

Measuring OC in Latin America

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This presentation

Presents the results of the project that UNODC, INEGI and their joint Centre of Excellence in Statistical information on government, crime, victimization and justice, has developed with TRANSCRIME to define a common methodology aimed at **assessing the presence and the possible threats of OC in the Latin American and Caribbean region. It continues the work done before**



Aims of the project

The specific aims of the project are:

- To provide an **overall picture of OC** in the region through a systematic analysis of its players, activities, and the social and governmental contexts in which it emerges
- To understand which data or information are available and which are missing in order **to improve the knowledge of OC**
- To produce an **applicable and transferable methodology** to measure the phenomenon



Steps of the project

This project is composed by the following steps:

STEP 1. Defining the theoretical framework

STEP 2. Assessing the existing data

STEP 3. Proposing a methodology to measure OC



Step 1. Defining the theoretical framework

Direct dimensions:

- **Groups:** the structure, dimension and organization of the criminal groups.
- **Activities:** the extent of the legal and illegal markets where OC groups can obtain or invest money, as well as other specific activities they may have to carry out in order to assure the existence of the organization.

Contextual dimensions:

- **Enablers:** the general situation of a country from a socio-economic and institutional point of view. In particular, the critical elements that may facilitate the spread of OC.
- **State response:** the measures to prevent and counteract organized crime activities adopted by the authorities of each country.
- **Civil society :** the main actors who are able to raise the attention towards organized crime, to provide information and support victims in order to reduce the impact of organized crime on society.



Step 2. Assessing the existing data

Using this list of indicators and in collaboration with local experts, the project has promoted a **preliminary exploration of the types and availability of the information** regarding OC in a restricted sample of Latin American countries.

The results of this assessment should allow to divide the countries in **three main categories**:

CASE 1: Countries with very little or no information

Proposed approach: Improving data collection

CASE 2: Countries with sufficient qualitative and quantitative information at national level (e.g. Chile, Colombia)

Proposed approach: National scores

CASE 3: Countries with many quantitative information at local level (e.g. Mexico)

Proposed approach: Subnational Composite Indicators



Step 3. Proposing a methodology to measure OC

LEVEL 1: National Scores



National Scores Results

RED: Signal of **high** OC presence or threat

GREEN: Signal of **low** OC presence or threat

YELLOW : Not available information (**N/A**)

GROUPS DIMENSION

SUBDIMENSION	SIGNAL	CH	CO	MX
Presence	Presence of organized crime groups active in the country	P	P	P
	Presence of foreign organized crime groups active in the country	P	N/A	N/A
Modus operandi: violence	Presence of intentional homicides or attempted homicides related to organized crime	N/A	P	P
	Presence of homicides related to organized crime targeting government personnel/representatives of institutions (e.g. politicians, policemen, judges)	N/A	P	P
	Presence of homicides related to organized crime targeting members of civil society (e.g. journalists, bloggers, businessmen, citizens)	N/A	P	P
Modus operandi: corruption	Presence of elected/state representatives or civil servants (e.g. politicians, policemen, judges) arrested/prosecuted/convicted for organized crime (or having facilitated organized crime)	N/A	N/A	P
	Presence of members of the civil society or media representatives (e.g. journalists, bloggers, businessmen, citizens) arrested/prosecuted/convicted for organized crime (or having facilitated organized crime)	N/A	N/A	N/A



National Scores Results

ACTIVITIES DIMENSION

SUBDIMENSION	VARIABLE	CH	CO	MX
Illegal markets	Presence of organized crime groups involved in drug trafficking	P	P	P
	Presence of organized crime groups involved in drug production	P	P	P
	Presence of organized crime groups involved in firearms trafficking	N/A	P	P
	Presence of organized crime groups involved in human trafficking-related crimes	P	P	P
	Presence of organized crime groups involved in smuggling of migrants related crimes	P	N/A	P
Other criminal activities	Presence of organized crime groups involved in kidnapping related crimes	P	P	P
	Presence of organized crime groups involved in extortion related crimes	N/A	P	P
	Presence of organized crime groups involved in stolen vehicles related crimes	N/A	N/A	P
Investments in the legitimate economy	Presence of organized crime groups involved in money laundering related crimes	P	P	P
	Evidence of investment/interest in the legitimate economy (economic assets like companies or stocks / properties like real estate / liquid assets like bank accounts) by organized crime groups	N/A	N/A	P



