

Appendix A: Data

Table A1
Number of crimes from 2015 to 2019

<i>Year</i>	<i>Crime Type / Subtype</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>Total</i>	<i>(%)</i>	<i>Used</i>
1	Robbery / Other Robbery	177,081	228,395	228,387	224,188	214,496	1,072,547	10.825	
2	Other crimes of the State Jurisdiction / Other...	186,171	210,198	198,850	180,016	183,420	958,655	9.676	
3	Robbery / Motor vehicle theft	160,944	174,812	210,845	213,991	187,657	948,249	9.571	
4	Family violence / Family violence	127,424	153,893	169,579	180,187	210,188	841,271	8.491	No
5	Injuries / malicious injuries	142,447	138,712	154,778	157,416	166,518	759,871	7.669	
6	Property damage / Property damage	120,246	122,785	129,390	132,692	135,780	640,893	6.468	
7	Robbery / Comercial robbery	81,553	78,256	109,725	114,336	118,167	502,037	5.067	
8	Robbery / Home Invasion Robbery	91,346	87,915	92,947	83,694	82,515	438,417	4.425	
9	Threats / Threats	68,007	76,043	82,682	89,788	110,092	426,612	4.306	
10	Robbery / Robbery on public roads	80,511	68,111	86,813	95,285	83,196	413,916	4.178	
11	Fraud / Fraud	59,416	60,143	61,609	66,248	76,834	324,250	3.273	
12	Injuries / Accidental Injuries	64,669	58,594	50,104	41,121	44,028	258,516	2.609	
13	Other Crimes / Other Crimes	47,298	43,045	54,096	65,600	38,517	248,556	2.509	
14	Drug dealing / Drug dealing	32,398	30,025	45,181	58,588	70,274	236,466	2.387	
15	Other Laws and Codes / Other Laws and Codes	35,459	33,761	34,249	39,502	50,410	193,381	1.952	No
16	Breach of family assistance obligations / Brea...	27,894	25,478	23,558	21,592	24,425	122,947	1.241	No
17	Dispossession / Dispossession	21,618	21,766	24,702	25,618	28,435	122,139	1.233	
18	Homicide / Intentional Homicide	16,121	20,149	25,035	29,098	29,484	119,887	1.21	
19	Breach of trust / Breach of trust	20,013	20,739	24,424	24,741	27,456	117,373	1.185	
20	Counterfeiting / Forgery	14,013	15,084	17,875	21,124	19,888	87,984	0.888	
21	Sexual abuse / Sexual abuse	11,980	15,090	15,899	18,875	23,660	85,504	0.863	
22	Kidnapping / Kidnapping	12,298	14,135	17,218	19,841	21,941	85,433	0.862	
23	Robbery / Robbery in collective public transport	17,097	11,744	16,100	20,044	18,297	83,282	0.841	

Table A1
(Continued)

<i>Year</i>	<i>Crime Type / Subtype</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>Total</i>	<i>(%)</i>	<i>Used</i>
24	Crimes committed by public servants / Crimes c...	11,821	13,471	15,164	18,332	21,523	80,311	0.811	
25	Homicide / Accidental Homicide	15,212	15,262	16,291	15,390	15,377	77,532	0.783	
26	Robbery / Robbery of auto parts	10,096	9,037	15,628	18,090	20,263	73,114	0.738	
27	Robbery / Robbery in individual transport	11,709	9,039	14,504	14,806	15,852	65,910	0.665	
28	Rape / Rape	10,538	10,992	10,786	12,360	13,665	58,341	0.589	
29	Other crimes against the family / Other crimes...	8,561	10,753	11,369	10,239	12,056	52,978	0.535	No
30	Robbery / Robbery of delivery people	7,258	8,769	12,031	13,068	11,662	52,788	0.533	
31	Other crimes against property / Other crimes a...	3,813	6,530	6,696	10,902	14,495	42,436	0.428	
32	Against Health / Against Health	8,687	6,211	6,323	6,429	7,507	35,157	0.355	
33	Extortion / Extortion	6,008	5,732	6,143	6,721	8,734	33,338	0.336	
34	Robbery / Theft of livestock	8,440	7,132	6,030	5,739	5,399	32,740	0.33	No
35	Other crimes that threaten life and physical i...	3,122	3,915	5,141	7,232	8,490	27,900	0.282	
36	Other crimes that violate sexual freedom and s...	4,899	4,286	4,819	4,821	6,331	25,156	0.254	
37	Other crimes against society / Other crimes ag...	2,546	3,216	3,403	5,549	7,983	22,697	0.229	
38	Robbery / Street robbery	2,625	2,534	3,105	3,496	4,044	15,804	0.16	
39	Falsehood / Falsehood	2,568	2,768	2,953	3,167	3,512	14,968	0.151	
40	Statutory rape / Statutory rape	2,081	2,547	2,734	2,962	3,677	14,001	0.141	
41	Robbery / Robbery in individual public transport	2,244	1,948	2,254	2,414	2,898	11,758	0.119	
42	Gender violence in all its forms different fro...	1,645	1,893	2,142	2,255	3,180	11,115	0.112	
43	Sexual harassment / Sexual harassment	1,109	1,325	1,700	2,712	4,220	11,066	0.112	
44	Corruption of minors / Corruption of minors	1,940	1,868	1,851	1,848	2,186	9,693	0.098	
45	Against the environment / Against the environment	1,184	1,449	1,807	2,120	2,192	8,752	0.088	
46	General Health Law (L.G.S.) / General Health L...	3,114	1,431	1,065	1,101	1,578	8,289	0.084	No

