

# Community Resilience to Violence: Local Schools, Regional Economies, and Homicide in Mexico's Municipalities

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## Summary of Conclusions

**Spatial regimes:** homicide is not spatially random across Mexico

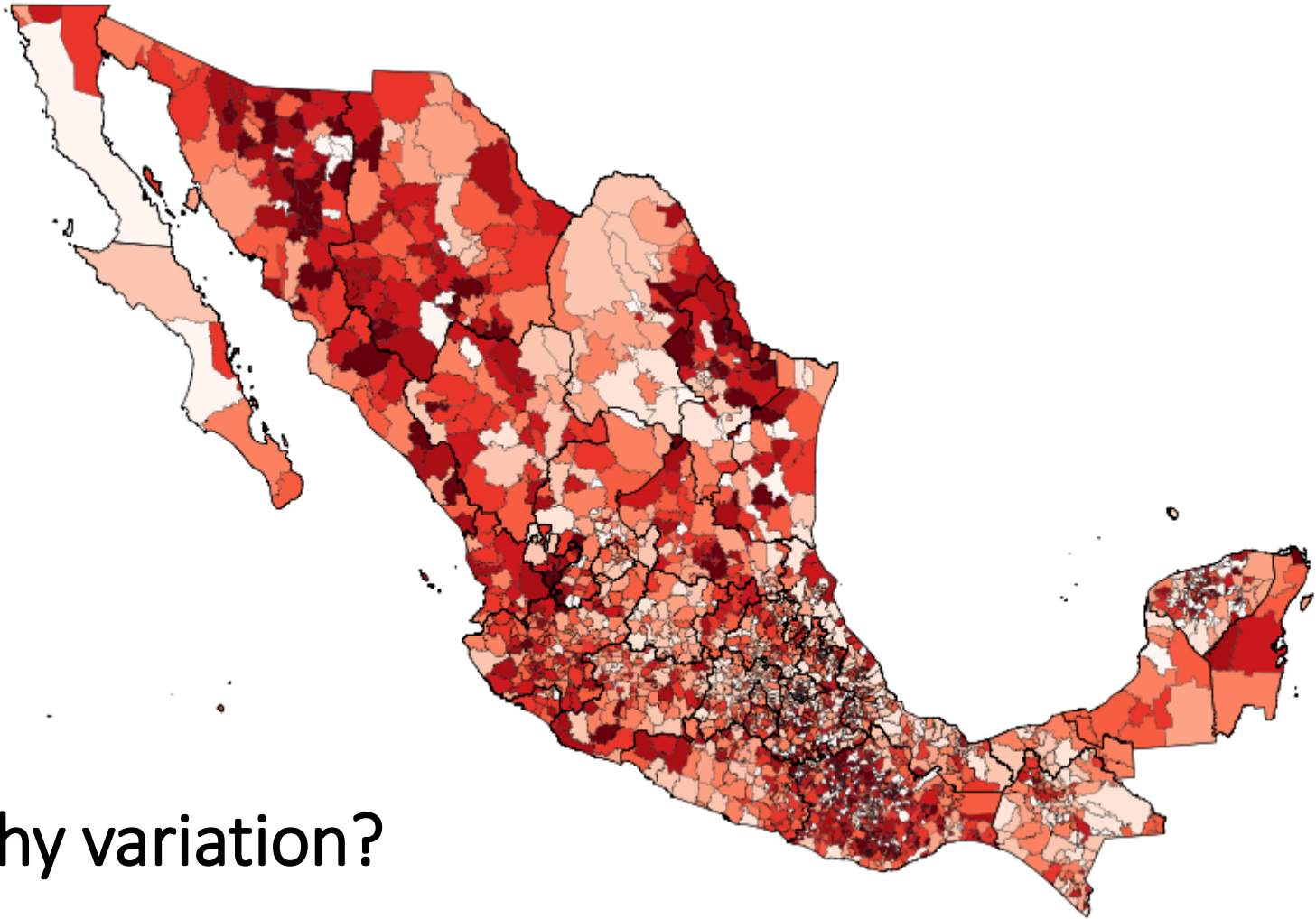
**Lag effect of violence:** homicide rates in one unit affects homicide in other units

