

SUPPLEMENTARY FILE

Appendices

Appendix 1: Descriptive Statistics

Variables	Standard		Minimum	Maximum	Observations
	Mean	Deviation			
Youth Crime Incidents (Male)	182.15	216.31	1.00	1921.00	553
Youth Crime Incidents per capita (Male)	0.11	0.12	0.00	0.94	553
State Per capita GDP (logged)	9.06	0.68	7.76	11.96	640
State Population (logged)	14.62	0.80	12.67	16.54	672
Urbanization	72.53	14.95	39.45	99.76	640
Timing of Governor Elections	0.12	0.29	0.00	1.00	672
Youth Bulge (Male)	23.38	2.41	17.93	29.73	640
Male Youth Unemployment Rate	2.83	1.37	1.04	8.30	640
Male Youth Secondary School Enrolment	30.38	4.29	18.95	39.22	640
Youth Unemp Rate: Low Education Strata (Males)	2.50	1.19	0.72	8.83	640
Youth Unemp Rate: High Education Strata (Males)	3.09	1.42	1.21	8.38	640
Youth Unemp Density: Low Education Strata (Males)	1.02	0.43	0.36	2.84	640

Appendix 2: Correlation Matrix

	DV	MYUR	MYSSER	YUD	PCGDP (log)	MYB	Pop (log)	Urban	TE
DV	1.000								
MYUR	0.120	1.000							
MYSSER	0.291	0.355	1.000						
YUD	-0.146	0.731	-0.007	1.000					
PCGDP (log)	-0.396	-0.160	-0.101	-0.126	1.000				
MYB	-0.554	-0.615	-0.350	-0.202	0.373	1.000			
Pop (log)	-0.188	0.102	-0.140	0.089	-0.169	-0.089	1.000		
Urban	0.133	0.133	0.441	-0.149	0.407	-0.110	0.015	1.000	
TE	-0.073	-0.042	-0.049	0.029	0.081	0.116	-0.077	0.011	1.000

Notes:

DV = dependent Variable

MYUR = Male Youth Unemployment Rate

MYSSER = Male Youth Secondary School Enrolment Ratio

YUD = Youth Unemployment Density

PCGDP (log) = Per capita GDP (log)

MYB = Male Youth Bulge

Pop (log) = Population (log)

TE = Timing of Elections

Appendix 3: Data definitions and sources

Variables	Definitions and data sources
Youth Federal Crimes Per capita (log)	Total number of federal crimes committed by males in the cohort 18-24 in state i in year t divided by population (log) The data was obtained from the Penal Judicial Statistics provided by INEGI.
Youth Bulge (male)	Males in the cohort 18-24 as a share of all males aged 18 years above. The same definition applies when we expand the cohort to 18-30. The data are from the 1990, 2000 and 2010 population censuses, and from the 1995 and 2005 population surveys carried out by INEGI.
Youth Unemployment (male)	Own construction using the number of males under the age group of 18-24 years who are reportedly unemployed divided by the total male labor force under the age group of 18-24 years. The unemployment and labor force data are from the population censuses of INEGI. The same definition applies when we expand the cohort to 18-30.
Youth Education (male)	Own construction using the total number of males under the age group of 18-24 years with completed secondary education normalised by the total male population under the age group of 18-24 years. The data on youth secondary schooling attainment is from the 1990, 2000, and 2010 population censuses, and from the 2005 population survey. All data are from INEGI.
Unemployment rate in low education stratum youth (male)	Own construction using the number of males under the age group 18-24 years who are unemployed and have low or no education (incomplete primary school, primary school only, and incomplete secondary school) divided by the male population under the age group 18-24 years with low education. The data is from the 1990, 2000, and 2010 population censuses carried out by INEGI. The same definition applies when

	we expand the cohort to 18-30.
Unemployment rate in high education stratum youth (male)	Own construction using the number of males under the age group 18-24 years who are unemployed and have high education (at least completed secondary school) divided by the male population under the age group 18-24 years with high education. The data is from the 1990, 2000 and 2010 population census carried out by INEGI. The same definition applies when we expand the cohort to 18-30.
Urbanization	Share of the total population living in urban areas in state i in year $t-1$. The data was own construction based on the information data from the population censuses 1990, 2000, 2010 and population surveys 1995, 2005 provided by INEGI.
Timing of Governor Elections	Timing of state level Governor elections varies between 0 and 1. It takes smaller values the later the election takes place within the calendar year of the election year and is 0 for all other years. We follow Schneider (2011) and make use of the following measure: $(12 - (Mn - 1))/12$, wherein Mn is the month in which the state Governor election took place. The data on the exact date on which the elections are held in each state are obtained from the state elections results and information published by Institute of Marketing and Opinion (IMO) in Jalisco, Mexico.
State per capita GDP (logged)	Own calculation using data on state-level GDP and population. Values are in U.S. dollars, 2003 constant prices. The data is form the National Accounting System and the population data are from the 1990, 2000, 2010 population censuses, and population surveys 1995, 2005. All data is sourced from INEGI.
Population	Population count data is from the 1990, 2000, 2010 population censuses, and the 1995 and 2005 population surveys done by INEGI.

Appendix 4: Collection and categorization of the federal crime data

The criminal procedure system in Mexico classifies crimes to be recorded under two broad categories namely, federal crimes and common crimes. The federal crimes include criminal activities associated with drug violence and other forms of organized crime; homicide; blocking of roads; possession, use and sale of weapons; piracy; illegal migrant and other human trafficking; falsification of documents; and kidnapping. Common crimes on the other hand include such crimes as sexual harassment; stealing of animal livestock; property expropriation; theft; rape; and domestic violence. While federal crimes are prosecuted in Mexico under the Federal Penal Code, the common crimes are adjudicated under the Penal Code of the respective states in which the offence took place.¹ The focus of this study is federal crimes only, which are typically associated with large-scale organized crime.