Table A1
(Continued)

<i>Year</i>	<i>Crime Type / Subtype</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>Total</i>	<i>(%)</i>	<i>Used</i>
47	Robbery / Robbery of machinery	1,129	1,094	2,195	1,057	1,170	6,645	0.067	
48	Sexual coercion / Sexual coercion	784	929	1,052	1,276	1,862	5,903	0.06	
49	Electoral / Electoral	738	472	1,351	2,315	677	5,553	0.056	
50	Femicide / Femicide	411	605	742	893	943	3,594	0.036	
51	Abortion / Abortion	544	562	547	604	717	2,974	0.03	
52	Robbery / Bank robbery	614	569	535	394	475	2,587	0.026	
53	Federal Law Against Organized Crime (L.F.C.D.O...	1,051	631	221	199	265	2,367	0.024	
54	Human trafficking / Human trafficking	415	383	304	387	544	2,033	0.021	
55	Abduction / Abduction for a sexual purpose	271	254	204	119	116	964	0.01	No
56	Hindering prosecution or apprehension / Hinder...	119	153	104	129	127	632	0.006	
57	Trafficking of minors / Trafficking of minors	96	203	176	40	29	544	0.005	
58	Incest / Incest	17	73	35	10	14	149	0.002	No

Notes: Type and subtype of crimes are presented in case they are crimes of state jurisdiction. In the case of being a federal crime, only the concept is presented.

Source: Own elaboration with data from SESNSP (2019).

Appendix B: Unreported crime robustness test

Estimating economic complexity can be challenging due to unreported crimes (black figures). Therefore, to determine the robustness of the results obtained, an estimate of economic complexity was made that considers the unreported crimes. The data on unreported crimes were obtained from various sources, including the National Survey of Victimization and Perception of Public Safety (*Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública*, ENVIPE) for 2019 and México Evalúa.

A correction matrix, denoted as Z , was constructed based on the black figures to incorporate the unreported crimes into the analysis. Each matrix element is defined as the ratio of 1 to 1 minus the percentage of the black figure for the corresponding crime. The correction can thus be expressed as follows:¹⁵

$$M^1 = M^o \circ Z$$

For each column, a constant value was defined (through rows or states) equal to the black figure corresponding to ENVIPE. In general, the defined black figure was 93.2%.¹⁶ For some crimes, it is defined as a black figure the following: extortion, 97%; theft in transport and from bystanders, 94%; abuse, harassment, and sexual harassment, 96%; and finally, rape in general, 60%. In the case of homicides, the black figure was 10% taken (calculated from the differential percentage between homicides in the SESNSP and INEGI). In the case of femicide, the black figure was 95%. Finally, in the case of vehicle robbery, it was not taken as constant across states. Since it is intended to capture the variance between states, the value of the ratio of 1 over 1 minus the percentage of uninsured vehicles was taken as an approximate variable of the black figure. This results in a 70% black figure for this crime. The auto-insured data was taken from México Evalúa.

