRISES SURVEYED THAT CHANGED THEIR PATTERNS OF BUSINESS DUE TO AN EXPERIENCE OF CRIME, 2013

Out of total businesses who experienced crime, 22 percent of businesses surveyed reduced production or marketing of goods, nine percent ceased trading with other companies and six percent cancelled trade routes or sales of products.



Source: ENVE Survey, INEGI

WHILE CRIME AGAINST BUSINESS CONTINUES TO HAVE A SIGNIFICANT IMPACT ON ECONOMIC GROWTH IN MEXICO, THERE HAS BEEN AN INCREASE IN THE PERCEPTION OF SAFETY WITHIN THE BUSINESS ENVIRONMENT. THE 2014 ENVE SURVEY HIGHLIGHTS LARGE IMPROVEMENTS IN CASES OF CORRUPTION, FRAUD AND EXTORTION. THESE IMPROVEMENTS COULD BE LINKED TO DECREASED ACTIVITY BY ORGANIZED CRIME.

4 EXPERT CONTRIBUTIONS

In 2008 the Mexican government implemented a set of judicial reforms with the aim to increase the efficiency of the judicial system. Concerns over judicial corruption, unfair processes for both the victims and defendants, high rates of impunity as well as overcrowded prisons were central to the reform efforts. This contribution from Guillermo Zepeda Lecuona, an expert on Mexico's judicial system and on the current reforms, provides insight into the success and scale of the implementation process. The essay highlights that the states which have currently implemented the new judicial reforms have seen improvements across a wide range of areas. These include reductions in preventative detention, the implementation of alternative dispute resolution and drastic reduction in the duration of criminal proceedings. This contribution highlights how important implementation of the judicial reforms is for improving peace within Mexico.

SISTEMA ACUSATORIO Y EL ÍNDICE DE PAZ EN MÉXICO THE ADVERSARIAL SYSTEM AND THE PEACE INDEX IN MEXICO

Guillermo Zepeda Lecuona, Director, Jurimetria

El índice de Paz que ha desarrollado El Institute for Economics and Peace reúne variables de incidencia delictiva y violencia; política criminal; y de desempeño del sistema de justicia penal.

Por otra parte en México, desde hace ocho años se viene desarrollando un proceso de reforma penal hacia un sistema de corte acusatorio y garantista con audiencias públicas y orales, mejor conocido como "juicios orales" en materia penal. Este proceso tuvo un elemento fundamental que es la reforma constitucional de junio de 2008 que estableció como plazo de vigencia del nuevo sistema en las 33 jurisdicciones del país el 18 de junio de 2016.

El propósito de estas líneas es mostrar el panorama del avance, resultados y desafíos del nuevo sistema, que tiene una relación estrecha con algunas de las variables del sistema penal consideradas por el Índice de Paz como la impunidad y la tasa de encarcelamiento. De igual forma de manera indirecta inmediata, en la incidencia delictiva y violencia (se esperaría la reducción si se cumplen las premisas de una

política criminal que busca la reducción de la impunidad, el impulso de los mecanismos de justicia alternativa y la transferencia de recursos derivados de la descongestión del sistema penal y penitenciario hacia la prevención y la persecución y sanción de los delitos de alto impacto.

El nuevo paradigma penal y modelo procesal buscan mejorar la situación de las víctimas, establecer estándares más altos de garantías procesales de los imputados, y que el ministerio público y la defensa participen en un proceso equilibrado frente a un juez imparcial.

Así mismo, se busca un proceso más eficiente, un uso de los recursos más racional, mejorar la capacidad de respuesta del sistema penal y reducir la impunidad. Actualmente en 25 de las 32 entidades federativas ya está en operación el nuevo sistema de justicia penal en alguna parte de su territorio y cinco ya en toda la entidad; y 7 estados más se preparan para implementarlo.

Hacer un seguimiento de la implementación y evaluar los resultados de la reforma penal resulta una tarea de gran complejidad pues además de los profundos cambios legales, implica una transformación de las organizaciones del sistema y sus procesos, intensa capacitación de todos los operadores, adecuaciones de infraestructura, equipamiento y tecnología, una estrategia de comunicación interna y hacia la sociedad sobre la magnitud y los alcances del cambio, así como un cambio en la cultura legal de abogados y de la ciudadanía.

Además, el sistema penal involucra la actuación e interacción de muchos actores (ministerios públicos, jueces, defensores, víctimas, imputados, policías, organizaciones de la sociedad civil, entre otras). Por otra parte, los objetivos de la reforma son muchos y en ocasiones divergentes entre sí.

Por ello, al momento de plantear cómo abordar el estudio y seguimiento de los procesos de implementación se planteó realizar trabajo de campo para determinar si se registra una transformación consistente de las instituciones

del sistema penal, y constatar si se registra un cambio significativo de un conjunto de prácticas muy concretas en el funcionamiento normal del sistema penal.

Un equipo de 10 investigadores realizamos trabajo de campo en los estados del país en los que ha operado por más tiempo el nuevo sistema de justicia en materia penal (Chihuahua, Oaxaca, Zacatecas, Estado de México, Morelos, Durango, Nuevo León y Baja California). Este estudio fue posible gracias al generoso apoyo de la Agencia de los Estados Unidos para el Desarrollo Internacional. Se agradece y reconoce este auspicio decisivo para conocer mejor el proceso de implementación de la reforma penal, sus resultados, documentar las mejores prácticas y desarrollar intervenciones específicas para las áreas de oportunidad detectadas.

Se elaboraron siete informes locales de implementación de la reforma en estas entidades federativas y un informe General que analiza comparativamente dichos informes. Aquí sólo se presenta una síntesis de los principales hallazgos.

RESULTADOS Y AVANCES DEL NUEVO SISTEMA

En general se aprecia que el nuevo sistema se está arraigando, las nuevas prácticas se van consolidando y los indicadores de desempeño y calidad de los servicios de justicia penal mejoran significativamente.

Los principales resultados y avances que se apreciaron y documentaron en los estados visitados y analizados son:

- 1) Inmediación total.** A diferencia del sistema anterior en el que los jueces delegan sus funciones de conducción de las audiencias a secretarios o actuarios y los defensores públicos firman actas para simular que estuvieron en audiencias a las que no asistieron, en las 315 audiencias que se presenciaron en este estudio contaron con la presencia ininterrumpida de los jueces, ministerios públicos y los defensores. Es un cambio copernicano hacia una justicia cercana y de mayor calidad que debe reconocerse.
- 2) Reducción significativa en la prisión preventiva.** Uno de los pasivos legales y morales del sistema penal mexicano es el abuso en la prisión preventiva. En general en los estados en los que tiene vigencia el nuevo régimen de aplicación de la prisión preventiva, la intensidad en el uso de la prisión preventiva se ha reducido. Incluso en el Estado de México, que como se verá no ha desarrollado todo el potencial de descongestión del nuevo sistema acusatorio, se registra un leve descenso en la proporción de internos sin condena en la entidad. De los doce estados con el nuevo sistema de justicia a los que hemos extendido el análisis de esta variable, sólo tres presentan

incrementos en sus indicadores de prisión preventiva: Chihuahua (que reestablecido el sistema de establecer y ampliar un catálogo de delitos graves), Durango en el que se presenta una política judicial restrictiva del derecho a la libertad durante el proceso y en el que los procesos no presentan la celeridad esperada, así como en Chiapas en el que un incremento pequeño en el número de internos sin condenas se ha traducido en un significativo incremento como proporción del número total de internos. En Oaxaca aunque se registran niveles preocupantes en la proporción de internos sin condena, en las regiones en las que opera el nuevo sistema el indicador está por debajo de la media estatal, aunque con un inquietante repunte (ver gráfica 1).

- 3) En términos generales se ha incrementado la capacidad de respuesta de las procuradurías de justicia, pues mientras en el sistema tradicional apenas se resuelve satisfactoriamente (definiendo si hay o no un delito que perseguir y un probable responsable) una de cada diez averiguaciones previas, en Baja California la efectividad en la resolución de investigaciones es de 49%, y 40% en Chihuahua y las regiones de Oaxaca en las que ya opera el nuevo sistema de justicia. Entre los estados con el nuevo sistema el estado de México y Morelos presentan las tasas más bajas de efectividad en las investigaciones con 15%.**
- 4) Los mecanismos alternativos de resolución de controversias en materia penal y la justicia restaurativa están siendo instrumentados con gran éxito en Baja California, Chihuahua, Oaxaca y Zacatecas. En los primeros años de implementación de la reforma más de 50 mil casos se resolvieron por mecanismos alternativos y más de 85% de los acuerdos reparatorios se han cumplido. En tanto, el sistema tradicional sigue saturado y dedicando 60% de sus recursos a sobrecriminalizar, investigar, perseguir y hasta encarcelar a personas acusadas de cometer delitos menores no violentos.**
- 5) La defensa pública muestra notoria mejoría y efectividad bajo el nuevo sistema, fortaleciendo el debido proceso y los derechos del imputado.**
- 6) Las víctimas gozan de más derechos y mejor atención; y la reparación del daño es una prioridad para el sistema penal.**
- 7) La duración de los procesos penales se ha reducido drásticamente. Mientras la mediana de duración del proceso penal en el sistema tradicional es de alrededor de 180 días; en el nuevo sistema de justicia en los ocho estados con más tiempo de aplicarlo es de aproximadamente 45 días. Mientras en el sistema tradicional hay casos de uno o dos años de duración hasta la sentencia; en el nuevo sistema, los procesos más prolongados,**

Tabla 1: Población en prisión preventiva por delitos de competencia local

	2006	2007	2008	2009	2010	2011	2012	2013	2014
BAJA CALIFORNIA	7,360	8,370	7,340	6,205	5,709	4,574	4,618	5,373	4,796
	58%	60%	53%	47%	45%	38%	37%	40%	36%
CHIAPAS	1,924	1,905	2,093	2,248	2,478	2,875	2,876	2,935	3,175
	36%	35%	37%	39%	42%	46%	45%	33%	52%
CHIHUAHUA	2,024	1,959	1,304	1,242	1,707	2,353	2,680	3,034	3,483
	44%	42%	34%	34%	43%	47%	47%	45%	50%
DURANGO	1,395	1,504	1,388	1,241	866	948	800	2,034	2,346
	61%	61%	56%	55%	57%	49%	42%	68%	74%
GUANAJUATO	1,502	1,527	1,216	1,306	1,308	1,391	1,349	1,305	1,379
	45%	40%	35%	36%	35%	37%	38%	38%	38%
MÉXICO	7,384	7,315	6,680	6,847	6,884	5,813	5,471	6,173	7,830
	43%	45%	41%	41%	40%	35%	33%	34%	38%
MORELOS	1,222	1,139	1,224	1,079	914	967	800	980	847
	47%	43%	47%	43%	35%	36%	30%	35%	30%
NUEVO LEÓN	1,543	1,231	1,094	1,216	1,297	2,734	3,231	2,366	2,049
	37%	28%	24%	26%	27%	41%	46%	33%	29%
OAXACA	2,053	1,868	1,931	1,675	1,791	2,084	2,293	2,312	2,348
	51%	51%	54%	48%	52%	56%	59%	64%	64%
TABASCO	1,364	1,422	1,633	2,068	2,501	2,711	2,830	2,589	2,776
	40%	38%	43%	52%	58%	53%	54%	55%	59%
YUCATÁN	1,021	1,075	1,062	1,091	1,156	1,116	1,170	982	952
	47%	48%	47%	48%	48%	47%	48%	43%	43%
ZACATECAS	358	345	345	304	283	281	323	349	334
	37%	33%	33%	32%	31%	31%	36%	36%	33%
NACIONAL	71,553	70,718	69,562	70,222	71,710	76,195	72,187	78,408	83,134
	44%	43%	41%	41%	40%	41%	39%	40%	33%

Fuente: Cuadernos mensuales de estadísticas del Sistema Penitenciario Federal publicados por la Secretaría de Seguridad Pública (2006-2012) y Secretaría de Gobernación (2013-2014). Información a Mayo 2014.

que es el 4% de los casos presentados ante el juez que llegan a juicio oral, duran en promedio 78 días en Chihuahua; 96 días en la región del Istmo en Oaxaca y 193 días en Baja California. Es un progreso muy notable en la eficacia del derecho fundamental de ser juzgado en un tiempo razonable.

8) Como aproximadamente 40% de los asuntos son canalizados a la justicia alternativa o a soluciones alternativas (como la suspensión del procedimiento a prueba), el nuevo sistema de justicia lleva a juicio principalmente los asuntos relacionados con delitos violentos y de mayor impacto social como homicidios, violaciones, delitos relacionados con la delincuencia organizada, lesiones intencionales y robos violentos. Las sanciones promedio impuestas bajo el nuevo sistema son más altas que en el sistema tradicional.

La descongestión del sistema penal y el cambio de régimen de aplicación de la prisión preventiva se traduce en una despresurización en los sistemas penitenciarios, esto se refleja en el índice de Paz en el que destacan en esta variable Yucatán, Puebla y Chiapas.