National Scores Results

ENABLERS DIMENSION

SUBDIMENSION	VARIABLE	CH	CO	MX
Social and economic equality	Presence of a structural high unemployment rate	A	P	A
	Presence of a structural high young unemployment rate	A	A	A
	Presence of a high percentage of population living under the poverty threshold (living with less than 1.25\$)	A	P	P
	Presence of a high percentage of population not completing first-level education, e.g. primary school	A	A	N/A
	Presence of a high GINI coefficient on income	P	P	P
	Presence of a large informal economy	P	P	P
Government efficiency	Low rank in the Political Stability and Absence of Violence World Bank Indicator	A	P	P
	Low rank in the Regulatory Quality World Bank Indicator	A	A	A
	Low rank in the Rule of Law World Bank Indicator	A	P	P
	Low rank in the Control of Corruption World Bank Indicator	A	P	P
	Presence of corruption-related offences regarding high ranking officials and elected representatives (e.g. politicians, policemen, judges)	N/A	N/A	N/A
	Low rank in the Government Effectiveness World Bank Indicator	A	A	A
Justice system efficiency	High average duration of penal and civil processes	N/A	N/A	N/A
	Low public confidence in courts, or other measures regarding population's trust/confidence toward the justice system	P	N/A	P



National Scores Results

STATE RESPONSE DIMENSION

SUBDIMENSION	VARIABLE	CH	CO	MX
Effectiveness of law enforcement	Presence of people arrested/prosecuted/convicted for organized crime	P	P	P
	Presence of civil servants (e.g. policemen, judges) arrested/prosecuted/convicted for corruption	P	N/A	P
Resources devoted to counteracting OC	Presence of police forces specifically addressed to fight organized crime	P	P	P
	Presence of specialized anti-organized crime prosecutors	P	P	P
Specific legislation	Presence of special legislation against organized crime	P	P	P



National Scores Results

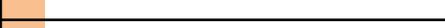
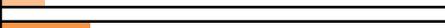
CIVIL SOCIETY DIMENSION

SUBDIMENSION	VARIABLE	CH	CO	MX
Society awareness	Presence of media related articles about organized crime	P	P	P
	Presence of citizens associations against organized crime (pro victims, etc.)	P	P	P
	Presence of informative campaigns against organized crime	P	P	P
Scientific awareness	Presence of studies about organized crime commissioned by the government	P	P	P
	Presence of studies about organized crime commissioned by the other public or private authorities	P	P	P
	Presence of independent/academic studies about organized crime	P	P	P
Voice of the society	Presence of a low percentage of population having access to the Internet	A	P	P
	High rank in the Voice and Accountability World Bank Indicator	P	P	P



National Scores Results

Final Result for Mexico

MEXICO 				
DIMENSIONS	Risk		SCORE	% Available indicators
	LOW	HIGH		
GROUPS			10	71%
Presence			10	50%
Modus operandi: violence			10	100%
Modus operandi: corruption			10	50%
ACTIVITIES			10	100%
Illegal markets			10	100%
Other criminal activities			10	100%
Investments in the legitimate economy			10	100%
ENABLERS			7.3	79%
Social and economic inequality			6	83%
Government efficiency			6	83%
Justice system efficiency			10	50%
STATE RESPONSE			1.7	100%
Effectiveness of law enforcement			5	100%
Resources devoted to counteracting OC			0	100%
Specific legislation			0	100%
CIVIL SOCIETY			1.7	100%
Society awareness			0	100%
Scientific awareness			0	100%
Citizen's voice			5	100%

The data collection about this sub-dimensions should be improved

The higher the value of the score, the higher the risk connected to that particular dimension



Step 3. Proposing a methodology to measure OC

LEVEL 2: Subnational Composite Indicators



Subnational Composite Indicators Results

Measuring OC Groups dimension in Mexico

The **first step** of this approach implies the proof of the **internal coherence of the composite indicator**.

This helps in identifying the variables to be considered and their aggregation procedure by identifying the existing subdimensions.

In this case, applying a PCA to the 7 original variables, **2 relevant subdimensions** emerge (Violence and Groups Size).