The estimate of economic complexity and the associated metrics were computed using the Z matrix. The complexity and centrality of the analysis are presented below with the correction for black figures.

In terms of complexity, the results exhibit a slight modification. However, as in the previous analysis, the centrality results remain consistent for the three most complex crimes. Nevertheless, femicide

¹⁵ The symbol $\circ$ represents the product of arrays element by element.

¹⁶ In the case that the black figure is constant across all crimes, the complexity algorithm is not affected.

and rape were found to be the second most central crimes, in contrast to the previous finding in which they were the most central crimes.

Table B1
Complexity and centrality by crime.
Correction for black figures

<i>Crime Type / Subtype</i>	<i>Complexity</i>	<i>Centrality</i>
1 Trafficking of minors / Trafficking of minors	1.136555	0.0839
2 Homicide / Accidental Homicide	0.967376	0.173492
3 Against Health / Against Health	0.935916	0.169058
4 Homicide / Intentional Homicide	0.901656	0.173851
5 Kidnapping / Kidnapping	0.881143	0.166975
6 Drug dealing / Drug dealing	0.820072	0.13981
7 Federal Law Against Organized Crime (L.F.C.D.O...	0.796079	0.134454
8 Corruption of minors / Corruption of minors	0.763013	0.165931
9 Rape / Rape	0.720199	0.177866
10 Other Crimes / Other Crimes	0.718888	0.168989
11 Robbery / Bank robbery	0.700652	0.168407
12 Femicide / Femicide	0.698257	0.176359
13 Robbery / Motor vehicle theft	0.688323	0.157657
14 Other crimes that violate sexual freedom and s...	0.589788	0.174945
15 Hindering prosecution or apprehension / Hinder...	0.588714	0.168115
16 Property damage / Property damage	0.557447	0.160076
17 Human trafficking / Human trafficking	0.511752	0.138579
18 Robbery / Robbery of machinery	0.505751	0.147968
19 Abortion / Abortion	0.460273	0.14717
20 Robbery / Home Invasion Robbery	0.459713	0.156807
21 Dispossession / Dispossession	0.439741	0.176019
22 Breach of trust / Breach of trust	0.415453	0.166159
23 Falsehood / Falsehood	0.415282	0.178592
24 Crimes committed by public servants / Crimes c...	0.411745	0.144214

Table B1
(Continued)

<i>Crime Type / Subtype</i>	<i>Complexity</i>	<i>Centrality</i>
25 Sexual abuse / Sexual abuse	0.372021	0.173253
26 Sexual coercion / Sexual coercion	0.365902	0.14606
27 Other crimes that threaten life and physical i...	0.354491	0.160006
28 Robbery / Street robbery	0.215575	0.140339
29 Statutory rape / Statutory rape	0.211871	0.160992
30 Extortion / Extortion	0.171198	0.158187
31 Sexual harassment / Sexual harassment	0.089244	0.166037
32 Fraud / Fraud	0.05739	0.156104
33 Threats / Threats	-0.022396	0.146287
34 Other crimes against property / Other crimes a...	-0.074515	0.132631
35 Injuries / malicious injuries	-0.116812	0.144444
36 Injuries / Accidental Injuries	-0.117075	0.125796
37 Robbery / Other Robbery	-0.301969	0.123253
38 Robbery / Robbery of delivery people	-0.385175	0.078776
39 Other crimes of the State Jurisdiction / Other...	-0.44087	0.062192
40 Electoral / Electoral	-0.441485	0.130804
41 Against the environment / Against the environment	-0.507775	0.108255
42 Robbery / Comercial robbery	-0.867636	0.09443
43 Counterfeiting / Forgery	-1.087531	0.079192
44 Robbery / Robbery in individual public transport	-1.199404	0.117535
45 Gender violence in all its forms different fro...	-1.225338	0.037715
46 Other crimes against society / Other crimes ag...	-1.350752	0.0991
47 Robbery / Robbery of auto parts	-1.379445	0.068122
48 Robbery / Robbery on public roads	-1.603959	0.07865
49 Robbery / Robbery in individual transport	-2.523384	0.04891
50 Robbery / Robbery in collective public transport	-4.275963	0.024878

Notes: The type and subtype of the crimes are presented when they are under state jurisdiction. In the case of a federal crime, only the concept is presented. Other Crimes includes “huachicoleo”, among other federal offenses.

Source: Own elaboration.