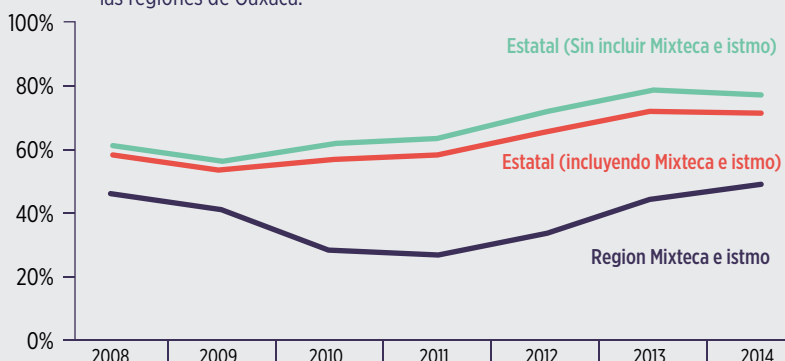
DESAFÍOS Y ÁREAS DE OPORTUNIDAD

Así como los resultados y avances tienen destacados exponentes en algunos de los estados analizados, también en algunas entidades se encontraron las siguientes áreas de oportunidad:

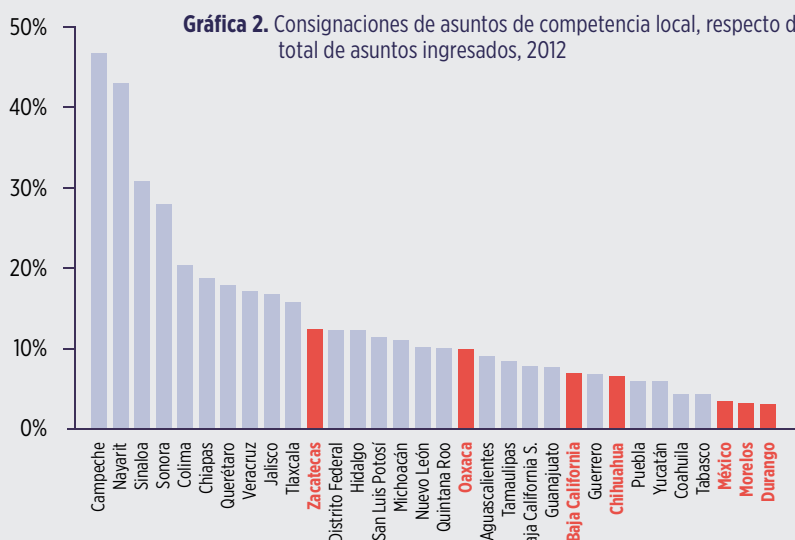
1) Deben reforzarse los modelos de gestión y protocolos de investigación en algunos estados para que desarrollen el potencial del nuevo sistema en la capacidad de resolución de asuntos. En el Estado de México, Morelos y Durango se puede observar mucho más la aplicación de mecanismos alternativos, criterios de oportunidad, facultades de no investigación y suspensiones del procedimiento a prueba, para poder descongestionar su sistema de justicia. Por otra parte, un referente de cualquier sistema de justicia, independientemente del modelo procesal adoptado es la capacidad y calidad de la investigación criminal. La descongestión no se ha aprovechado para incrementar la capacidad de esclarecer los hechos investigados. Como se puede apreciar en la gráfica dos, algunos de los estados con reforma presentan tasas muy bajas de consignación de asuntos a los jueces

De igual forma se debe fortalecer la investigación y el combate a la impunidad en general, particularmente en los delitos de mayor impacto. No siempre la descongestión se ha reflejado, como debiera, en un incremento proporcional de los delitos más graves esclarecidos y llevados a juicio. Nuevamente estados como reforma a pesar de que han disminuido la tasa de impunidad en el delito de homicidio intencional, siguen presentando algunos de los valores más altos de esta variable a nivel nacional (ver gráfica tres).

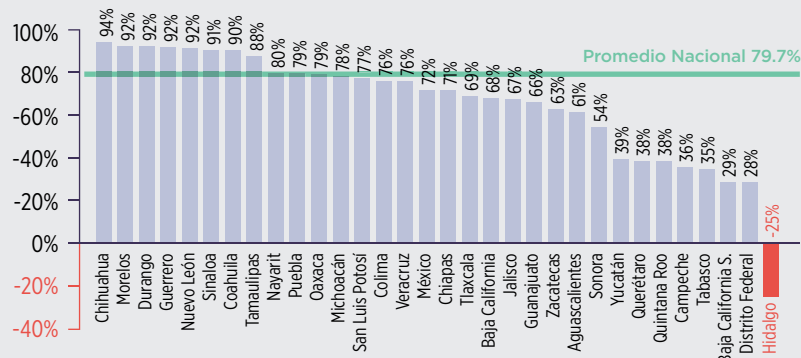
Gráfica 1. Proporción de internos en prisión preventiva por delitos de competencia local en las regiones de Oaxaca.



Gráfica 2. Consignaciones de asuntos de competencia local, respecto del total de asuntos ingresados, 2012



Gráfica 3. Impunidad promedio para el delito de homicidio intencional, 2012



2) Deben fortalecerse los servicios de carrera y la profesionalización. El estudio documentó una rotación de personal muy significativa en las instancias de procuración de justicia. Muchos profesionales con gran especialización y muchas horas de capacitación no han podido ser retenidos por las procuradurías. Incluso en algunos casos han sido desplazados al ingresar una nueva administración gubernamental.

3) No debe permitirse que los acuerdos derivados de la justicia alternativa sean incumplidos. Por ello en los estados en los que no exista un seguimiento puntual de dichos acuerdos deben crearse áreas que velen por el cumplimiento de los acuerdos, pues en ello descansa gran parte de la legitimidad de los mecanismos alternativos.

4) La sociedad y los impulsores de la reforma deben vigilar que las inercias del viejo sistema no minen la esencia del sistema acusatorio y adversarial, como las reformas para limitar el acceso a la justicia alternativa, o para ampliar los supuestos de aplicación forzosa de la prisión preventiva o para desvirtuar aspectos fundamentales del sistema acusatorio y Adversarial, o la introducción por lectura a la audiencia de juicio oral de evidencias y actuaciones desarrolladas en etapas anteriores al juicio, como la investigación.

5) Debe incorporarse a la policía uniformada en la capacitación sobre los principios y el desarrollo competencias requeridas por el nuevo sistema, como el conocimiento de las alternativas procesales, la existencia de mecanismos alternativos, la delimitación y protección de la escena del crimen, las primeras pesquisas, la cadena de custodia, los protocolos para la legal detención de una persona, la comparecencia como agente aprehensor a una audiencia, entre otras.

En general México está implementando exitosamente el nuevo sistema de justicia penal. Desde luego implica una transformación profunda de todas las instituciones del sistema de justicia penal y las dificultades y limitaciones son numerosas. Las inercias aguardan y tratan de resistir y ganar terreno al avance de las nuevas prácticas. Sin embargo, los funcionarios que día a día trabajan en el nuevo sistema deben sentirse muy orgullosos de los cambios conseguidos y de las buenas prácticas que se han documentado. En otros países, a pesar de las reformas no se ha logrado reducir significativamente el fenómeno de la prisión preventiva. En México se están logrando sortear las inercias en el abuso de esta medida cautelar y se presentan muy buenos indicadores.

En Nuevo León tienen instituciones paradigmáticas de atención a las víctimas del delito y se tiene la única defensoría pública autónoma con un área de servicios periciales propia. En Baja California el Sistema Estatal de Justicia Alternativa en materia Penal es un

referente nacional. Las unidades de medidas cautelares (Baja California y Morelos) se abren paso como servicios previos al juicio que fortalecen el derecho fundamental de las personas de enfrentar un proceso penal en libertad.

En Oaxaca se da ejemplo de que el profesionalismo, la voluntad y la imaginación pueden implementar las transformaciones requeridas por el nuevo sistema a un costo muy moderado y su sistema automatizado de gestión judicial permite el uso óptimo de los recursos y de los espacios disponibles.

El desafío es consolidar la reforma más desafiante en los últimos cien años para el sistema de justicia penal en México. Es un camino arduo pero que comienza a dar frutos satisfactorios. El paso se puede intensificar y tenemos a la vista y a la mano lecciones aprendidas fundamentales.

This essay from the President of Causa En Común highlights the benefits the IEP Pillars of Peace analysis offers for peacebuilding and strengthening the institutional framework needed for a more peaceful Mexico. High levels of corruption have led to a lack of trust in some legal institutions and the development of self defense groups in areas such as Michoacán, which this essay argues is not the institutional answer for peace in Mexico. The essay highlights the need to build peace through the engagement of all sectors of society in order to break the vicious circle of corruption and impunity that infiltrate both institutions and society itself. This contribution specifically recommends the strengthening of police institutions in the following ways to develop greater public safety: the effective implementation of the system of police development mandated in LGSNSP (General Law of the National Public Safety System), the need to better define the professional standards of the police, and monitoring proper compliance while incorporating the mechanisms of civilian oversight of policing such as police ombudsmans, independent police auditors, independent offices of citizen complaints and citizen review committees.

CONSTRUYENDO LAS BASES PARA LA PAZ BUILDING THE FOUNDATIONS FOR PEACE

María Elena Morera, President, Causa En Común



Pensar en la construcción de paz en México, especialmente en realidades locales bajo la influencia de la violencia provocada por la delincuencia organizada en entidades como Guerrero, Michoacán, Tamaulipas o Veracruz, es una misión que desde la sociedad civil tenemos que emprender para evitar que la sangre

derramada acabe por desbordar todo esfuerzo social emprendido, así como por minar las fuentes económicas y por desbaratar la débil institucionalidad con la cual se gobierna.

No obstante el reto es mayor porque el problema central que tenemos estriba en resolver cómo le

hacemos desde la sociedad para obtener la paz deseada, cuando tras varios intentos institucionales —muchas veces fallidos— por recuperar la tranquilidad en los estados, pareciera que sólo se causó encono entre los distintos movimientos sociales por el deseo de cooptarlos, dudas en la gestión de los enviados

federales y atropellos a los derechos humanos.

Responder esta pregunta pareciera fácil, porque uno espera que las autoridades cumplan con su obligación; sin embargo, ejemplos fallidos tenemos muchos. Por ejemplo, las varias estrategias federales diseñadas para Michoacán, más allá de los efectos positivos que pudieron tener, sin duda contrastan con la realidad que se vive en importantes zonas del Estado. En el fondo, la última estrategia confundió la creación de paz con estado de fuerza, e incluso prevaleció una lógica de política corporativista para lograr que los movimientos sociales inconformes estuvieran de su lado, sin comprender que ambos tenían que acompañarse.

En Colombia, por ejemplo, los procesos de pacificación de las regiones pasaron primero por comprender el fenómeno social e investigar las causas del conflicto. A partir de ahí se generaron procesos de educación, y buscaron acompañamiento ciudadano a las políticas públicas emprendidas, a fin de darle a las comunidades una visión más integral, más incluyente y con mayor equidad económica.

La amplitud de este tipo de estrategias para realidades como la nuestra demanda una mayor amplitud de tiempo, y eso es justamente de lo que se ha carecido. Han existido y existen operativos permanentes, planes, fuerzas federales altamente tecnificada, pero que al ser soluciones temporales, terminan por ser paliativos con finales fácilmente predecibles por los ciudadanos.

Por ello, para un ciudadano que ha vivido en los últimos 15 años en algunos de los estados antes referidos, es lamentable volver a mirar en sus calles a quienes le han agredido anteriormente o peor aún, a los nuevos gerentes de las organizaciones criminales que ahora ocupan la plaza.

Es por ello que en la lógica de toda estrategia que pretenda generar paz, se tiene que reunir información suficiente de la realidad de cada comunidad, trazar líneas de acción que eviten los cambios gerenciales de los grupos criminales y, sin renunciar al combate a la criminalidad con toda la fuerza del Estado, acompañar los cambios estructurales.

El Índice de Paz de 2014 plantea ocho pilares que, por su naturaleza, dan luz justamente sobre los cambios en los cuales se necesita incidir para la construcción de paz en México: “El buen funcionamiento del Gobierno; distribución equitativa de los recursos; libre flujo de información; entorno empresarial sólido; alto nivel de capital humano; aceptación de los derechos indígenas; bajos niveles de corrupción y; buenas relaciones con los vecinos.

Dichos pilares representan una opción

escasamente explorada en la reconstrucción de paz, puesto que son altamente contrastante con los importantes despliegues temporales de fuerzas federales que durante varias administraciones federales han sido la respuesta para pacificar a las comunidades.

Un simple análisis de los escándalos mediáticos en Michoacán, por ejemplo, nos comprueba que altos funcionarios del estado, así como sus familiares, estaban coludidos con la delincuencia, lo cual multiplicó la percepción de que el gobierno sólo actúa en beneficio de unos cuantos, que nada se hizo para combatir la corrupción, ni para fortalecer a las empresas, ni para garantizar la libertad de prensa, ni mucho menos, para lograr una mayor equidad social.

El gobierno para unos cuantos y la impunidad generalizada parecen ser la constante a vencer desde la sociedad, con el objetivo de acercarse a un clima de paz en donde se gobierne con leyes y con Policías confiables, y no con la facilidad de la corrupción e incluso por la vía de las armas.

En el tema de los cuerpos de seguridad comunitarios, en Causa en Común insistimos que los grupos deberían de tener claro cuáles son sus funciones y los alcances de su Fuerza, así como disponer del sustento jurídico necesario para acotar su jurisdicción y operarar bajo protocolos policiales y estándares profesionales, cumpliendo con sus funciones con absoluto apego a los derechos humanos.

Desafortunadamente, nada de esto se ha cumplido. Existen grupos de autodefensa los cuales lejos de ser un factor de paz, son un factor de violencia. En Michoacán, las Fuerzas Rurales, integrados principalmente por ex autodefensas, no pasaron por exámenes de control de confianza adecuados, se les olvidó capacitarlos en los protocolos de actuación policial y además, se retrasó la entrega de recursos para su operación.

Sin duda, combatir la ilegalidad con una ilegalidad es un camino erróneo para establecer los cimientos que deriven en la pacificación de las comunidades; sólo pone en evidencia que la respuesta es producto de la escasa investigación y de la superficialidad de las estrategias emprendidas que solo buscaban tranquilizar el fuego sin tocar la fuente que lo genera.

En este sentido, la exigencia de una mayor seguridad pública es un factor determinante para la paz, la cual demanda un mayor acompañamiento de ciudadanos que vigilen la actuación policial y los procesos de creación de comunidades seguras.

Desde la sociedad civil, la academia y algunos medios de comunicación, existe plena consciencia de la necesidad de construir paz a través de acciones para romper los círculos

viciosos de corrupción, simulación e impunidad, que permea tanto en las instituciones como en la propia sociedad; y de abrazar al primer eslabón de los ciudadanos con la seguridad, los policías, mediante acciones que contribuyan a su dignificación, profesionalización y confiabilidad.

En este sentido, en Causa en Común comprendemos que si nuestras instituciones policiales son endebles, difícilmente podemos acceder a comunidades seguras que multipliquen exponencialmente sus capacidades económicas en un clima de paz, y favorezcan a la reducción de la brecha de desigualdad. Por ello, es importante impulsar un mayor diálogo social que contribuya a fortalecer a la ciudadanía, entablando canales institucionalizados de interlocución con sus autoridades, lo que sin duda hará cada vez más difícil que algún ciudadano o servidor público eche abajo las acciones que como sociedad sí hacemos para el establecimiento de un Estado de Derecho para todos.

De tal forma que para avanzar en la construcción de paz mediante una mayor seguridad pública, proponemos el fortalecimiento de nuestras instituciones policiales mediante la siguientes acciones:

- **Implementación efectiva del sistema de desarrollo policial, mandatado en la LGSNSP.**
- **Definición de estándares profesionales para las Policías, y la supervisión de su adecuado cumplimiento.**
- **Incorporación de mecanismos de supervisión civil de la función policial (ombudsman policial, auditores policiales independientes, oficinas independientes de quejas ciudadanas, comités ciudadanos de revisión, etc.).**
- **Incentivar la certificación institucional de las Policías.**

Sin duda, una estrategia de paz sustentable para México requiere de la comunicación y participación de todos los sectores de la sociedad, desde las autoridades hasta la sociedad civil, pasando por los académicos y empresarios. Aun cuando pareciera que los pilares que componen el Índice de Paz son distantes, realmente todos están conectados; y sin duda la preservación de la seguridad y la justicia, que comienza con el fortalecimiento de sus instituciones, son un componente sustancial. Sin embargo, solo falta que la famosa voluntad política y la activación ciudadana se encuentren, pues solo trabajando coordinadamente podremos rescatar a nuestro país; y en este sentido, el Índice de Paz es un buen faro de guía.