Principal components analysis		
Variable	Violence	Groups Size
Criminal groups active in the country	.242	.675
Active members of criminal groups	.056	.799
Intentional homicides	.987	-.070
Intentional homicides related to organized crime	.960	-.167
Intentional homicides committed with firearm	.986	-.062
Intentional homicides targeting government personnel/representatives of institutions (e.g. politicians, policemen, judges)	.924	.095
Intentional homicides targeting members of the civil society (e.g. journalists)	.955	-.007

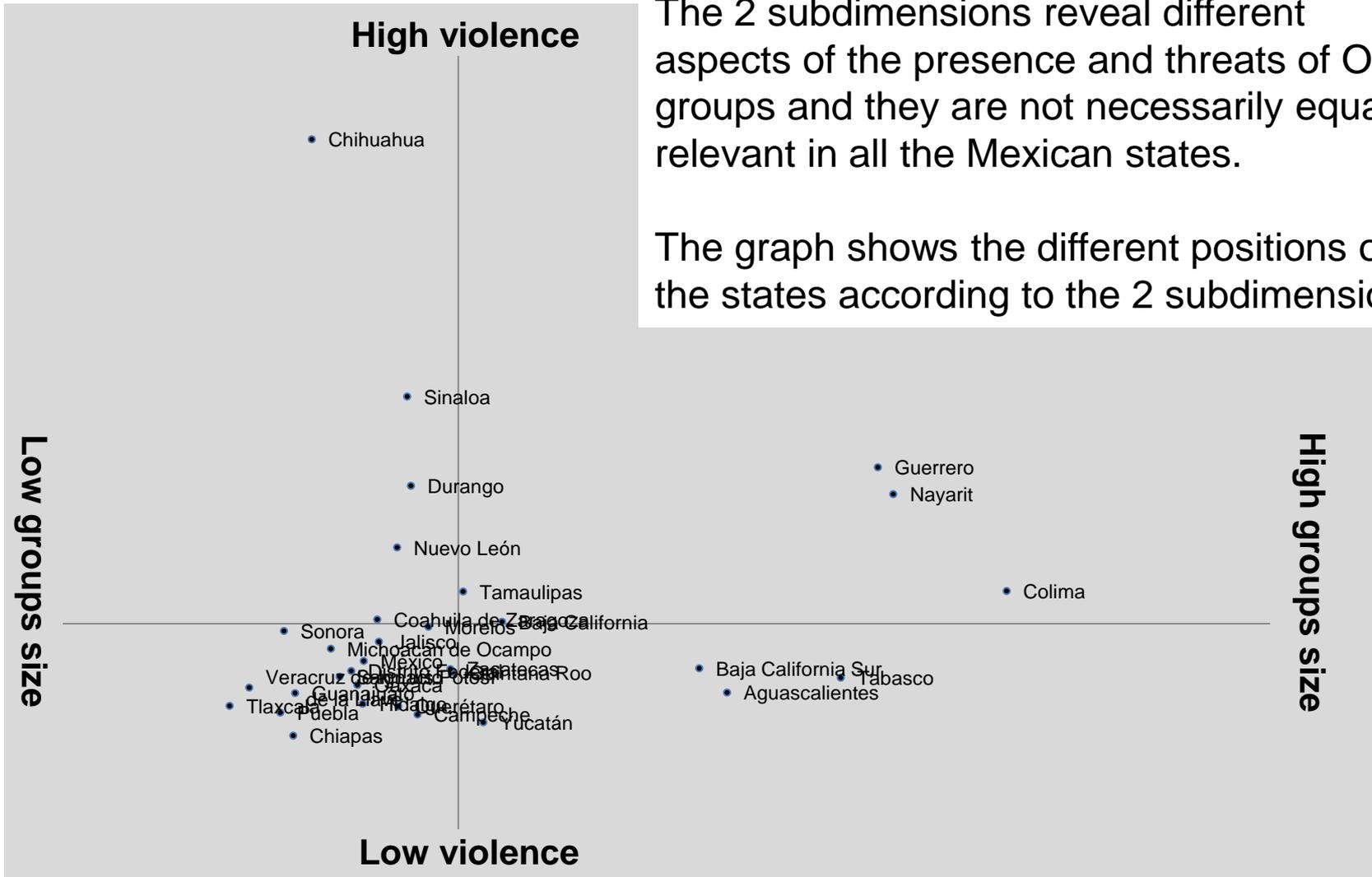


Subnational Composite Indicators Results

Measuring OC Groups dimension in Mexico

The 2 subdimensions reveal different aspects of the presence and threats of OC groups and they are not necessarily equally relevant in all the Mexican states.