The criminal procedure system in Mexico specifies that when a crime incident occurs the investigative agencies decide whether the particular crime committed falls under the category of federal or common crime. If the crime is identified as a federal crime, the agents of the Federal Public Ministry together with the judiciary police start a preliminary investigation into the incident. The incident is then and there recorded as a federal crime. The investigative agencies are then required to investigate the crime and maintain detailed records of the progress of the investigation. During such investigation, they may question or arrest any suspects. Based on the preliminary investigation and evidence gathered, the agencies decide to either approach the judiciary court or dismiss the case (typically due to lack of sufficient evidence against the suspect(s)). If the investigative agencies decide to approach the judiciary court, all arrested individuals must be produced before a judiciary court and

¹ On December 2nd, 2012, the incoming Mexican President together with the two principal opposition political parties PAN and PRD, signed a document called “Pact for Mexico” as a part of larger judiciary reforms. One of the main features of this pact included the introduction of a single Penal Code and a single Penal Procedures Code for the entire country.

charged with a specific federal crime within 48 hours of the decision or be released. The investigative agencies must submit a report to the judge which details the results of the investigation. Based on this report, the judge makes a decision about whether there are sufficient grounds for proceeding with a criminal case. If s/he so rules, a formal ruling is announced, detailing the offence with which the accused is charged. If the judge on the other hand concludes that the report from the investigative agencies does not provide sufficient reasons to frame a charge, the case is dismissed. Our dependent variable captures the number of incidents at the state level recorded as federal crimes for which at least one young male aged 18-24 is suspected of the crime and has been arrested.

The state level crime data are collected by the Instituto Nacional de Estadística y Geografía (The National Institute for Statistics and Geography, INEGI). INEGI was formed in 1983 as a part of Ministry of Finance. In 2005, it was separated from the Ministry of Finance and became an autonomous institution. Its main task is to conduct regular population and economic censuses across Mexican states and municipalities. INEGI also collect and process all forms of crime data on a monthly basis based on input from the courts at the state level. Through its website, it provides data on crime incidents by suspected perpetrators for different age groups, from 1990 to 2010. The reported categories changed somewhat between 2008 and 2009. For both periods, there is a distinction between the “register year” and the “occurrence year”. The former represents the year in which a crime was registered by the court of justice and the latter records the year in which the crime actually took place. The count based on ‘register year’ includes crimes dating back before 1990, hence we have relied on the ‘occurrence year’ data only. For this category we observed a sudden jump in crime figures across all age groups in 1997 and assume that data prior to 1997 has been subject to

significant under-reporting.² Therefore, we only consider crime data starting in 1997. It is also noteworthy that the crime data tend to be underreported in Mexico due to different reasons. As discussed, there are two official sources for homicide data. On the one hand, there is the National Institute for Statistics and Geography (INEGI), which collects data on homicides based on forensic records, on the other, there is the National Security System Executive Secretary (SESNSP) which gathers crime data directly from the crime agencies across all Mexican states. Between these two data sources there are substantial discrepancies in the number of homicides reported. According to the Institute for Economics and Peace (2018), the data coming from the rule of law institutions are underestimated in about 20%. These discrepancies between the forensic records data and those from the rule of law institutions could point at impunity and corruption or both. However, these could also be due to the weak capacity of police forces lacking the proper equipment and technology. In particular, the data on homicides in Mexico are limited in nature given that they do not really show the actual violence dynamics of the country. Added to the homicide data discrepancies, it is extremely difficult to account for the total number of clandestine burial pits across the country.

Source: Índice de Datos sobre Homicidios. Resultados 2018. Institute for Economics and Peace.

² While data prior to 1997 appears to be significantly under-reported, INEGI recognizes that not every crime is reported, hence there could be a bias due to under-reporting for the period covered by this analysis (Síntesis Metodológica. Estadísticas Judiciales en Materia Penal, p. 6). However, we have no information suggesting that such underreporting could systematically bias the relationships that we are studying. Furthermore, systematic time period or geographical biases should in principle be picked up by the time and state specific dummy variables respectively.

ROBUSTNESS TESTS

TABLES

Table A (Set 1): Panel Granger Causality Test on Youth crime and Youth unemployment rate

	(1)	(2)	(3)		(1)	(2)	(3)
	Youth crime	Youth crime	Youth crime		Unemp	Unemp	Unemp
Youth Male Crime per capita (log) t-1	0.357*** (0.0622)	0.417*** (0.0696)	0.443*** (0.0673)	Male Youth Unemployment Rate t-1	1.050*** (0.00783)	1.788*** (0.0130)	1.728*** (0.0129)
Youth Male Crime per capita (log) t-2		-0.0948* (0.0508)	-0.0677 (0.0557)	Male Youth Unemployment Rate t-1		-0.819*** (0.0142)	-0.736*** (0.0179)
Youth Male Crime per capita (log) t-3			0.000225 (0.0353)	Male Youth Unemployment Rate t-1			-0.0276** (0.0130)
Male Youth Unemployment Rate t-1	0.0605 (0.0455)	0.102 (0.137)	0.345** (0.140)	Youth Male Crime per capita (log) t-1	-0.00429 (0.0221)	-0.00230 (0.0116)	0.00335 (0.0116)
Male Youth Unemployment Rate t-1		-0.0386 (0.146)	-0.558* (0.275)	Youth Male Crime per capita (log) t-2		0.00795 (0.00864)	-0.000224 (0.00845)
Male Youth Unemployment Rate t-1			0.285 (0.181)	Youth Male Crime per capita (log) t-3			0.00743 (0.00746)
Joint F-statistic	1.77	1.14	2.24	Joint F-statistic	0.04	0.49	0.37
State Fixed Effects	Yes	Yes	Yes	State Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Year Fixed Effects	Yes	Yes	Yes
Observations	448	441	423	Observations	448	441	423
R-squared	0.325	0.344	0.366	R-squared	0.997	0.999	0.999
Number of sid	32	32	32	Number of sid	32	32	32