This essay from researchers at Ethos, an independent think tank in Mexico, highlights discrepancies and inefficiencies in public security expenditure, a major issue in Mexico. The authors argue that while federal resources to combat public insecurity have increased, commensurate improvements to the crime rate have not been realized. While expenditure has increased 200 percent over the past 10 years, still only 24.5 percent of registered offenses resulted in a conviction in the decade 2001 to 2012. The essay states that while some discrepancies with data methodologies over time may explain some of the crime increases, the overall trends indicate that the increased expenditure has not resulted in a proportional decrease to the level of crime.

GASTO INTELIGENTE EN SEGURIDAD: DIADNOSTICO Y PROPUESTAS

SMART SPENDING ON SECURITY: DIAGNOSIS AND PROPOSALS

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INTRODUCCION

La inseguridad que se vive en México desde hace varios años ha tenido importantes consecuencias económicas y sociales. Por un lado, además del número de víctimas, la sociedad ha modificado sus comportamientos y hábitos para no ser presa de la delincuencia, lo que ha afectado ampliamente su calidad de vida. De estos cambios da cuenta, la Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE) 2014, la cual muestra que algunas de las actividades que han dejado de hacer las personas mayores de 18 años son: permitir que sus hijos menores de edad salgan (69.6%), usar joyas (67.4%), salir de noche (53.2%), llevar dinero en efectivo (52.2%), entre otras (INEGI, 2014). Por otro lado, mucho se ha debatido sobre el efecto de la inseguridad en la inversión, la productividad de las personas, la actividad turística u otras variables que impactan el desarrollo económico del país.

Ante este escenario, diversos actores han desarrollado acciones para reducir los niveles de inseguridad desde sus ámbitos de acción. Desde la óptica del gobierno, la importancia de la seguridad pública se ha traducido en un mayor gasto de la federación, estados y municipios. Los recursos del gobierno federal son la principal fuente de ingresos para combatir la inseguridad en el país. Incluso, su crecimiento se ha disparado en los últimos años, llegando a representar un rubro importante dentro del presupuesto. Sin duda, para asegurar que el gasto público produzca los efectos deseados, se requiere un continuo monitoreo y evaluación.

DINAMICA DEL GASTO EN SEGURIDAD PUBLICA

El esfuerzo por parte del gobierno se ha materializado, principalmente, en un aumento del gasto público, por lo que resulta importante analizar cuál ha sido su dinámica. En años recientes, el gasto público en seguridad ha crecido de manera exponencial. Por ejemplo, de 2001 a 2013 el gasto federal en seguridad creció 200%, entre otras razones, debido a la creación de la Secretaría de Seguridad Pública (SSP) en 2001 y a la implementación de la Estrategia Nacional de Seguridad en el 2006. Para evidenciar las disparidades presentes en el gasto en seguridad, basta revisar lo ocurrido tan sólo en 2013, donde el 77% del gasto público en seguridad fue ejercido por las dependencias del gobierno central y sólo un 23% por los gobiernos subnacionales, a pesar de que el 93% de los delitos registrados en el país corresponden al fuero común y sólo el 7% al fuero federal.

Para el mismo año, el gasto federal en seguridad representó el 8% del gasto total y el 1.5% del PIB. Ello demuestra que en términos presupuestales, la seguridad pública ocupa un lugar prioritario dentro de la agenda del gobierno federal, incluso por encima de temas como salud o ciencia y tecnología. Además del sector público, alrededor del mundo, diversas organizaciones internacionales, agencias nacionales de cooperación internacional, organismos no gubernamentales y la iniciativa privada desarrollan, financian o apoyan programas en materia de seguridad ciudadana en los países que más lo requieren. El enfoque ciudadano de estos programas, a diferencia del anterior

enfoque en la seguridad nacional, reconoce la necesidad de disminuir la violencia y el delito para así poder incrementar los niveles de desarrollo humano.

TENDENCIAS DEL GASTO SUBNACIONAL

Dado que los gobiernos subnacionales (entidades federativas y municipios) constituyen los niveles de gobierno más cercanos a las necesidades ciudadanas, es importante conocer cuál ha sido su dinámica del gasto en seguridad y cómo se vincula con los recursos provenientes del ámbito federal. Por ejemplo, de los recursos que invierten los estados y el DF en seguridad, aproximadamente 90% son recursos propios y 10% provienen del Fondo de Aportaciones para la Seguridad Pública (FASP). Aun cuando es difícil conocer el destino preciso del FASP, es bien conocido que algunos estados dependen en mayor medida de estos recursos. Tal es el caso de Tlaxcala, donde el 47% del gasto en seguridad proviene del FASP. En contraste, para el DF los recursos provenientes de este fondo representan únicamente el 2% de su esfuerzo en seguridad pública. Los esfuerzos por reducir el crimen y la violencia en las entidades federativas varían, ya que algunas consideran a la seguridad pública un tema prioritario al invertir mayores recursos propios en la materia.

En el caso de los municipios y delegaciones, la historia es bastante similar dado que el gasto en seguridad se financia de los recursos propios y de los ingresos obtenidos del Subsidio para la Seguridad en los Municipios (SUBSEMUN). De los recursos invertidos por estos actores, alrededor del 74% son recursos propios y 26%

correspondieron al SUBSEMUN. Cabe mencionar que no todos los municipios del país tienen acceso a fondos del SUBSEMUN. La selección se hace con base a la ubicación geográfica, el índice delictivo, así como los indicadores de población. En teoría, los recursos del SUBSEMUN deberían destinarse a la profesionalización, al equipamiento de los cuerpos de seguridad pública, al mejoramiento de la infraestructura de las corporaciones, a la operación policial, entre otros. No obstante, en la práctica el destino de los fondos del SUBSEMUN es un tanto incierto.

EFICACIA Y EFICIENCIA DEL GOBIERNO FEDERAL EN EL COMBATE A LA INSEGURIDAD

En un contexto donde los recursos públicos son limitados y el número de asuntos que buscan colocarse dentro de la agenda gubernamental es creciente, la acción pública debe asegurarse de ser lo más eficaz posible. En este sentido, para conocer qué resultados produce el gasto público, es fundamental su evaluación. Resulta esencial conocer cómo se relaciona el destino del gasto en seguridad con sus resultados. La forma más objetiva de medir esta relación es a través de los indicadores de seguridad pública.

En términos generales, la eficiencia mide la relación entre los recursos utilizados y los logros obtenidos. El número de delitos registrados es, por mucho, el indicador más visible sobre la eficiencia del gasto. En este sentido, de 2001 a 2007, se observa que el gasto federal parecía no ser efectivo, pues la cantidad de delitos registrados incrementaba a la par del gasto. Después de 2007, el número de delitos ha disminuido. No obstante, los niveles de violencia registrados en 2013 no son menores a los presentados en 2005. Para darnos una idea más clara de la eficiencia del gasto en seguridad, tan sólo en el año 2000, por ejemplo, cada delito con averiguación previa iniciada significó un costo de 957 mil pesos aproximadamente, mientras que en 2013, este fue de 2.23 MDP (134% más).

La eficacia, por su parte, monitorea el grado de consecución de metas o el impacto de las políticas de seguridad pública. En este sentido, un indicador de la eficacia del gasto público en seguridad es el número de sentencias logradas respecto del número de delitos registrados. Entre 2001 y 2012, sólo 24.5% de los delitos registrados derivó en una sentencia. Ante este escenario, la principal interrogante que surge es ¿por qué si el gasto en seguridad pública crece, la tasa de sentencia es baja? Existen muchas posibles causas de este fenómeno. No obstante, destaca el papel del Ministerio Público en la efectividad del Sistema de Seguridad Pública y Justicia Penal, ya que es el vínculo entre los que persiguen el delito y los que lo sancionan. Una parte muy pequeña de los elementos del Sistema

se dedica a la procuración de justicia (3.5%). Incluso, dentro de la misma PGR, entre 2001 y 2013 se contaba con un agente del Ministerio Público por cada siete personas en algún otro cargo.

LOS RESULTADOS DE LAS ENTIDADES FEDERATIVAS EN SEGURIDAD

Como ya se apuntó el gasto en seguridad pública de las entidades federativas ha aumentado significativa en los últimos, no obstante los resultados por entidad son diferenciados. En este sentido, el gasto público en seguridad subnacional se incrementó de 2000 a 2011 en 97%, mientras que los delitos del fuero común han crecido 24%. El esfuerzo de cada estado en el combate de los delitos del fuero común es muy distinto. Por ejemplo, Baja California es la entidad con mayor número de delitos de fuero común registrados (3,759 delitos por cada 100 mil habitantes), no obstante, su gasto per cápita es de 473 pesos. En contraste, el DF registró 2,081 delitos por cada 100 mil habitantes y ejerció un gasto de 2,146 pesos per cápita.

En términos de eficacia a nivel subnacional, de manera general, se puede afirmar que sólo 10% de los delitos del fuero común derivan en una sentencia. Analizando con detalle la eficacia de los Sistemas Estatales de Justicia, se observa que las variables incidencia delictiva y porcentaje de sentencia parecen ir en sentido inverso, es decir, si el número de delitos registrados aumenta, la tasa de sentencia disminuye. Esto muestra que, al igual como sucede a nivel federal, la eficacia de los Sistemas Estatales de Justicia depende inversamente del número de delitos registrados. En términos de eficiencia en el gasto en seguridad pública de las entidades, la historia tampoco parece ser edificante, puesto que perseguir el delito ha implicado mayores recursos sin resultados tan evidentes en cuanto al número de delitos registrados. Para el 2000, por ejemplo, el costo de un delito registrado fue de 26,619 pesos, mientras que para 2011 este incrementó a 41,312 pesos (55.1% más).

LA GESTION DEL GASTO EN SEGURIDAD: TRANSPARENCIA Y RENDICION DE CUENTAS

La transparencia y rendición de cuentas son fundamentales, no sólo para informar a los ciudadanos sobre las acciones gubernamentales realizadas, sino también para otorgarle mayor legitimidad al gobierno y lograr una mejor toma de decisiones. En México, existen distintas bases de datos relacionadas con seguridad, como el Registro Nacional de Personal de Seguridad Pública; Registro de Indiciados, Procesados y Sentenciados, entre otras. A pesar de esta variedad de fuentes de información, algunas de estas bases de datos no son públicas, y algunas de las que sí lo son, están dispersas, incompletas

o presentan problemas conceptuales de origen.

Una parte muy importante de la información existente sobre seguridad pública son los datos sobre incidencia delictiva. Los principales generadores de esta información son el INEGI y el Secretariado Ejecutivo del Sistema Nacional de Seguridad Pública (SESNSP). Respecto de los atributos de la información sobre incidencia delictiva, puede decirse que es oportuna pero incompleta, ya que ni el INEGI ni el SESNSP tienen periodos legales de actualización definidos, lo que genera que las actualizaciones de información respondan a la información nueva que van recibiendo. Así, por ejemplo, una consulta sobre delitos de fuero común realizada hoy en día puede tener datos actualizados de Nuevo León, pero no de Oaxaca.

Asimismo, la información sobre incidencia delictiva no es relevante, pues no permite conocer detalles del fenómeno delictivo a nivel federal y estatal. Con la información disponible sólo puede hacerse un análisis general de los principales delitos registrados, lo que dificulta contar con un panorama puntual de la inseguridad en el país. Debido a que se reportan cifras diferentes, este tipo de información también es incongruente. Por ejemplo, en lo que respecta a las cifras sobre homicidios, las bases de datos del INEGI y del SESNSP varían considerablemente.

Otro atributo de la información sobre incidencia delictiva es su falta de armonización. Es decir, cambiar constantemente los conceptos o categorías usados para clasificar la información vuelve complejo su entendimiento. A nivel estatal existe mucha variación en cuanto a la calidad y cantidad de la información reportada sobre los delitos del fuero común, ya que su generación depende de muchos y diversos actores con capacidades diferentes para coordinarse, generar reportes, procesar los datos, entre otros aspectos. Incluso, la inexistencia de lineamientos básicos que aseguren la homogeneidad de procesos y la estandarización en la recopilación de la información genera mayor complejidad.

Avanzar hacia un gasto inteligente en seguridad implica, necesariamente, incrementar su eficiencia y eficacia.

Para lograrlo, se requieren, entre otras cosas:

- Invertir más en políticas preventivas.
- Aumentar los agentes del Ministerio Público y sus capacidades para evitar que la institución sea un cuello de botella para la impartición de justicia.
- Crear centros independientes de análisis forense para garantizar la adecuada persecución de los delitos y mayores sentencias.
- Fortalecer las capacidades de las policías estatales.

- Evaluar la despenalización de la marihuana, disminuir el uso de la cárcel como pena y reducir el uso de la prisión preventiva para bajar los costos del sistema penitenciario.
- Establecer estándares mínimos de calidad para reportar información sobre gasto público en seguridad en los tres niveles de gobierno.

Finalmente, la identificación de áreas de oportunidad permitirá tomar decisiones estratégicas sobre los cambios necesarios en las políticas públicas o los rubros de inversión que deben priorizarse para asegurar mayor eficiencia en el combate a la inseguridad.

While the MPI records large improvements in peace since 2011, there is still a significant amount of crime directed toward businesses and enterprises within Mexico. A significant amount of businesses within Mexico have had to relocate, alter business plans and change daily routines due to crime which is harming economic and business growth. Not only large chains, but smaller businesses and employees are also affected. The president of COPARMEX believes that Mexico can achieve prosperity through public policies that promote enterprise and employment, which can reduce transaction costs due to crime and generate more productive and better-paid jobs. This essay states that there needs to be a strengthening of the rule of law so that households and entrepreneurs are able to create new products and services to improve the Mexican economy.

LA CLAVE, EL ESTADO DE DERECHO THE KEY IS THE RULE OF LAW

Juan Pablo Castañón Castañón,
President COPARMEX, Employers Confederation of Mexico



¿Cuánto cuesta la inseguridad en México?
¿Qué porción de nuestros recursos estamos invirtiendo los mexicanos en protegernos, reparar los daños, o simplemente perder parte de nuestro patrimonio personal, o el de las empresas?

Hay una gran dificultad estadística para medir el impacto de la delincuencia en las empresas. No hay una estandarización de los indicadores, algunas empresas cuentan con registros precisos, otras no y ello obedece a que no está en la naturaleza del sector empresarial construir indicadores delictivos.