\* econometrics do not identify mechanism

**Local protective effect of education:** educational attainment reduces homicide, but only locally

**Neighborhood effect of economic inactivity (PNEA):** economic inactivity in neighboring units increases risk of homicide in local unit

# Central Question across Mexico's 2455 municipalities (2010 data)



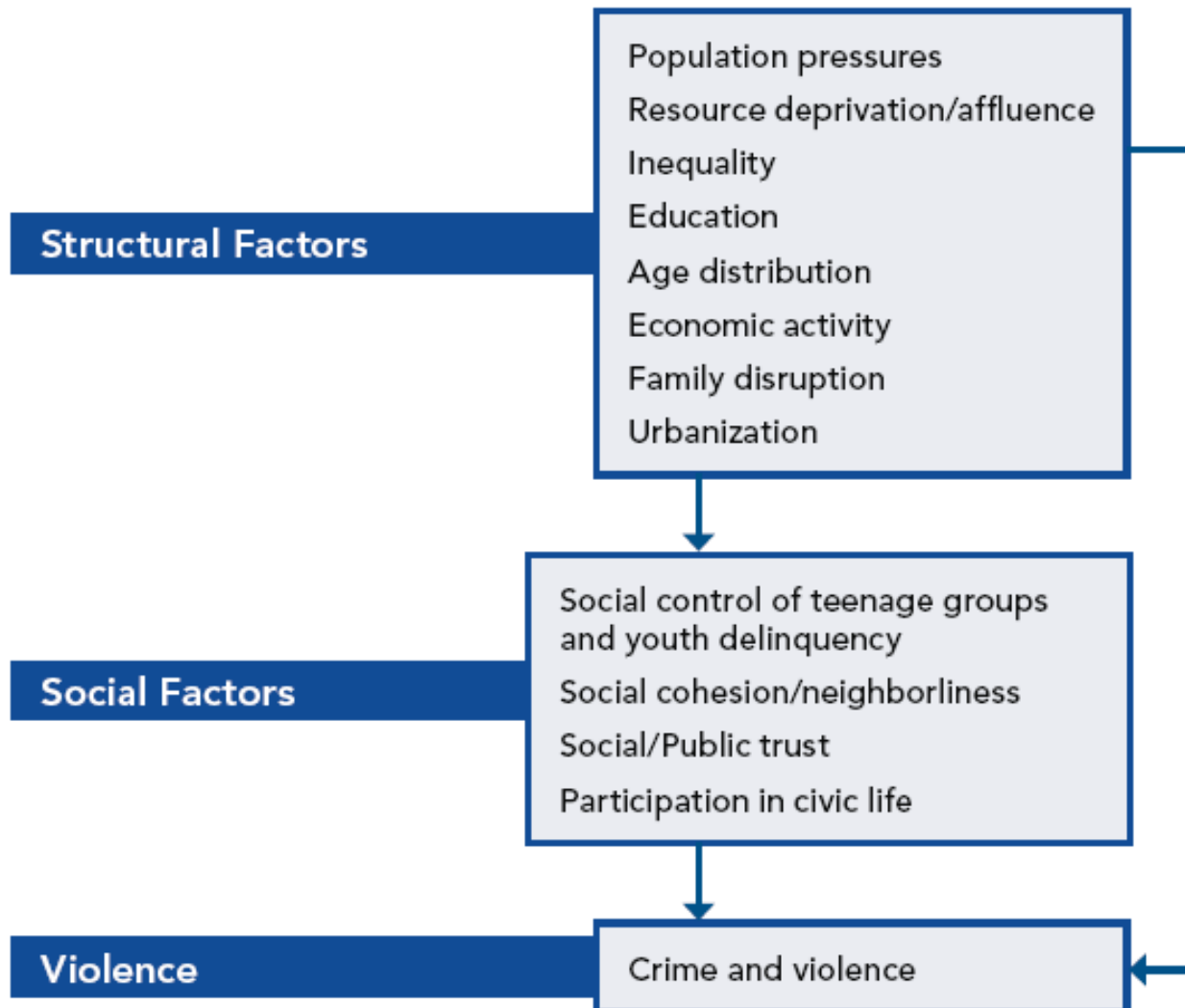
Why variation?