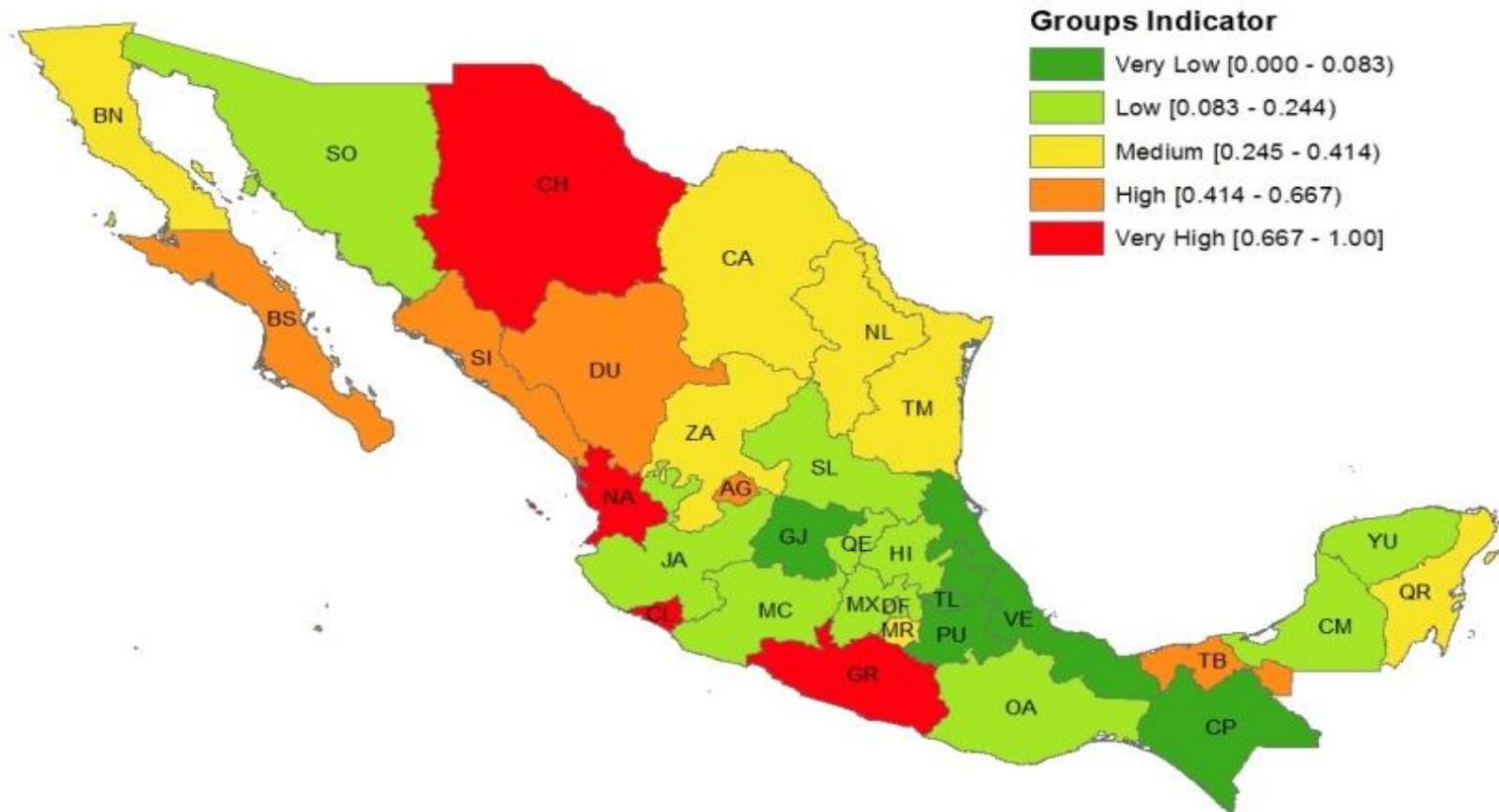
The graph shows the different positions of the states according to the 2 subdimensions



Subnational Composite Indicators Results

Measuring OC Groups dimension in Mexico

Then, the indicators of the subdimensions Violence and Groups Size are combined together for obtaining the **composite indicator for the Groups dimension**.