Institute for Economics and Peace estimó que el impacto económico total de la violencia en México ascendió a 4.4 billones de pesos, equivalentes a 27.7% del PIB, según el Informe Índice de Paz México 2013. El costo directo de la violencia asciende a aproximadamente 600 mil millones de pesos. El costo indirecto de la violencia suma 1.9 billones de pesos. Es decir, que la inseguridad cuesta a cada mexicano 37 mil pesos.

Con una metodología distinta, la Encuesta Nacional de Victimización de las Empresas 2014 que elabora el Instituto Nacional de Estadística, Geografía e Información valora que el costo total de la inseguridad y el delito asciende a 110 mil millones de pesos, es decir el 0.66% del PIB.

Las preguntas arriba planteadas son válidas, y sus respuestas diversas. Pero para la Confederación Patronal de la República Mexicana, el costo de la inseguridad no se circunscribe al valor monetario o cuantitativo: lo que está en juego son nuestras familias, colaboradores y empresas. Y la solución comienza por fortalecer nuestras instituciones.

MÉXICO EN 2014: LA CRISIS DE LOS NORMALISTAS

Durante 2014 México experimentó momentos decisivos: culminaron una serie de reformas largamente anheladas: educativa, de telecomunicaciones, energética, del sistema financiero, política y electoral.

Prevalecía un ánimo optimista porque todo indicaba que nos encontrábamos en la antesala de un futuro brillante y fue entonces cuando la desaparición de 43 normalistas en Iguala nos regresó a un pasado que creíamos superado, y exhibió la vulnerabilidad de nuestras instituciones frente a la infiltración del crimen organizado.

El secuestro y homicidio de 43 estudiantes provocó la protesta y solidaridad con las familias de los normalistas en México y en el mundo. Sin embargo, al amparo de la movilización ciudadana, grupos con ánimo desestabilizador atacaron al sector productivo, llevando las marchas y protestas a extremos de violencia y de afectación a los derechos básicos de comunidades enteras.

Nuestros socios reportaron el secuestro de 246 choferes de transporte de carga y pasajeros por normalistas y otras organizaciones sociales, particularmente en el estado de Guerrero. Uno de ellos fue obligado a estrellar su vehículo contra la puerta del 27 Batallón del Ejército con sede en Iguala, en el marco de una protesta que

rápida­mente se convirtió en una provocación. Todos los conductores secuestrados fueron liberados, pero un operador permaneció secuestrado un total de 83 días.

En el estado de Guerrero se registró el robo o secuestro de 188 unidades de pasajeros. La principal distribuidora de bebidas en la entidad, que es fuente de empleo directa de 47 personas, ha permanecido cerrada durante cinco meses ante las amenazas del crimen organizado.

Además, 3 mil 232 empleados de tiendas departamentales fueron afectados por el cierre de 29 tiendas de autoservicio y la suspensión de actividades en 57 supermercados.

La interrupción de actividades comerciales no sólo daña a las grandes cadenas: afecta a vendedores, meseros, taxistas, proveedores y una gran cantidad de empleados que completan su salario con el pago de comisiones, que por la situación que prevalece ha sido suspendido.

La violencia siguió escalando. El 15 de enero un grupo violento irrumpió en un Foro de Empresarios Jóvenes Coparmex, que tenía lugar en el auditorio Sentimientos de la Nación, en Chilpancingo, Guerrero; golpearon a algunos de los asistentes y luego quemaron una patrulla. Al 29 de enero no ha habido detenciones vinculadas a este ataque.

EL GRAN RETO: LA CONFIANZA

Coparmex es un organismo con más de 36 mil socios en las 65 ciudades más importantes de México y con más de 85 años de historia. A diferencia de otras agrupaciones empresariales, no procuramos sólo la legítima defensa del interés empresarial, sino el bien común. Nuestros principios y valores colocan en el centro de toda actividad política, social y económica a la persona humana.

En 2014, nuestro Encuentro Empresarial –foro que reúne anualmente a más de 1200 empresarios de todo el país– se abocó al tema de la confianza como condición necesaria para la producción y la prosperidad.

La confianza es el cemento que mantiene unidas a nuestras comunidades, es lo que nos cohesiona y permite relacionarnos con certeza al interior de la sociedad.

En el marco de este evento, desde Coparmex nos preguntamos: ¿cómo fortalecer la confianza, cuando vemos que la violencia como método de protesta se ha instalado en algunas regiones, donde enarbolando la bandera de la justicia social, se viola sistemáticamente la ley?

¿Cómo afianzamos nuestros vínculos sociales si como ciudadanos no tenemos certeza de nuestra seguridad física y la de nuestras familias en algunas regiones del país?; ¿si además

permitimos que sistemáticamente se tomen y dañen oficinas públicas, carreteras y hasta aeropuertos, y finalmente no haya consecuencias?

¿Cómo confiar en una renovación de las instituciones si no comenzamos por lo más básico, que es el cumplimiento de la ley y la seguridad, la certeza de que las normas de nuestra convivencia serán respetadas por todos, y si no, será aplicada la fuerza de la ley? ¿Si a menudo parece que la impunidad es la norma?

¿Cómo salir del círculo vicioso de la violencia, donde un reclamo legítimo se convierte en una nueva fuente de violencia y un obstáculo para el desarrollo de nuestras sociedades, como sucedió con Ayotzinapa?

Para Coparmex la respuesta a estas interrogantes está en nuestros principios y valores. A lo largo de nuestra historia hemos aprendido a convertir los retos en oportunidades.

Las empresas socias de Coparmex están trabajando para reducir los riesgos para nuestros empleados y sus activos, pero también estamos levantando un fuerte exigencia a las autoridades, la demanda ciudadana de que cumplan con sus obligaciones, y la primera de ellas es la de garantizar la seguridad de los ciudadanos y la convivencia pacífica.

La desaparición de 43 normalistas es un duelo nacional y una prueba de fuego para mejorar nuestras instituciones, pero la mejor manera de honrar a esos jóvenes es CAMBIAR lo que no ha funcionado. México tiene hoy la gran oportunidad de dar el salto a una nación de progreso, de equidad y paz. 2015 es el momento para fortalecer del Estado de Derecho.

¿Qué es el Estado de Derecho para Coparmex? El imperio de la ley, la división de poderes, la rendición de cuentas, la independencia judicial, el control legislativo, la publicidad y transparencia de los actos del poder y el combate frontal y decidido a la corrupción y a la impunidad.

Queremos que en México todo ciudadano obedezca la ley y se rija por ella; que TODOS estemos sujetos al imperio de la ley; para lo que necesitamos leyes claras y estables, esto es, necesitamos certeza jurídica.

Como otras naciones democráticas, queremos sentirnos orgullosos de nuestros policías, de nuestros fiscales y jueces. Desterrar de una vez la desconfianza, la corrupción y el abuso.

El mejor momento para empezar es hoy.

LA BASE, EL ESTADO DE DERECHO

La prosperidad la podemos lograr con políticas públicas que den certeza a los indicadores económicos, que promuevan la empresa y el empleo, que disminuyan nuestros costos transaccionales de llevar adelante un negocio y así, ser más productivos y generar empleos mejor remunerados.

Necesitamos fortalecer el estado de derecho para que todos los delitos sean sancionados de manera justa y expedita.

Necesitamos fortalecer el estado de derecho para que en los hogares donde hubo una pérdida irreparable, la justicia repare el daño y alivie las heridas.

Necesitamos fortalecer el estado de derecho para que los emprendedores no desvíen su energía en querellas, sino en crear nuevos productos y servicios.

Necesitamos fortalecer el estado de derecho para contar con policías preparados capaces de integrar investigaciones bajo el nuevo sistema penal.

Necesitamos fortalecer el estado de derecho para nuestros ministerios públicos presenten investigaciones sólidas y los secuestradores y otros delincuentes no salgan libres por tecnicismos legales.

Necesitamos fortalecer el estado de derecho para que TODOS, empresarios, obreros, empleados, indígenas, amas de casa, estudiantes y discapacitados gocemos de la certeza que da la ley.

La cohesión social y la prosperidad que anhelamos los mexicanos dependen, en gran medida, de la capacidad que tengamos para afianzar la gobernabilidad mediante leyes justas, claras, sencillas, viables, y de aplicación general.

Todos tenemos parte de la responsabilidad y el reto es trabajar en esta dirección: los gobiernos de los tres órdenes, pero también los empresarios, los líderes sociales, los académicos e intelectuales, los jóvenes y profesionistas, los ciudadanos todos.

Es un momento de definiciones, la patria nos llama a ejercer nuestra ciudadanía con responsabilidad. Trabajemos todos, cada quien en lo que le corresponde, para alcanzar el México de justicia, equidad y democracia que queremos.

5 METHODOLOGY

The Mexico Peace Index is based on the work of the Global Peace Index, the preeminent global measure of peacefulness that has been produced by IEP annually since 2007. The MPI is the third in a series of National Peace Indices, following the United Kingdom Peace Index and the United States Peace Index. Based on a definition of peace as ‘the absence of violence or fear of violence’, this Index uses a similar methodology to the UKPI and the USPI. This is the second edition of the MPI.

MEXICO PEACE INDEX METHODOLOGY

IEP’s starting point in creating peace indices is to imagine a perfectly peaceful state, region, or country. In such a state, there would be no direct violence, no homicides, or violent crime. In addition, there would be no need for state actions against the perpetrators of crime and no need for the state to devote resources to violence containment. Thus, there would be no police employees and no incarceration. Citizens would have no fear of violence being committed against them, so there would be no harassment or public disorder. Finally, in a perfectly peaceful state, citizens would have no need to own firearms or other weapons for the purpose of self-defense.

Such a state is clearly theoretical as there is no state so perfectly at peace. The peace indices thus aim only to provide a starting point for conceptualizing how to measure a society perfectly at peace. In police states where the government may exercise repressive control and have significant police numbers and intrusive monitoring, there may be relatively little crime, but this

does not reflect an environment without the fear of violence. Similarly, a society that has a large proportion of the population incarcerated reflects high levels of historical violence and consists of a group of the population, which if released, would theoretically cause greater violence. A state without law enforcement would experience higher rates of violence. Through counting and building a composite index, which reflects these factors, a more comprehensive reflection of the peacefulness of a society can be obtained.

It is important to note that the MPI makes no moral judgment on what the appropriate levels of a state’s response to containing violence should be. Different contexts and circumstances will call for different government responses to the problem of violence. Thus, the MPI score should be seen as a measure of how close a state currently is to realizing a perfectly peaceful environment and not a moral judgment of its peacefulness, nor a judgment on the current administration.

In order to ascertain whether similar patterns and environments associated with peace at the sub-national level exist in different countries, IEP has maintained a largely consistent structure for all National Peace Indices. However, some differences are necessary as each country has its own history and specific cultural factors that need to be accounted for in order to properly capture peacefulness as a multidimensional phenomenon. In addition, data limitations may mean that some indicators that are available in one country are not available in another.

A composite index combines multiple factors in a standardized way to create a statistical measure that is aimed at making a complex idea simple to understand.

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 powers allowing them to have a significant impact on the level of violence and thus the response to violence may differ significantly from state to state.

The MPI is composed of seven indicators, five of which are very similar to the indicators used in the USPI and UKPI. These are homicide, violent crime, weapons crime, police and incarceration. The remaining two indicators, justice system and organized crime, are specific to the MPI.

BOX 3 MEXICAN GOVERNANCE OVERVIEW

Mexico or the United Mexican States, is a federal constitutional republic as outlined in its 1917 Constitution. The Constitution establishes three levels of government: the Federal Union, the State Governments and the Municipal Governments. According to the Constitution, all constituent states of the federation must have a government composed of three branches: the executive, represented by a governor and an appointed cabinet, the legislative branch composed of a bicameral congress and the judiciary, which is headed by the Supreme Court of Justice. Each state also has its own civil and judicial codes.

Until 1994 the administration of public security in Mexico was mainly managed regionally. An important change occurred between the end of the 1980s and the beginning of the 1990s when there was a rapid increase in drugs and narcotics traffic, together with a democratization process that led to a decentralization of political power. As a result, the Federal Law against organized crime was approved in 1996 and in response to this many new federal institutions were created, mostly devoted to the fight against organized crime and drug trafficking.

The prosecution and judicial jurisdictions are divided between the local courts and federal courts. Each state has an autonomous judicial branch that administers and implements justice for those local courts crimes committed within its jurisdiction. Additionally, the judicial branch of the Federation divides the national territory into 31 judicial circuits that almost exactly correspond to the states.

Law enforcement personnel are divided by both jurisdiction and function. Jurisdictionally, the police are divided into municipal, state and federal police departments, each of which has different responsibilities. For example, drug trafficking is considered a federal crime and falls under the jurisdiction of the federal police. Homicides are state crimes and investigated by state police. Functionally, the police have traditionally been divided into preventive and investigative departments. Preventive police departments operate at all three levels of government and are typically organized under the auspices of the Executive Secretary of the National System for Public Security (Secretario Ejecutivo del Sistema Nacional de Seguridad Pública, SESNSP). Their primary responsibility is to conduct patrols, maintain public order, prevent crime and administrative violations and be the first responders to crime. The transit police, responsible for sanctioning traffic violations and responding to accidents, are technically considered part of the preventive police; however, in some cases they are organized as a separate police force. The ministerial police, formerly known as the judicial police, are organized under the auspice of federal and state public ministries, are responsible for investigating crimes and carrying out judicial and ministerial warrants.

MEXICO PEACE INDEX EXPERT PANEL

The MPI Expert Panel was established to provide independent advice and technical guidance to IEP researchers in developing the index methodology. The Panel is composed of experts from independent, non-partisan, civil society and academic organizations. For the 2015 MPI it comprised:

- **Leonel Fernández Novelo, Researcher, México Evalúa**
- **Edgar Guerrero Centeno, Director of Governmental Information Policies, Instituto Nacional de Estadística y Geografía (INEGI)**
- **Carlos J. Vilalta Perdomo, Professor, Centro de Investigación Y Docencia Económicas, A.C. (CIDE)**
- **Guillermo Zepeda Lecuona, Socio Director, Jurimetria**

DATA SOURCES

One of the key challenges in developing a composite peace index is finding adequate data over a sufficient period of time to accurately and comprehensively understand the underlying trends in peace. In general, IEP uses data from national statistics offices wherever possible. However, where enough doubt exists as to the veracity of official data, IEP has supplemented or replaced official government data with survey-based data and qualitative expert assessments. All of the seven indicators in the MPI come from government bodies in Mexico; however, IEP has used survey data to adjust the figures in order to account for under-reporting. Where possible the data source used for this study is the Executive Secretary of the National System for Public Security (Secretario Ejecutivo del Sistema Nacional de Seguridad Pública, SESNSP).

CRIME DATA: REPORTED VS. SURVEY DATA

In constructing an index that relies on crime data, a decision must be made between a range of alternative sources, all of which come with their own advantages and disadvantages. For instance, for most countries, the recorded levels of crime tend to be significantly lower than the actual level. Although there is a range of reasons, often this is because many offenses are simply not reported to the police.