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table B (Set 2): Panel Granger Causality Test on Youth crime and Youth unemployment in Low education strata

	(1)	(2)	(3)		(1)	(2)	(3)
	Youth crime	Youth crime	Youth crime		Low edu	Low edu	Low edu
Youth Male Crime per capita (log) t-1	0.354*** (0.0623)	0.413*** (0.0698)	0.438*** (0.0682)	Youth Unemployment Rate in Low Education (Males) t-1	1.108*** (0.0115)	1.901*** (0.0213)	1.837*** (0.0228)
Youth Male Crime per capita (log) t-2		-0.0925* (0.0495)	-0.0643 (0.0551)	Youth Unemployment Rate in Low Education (Males) t-1		-0.918*** (0.0223)	-0.811*** (0.0291)
Youth Male Crime per capita (log) t-3			0.000178 (0.0350)	Youth Unemployment Rate in Low Education (Males) t-1			-0.0451** (0.0210)
Youth Unemployment Rate in Low Education (Males) t-1	0.0652 (0.0403)	-0.00508 (0.150)	0.338* (0.180)	Youth Male Crime per capita (log) t-1	0.00118 (0.0235)	-0.00576 (0.0138)	-0.00323 (0.0145)
Youth Unemployment Rate in Low Education (Males) t-1		0.0857 (0.153)	-0.678** (0.327)	Youth Male Crime per capita (log) t-2		0.00749 (0.00713)	0.00406 (0.00873)
Youth Unemployment Rate in Low Education (Males) t-1			0.438** (0.193)	Youth Male Crime per capita (log) t-3			0.000740 (0.00694)
Joint F-statistic	2.62	2.13	2.55*	Joint F-statistic	2.62	2.13	3.27**
State Fixed Effects	Yes	Yes	Yes	State Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Year Fixed Effects	Yes	Yes	Yes
Observations	448	441	423	Observations	448	441	423
R-squared	0.329	0.347	0.370	R-squared	0.996	0.999	0.999
Number of sid	32	32	32	Number of sid	32	32	32

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

**Table C (Set 3): Panel Granger Causality Test on
Youth crime and Youth unemployment in High education strata**

	(1)	(2)	(3)		(1)	(2)	(3)
	Youth crime	Youth crime	Youth crime		Low edu	Low edu	Low edu
Youth Male Crime per capita (log) t-1	0.361*** (0.0633)	0.423*** (0.0707)	0.447*** (0.0681)	Youth Unemployment Rate in High Education (Males) t-1	1.043*** (0.0110)	1.762*** (0.0196)	1.703*** (0.0193)
Youth Male Crime per capita (log) t-2		-0.0966* (0.0506)	-0.0684 (0.0563)	Youth Unemployment Rate in High Education (Males) t-1		-0.798*** (0.0190)	-0.719*** (0.0198)
Youth Male Crime per capita (log) t-3			0.00204 (0.0358)	Youth Unemployment Rate in High Education (Males) t-1			-0.0264* (0.0136)
Youth Unemployment Rate in High Education (Males) t-1	0.0468 (0.0437)	0.121 (0.126)	0.265** (0.114)	Youth Male Crime per capita (log) t-1	0.00559 (0.0232)	0.00669 (0.0135)	0.0148 (0.0134)
Youth Unemployment Rate in High Education (Males) t-1		-0.0721 (0.129)	-0.373 (0.225)	Youth Male Crime per capita (log) t-2		0.00655 (0.0107)	-0.00496 (0.0103)
Youth Unemployment Rate in High Education (Males) t-1			0.157 (0.170)	Youth Male Crime per capita (log) t-3			0.0119 (0.00861)
Joint F-statistic	1.15	0.93	1.89	Joint F-statistic	0.06	0.69	1.18
State Fixed Effects	Yes	Yes	Yes	State Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Year Fixed Effects	Yes	Yes	Yes
Observations	448	441	423	Observations	448	441	423
R-squared	0.322	0.341	0.362	R-squared	0.997	0.999	0.999
Number of sid	32	32	32	Number of sid	32	32	32

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

**Table D (Set 4): Panel Granger Causality Test on
Youth crime and Youth unemployment Density in Low education strata**

	(1)	(2)	(3)		(1)	(2)	(3)
	Youth crime	Youth crime	Youth crime		Density	Density	Density
Youth Male Crime per capita (log) t-1	0.354*** (0.0653)	0.415*** (0.0727)	0.441*** (0.0697)	Youth Unemployment Density in Low Education (Males) t-1	1.036*** (0.00756)	1.752*** (0.0134)	1.676*** (0.0172)
Youth Male Crime per capita (log) t-2		-0.0963* (0.0475)	-0.0644 (0.0518)	Youth Unemployment Density in Low Education (Males) t-1		-0.791*** (0.0126)	-0.675*** (0.0216)
Youth Male Crime per capita (log) t-3			-0.00636 (0.0357)	Youth Unemployment Density in Low Education (Males) t-1			-0.0464*** (0.0158)
Youth Unemployment Density in Low Education (Males) t-1	0.199* (0.117)	0.157 (0.316)	1.123*** (0.337)	Youth Male Crime per capita (log) t-1	0.00685 (0.00942)	0.000278 (0.00542)	0.00259 (0.00564)
Youth Unemployment Density in Low Education (Males) t-1		0.0626 (0.325)	-2.093*** (0.545)	Youth Male Crime per capita (log) t-2		0.00750** (0.00332)	0.00251 (0.00382)
Youth Unemployment Density in Low Education (Males) t-1			1.251*** (0.343)	Youth Male Crime per capita (log) t-3			0.00655** (0.00278)
Joint F-statistic	2.89*	1.68	5.05***	Joint F-statistic	0.53	4.93**	3.81**
State Fixed Effects	Yes	Yes	Yes	State Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Year Fixed Effects	Yes	Yes	Yes
Observations	448	441	423	Observations	448	441	423
R-squared	0.329	0.348	0.375	R-squared	0.996	0.999	0.999
Number of sid	32	32	32	Number of sid	32	32	32