Subnational Composite Indicators Results

Measuring OC Groups dimension in Mexico

To ensure the reliability of the results obtained, they have been compared with the ones resulting from alternative combination of different methodological choices (i.e. Normalization, Weighting and Aggregation methods)

The results of this sensitivity analysis show that the ranking of the Mexican states remains quite stable.

This confirm the validity and reliability of the composite indicator

STATE	Rank	Other estimates									Median	Mean	Min	Max
	ZEA	ZLA	MEA	MLA	IEA	ILA	REA	REG	RLA	RLG				
Guerrero	1	2	1	1	1	1	1	1	1	1	1	1.1	1	2
Chihuahua	2	5	4	7	4	7	14	26	18	26	7	11.3	2	26
Nayarit	3	3	2	3	2	3	2	2	2	2	2	2.4	2	3
Colima	4	1	3	2	3	2	3	3	3	3	3	2.7	1	3
Sinaloa	5	7	6	8	6	8	4	4	6	4	6	5.8	4	8
Tabasco	6	4	5	4	5	4	16	18	14	18	5.5	9.4	4	18
Durango	7	8	9	11	9	11	8	11	12	11	10	9.7	7	12
Baja California Sur	8	6	8	6	8	6	9	13	4	13	8	8.1	4	13
Aguascalientes	9	17	7	5	7	5	15	15	10	15	9.5	10.5	5	17
Nuevo León	10	11	12	12	12	12	9	7	13	7	11.5	10.5	7	13
Tamaulipas	11	10	11	10	11	10	7	9	9	9	10	9.7	7	11
Baja California	12	9	10	9	10	9	5	6	6	6	9	8.2	5	10
Morelos	13	12	13	15	13	15	5	5	5	5	12.5	10.1	5	15
Coahuila de Zaragoza	14	16	16	17	16	17	12	8	16	8	16	14	8	17
Zacatecas	15	13	15	16	15	16	12	12	11	12	14	13.7	11	16
Quintana Roo	16	14	14	13	14	13	9	10	8	10	13	12.1	8	14
Jalisco	17	18	18	18	18	18	17	16	18	16	18	17.4	16	18
Yucatán	18	15	17	14	17	14	19	29	14	29	17	18.6	14	29
México	19	20	19	20	19	20	18	14	18	14	19	18.1	14	20
Michoacán de Ocampo	20	23	20	24	21	24	20	19	22	19	20.5	21.2	19	24
Distrito Federal	21	22	23	23	23	23	21	17	21	17	21.5	21.1	17	23
Sonora	22	27	25	27	25	27	23	23	27	23	25	24.9	22	27
Campeche	23	19	21	19	20	19	23	27	17	27	20.5	21.5	17	27
Querétaro	24	21	22	21	22	21	27	25	24	25	23	23.2	21	27
Oaxaca	25	24	24	22	24	22	23	22	25	22	23.5	23.3	22	25
San Luis Potosí	26	26	26	26	26	26	22	21	25	21	26	24.5	21	26
Hidalgo	27	25	27	25	27	25	26	20	23	20	25	24.5	20	27
Guanajuato	28	28	28	28	28	28	28	24	28	24	28	27.2	24	28
Veracruz de Ignacio de la Llave	29	31	29	31	29	31	29	28	30	28	29	29.5	28	31
Puebla	30	29	30	29	30	29	31	30	31	30	30	29.9	29	31
Chiapas	31	30	31	30	31	30	30	31	29	31	30.5	30.4	29	31
Tlaxcala	32	32	32	32	32	32	31	32	32	32	32	31.9	31	32