The underreporting of crime in Mexico is a significant problem. Specifically, the 2012 National Survey on Victimization and Perception of Public Safety (Encuesta Nacional de Victimización y Percepción, ENVIPE) from the National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía, INEGI) suggests that the recorded levels of crime only capture approximately 15 percent of what actually occurs. This survey uses a

representative sample of households to analyze not only the impacts of crime on individuals and society but also perceptions of public security. It collects information on a number of different crimes, the victims and their context, and perceptions about public security, confidence in the institutions and the justice system.

One of the main advantages of this dataset is that it contains information regarding unreported crimes, as opposed to official data that only accounts for crimes reported to the authorities. The ENVIPE survey also contains information on the percentage of crimes that are actually reported to the police.

The level of underreporting varies quite considerably by both state and offense. According to the ENVIPE 2012 data, only 19 percent of robberies, 10 percent of fraud cases and 8 percent of extortion cases are reported. Out of the crimes reported, assault is the most reported, with 25 percent of assaults being reported to the police. In comparison, estimates from the British crime survey suggest that around 40 percent of violent crime is reported in the UK, with the US closer to 48 percent. In Mexico, the degree of underreporting is extremely high for some crimes. For instance, it is found that in states such as Nueva Leon or Aguascalientes, for each reported case of extortion, up to 33 cases are not reported. There are also high levels of underreporting for fraud and rape where the average underreporting rate is 10 per each reported case.

While there are crime victimization surveys at the state level in Mexico, the coverage is sporadic with only three non-consecutive year surveys carried out in the last decade. As a result variations in underreporting could not be determined over the entire period of the Index. Consequently, IEP has used official recorded data in constructing the indicators for the MPI, adjusting for underreporting where necessary. Thus all MPI indicators have been adjusted to account for the level of unreported crimes ("cifra negra") based on responses to the ENVIPE survey. The SESNSP data on rape, robbery and assault as well as some of the components of the organized crime indicator, have been multiplied by the ratio of reported to unreported crimes to allow for a more accurate reflection of the occurrence of violence in Mexico.

INDICATORS

■ HOMICIDE RATE PER 100,000 PEOPLE

Source: Executive Secretary of the National System for Public Security (SESNSP)—cases being investigated by the State Prosecution Authorities.

The definition of homicide includes murder, infanticide and non-negligent homicide, including drug-trade related homicides.

■ VIOLENT CRIME RATE PER 100,000 PEOPLE

Source: SESNSP

IEP uses a definition of violent crime that matches the US Federal Bureau of Investigation (FBI) definition. Under this definition, violent crime consists of aggravated assault, rape and robbery, but excludes homicides. For a full list of the crimes listed in the SESNSP database that fall under the definition of violent crime, see Appendix B.

■ WEAPONS CRIME RATE PER 100,000 PEOPLE

Source: SESNSP

The weapons indicator used in the GPI and USPI measures the availability of firearms; however because data on firearm ownership in Mexico is unavailable by state, a proxy was used. Thus the weapons crime indicator is based on the proportion of crimes that involved the use of firearms.

■ INCARCERATION RATE PER 100,000 PEOPLE

Source: National Institute of Statistics and Geography (INEGI)

Although data on the number of prisoners was unavailable over the entire period of the Index, data was available for the number of people sent to prison each year. The incarceration indicator consequently is based on the annual sentencing rate per 100,000 people aged 18 and over.

■ POLICE FUNDING PER 100,000 PEOPLE

Source: Secretaria de Hacienda y Crédito Público (SHCP)

The number of police per 100,000 at the state level only has three years of data available. Therefore, this indicator uses the next best available measure, which is the Public Security Contribution Fund (Fondo de Aportaciones para la Seguridad Pública, FASP) that has been allocated to the states. The federal government bases this funding measure mainly on state population, the changes in violent crime and for the professionalization of the police forces. It is available for all years since 2003 and has therefore been used as the measure.

The resources from FASP are used for the following purposes: reinforcement of the capacity of the police forces to fight against organized crime in Mexico; crime prevention and promotion of citizens involvement on public security discussions; institutional development, including professionalism of the police and investigation forces; anticorruption measures; and the consolidation of a reliable public security information system and telecommunication networks between all the institutions related to public security. Although FASP funding is not exclusively allocated to the police forces, most of this subsidy goes to police related expenditures.

■ ORGANIZED CRIME RATE PER 100,000 PEOPLE

Source: SESNSP

The escalating violence from the drug war is the single biggest issue related to peacefulness in Mexico in the last decade. Given this, there is a clear need for an indicator that captures the impact of organized criminal activity in Mexico.

Reflecting this, the impact of organized crime indicator uses the number of extortions, drug-trade related crimes, organized crime offenses and kidnapping in recognition that these crimes tend to be associated with organized crime activities, particularly by the larger drug cartels.

■ EFFICIENCY OF THE JUSTICE SYSTEM

Source: INEGI

This indicator measures the efficiency of the justice system by calculating the proportion of sentenced homicides to total homicides. This ratio was used because homicide offenses are the most serious crimes and under normal circumstances receive the highest priority.

The efficiency of the justice system indicator—a measure of homicide impunity—was included in the MPI for a number of reasons. Firstly, it buttresses our understanding of the impact of organized crime by showing how overwhelmed the justice system has become. Secondly, it can be used as a proxy for the fear of violence insofar as it suggests the extent to which an individual can be expected to be protected from crime through the justice system. Third, it highlights other issues such as corruption, inefficiency, or under-resourcing. There is a strong correlation between survey data on under-reporting of crime and this justice efficiency measure.

POPULATION ESTIMATES AND SOCIO-ECONOMIC DATA

The MPI uses data from the Mexican Population and Housing Census (Censo de Población y Vivienda) for the state population totals. For the years where census data was not available, a linear regression model was used to provide the population estimates. The socio-economic data that was used to construct the correlations was also taken from the Mexican census and a variety of other sources. For a full list of socio-economic data, see Appendix A.

INDICATOR WEIGHTS

All indicators are scored between 1 and 5, with 5 being the least peaceful score and 1 being the most peaceful score. After the score for each indicator has been calculated, weights are applied to each of the indicators in order to calculate the final score.

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 are the same as the 2013 Mexico Peace Index.

The weights for the Global Peace Index indicators were agreed upon by an international panel of independent peace and conflict experts, 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 seven indicators in the MPI. These final weights are shown in **Table 18**.

TABLE 18 INDICATOR WEIGHTS IN THE MPI

INDICATOR	WEIGHT	% OF INDEX
Homicide	4	25%
Violent Crime	3	17%
Weapons Crime	3	16%
Incarceration	1	6%
Police Funding	1	6%
Organized Crime	3	17%
Justice Efficiency	2	13%

Source: IEP

With direction from the expert panel, 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.

ACCURACY AND AVAILABILITY OF CRIME STATISTICS IN MEXICO

Most Mexican statistics are compiled by the National Institute of Statistics and Geography (INEGI). In the case of crime and security statistics, one of the primary sources is the Executive Secretary of the National System for Public Security (SESNSP), which collects detailed information on all types of crimes disaggregated for each of the Mexican states. In some cases, discrepancies between the sources are significant.

One of the main problems for statistics in Mexico is the quality of the administrative registries at the local and state levels (OECD - IMCO, 2012). Fortunately, this has become a key priority in domestic technical discussions between INEGI and the network of producers and users of data, with significant progress being made in terms of coordination and transparency.

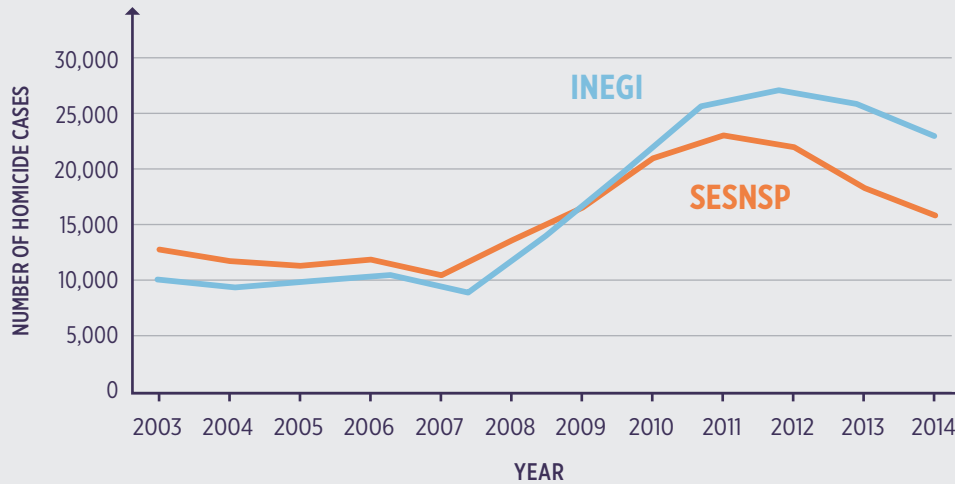
Homicide statistics can vary depending on the data source, but the two different figures reported by INEGI and SESNSP are highly correlated ($r=.99$). INEGI records the number of homicide deaths registered as a homicide in the Marriage and Deaths Registry (Registro Civil); the Marriage and Death Registry records the presumed cause of the death as accident, homicide or suicide. SESNSP compiles the number of homicide investigations recorded by the Prosecution Authority (Procuradurias Generales de Justicia) in each of the states. SESNSP data has the advantage of being the most up to date, with a release-lag of only a few months; INEGI data is released almost a year later. It should be noted that SESNSP figures are based on the number of crimes reported to and cases opened by the authorities. For further discussion of the relationship between different sources of homicide data and recent trends in homicides, see page 22.

Although INEGI compiles most of the crime and socio-economic statistics in Mexico, there is still some information that is not publically available or is compiled by different organizations, making data analysis a challenging task. In fact, one of the main obstacles to analyzing Mexican data is the transparency and quality of the information provided at the state level, as well as its consistency over time.

The MPI includes an indicator that accounts for police funding per 100,000 people. Ideally, the MPI would have included a direct measure of the number of police officers in each state, consistent with the GPI and both the UK and US Peace Indices. Unfortunately this data was not available for the entire period. However, the Public Security Contribution Fund (FASP) allocation to each state was available for the whole period and has been used as a proxy for police funding. The federal government criteria for the allocation of this funding are mostly the state population and the changes in violent

FIGURE 37 COMPARISON OF HOMICIDES AND HOMICIDE INVESTIGATIONS: INEGI AND SESNSP, 2003–2014

The trend between the two different homicide datasets is broadly comparable.



Source: INEGI, SESNSP, IEP

crime in the previous year. Although FASP funding is not specifically directed to the police, most goes to police-related expenses.

Similarly, the weapons indicator would ideally be based on the availability of firearms, consistent with what was used in the US and UK Indices; however, data on firearm ownership in Mexico is not available by state. Data on weapons availability or the number of confiscated weapons in Mexico is not publically available and IEP was unable to attain this information within the research period. Given this limitation, the weapons crime indicator is based on the proportion of crimes that involved the use of firearms, proxy data sourced from the Executive Secretary of the National System for Public Security (SESNSP).

Information regarding the incarceration system is publically available from SESNSP. However, in order to calculate the incarceration rate per 100,000 people, information on the number of inmates every year since 2003 was necessary, but was not available for the entire period. Although there is information compiled by INEGI that goes back to 2009, details about inmate inflow and outflows were not sufficient to make comparisons before and after the start of the drug war. Consequently, this indicator has been constructed using the numbers of people convicted and sent to jail per 100,000 people, from the INEGI Judicial and Penal System Statistics and Population Data (National Population Commission, Consejo Nacional de Población—CONAPO).

Information for all of the crimes under the violent crime indicator (rape, robbery and assault) and the organized crime indicator (kidnapping, extortion and drug-trade related crimes) was sourced from SESNSP and data was available for the entire period. The same information is also compiled by INEGI, but SESNSP's data is usually released earlier.

ECONOMIC COSTING METHODOLOGY

In developing the economic costing methodology, IEP classifies the costs associated with activity related to violence as ‘violence containment spending,’ defined as: ‘economic activity that is related to the consequences or prevention of violence where the violence is directed against people or property.’

A combination of approaches were used to estimate the economic cost of violence to Mexico’s economy. This economic analysis involved three key steps:

1. **Financial information detailing the level of expenditure on items associated with violence was used, where possible;**
2. **Where financial information pertaining to the cost of a violent act, such as an assault, was unavailable, a ‘unit costing approach’ was taken. 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 each type of violence;**
3. **Where data on the incidences of a particular crime was missing, the figure was either assumed to equal zero or estimated based on a proxy.**

Costs are classified according to whether they are ‘direct’ or ‘indirect’, where:

1. **Direct costs are those directly attributable to violence, such as medical costs. Importantly, the direct costs also accrue in terms of lowering the costs of preventing violence and the risk abatement required to mitigate violence via incarceration, justice expenditure, policing and the military.**
2. **Indirect costs are the flow-on effects in the economy that result from activity foregone because of the less productive use of expenditure and/or violence and fear of violence.**

A multiplier of two was used to estimate the additional economic activity that would have resulted in without lost productivity due to violence and the redirection of economic activity away from violence containment towards more productive uses of the capital.

The term ‘economic impact’ refers to total direct and indirect costs and the multiplier.

All prices have been adjusted to 2014 pesos, using World Bank data on average consumer prices. Where figures were denominated in a foreign currency, they have been converted into pesos using the average official exchange rate for the year the estimate was made.

A range of items have not been included in this study because of the unavailability of data or the lack of a reliable way of estimating the cost. These items include:

- **State and municipal contributions to public security;**
- **Medical costs associated with homicides;**
- **Insurance premiums paid for protection against household robbery or personal injury;**
- **Extortion costs to individuals and households;**
- **Financial costs of corruption to individuals and households;**
- **Personal costs of maintaining security and protecting against violence, such as expenditure on alarms, security systems etc.**

CALCULATING THE COST OF HOMICIDE

The total numbers of homicides by state were sourced from SESNSP. The direct cost of a homicide was sourced from a study by the Instituto Ciudadano de Estudios Sobre la Inseguridad (ICESI), a civil society research organization with a focus on security (ICESI, 2011). The only direct cost of a homicide used was the cost of a funeral, as there was no authoritative source on associated medical costs. In addition, the police and judiciary costs have been included in policing and judiciary categories. Therefore, the direct cost of a homicide is an estimated \$11,273 pesos.