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Robustness Table E: Effect of youth bulge and youth opportunity on youth crime

Dependent variable: Federal youth crime incidents per capita (log) – 18-35 years

	(1)	(2)	(3)	(4)	(5)
	FGLS-FE	FGLS-FE	FGLS-FE	FGLS-FE	FGLS-FE
Lagged Dependent Variable	0.363*** (0.0425)	0.372*** (0.0422)	0.353*** (0.0416)	0.377*** (0.0420)	0.352*** (0.0417)
State Per capita GDP (log) t-1	0.253 (0.228)	0.193 (0.230)	0.357 (0.229)	0.383* (0.227)	0.272 (0.222)
Male Youth Bulge t-1	-0.0232 (0.0160)	-0.0366** (0.0148)	-0.0666*** (0.0162)	-0.0521*** (0.0168)	-0.0546*** (0.0151)
State Population (log) t-1	0.438 (0.276)	0.453 (0.281)	-0.678* (0.387)	0.119 (0.379)	-0.342 (0.339)
Urbanization t-1	0.0218** (0.0100)	0.0137 (0.00935)	0.00445 (0.00944)	0.0109 (0.00945)	0.0142 (0.00922)
Timing of State Governor Elections	-0.0934*** (0.0343)	-0.0938*** (0.0344)	-0.0927*** (0.0337)	-0.0924*** (0.0344)	-0.0949*** (0.0337)
Male Youth Unemployment Rate t-1	0.0310 (0.0236)				
Male Youth Secondary School Enrolment t-1	-0.0247** (0.0111)				
Unemployment Rate in Uneducated Youth (Males) t-1		0.0280* (0.0164)	-0.561*** (0.142)		
Youth Unemployment Rate in Low Education Stratum (Males) t-1 × Youth Bulge t-1			0.0125*** (0.00301)		
Unemployment Rate in Educated Youth (Males) t-1				-0.290* (0.157)	
Youth Unemployment Rate in High Education Stratum (Males) t-1 × Youth Bulge t-1				0.00608* (0.00336)	
Youth Unemployment Density in Low Education Stratum (Males) t-1					-1.529*** (0.410)
Youth Unemployment Density in Low Education Stratum (Males) t-1 × Youth Bulge t-1					0.0350*** (0.00864)
Constant	-13.88*** (4.856)	-12.93** (5.046)	3.294 (6.303)	-8.706 (6.198)	-2.000 (5.586)
State specific dummies	YES	YES	YES	YES	YES
Time specific dummies	YES	YES	YES	YES	YES
Number of States	32	32	32	32	32
Observations	448	448	448	448	448

Notes: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Robustness Table F: Effect of youth bulge and youth opportunity on youth crime

Dependent variable: Federal youth crime incidents (count)
Negative Binomial Estimations

	(1)	(2)	(3)	(4)	(5)
	Neg_Bin	Neg_Bin	Neg_Bin	Neg_Bin	Neg_Bin
State Per capita GDP (log) t-1	0.645** (0.287)	0.617** (0.291)	0.722** (0.296)	0.653** (0.291)	0.693** (0.284)
Male Youth Bulge t-1	-0.0483 (0.0420)	-0.0918** (0.0384)	-0.146*** (0.0485)	-0.0817 (0.0499)	-0.148** (0.0428)
State Population (log) t-1	1.920*** (0.335)	2.029*** (0.336)	1.806*** (0.357)	2.179*** (0.345)	1.739*** (0.353)
Urbanization t-1	0.0290** (0.0123)	0.0212* (0.0117)	0.0166 (0.0120)	0.0204* (0.0121)	0.0217* (0.0117)
Timing of State Governor Elections	-0.0984** (0.0414)	-0.0974** (0.0417)	-0.0960** (0.0416)	-0.0963** (0.0417)	-0.0948** (0.0413)
Male Youth Unemployment Rate t-1	0.0521** (0.0246)				
Male Youth Secondary School Enrolment t-1	-0.0200** (0.00924)				
Unemployment Rate in Uneducated Youth (Males) t-1		0.0496** (0.0240)	-0.324 (0.206)		
Youth Unemployment Rate in Low Education Stratum (Males) t-1 × Youth Bulge t-1			0.0180* (0.00991)		
Unemployment Rate in Educated Youth (Males) t-1				0.0776 (0.172)	
Youth Unemployment Rate in High Education Stratum (Males) t-1 × Youth Bulge t-1				-0.00173 (0.00832)	
Youth Unemployment Density in Low Education Stratum (Males) t-1					-1.124* (0.640)
Youth Unemployment Density in Low Education Stratum (Males) t-1 × Youth Bulge t-1					0.0635** (0.0305)
Constant	-29.03*** (5.914)	-29.41*** (6.102)	-25.73*** (6.402)	-31.92*** (6.262)	-24.99*** (6.179)
State specific dummies	YES	YES	YES	YES	YES
Time specific dummies	YES	YES	YES	YES	YES
Number of States	32	32	32	32	32
Observations	448	448	448	448	448