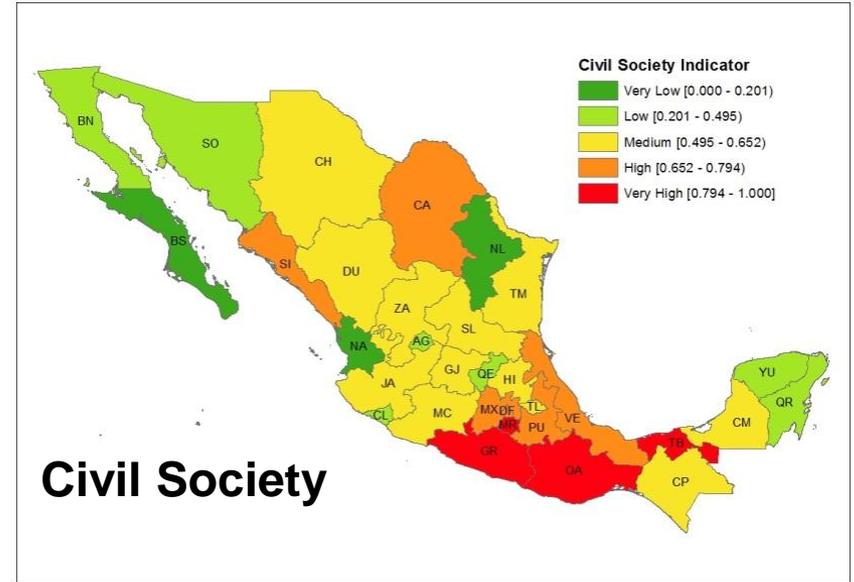
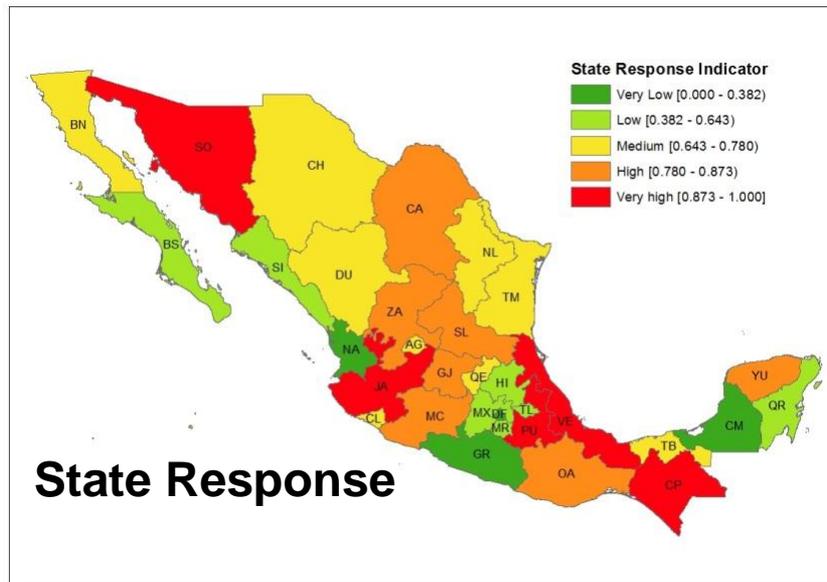
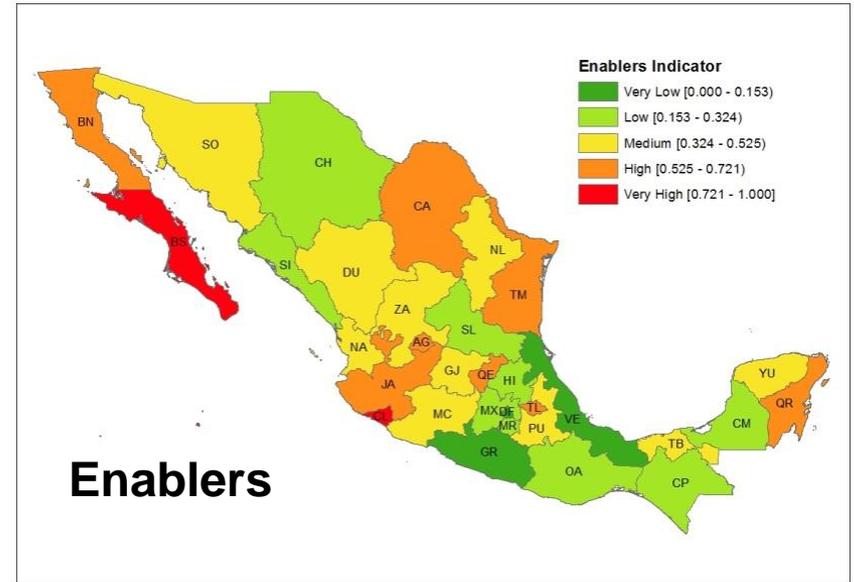
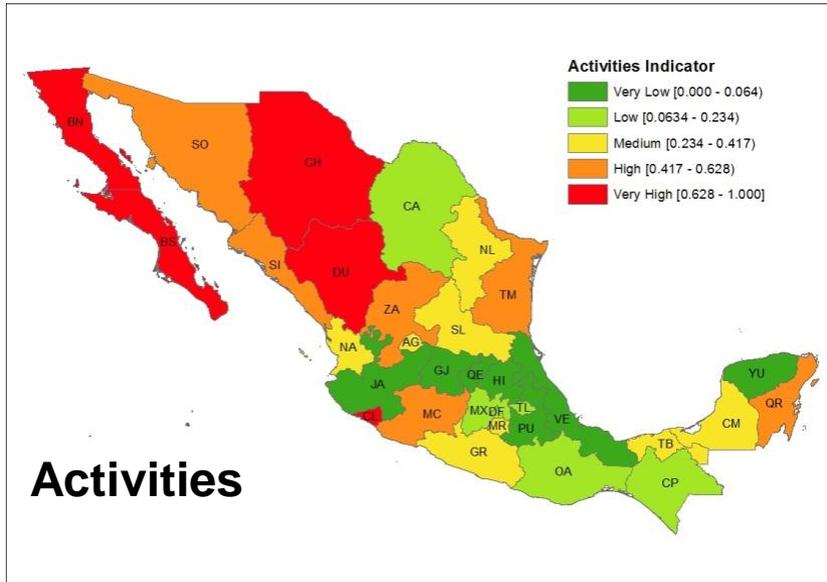
Subnational Composite Indicators Results