The indirect costs of a homicide were estimated at \$34,776,464 pesos. Estimates of the indirect costs attributable to a homicide were based on a study by McCollister (2010) that used a range of methods to estimate both the tangible and intangible costs attributable to a homicide. Specifically, the analysis used the ‘cost-of-illness’ and extent of ‘jury compensation’ to estimate the costs of crime in the United States. These estimates were used instead of more traditional estimates of the statistical value of life, as the jury compensation

method, by nature, attempts to comprehensively account for the associated lost productivity and suffering from a homicide of both the victim and their family. This method does not include punitive damages, which may be awarded by US courts in civil cases. To ensure estimates appropriately represented relative income levels in Mexico, they were scaled according to Mexico's GDP per capita relative to the US before being converted to 2013 Mexican pesos. This was based on the aforementioned US study suggesting the indirect cost of a homicide to approximate US\$8.4 million. The equivalent cost in Mexico was then calculated as being 30 percent of this: US\$2.6 million (\$34.8 million pesos). The scaling is based on purchasing-power adjusted GDP per capita of \$12,814 for Mexico as compared to US\$42,486 for the US. These estimates are considered to be reasonable based on a review of similar studies (Aos, Phipps, Barnoski, & Lieb, 2001; Cohen, Rust, Steen, & Tidd, 2004; Cohen, 1988; Miller, Cohen, & Rossman, 1993; Miller, Cohen, & Wiersema, 1996; Rajkumar & French, 1997).

CALCULATING THE COST OF VIOLENT CRIME

Data on the number violent crimes was sourced from SESNSP. In order to accurately reflect the differing direct and indirect costs associated with a crime, data was separated according to the type of crime. This allowed for estimates of the costs of individual incidents by state for rape, robbery and assault. Importantly, because not all crimes are reported, it is generally accepted that the recorded number of crimes in Mexico is significantly below what actually occurs. In recognition of this, the number of reported crimes from SESNSP has been adjusted using the extent of underreporting according to the 2012 ENVIPE survey from INEGI.

The direct costs for rape, robbery and assault were sourced from a study by ICESI. Because estimates of the costs of individual crimes differed between years, an average was taken of the three years of the study (2007-2009). Specifically, these costs were assumed to be \$4,491 pesos per incidence of rape, \$23,477 pesos per robbery and \$8,883 pesos per assault.

Estimates of the indirect costs of violent crimes were sourced from a study of the number of 'quality adjusted life years' lost through various types of violence, which is a method for assessing the relative value of a year of life lost as a consequence of a crime (Aboal, Campanella, & Lanzilotta, 2013). These estimates were then multiplied by the indirect costs of a homicide mentioned above. Specifically, indirect costs were assumed as \$134,446 pesos for rape, \$6,829 pesos for robbery and \$25,118 pesos for an assault.

CALCULATING THE COST OF FIREARMS

Although official estimates of the number of illegal firearms were not available, civil society estimates suggest there were 15.5 million unregistered firearms in 2011 (Small Arms Survey, 2011). In order to expand this estimate over the full time period (2003 to 2014), the year-on-year growth of crimes involving firearms was used. This was then combined with INEGI records of the number of charges for possessing an unregistered firearm, to estimate the likely distribution of unregistered firearms by state. Finally, the cost of an unregistered firearm was proxied using the price of a weapon on the black market (US\$500 or \$6,722 pesos).

CALCULATING THE COST OF INCARCERATION

The number of prisoners per state was sourced from data provided by the 'Mexico Estatal- CIDE' project (CIDE, 2013). The direct cost of imprisonment per person was not included in the incarceration estimates because direct costs have been included in the policing and judiciary component. However, indirect costs, such as the foregone wages of prisoners, have been included. That is, we have assumed that the potential contribution to the Mexican economy foregone for each incarcerated person is equal to the minimum wage.

CALCULATING THE COST OF POLICING, PUBLIC AND PRIVATE SECURITY

The costs of policing were taken from the federal Fund for Public Security (FASP), which represents a significant component of the budgetary costs of policing.

No reliable estimates were available for the number of private security personnel in Mexico over the entire period (2003 to 2014). As a result, past estimates of the ratio of private security personnel to public security officials were used to generate estimates for the entire period.

Where data was not available in a particular year the variable was assumed to grow at the same rate as population growth. To provide an estimate of the likely distribution of private security between the states, data covering the period of 2007 to 2009 was then used (ICESI, 2011). To provide an estimate of the cost of private security, the total numbers by state were then multiplied by the minimum wage.

CALCULATING THE COST OF JUSTICE SYSTEM, COURTS AND OTHER PUBLIC SECURITY PROGRAMS

The costs of the justice system were taken from INEGI data on the funding provided to 'prevention', the 'justice system', 'Social re-insertion', 'Courts', 'Defense' and 'Program Limpiemos Mexico' ("Let's Clean Up Our Mexico").

CALCULATING THE COST OF ORGANIZED CRIME TO BUSINESS

Estimating the cost of organized crime is notoriously difficult, as a large proportion of criminal activity and its impact on the wider economy is likely to be under-reported and difficult to disentangle from normal variations in economic activity. IEP used INEGI's National Business Victimization Survey (ENVE), which estimated the cost of organized crime to business by asking business their direct expenditure on protecting against or responding to organized crime (e.g. the installation of security systems, payment of extortion fees, etc.).

It is important to recognize that even though businesses directly incur these costs, the wider community will suffer as a result. Business expenditure from increased security due to crime leads to less being invested into employees, operations and the wider community.

CALCULATING THE COST OF THE MILITARY

Total levels of military expenditure for Mexico were taken from the World Bank. Because the federal government of Mexico predominantly controls military expenditure, the state's population was used to provide an estimate of the cost of the military by state.

CALCULATING THE COST OF FEAR

Survey data from INEGI on the 'perceptions of insecurity' was combined with population statistics to estimate the proportion of individuals who were fearful of crime in each state of Mexico. The number of individuals who reported they were fearful was multiplied by \$537 pesos, based on research that estimated the financial magnitude of the health impacts of living in fear (Dolan & Peasgood, 2006). Because the violent nature of crime was considered more severe in Mexico than the source of the study, the estimated costs of fear were not scaled by relative purchasing power so as not to underestimate the impact of living in fear of violence and crime.

CALCULATING THE COST OF PRIVATE INSURANCE OF VEHICLES AGAINST ROBBERY

Although comprehensive data on insurance premiums was unavailable, data on the value of premiums paid on insurance against vehicle theft was available from 2007 to 2009. Levels of insurance premiums tend to closely follow a state's GDP; consequently, where data was unavailable, the average vehicle insurance premium as a proportion of GDP was used. The estimates are therefore conservative, given that they only account for car insurance premiums against theft and not for other forms of insurance such as life insurance and insurance against injury and personal property.

IMPORTANTLY, BECAUSE NOT ALL CRIMES ARE REPORTED, IT IS GENERALLY ACCEPTED THAT THE RECORDED NUMBER OF CRIMES IN MEXICO IS SIGNIFICANTLY BELOW WHAT ACTUALLY OCCURS. IN RECOGNITION OF THIS, THE NUMBER OF REPORTED CRIMES FROM SESNSP HAS BEEN ADJUSTED USING THE EXTENT OF UNDERREPORTING ACCORDING TO THE 2012 ENVIPE SURVEY FROM INEGI.

MISSING DATA

Although current data was used wherever possible, a number of techniques were used to impute unavailable data for the 2003 to 2014 period. The approach taken was to analyze the available years of data against the closest substitute available. For example, the level of expenditure on car insurance premiums tended to be strongly associated with a state's GDP. State GDP was consequently used to estimate car insurance premiums for missing years. Where this could not be applied, the most appropriate proxy was used. Despite this, it is important to note that data was consistently available for 2003 to 2014 for the two largest contributors to the economic impact of violence: homicide and violent crime.

The approaches taken for imputing data have been summarized in **Table 19**:

TABLE 19 METHODS USED TO IMPUTE MISSING DATA

A range of methods were used to estimate missing data.

INDICATOR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Homicide	Data taken from SESNSP									
Violent Crime										
Weapons Crime	Headline figure grown according to growth in rate of crimes committed with a weapon. Distributed between states according to proportion of total charges laid for illegal firearm							Based on 2011 Small Arms Survey	Same assumption as 2003-2010	
Incarceration	Forecasted on the basis of prison inflows				Based on INEGI data on jailed population				Same assumption as 2003-2006	
Police Funding	FASP Funding									
Private Security	Growth in-line with population growth	Small Arms Survey estimate		Growth in-line with population growth						
Organized Crime —costs to business	Growth in-line with OC component of Index							INEGI Cost of crime survey	Same assumption as 2003 to 2010	
Justice System Efficiency	Nil						Budget Data	Assumed as constant proportion of GDP		
Military	World Bank Data								Assumed as constant proportion of GDP	
Fear	Cost of fear grown according to levels of violent crime in current year relative to average of 2011-2012							Based on INEGI Perceptions of Fear Survey		
Insurance Premiums	Assumed as constant proportion of GDP				Based on data on car insurance premiums			Assumed as constant proportion of GDP		

APPENDIX A

SOCIO-ECONOMIC DATA SOURCES

TABLE 20 SOCIO-ECONOMIC DATA SOURCES

CORRELATION WITH OVERALL SCORE (RANK ORDER)			
FACTOR	SOURCE	YEAR	r
People Feeling that their Municipality is Unsafe (%)	INEGI – Victimization and Perceptions of Security Survey (ENVIPE) 2012	2012	0.69
People Feeling that their State is Unsafe (%)	INEGI – Victimization and Perceptions of Security Survey (ENVIPE) 2012	2011	0.7
People Feeling that their Town is Unsafe (%)	INEGI – Victimization and Perceptions of Security Survey (ENVIPE) 2012	2009	0.66
Average Number of People per House	INEGI – Mexico Population and Housing Census 2010	2010	-0.19
Average Number People per Room	INEGI – Mexico Population and Housing Census 2010	2010	-0.1
Beneficiaries of Social Welfare Program (LICONSA) per 100,000	INEGI – Mexico Population and Housing Census 2010	2010	-0.03
Books Available, Public Libraries per Capita	INEGI – Mexico Population and Housing Census 2010	2010	-0.1
Consumer Spending per Capita	INEGI - National Accounts Statistics	2011	-0.02
Number of Divorces per 100,000 People	INEGI – Mexico Population and Housing Census 2010	2010	0.18
Number of Doctors per 100,000 People	INEGI – Mexico Population and Housing Census 2010	2010	-0.06
Fertility Rate of Adolescents Aged 15-19	INEGI – Mexico Population and Housing Census 2010	2010	0.2
GDP per Capita	INEGI - National Accounts Statistics	2011	-0.15
Human Development Index (HDI) - Education	UNDP - HDI Mexico	2010	0.15
Human Development Index (HDI) - Health	UNDP - HDI Mexico	2010	0.07
Human Development Index (HDI) - Income	UNDP - HDI Mexico	2010	0.24
Human Development Index (HDI) - Overall	UNDP - HDI Mexico	2010	0.19
Homicide Rate per 100,000 People	Executive Secretary for the National System of Public Security — SESNSP	2014	0.78
Hospital Beds per 100,000 People	INEGI – Information Bank	2008	0.13
House with all Basic Services	INEGI – Mexico Population and Housing Census 2010	2010	0.19
Female Households Head	INEGI – Mexico Population and Housing Census 2010	2010	0.36
Male Household Head	INEGI – Mexico Population and Housing Census 2010	2010	-0.36
Houses with Internet	INEGI – Mexico Population and Housing Census 2010	2010	0.3
Households with Mobile Phone	INEGI – Mexico Population and Housing Census 2010	2010	0.24
Houses without Basic Goods	INEGI – Mexico Population and Housing Census 2010	2010	-0.27
Houses without Drainage System	INEGI – Mexico Population and Housing Census 2010	2010	-0.26
Houses with No Electricity	INEGI – Mexico Population and Housing Census 2010	2010	-0.27
Houses without Running Water	INEGI – Mexico Population and Housing Census 2010	2010	-0.07
Houses without Phone Land Line	INEGI – Mexico Population and Housing Census 2010	2010	0.47
Houses with Radio	INEGI – Mexico Population and Housing Census 2010	2010	0.09

Appendix A — Table 20 continues >

> Appendix A — Table 20 continued

FACTOR	SOURCE	YEAR	r
Houses with Refrigerator	INEGI – Mexico Population and Housing Census 2010	2010	0.46
Houses with Some Kind of Bathroom	INEGI – Mexico Population and Housing Census 2010	2010	0.06
Households with TV	INEGI – Mexico Population and Housing Census 2010	2010	0.28
Houses with No Flooring Material	INEGI – Mexico Population and Housing Census 2010	2010	0.03
Houses with Proper Floor	INEGI – Mexico Population and Housing Census 2010	2010	-0.06
Weapon Crime Rate per 100,000 People	Executive Secretary for the National System of Public Security — SESNSP	2014	0.68
Incarceration Rate per 100,000 People	INEGI - Judicial and Penal System Statistics	2013	0.23
Incarceration Rate per 10,000 aged 18 and over	National Institute of Statistics and Geography (INEGI)	2013	0.36
Household is Deprived in 1 Dimension	INEGI – Mexico Population and Housing Census 2010	2010	-0.25
Household is Deprived in 2 Dimensions	INEGI – Mexico Population and Housing Census 2010	2010	-0.22
Household is Deprived in 3 Dimensions	INEGI – Mexico Population and Housing Census 2010	2010	-0.11
Household is Deprived in 4 Dimensions	INEGI – Mexico Population and Housing Census 2010	2010	0.04
Household is not Deprived in any Dimension	INEGI – Mexico Population and Housing Census 2010	2010	0.17
Justice System Efficiency (Impunity Ratio)	INEGI - Judicial and penal System Statistics	2012	0.69
Labor Disputes per 100,000 People	INEGI – Mexico Population and Housing Census 2010	2010	0.3
Life Expectancy at Birth	INEGI – Mexico Population and Housing Census 2010	2010	0.08
Nurses per 100,000	INEGI – Information Bank	2008	0.04
Offices per 100,000	INEGI – Information Bank	2008	-0.1
People Older than 15 with Primary School Completed (%)	INEGI – Mexico Population and Housing Census 2010	2010	-0.06
People Older than 15 with Secondary School Completed (%)	INEGI – Mexico Population and Housing Census 2010	2010	-0.06
People Older than 18 with Some Tertiary Education (%)	INEGI – Mexico Population and Housing Census 2010	2010	0.2
Population in Multidimensional Poverty (%)	Oxford Poverty and Human Development Initiative (OPHI)	2006	-0.12
Population Vulnerable to Poverty (%)	Oxford Poverty and Human Development Initiative (OPHI)	2006	-0.19
Intensity of Deprivation	Oxford Poverty and Human Development Initiative (OPHI)	2006	-0.05
Multidimensional Poverty Index	Oxford Poverty and Human Development Initiative (OPHI)	2006	-0.1
Organized Crime Rate per 100,000 People	Executive Secretary for the National System of Public Security — SESNSP	2014	0.51
People older than 15 Illiterate	INEGI – Mexico Population and Housing Census 2010	2010	-0.21
People Older than 15 with No Schooling	INEGI – Mexico Population and Housing Census 2010	2010	-0.14
People in the House Older than 3 Years Old Speaking Indigenous Language	INEGI – Mexico Population and Housing Census 2010	2010	-0.39
People Older than 3 Speaking Only Indigenous Language	INEGI – Mexico Population and Housing Census 2010	2010	-0.19
Police Officers per 100,000 People	Executive Secretary for the National System of Public Security — SESNSP	2011	0.15
Police Spending per 100,000 People	Secretary of Finance and Public Credit (SHCP) - FASP funds	2012	-0.13
Population Aged 15 to 24	INEGI – Mexico Population and Housing Census 2010	2010	-0.2
Population Older than 18	INEGI – Mexico Population and Housing Census 2010	2010	0.07
Ratio Male/Female	INEGI – Mexico Population and Housing Census 2010	2010	0.09
State Population (% of National Population)	INEGI – Mexico Population and Housing Census 2010	2010	0.2
Stock of Fixed Assets per Capita	INEGI – Information Bank	2008	-0.13
Total Fertility Rate	INEGI – Mexico Population and Housing Census 2010	2010	0.07
Traffic Accidents per 100,000	INEGI	2008	0.21
Unemployment Rate	INEGI – Mexico Population and Housing Census 2010	2010	0.13
Violent Crime Rate (Assault, Rape and Robbery) per 100,000 People	Executive Secretary for the National System of Public Security — SESNSP	2014	0.55

APPENDIX B

MOVEMENT IN RANKINGS OF STATES, 2003–2014

TABLE 21 MOVEMENT IN RANKINGS OF STATES, 2003–2014

14 states have improved their MPI rank, 15 have declined and three have seen no change in rank.