Notes: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Robustness Table G: Effect of youth bulge and youth opportunity on youth crime

Dependent variable: Federal youth crime incidents per capita (log)
(sample without Outliers)

	(1)	(2)	(3)	(4)	(5)
	FGLS-FE	FGLS-FE	FGLS-FE	FGLS-FE	FGLS-FE
Lagged Dependent Variable	0.290*** (0.0432)	0.293*** (0.0430)	0.293*** (0.0423)	0.297*** (0.0431)	0.304*** (0.0422)
State Per capita GDP (log) t-1	0.693** (0.274)	0.632** (0.274)	0.798*** (0.274)	0.773*** (0.275)	0.763*** (0.268)
Male Youth Bulge t-1	-0.0553 (0.0408)	-0.0765** (0.0381)	-0.190*** (0.0482)	-0.115** (0.0489)	-0.191*** (0.0435)
State Population (log) t-1	0.859** (0.338)	0.896*** (0.332)	0.350 (0.358)	0.866** (0.346)	0.130 (0.362)
Urbanization t-1	0.0217* (0.0118)	0.0164 (0.0109)	0.00901 (0.0109)	0.0126 (0.0112)	0.0217** (0.0108)
Timing of State Governor Elections	-0.104** (0.0408)	-0.103** (0.0408)	-0.104*** (0.0401)	-0.101** (0.0408)	-0.107*** (0.0398)
Male Youth Unemployment Rate t-1	0.0293 (0.0237)				
Male Youth Secondary School Enrolment t-1	-0.0123 (0.00918)				
Unemployment Rate in Uneducated Youth (Males) t-1		0.0391* (0.0226)	-0.709*** (0.201)		
Youth Unemployment Rate in Low Education Stratum (Males) t-1 × Youth Bulge t-1			0.0363*** (0.00970)		
Unemployment Rate in Educated Youth (Males) t-1				-0.199 (0.171)	
Youth Unemployment Rate in High Education Stratum (Males) t-1 × Youth Bulge t-1				0.0105 (0.00831)	
Youth Unemployment Density in Low Education Stratum (Males) t-1					-2.640*** (0.627)
Youth Unemployment Density in Low Education Stratum (Males) t-1 × Youth Bulge t-1					0.134*** (0.0297)
Constant	-24.90*** (5.921)	-24.44*** (6.012)	-15.39** (6.391)	-23.98*** (6.262)	-12.91** (6.298)
State specific dummies	YES	YES	YES	YES	YES
Time specific dummies	YES	YES	YES	YES	YES
Number of States	32	32	32	32	32
Observations	429	429	429	429	429

Notes: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Robustness Table H: Effect of youth bulge and youth opportunity on youth crime

Dependent variable: Federal youth crime incidents per capita (log) – OLS

	(1)	(2)	(3)	(4)	(5)
	OLS-FE	OLS-FE	OLS-FE	OLS-FE	OLS-FE
Lagged Dependent Variable	0.315*** (0.0458)	0.323*** (0.0456)	0.325*** (0.0453)	0.326*** (0.0458)	0.333*** (0.0452)
State Per capita GDP (log) t-1	0.632** (0.285)	0.570** (0.287)	0.686** (0.289)	0.649** (0.287)	0.680** (0.280)
Male Youth Bulge t-1	-0.0393 (0.0430)	-0.0740* (0.0395)	-0.146*** (0.0497)	-0.0764 (0.0508)	-0.158*** (0.0445)
State Population (log) t-1	0.765** (0.347)	0.847** (0.346)	0.504 (0.374)	0.950*** (0.362)	0.297 (0.372)
Urbanization t-1	0.0224* (0.0124)	0.0146 (0.0116)	0.00930 (0.0118)	0.0134 (0.0119)	0.0180 (0.0115)
Timing of State Governor Elections	-0.114*** (0.0428)	-0.113*** (0.0429)	-0.113*** (0.0426)	-0.112*** (0.0430)	-0.114*** (0.0422)
Male Youth Unemployment Rate t-1	0.0318 (0.0249)				
Male Youth Secondary School Enrolment t-1	-0.0178* (0.00953)				
Unemployment Rate in Uneducated Youth (Males) t-1		0.0373 (0.0240)	-0.455** (0.211)		
Youth Unemployment Rate in Low Education Stratum (Males) t-1 × Youth Bulge t-1			0.0239** (0.0102)		
Unemployment Rate in Educated Youth (Males) t-1				0.00326 (0.177)	
Youth Unemployment Rate in High Education Stratum (Males) t-1 × Youth Bulge t-1				0.000827 (0.00860)	
Youth Unemployment Density in Low Education Stratum (Males) t-1					-2.033*** (0.653)
Youth Unemployment Density in Low Education Stratum (Males) t-1 × Youth Bulge t-1					0.104*** (0.0311)
Constant	-23.03*** (6.114)	-22.80*** (6.271)	-17.13** (6.687)	-24.66*** (6.565)	-14.61** (6.507)
State specific dummies	YES	YES	YES	YES	YES
Time specific dummies	YES	YES	YES	YES	YES
Number of States	32	32	32	32	32
Observations	448	448	448	448	448

Notes: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Robustness Table I: Effect of youth bulge and youth opportunity on youth crime

Dependent variable: Federal youth crime incidents per capita (log)
(controlling for Institutional measure)