# Overview

- 1) Conceptual clarification of  
“Community Resilience”
  - In context of violence reduction/prevention
- 2) Tie the concept to working hypotheses/explanations
- 3) Statistical analysis
- 4) Concrete policy implications

# Clarifying “Community Resilience” to Violence (29-35)

FIGURE 2: CONCEPTUAL MODEL OF CR AND CAUSAL RELATIONSHIP WITH CRIME AND VIOLENCE



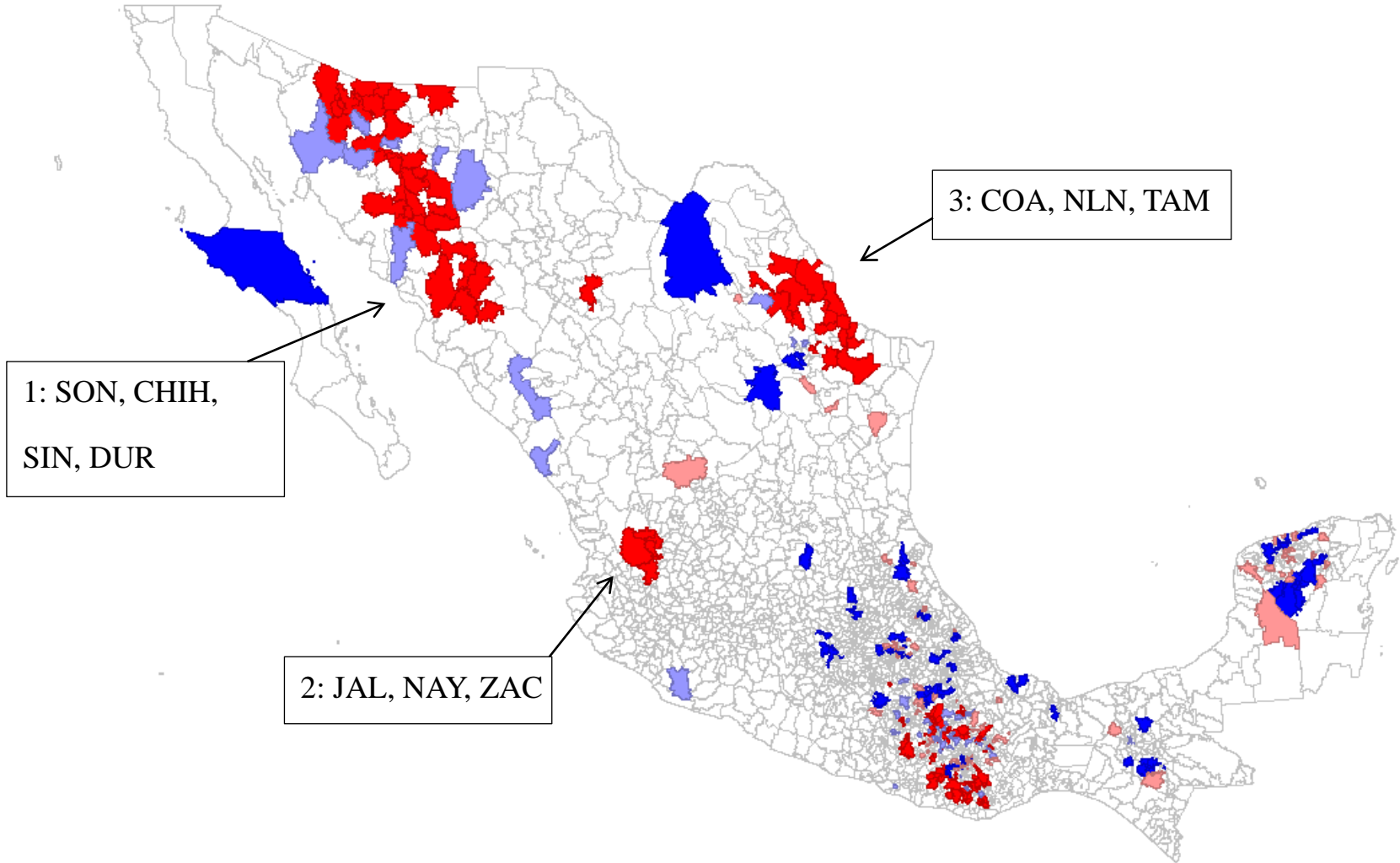
# Working Hypotheses/Explanations

- \* Violence is not spatially random
- (1) Population pressures (total population; population density)
- (2) Resource deprivation (income; inequality)