STATE	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2003-2014 RANK MOVEMENT
Aguascalientes	13	14	18	18	23	22	22	19	22	18	13	14	-1
Baja California	27	27	27	30	31	31	29	28	28	27	27	25	2
Baja California Sur	12	19	29	24	30	23	13	10	6	5	15	12	0
Campeche	1	1	2	1	2	2	1	2	1	1	4	4	-3
Coahuila	2	3	3	3	4	12	12	15	19	22	20	15	-13
Colima	7	10	9	11	12	11	10	6	12	20	28	21	-14
Chiapas	25	24	21	15	14	5	8	7	7	7	7	6	19
Chihuahua	28	28	28	29	21	32	32	29	31	29	29	26	2
Distrito Federal	23	22	20	19	17	16	23	26	20	21	22	20	3
Durango	4	2	15	13	15	28	28	30	27	25	26	19	-15
Guanajuato	20	21	24	22	29	25	24	20	17	24	25	28	-8
Guerrero	29	26	26	27	26	24	25	25	30	31	31	32	-3
Hidalgo	3	4	5	2	1	3	4	4	3	3	2	1	2
Jalisco	19	17	14	16	19	18	18	21	21	17	24	24	-5
México	26	25	23	20	10	7	15	12	14	15	23	23	3
Michoacán	22	20	16	23	24	27	27	18	18	23	19	29	-7
Morelos	24	29	31	31	25	26	31	32	29	32	32	31	-7
Nayarit	10	7	13	26	22	20	16	24	24	14	8	9	1
Nuevo León	8	5	8	12	13	13	9	16	26	26	18	18	-10
Oaxaca	31	31	22	25	20	15	17	13	8	8	10	13	18
Puebla	21	18	12	10	8	6	11	9	11	11	11	10	11
Querétaro	6	6	7	5	3	1	3	1	2	2	1	3	3
Quintana Roo	32	30	19	21	27	29	26	27	25	28	21	22	10
San Luis Potosí	5	13	6	6	11	14	14	17	15	9	6	8	-3
Sinaloa	30	32	32	32	32	30	30	31	32	30	30	30	0
Sonora	17	23	30	28	28	21	21	23	16	16	17	17	0
Tabasco	9	8	1	8	16	17	19	14	13	12	12	11	-2
Tamaulipas	18	16	25	17	18	19	20	22	23	19	16	27	-9
Tlaxcala	14	15	17	14	6	9	6	8	9	10	5	5	9
Veracruz	11	9	4	4	5	4	2	5	5	6	9	7	4
Yucatán	16	11	11	9	9	8	5	3	4	4	3	2	14
Zacatecas	15	12	10	7	7	10	7	11	10	13	14	16	-1

Source: IEP

APPENDIX C

MEXICO POSITIVE PEACE INDEX METHODOLOGY

The Positive Peace Index (PPI) is the first empirically-derived index aimed at measuring the latent variable of Positive Peace, using the definition of “the set of attitudes, institutions and structures which when strengthened, lead to a more peaceful society.”

The starting point for developing the PPI was to correlate the Global Peace Index against over 4,700 cross-country harmonized datasets measuring a variety of economic, governance, social, attitudinal and political factors. This aggregation of data attempted to cover every known quantitative and qualitative data set measuring factors at the nation-state level. Each dataset that was significantly correlated was then organized under eight distinct Pillars of Peace. These structures were derived by empirical inspection and from the large body of qualitative and quantitative economic, development studies and peace and conflict literature highlighting the importance of these factors. Rather than attempting to isolate singular factors associated with peace, this approach is focused on identifying the broad and complex associations that exist between the drivers of violence and a multitude of formal and informal cultural, economic, and political, variables.

The Mexico Positive Peace Index (MPPI) is a composite index that measures positive peace at the sub-national state level. To do this data sources were compiled from national statistics, census and survey questions covering as many aspects of the Pillars of Peace as possible. In 2015 the MPPI:

- **Uses data from 58 indicators:**
 - 27 survey questions
 - 23 national statistics
 - 8 data sources from academic and intergovernmental organizations
- **Covers all 32 states.**
- **Aggregates data from 2006 into one measure to provide a snapshot of positive peace in 2015.**

There are a number of considerations that need to be made when applying the Pillars of Peace, a framework empirically derived from correlations at the global level to sub-national measurement. Such considerations can be either conceptual or technical.

The global PPI is empirically derived by selecting indicators that correlated with peace at the global level. However applying the Pillars of Peace at the sub-national level may produce a different set of relevant factors. This is demonstrated by the fact socio-economic factors that correlate at the global level do not correlate when measured at the Mexican state level. This is importantly more a function of the very unique nature of conflict and violence in Mexico in the short term than it is of the relevance of the eight Pillars to Mexico in the long term.

For example it is known that the set of factors that correlated with peace in Mexico in 2003 are different to the ones that correlate in 2014. Given the shifting nature of conflict within a country only by measuring all eight Pillars can the whole set of relevant factors to peace at any given time be assessed. Therefore the indicators of the MPPI have been selected based on their relevance to the conceptual frameworks of each of the global Pillars rather than their correlation to peace in Mexico.

There is one aspect however that conceptually applies to peace at the global level but does not easily transfer to the sub-national. In the global PPI, the Pillar Good Relations with Neighbors contains measures relating to international diplomatic relationships between countries and trans-national agreements. However at the sub-national state level this is not as relevant and data on inter-state relationships is not readily available. As such this aspect of Good Relations with Neighbors is not included in the MPPI. The other facets of this Pillar have been included in the MPPI calculations. All other facets of this and remaining Pillars of Peace have been included in the MPPI calculations.

While national statistics relating to health, education and poverty are available for states, many conceptual aspects of positive peace lack sub-national objective measures. For example, in measuring the Well Functioning Government Pillar, organizations such as the World Bank and the Economist Intelligence Unit provide composite measures for rule of law, functioning of democracy and government effectiveness at the country level. Equivalent measures at the state level are not available.

Due to this the MPPI scores combine objective with subjective measures of positive peace aggregated to the 32 states. Where possible, preference has been given to objective measures and national statistics. Where this has not been possible, preference has been given to individual perspectives on local issues. For example, between the two questions “Do you believe your state is safe” or “Do you believe your town is safe?” the latter would be selected as it has more of a personal impact to the respondent and therefore any answer given is more likely to accurate portrayal of positive peace on the ground.

The MPPI is in large part compiled from a number of survey questions from the American Barometer series 2002-2012. Working with survey data introduces its own challenges. First of all, survey responses have to be quantified. In the questions selected from the American Barometer surveys this was done consistently by weighting more positive answers the heaviest. All quantitative assignments of survey responses are shown in **Table 23**. The second issue dealt with survey analysis is that the confidence in the results of any survey is dependent on the sample size that has responded to it. To maximize the number of respondents to every Americas Barometer survey question included in the MPPI, responses have been aggregated from the three survey waves conducted between 2006-2012. This means that while in any one year for example a survey question may have only been asked to 50 people in any one state, aggregating over three surveys means that the number of responses analyzed is 150 people increasing the confidence in the results. Furthermore, to minimize the effects of low sample sizes preference has been given to include as many questions as possible in the MPPI. This serves to increase response numbers analyzed for any given Pillar and to minimize the effect of uncontrolled variables such as survey biases or data entry errors present in any one question.

When including multiple survey questions covering the similar issues, care has to be taken not to unintentionally skew the results of the composite index. For example, in the Well Functioning Government Pillar, seven of the eight questions included deal with aspects of corruption and government efficiency. The remaining question deals with the economy. This inherently weights corruption and efficiency more than economic performance in this Pillar.

To test the robustness of the overall results in light of this effect, a second MPPI was calculated using only 35 indicators instead of 58. The results presented in this report were valid for both versions of the MPPI. Therefore minimizing uncertainty through including more survey questions was selected over the minimizing the unintended effects of doing so. A full analysis of the effect of survey uncertainty on the MPPI overall shows that the results of the MPPI are robust, the analysis is explained at the end of this section.

Finally, timeliness and currency is an issue. Finding data at the state level can be difficult and as such often it is necessary to use data that is in some cases many years old. Aggregating survey data over multiple surveys can lose the impact of local events at the time they occurred. However, it is observed that positive peace at the global level is very slow-moving. That is, while violence and conflict can erupt and spread quickly, building and strengthening the attitudes, institutions and structures that create and sustain peaceful societies takes a long time, sometimes decades. Therefore, although using current data is preferable using slightly older data when discussing positive peace still allows for valuable insights to be made.

MPPI INDICATORS

In calculating the MPPI the first step is to normalize each of the 58 indicators. To do this each indicator is first categorized into either being a positive or a negative indicator. Positive indicators are such that it is desirable for a state to have more of the measure. For negative

indicators it is more desirable for a state to have less of the measure. **Table 22** lists all indicators in the MPPI. Positive indicators are colored green while negative indicators are colored red.

TABLE 22 MEXICO POSITIVE PEACE INDEX (MPPI) INDICATORS

Indicators used in the MPPI calculations.

PILLAR	INDICATOR	YEAR	SOURCE
WELL FUNCTIONING GOVERNMENT 1) Effectiveness of government 2) Rule of law 3) Political culture	Do you feel the justice system would punish the culprit if you were a victim of assault or robbery?	Responses aggregated between 2006-2012	Americas Barometer
	Do you have confidence in the justice system?	Responses aggregated between 2006-2012	Americas Barometer
	Do you have confidence in your municipality/delegation?	Responses aggregated between 2006-2012	Americas Barometer
	Do you have confidence in the police?	Responses aggregated between 2006-2012	Americas Barometer
	In order to capture a criminal, do you think the authorities should always act within the law or have the ability to act outside the law?	Responses aggregated between 2006-2012	Americas Barometer
	To what extent would you say the current government improves public safety?	Responses aggregated between 2006-2012	Americas Barometer
	To what extent would you say the current government is handling the economy well?	Responses aggregated between 2006-2012	Americas Barometer
	To what extent would you say the current government promotes and protects democratic principles?	Responses aggregated between 2006-2012	Americas Barometer
SOUND BUSINESS ENVIRONMENT 1) Ease of doing business 2) Economic freedom 3) GDP per capita	Do you think that the country's economic situation is very good, good, neither good nor bad, bad or very bad?	Responses aggregated between 2006-2012	Americas Barometer
	Do you think the current economic situation of the country has gotten better, stayed the same or has got worse in the past 12 months?	Responses aggregated between 2006-2012	Americas Barometer
	Do you think your economic situation has improved, stayed the same or gotten worse over the past 12 months?	Responses aggregated between 2006-2012	Americas Barometer
	GDP per capita	2008	INEGI-National Account Statistics
	Human Development Index - Income	2010	UNDP
	Unemployment rate	2010	INEGI Census
EQUITABLE DISTRIBUTION OF RESOURCES 1) Life expectancy 2) GINI coefficient 3) Poverty	Doing business	2013	World Bank
	Average number of people per house	2010	INEGI Census
	Not deprived in any dimensions (as defined by INEGI)	2010	INEGI
	Percentage Population vulnerable to poverty	2006	OHPI
	Proportional mortality: nutritional diseases	2012	INEGI
	Average number of people per room	2010	INEGI Census
	Houses with all basic services	2010	INEGI Census
	Houses with no connection to the public drainage system	2010	INEGI Census
	Houses with no basic goods	2010	INEGI Census
	Houses with no electricity	2010	INEGI Census
	Houses with no running water	2010	INEGI Census
	Houses with some kind of bathroom	2010	INEGI Census
	Houses with no flooring material	2010	INEGI Census
	Houses with proper floor	2010	INEGI Census

> Table 22 continued

PILLAR	INDICATOR	YEAR	SOURCE
ACCEPTANCE OF THE RIGHTS OF OTHERS	Do you think citizen's rights are well protected by the political system in Mexico?	Responses aggregated between 2006-2012	Americas Barometer
1) Hostility to foreigners	Gender Equality Index in Mexican States (GEIMS)	2007	University of Texas*
2) Adherence to human rights	How much do you agree with the government (country) providing social services such as health care, education, and housing for foreigners who come to live or work in the country?	Responses aggregated between 2006-2012	Americas Barometer
3) Gender equality			
GOOD RELATIONS WITH NEIGHBORS	Percentage that feel that their town is unsafe	2009	INEGI
1) Life satisfaction	Are you proud of being Mexican?	Responses aggregated between 2006-2012	Americas Barometer
2) Satisfaction with community	Has the community helped you with your own work or labor?	Responses aggregated between 2006-2012	Americas Barometer
3) Community engagement	Have you been attending community meetings about some problem or some improvement?	Responses aggregated between 2006-2012	Americas Barometer
	Have you donated money or materials to help solve a problem in the community, neighborhood or suburb?	Responses aggregated between 2006-2012	Americas Barometer
	Have you tried to help organize a new group to resolve a neighborhood problem or to find some improvement?	Responses aggregated between 2006-2012	Americas Barometer
	In the last year have you contributed or attempted to contribute to the solution of a problem in your community or residents of your neighborhood?	Responses aggregated between 2006-2012	Americas Barometer
	In general, how satisfied are you with your life?	Responses aggregated between 2006-2012	Americas Barometer
FREE FLOW OF INFORMATION	Books available public libraries per capita	2010	INEGI Census
1) Freedom of the press	Do you have confidence in the media?	Responses aggregated between 2006-2012	Americas Barometer
2) World press freedom	How often do you follow the news, whether on TV, radio, newspapers or the Internet?	Responses aggregated between 2006-2012	Americas Barometer
3) Mobile phones per 1,000	Journalists killed	Total number between 2000-2013	University of San Diego**
	Houses with mobile phone	2010	INEGI Census
HIGH LEVELS OF HUMAN CAPITAL	HDI - Education	2010	UNDP
	HDI - Health	2010	UNDP
1) Youth development	Life expectancy at birth	2010	INEGI Census
2) Education	People older than 15 with no schooling	2010	INEGI Census
3) Health	Total fertility rate	2010	INEGI Census
	Older than 15 primary school completed	2010	INEGI Census
	Older than 15 secondary school completed	2010	INEGI Census
	Older than 18 with some tertiary education	2010	INEGI Census
LOW LEVELS OF CORRUPTION	Did any police officer ask you for a bribe in the last 12 months?	Responses aggregated between 2006-2012	Americas Barometer
1) Prevalence of corruption	Do you think that at times, bribes can be justified?	Responses aggregated between 2006-2012	Americas Barometer
2) Perceptions of corruption	Perceived level of corruption of public officials	Responses aggregated between 2006-2012	Americas Barometer
	In the last 12 months, did any government employee solicited a bribe (or bribe)?	Responses aggregated between 2006-2012	Americas Barometer
	To what extent would you say the current government fights government corruption?	Responses aggregated between 2006-2012	Americas Barometer

* Published in Social Indicators Research Journal

** Drug Violence in México Report 2014, Justice in México Project.

TABLE 23 QUANTITATIVE ASSIGNMENT OF SURVEY RESPONSES

The quantitative value of survey responses used in the MPPI.