This process has been conducted for all the 5 dimensions of OC analyzed. The resulting rankings are the following:

State	DIMENSIONS				
	GROUPS	ACTIVITIES	ENABLERS	STATE RESPONSE	CIVIL SOCIETY
Aguascalientes	9	15	9	20	25
Baja California	12	3	8	19	23
Baja California Sur	8	4	2	28	32
Campeche	23	17	24	32	19
Chiapas	31	24	26	2	18
Chihuahua	2	2	27	17	22
Coahuila de Zaragoza	14	25	6	8	7
Colima	4	5	1	13	29
Distrito Federal	21	22	32	29	10
Durango	7	1	14	21	20
Guanajuato	28	30	18	9	13
Guerrero	1	19	30	31	2
Hidalgo	27	27	28	24	15
Jalisco	17	32	7	1	12
México	19	23	25	27	9
Michoacán de Ocampo	20	8	15	7	16
Morelos	13	13	21	25	4
Nayarit	3	16	19	30	31
Nuevo León	10	14	20	15	30
Oaxaca	25	21	29	12	1
Puebla	30	31	12	4	5
Querétaro	24	29	4	14	26
Quintana Roo	16	11	3	22	28
San Luis Potosí	26	18	22	10	21
Sinaloa	5	6	23	26	8
Sonora	22	10	16	3	27
Tabasco	6	12	13	18	3
Tamaulipas	11	9	5	16	14
Tlaxcala	32	20	10	23	17
Veracruz de Ignacio de la Llave	29	28	31	5	6
Yucatán	18	26	17	11	24



Subnational Composite Indicators Results



How can this project be used?

Measuring OC is a challenge that policy makers and law enforcement agencies have to face.

Enhancing knowledge of OC is therefore crucial to **take effective measures and reduce its human, social and economic consequences.**

The more we know about this phenomenon and its fluctuations, the better and more informed decisions can be taken to detect the organizations, disrupt them, arrest their members and confiscate the proceeds of crime

Starting from the results of this assessment, **each country, according to its priorities and resources, can develop its own roadmap to orient counteracting actions and improve the quality and quantity of the data available.**



For more information..

Dugato, M., De Simoni, M. & Savona, E. U. (2014). *Measuring OC in Latin America and the Caribbean. A methodology for developing and validating scores and composite indicators at national and subnational level.* Aguascalientes, Mexico: INEGI/UNODC.

Savona, E. U., Dugato, M., & Garofalo, L. (2012). *A framework for the quantification of organized crime and assessment of availability and quality of relevant data in three selected countries of Latin America and the Caribbean.* Aguascalientes, Mexico: INEGI/UNODC.



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