	(1)	(2)	(3)	(4)	(5)
	FGLS-FE	FGLS-FE	FGLS-FE	FGLS-FE	FGLS-FE
Lagged Dependent Variable	0.244*** (0.0449)	0.257*** (0.0448)	0.262*** (0.0446)	0.256*** (0.0451)	0.274*** (0.0447)
State Per capita GDP (log) t-1	0.346 (0.295)	0.272 (0.301)	0.408 (0.306)	0.367 (0.298)	0.427 (0.292)
Male Youth Bulge t-1	-0.0261 (0.0429)	-0.0632 (0.0405)	-0.124** (0.0494)	-0.0576 (0.0499)	-0.137*** (0.0447)
State Population (log) t-1	0.742** (0.347)	0.818** (0.348)	0.489 (0.379)	1.019*** (0.364)	0.327 (0.384)
Urbanization t-1	0.0281** (0.0137)	0.0182 (0.0127)	0.0132 (0.0128)	0.0151 (0.0130)	0.0223* (0.0127)
Timing of State Governor Elections	-0.100** (0.0400)	-0.100** (0.0402)	-0.0986** (0.0400)	-0.100** (0.0403)	-0.100** (0.0397)
Crime Agencies per capita (log) t-1	0.0468 (0.0399)	0.0435 (0.0401)	0.0400 (0.0399)	0.0438 (0.0403)	0.0311 (0.0397)
Male Youth Unemployment Rate t-1	0.0591** (0.0256)				
Male Youth Secondary School Enrolment t-1	-0.0210** (0.00978)				
Unemployment Rate in Uneducated Youth (Males) t-1		0.0615** (0.0260)	-0.409* (0.223)		
Youth Unemployment Rate in Low Education Stratum (Males) t-1 × Youth Bulge t-1			0.0227** (0.0107)		
Unemployment Rate in Educated Youth (Males) t-1				0.0620 (0.183)	
Youth Unemployment Rate in High Education Stratum (Males) t-1 × Youth Bulge t-1				-0.000890 (0.00884)	
Youth Unemployment Density in Low Education Stratum (Males) t-1					-1.753*** (0.649)
Youth Unemployment Density in Low Education Stratum (Males) t-1 × Youth Bulge t-1					0.0922*** (0.0308)
Constant	-21.36*** (6.186)	-20.78*** (6.420)	-15.75** (6.809)	-24.22*** (6.618)	-14.07** (6.692)
State specific dummies	YES	YES	YES	YES	YES
Time specific dummies	YES	YES	YES	YES	YES
Number of States	32	32	32	32	32
Observations	416	416	416	416	416

Notes: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Robustness Table J: Effect of youth bulge and youth opportunity on youth crime

Dependent variable: Federal youth crime incidents per capita (log)
(controlling for GINI index)

	(1)	(2)	(3)	(4)	(5)
	FGLS-FE	FGLS-FE	FGLS-FE	FGLS-FE	FGLS-FE
Lagged Dependent Variable	0.314*** (0.0430)	0.321*** (0.0428)	0.322*** (0.0425)	0.324*** (0.0430)	0.330*** (0.0424)
State Per capita GDP (log) t-1	0.588** (0.276)	0.499* (0.276)	0.600** (0.276)	0.591** (0.276)	0.627** (0.268)
Male Youth Bulge t-1	-0.0387 (0.0404)	-0.0698* (0.0372)	-0.147*** (0.0466)	-0.0789* (0.0478)	-0.155*** (0.0419)
State Population (log) t-1	0.736** (0.328)	0.761** (0.333)	0.359 (0.362)	0.860** (0.352)	0.246 (0.353)
Urbanization t-1	0.0207* (0.0119)	0.0129 (0.0110)	0.00654 (0.0112)	0.0111 (0.0114)	0.0163 (0.0109)
Timing of State Governor Elections	-0.114*** (0.0402)	-0.114*** (0.0403)	-0.114*** (0.0399)	-0.112*** (0.0403)	-0.114*** (0.0396)
State GINI index t-1	-0.797 (1.218)	-1.360 (1.180)	-1.825 (1.183)	-1.218 (1.230)	-1.152 (1.145)
Male Youth Unemployment Rate t-1	0.0374 (0.0248)				
Male Youth Secondary School Enrolment t-1	-0.0164* (0.00920)				
Unemployment Rate in Uneducated Youth (Males) t-1		0.0457* (0.0237)	-0.488** (0.199)		
Youth Unemployment Rate in Low Education Stratum (Males) t-1 × Youth Bulge t-1			0.0260*** (0.00961)		
Unemployment Rate in Educated Youth (Males) t-1				-0.0271 (0.169)	
Youth Unemployment Rate in High Education Stratum (Males) t-1 × Youth Bulge t-1				0.00272 (0.00829)	
Youth Unemployment Density in Low Education Stratum (Males) t-1					-1.977*** (0.615)
Youth Unemployment Density in Low Education Stratum (Males) t-1 × Youth Bulge t-1					0.103*** (0.0292)
Constant	-21.87*** (6.006)	-20.46*** (6.228)	-13.47** (6.695)	-22.25*** (6.620)	-12.94** (6.324)
State specific dummies	YES	YES	YES	YES	YES
Time specific dummies	YES	YES	YES	YES	YES
Number of States	32	32	32	32	32
Observations	448	448	448	448	448

Notes: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Figure 1A – 1E: Visualization of crime trends over time and by states