PILLAR	QUESTION	SURVEY RESPONSE	QUANTITATIVE VALUE	PILLAR	QUESTION	SURVEY RESPONSE	QUANTITATIVE VALUE
WELL FUNCTIONING GOVERNMENT	Do you feel the justice system would punish the culprit if you were a victim of assault or robbery?	Nothing	0	WELL FUNCTIONING GOVERNMENT (continued)	To what extent would you say the current government promotes and protects democratic principles?	1 Nothing	1
		Little	1			2	2
		Something	2			3	3
		A lot	3			4	4
	Do you have confidence in the justice system?	1 Nothing	1			5	5
		2	2			6	6
		3	3			7. A lot	7
		4	4		To what extent would you say the current government is handling the economy well?	1 Nothing	1
		5	5			2	2
		6	6			3	3
		7 A lot	7			4	4
	Do you have confidence in your municipality/delegation?	1 Nothing	1			5	5
		2	2			6	6
		3	3			7 A lot	7
		4	4	SOUND BUSINESS ENVIRONMENT	Do you think that the country's economic situation is very good, good, neither good nor bad, bad or very bad?	Very bad	0
		5	5			Bad	1
		6	6			Neither good nor bad (regular)	2
		7 A lot	7			Good	3
	Do you have confidence in the police?	1 Nothing	1			Very good	4
		2	2		Do you think the current economic situation of the country has gotten better? Stayed the same or gotten worse in the past 12 months?	Worst	0
		3	3			The same	1
		4	4			Best	2
		5	5		Do you think your economic situation has improved, equal or gotten worse over the past 12 months?	Worst	0
		6	6			The same	1
		7 A lot	7			Best	2
	Do you have respect for political institutions in Mexico?	1 Nothing	1	ACCEPTANCE OF THE RIGHTS OF OTHERS	Do you think citizens' rights are well protected by the political system in Mexico?	1 Nothing protected	1
		2	2			2	2
		3	3			3	3
		4	4			4	4
		5	5			5	5
		6	6			6	6
		7 A lot	7			7 A lot	7
	In order to capture a criminal, do you think the authorities should always act within the law or have the ability to act outside the law?	Sometimes they may act outside of the law	0		How much do you agree with the government (country) providing social services such as health care, education and housing for foreigners who come to live or work in the country?	Disagree strongly	0
		They must always respect the laws	1			Somewhat disagree	1
	To what extent would you say the current government improves public safety?	1 Nothing	1			Nor in agreement or disagreement	2
		2	2			Somewhat agree	3
		3	3			Agree	4
		4	4				
		5	5				
		6	6				
		7 A lot	7				

Each indicator is normalized based on whether it is a positive or negative measure. For positive indicators scores are assigned a score between one and five. States that perform the best in any one indicator are assigned a score of one. States that perform the worst in any one indicator are assigned a score five. A state's score in each

Pillar is the average of all its banded indicator scores. The overall MPPI is the average of a state's eight Pillars of Peace score. In this sense each indicator is equally weighted in each pillar and each pillar is equally weighted in the overall MPI score.

PILLAR	QUESTION	SURVEY RESPONSE	QUANTITATIVE VALUE
GOOD RELATIONS WITH NEIGHBORS	Are you proud of being Mexican?	1 Nothing	1
		2	2
		3	3
		4	4
		5	5
		6	6
		7 A lot	7
	Has the community helped you with your own work or labor?	No	0
		Yes	1
	Have you been attending community meetings about some problem or some improvement?	No	0
		Yes	1
	Have you donated money or materials to help solve a problem in the community or neighborhood or colony?	No	0
		Yes	1
	Have you tried to help organize a new group to resolve a neighborhood problem or to find some improvement?	No	0
		Yes	1
	In the last year have you contributed or attempted to contribute to the solution of a problem in your community or residents of your neighborhood?	Never	0
		Once or twice a year	1
		Once or twice a month	2
		Once a week	3
	In general, how satisfied are you with your life? Would you say it is:	Very dissatisfied	0
		Somewhat dissatisfied	1
		Somewhat satisfied	2
		Very satisfied	3

PILLAR	QUESTION	SURVEY RESPONSE	QUANTITATIVE VALUE
FREE FLOW OF INFORMATION	Do you have confidence in the media?	1 Nothing	1
		2	2
		3	3
		4	4
		5	5
		6	6
		7 A lot	7
LOW LEVELS OF CORRUPTION	How often do you follow the news, whether on TV, radio, newspapers or the Internet?	Never	0
		Rarely	1
		Some times a month	2
		Some times a week	3
		Daily	4
	Did any police officer asked you for a bribe in the last 12 months?	Yes	0
		No	1
	Do you think that at times, bribes can be justified?	Yes	0
		No	1
	Given your experience or what you have heard, corruption of public officials in the country are:	Very widespread	0
		Somewhat widespread	1
		Little widespread	2
		Nothing widespread	3
	In the last 12 months, did any government employee solicit a bribe?	Yes	0
		No	1
	To what extent would you say the current government fights government corruption?	1 Nothing	1
		2	2
		3	3
		4	4
		5	5
		6	6
		7 A lot	7

Source: IEP

CONFIDENCE IN SURVEY RESPONSES

As stated earlier, working with survey data introduces challenges to interpreting results. In order to be confident that a survey result is representative of the overall population the question needs to be asked to a large enough number of people. If too few are asked then the result of the survey may misrepresent the population. As the MPPI is constructed using 27 survey questions understanding the confidence of the survey questions used is necessary to understand the robustness of the index's results.

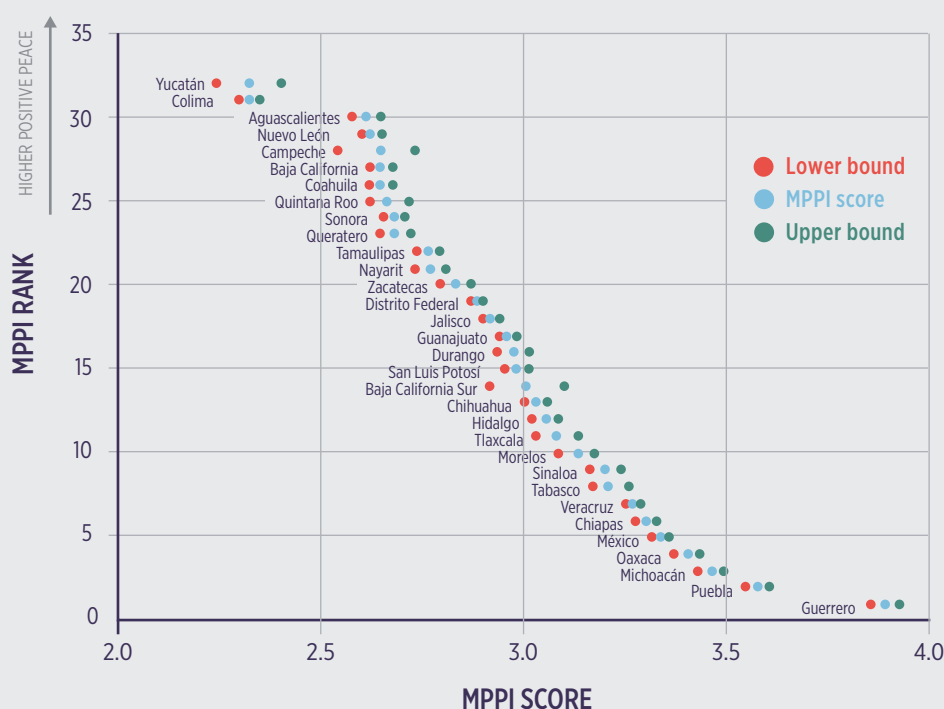
Assessing confidence is calculated using the standard error of the mean response of a survey question. Assuming a normal distribution it can be said with 95 percent confidence that the population mean will be within plus or minus 1.96 x the standard error of the sample mean response to a survey. The equation explains the calculation of the standard error.

$$\text{Standard Error} = \frac{\text{Standard deviation of survey responses}}{\sqrt{\text{Number of people asked}}}$$

For the MPPI, therefore, we need to calculate the standard error for each survey question to estimate the reliability of the results of each Pillar of Peace score. **Table 24** shows the 95 confidence intervals of each Pillar score by state. This table shows that of the 32 states, only four have confidence levels over 10 percent of their calculated score in each of the Pillars. By aggregating these uncertainties across all the Pillars it is possible to gauge the effect on a state's overall MPPI score. Results in **Table 24** show that the states with the largest uncertainty in their MPPI scores are Campeche, Baja California Sur, Colima and Tlaxcala. Due to these four states being in the top five least populated states in Mexico, survey questions are asked to less people in these regions causing higher uncertainty. However **Figure 38** shows that, with the exception of Campeche and Baja California Sur the ranks of the MPPI are robust with only minor changes possible when factoring in uncertainties. Campeche, currently ranked fifth in the worst case could fall to anywhere between third and tenth when including uncertainty. Baja California Sur could rank between 15th and 22nd. Changes to all other state rankings would only be minor.

FIGURE 38 MPPI EFFECT OF UNCERTAINTY ON RANKS

With the exception of Campeche and Baja California Sur, the ranks of the MPPI is robust with only minor changes possible for any state when factoring in uncertainties from survey questions.



Source: ENVE Survey, INEGI

TABLE 24 MEXICO POSITIVE PEACE INDEX UNCERTAINTIES

The quantitative value mapping of survey responses used in the MPPI. Standard error of survey questions used in the MPPI and their effect on a state's scores. Effects of greater than ten percent are coloured red. Results are ordered by range of uncertainty. The top four states with the most uncertainty in the MPPI are Campeche, Baja California Sur, Colima and Tlaxcala.

STATE	ARO	FFI	GRN	LLC	SBE	WFG	LOWER BOUND MPPI	UPPER BOUND MPPI	RANGE
Campeche	24%	17%	22%	13%	21%	10%	2.549	2.739	0.19
Baja California Sur	19%	12%	23%	13%	18%	8%	2.901	3.083	0.182
Colima	17%	9%	16%	10%	21%	8%	2.247	2.407	0.159
Tlaxcala	10%	7%	7%	5%	12%	4%	3.015	3.121	0.105
Quintana Roo	10%	7%	9%	7%	11%	5%	2.62	2.714	0.093
Tabasco	7%	6%	8%	6%	10%	4%	3.172	3.26	0.088
Morelos	8%	5%	6%	5%	10%	4%	3.106	3.192	0.086
Sinaloa	8%	6%	6%	5%	9%	4%	3.161	3.243	0.082
Durango	9%	5%	7%	6%	9%	4%	2.923	3.001	0.077
Querétaro	8%	6%	8%	6%	9%	4%	2.665	2.741	0.077
Aguascalientes	7%	5%	6%	5%	9%	3%	2.579	2.655	0.076
Zacatecas	6%	5%	5%	5%	8%	3%	2.795	2.871	0.076
Guerrero	7%	5%	7%	5%	8%	3%	3.863	3.937	0.073
Nayarit	7%	4%	7%	6%	8%	4%	2.744	2.814	0.07
Michoacán	6%	5%	5%	4%	8%	4%	3.441	3.507	0.066
Puebla	7%	5%	7%	4%	7%	4%	3.56	3.624	0.064
Hidalgo	6%	4%	5%	4%	7%	3%	3.035	3.099	0.064
Coahuila	5%	4%	4%	4%	7%	3%	2.637	2.701	0.064
San Luis Potosí	6%	4%	5%	4%	7%	3%	2.95	3.012	0.062
Oaxaca	6%	4%	6%	5%	6%	3%	3.375	3.435	0.06
Sonora	6%	4%	6%	5%	6%	3%	2.661	2.719	0.059
Baja California	5%	3%	5%	3%	6%	2%	2.631	2.685	0.055
Chihuahua	5%	3%	5%	4%	6%	3%	2.993	3.047	0.055
Tamaulipas	5%	4%	5%	4%	6%	3%	2.745	2.799	0.054
Yucatán	6%	4%	4%	4%	6%	3%	2.299	2.353	0.053
Chiapas	6%	3%	5%	4%	6%	3%	3.289	3.341	0.052
Nuevo León	4%	2%	4%	3%	6%	2%	2.616	2.668	0.051
Guanajuato	5%	3%	4%	3%	5%	2%	2.946	2.992	0.045
Jalisco	4%	3%	5%	4%	5%	3%	2.886	2.926	0.041
Veracruz	4%	2%	3%	2%	4%	2%	3.249	3.287	0.038
México	3%	3%	3%	2%	4%	2%	3.314	3.35	0.036
Distrito Federal	3%	2%	2%	2%	3%	2%	2.874	2.908	0.035

Source: IEP

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