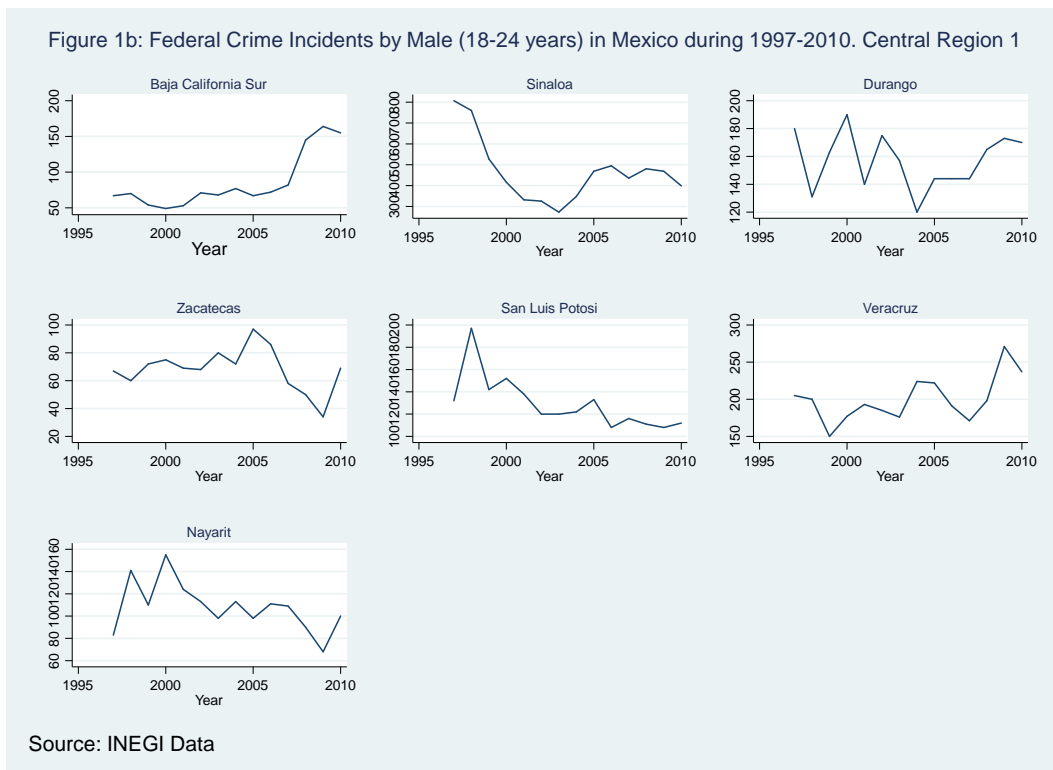
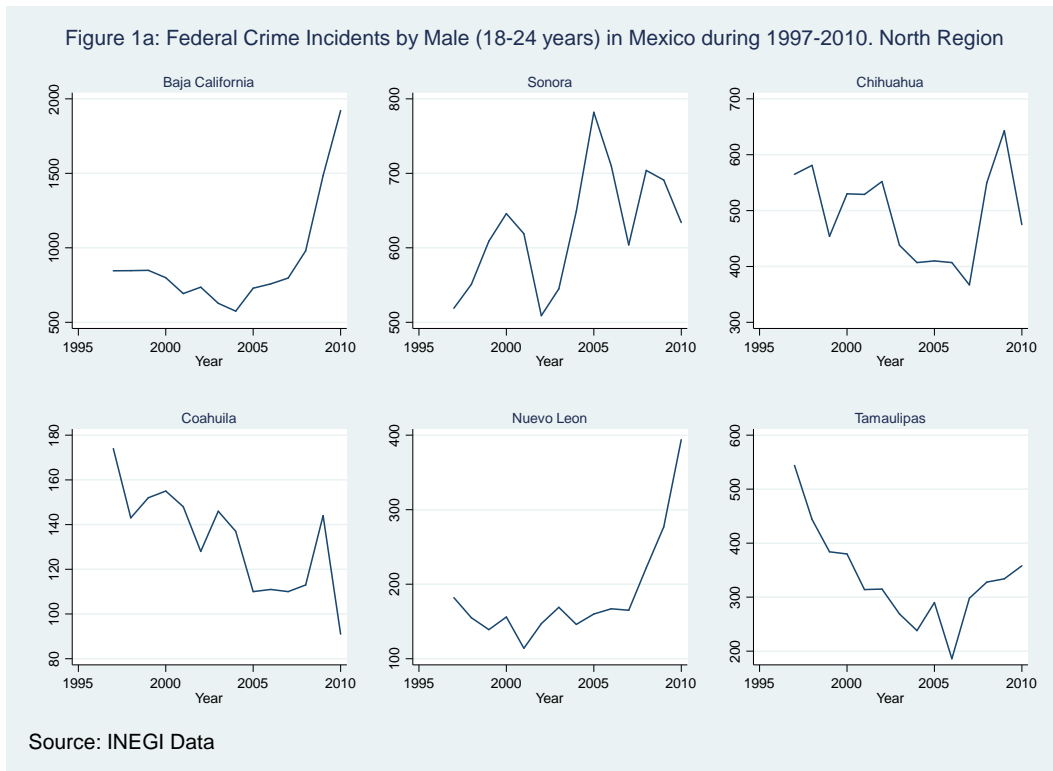
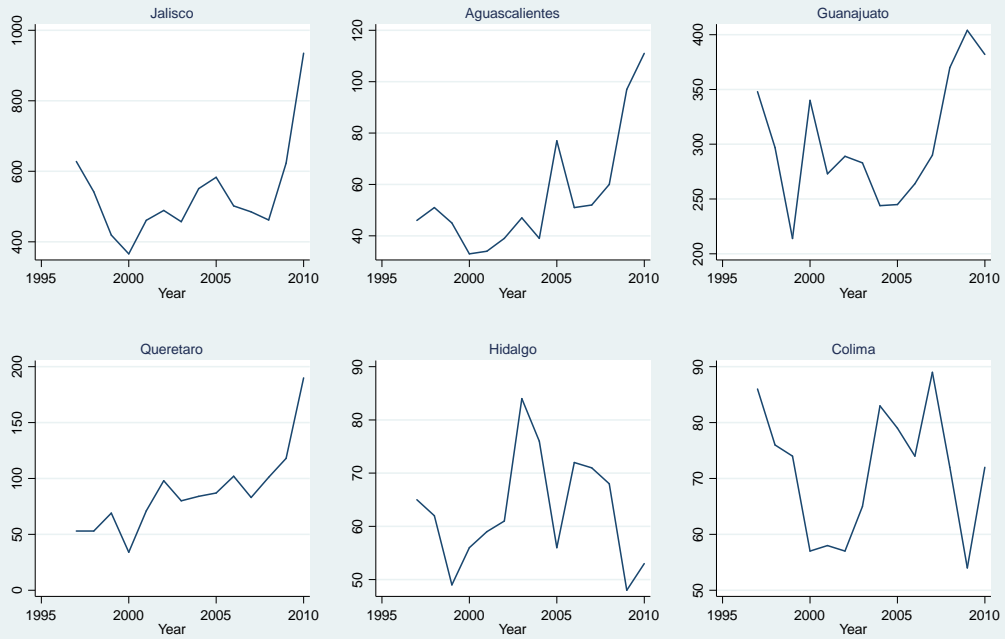
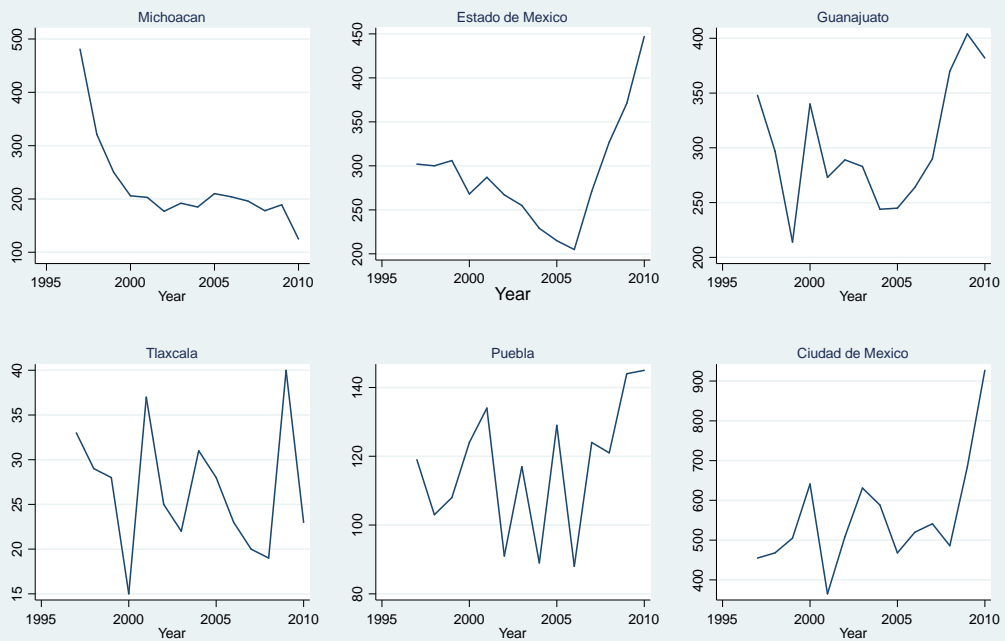


Figure 1c: Federal Crime Incidents by Male (18-24 years) in Mexico during 1997-2010. Central Region 2



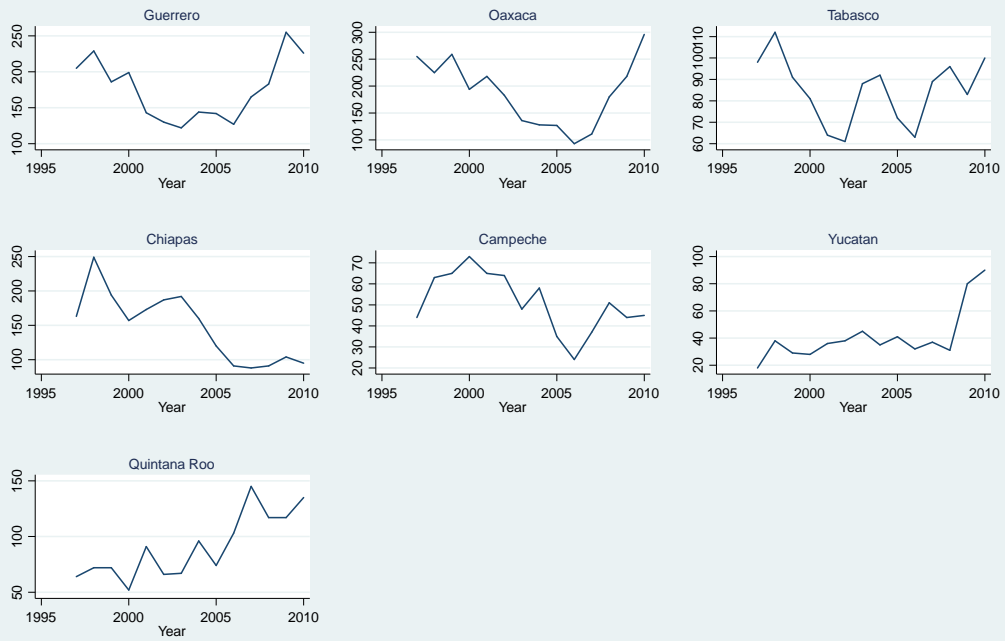
Source: INEGI Data

Figure 1d: Federal Crime Incidents by Male (18-24 years) in Mexico during 1997-2010. Central Region 3



Source: INEGI Data

Figure 1e: Federal Crime Incidents by Male (18-24 years) in Mexico during 1997-2010. South Region



Source: INEGI Data