- (3) Family disruption (divorce rates)
- (4) Education (mean years)
- (5) Unemployment (economic inactivity)
- (6) Age structure (median age)
- (7) Competitiveness/alternation in power disrupts criminal networks
- (8) Social capital: participation dampens criminal activity
- (9) Uneven terrain (altitude s.d.)

Local/Direct vs. Neighborhood/Indirect effects

# Results 1: Exploratory Spatial Analysis

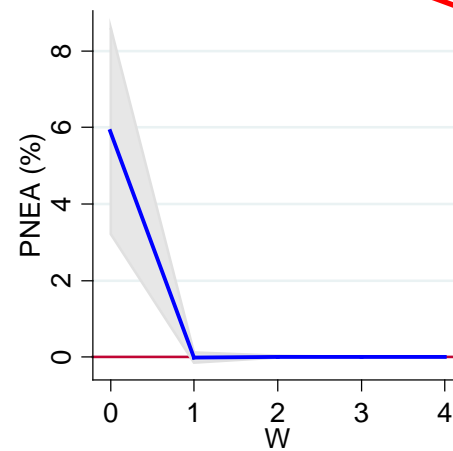
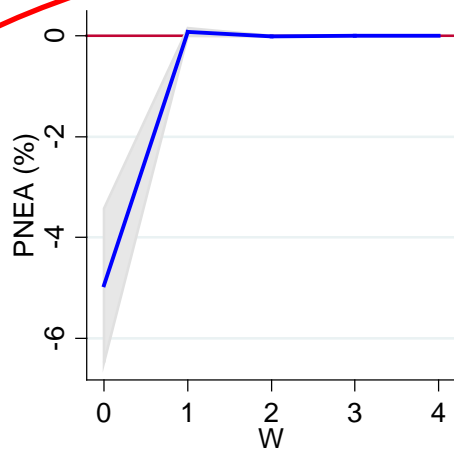
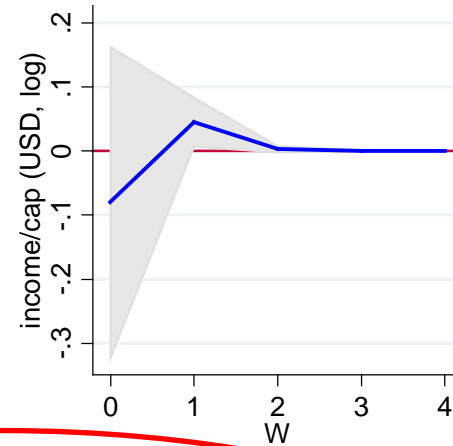
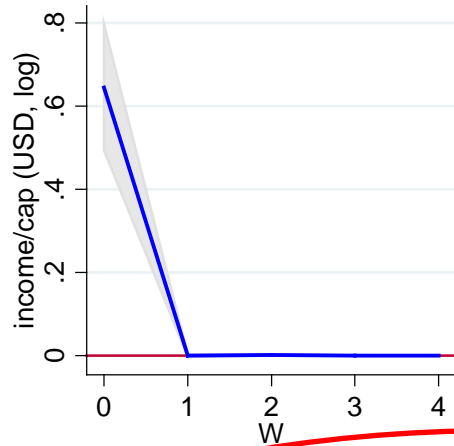
# Homicide clusters (3 straddle borders of at least 3 states)



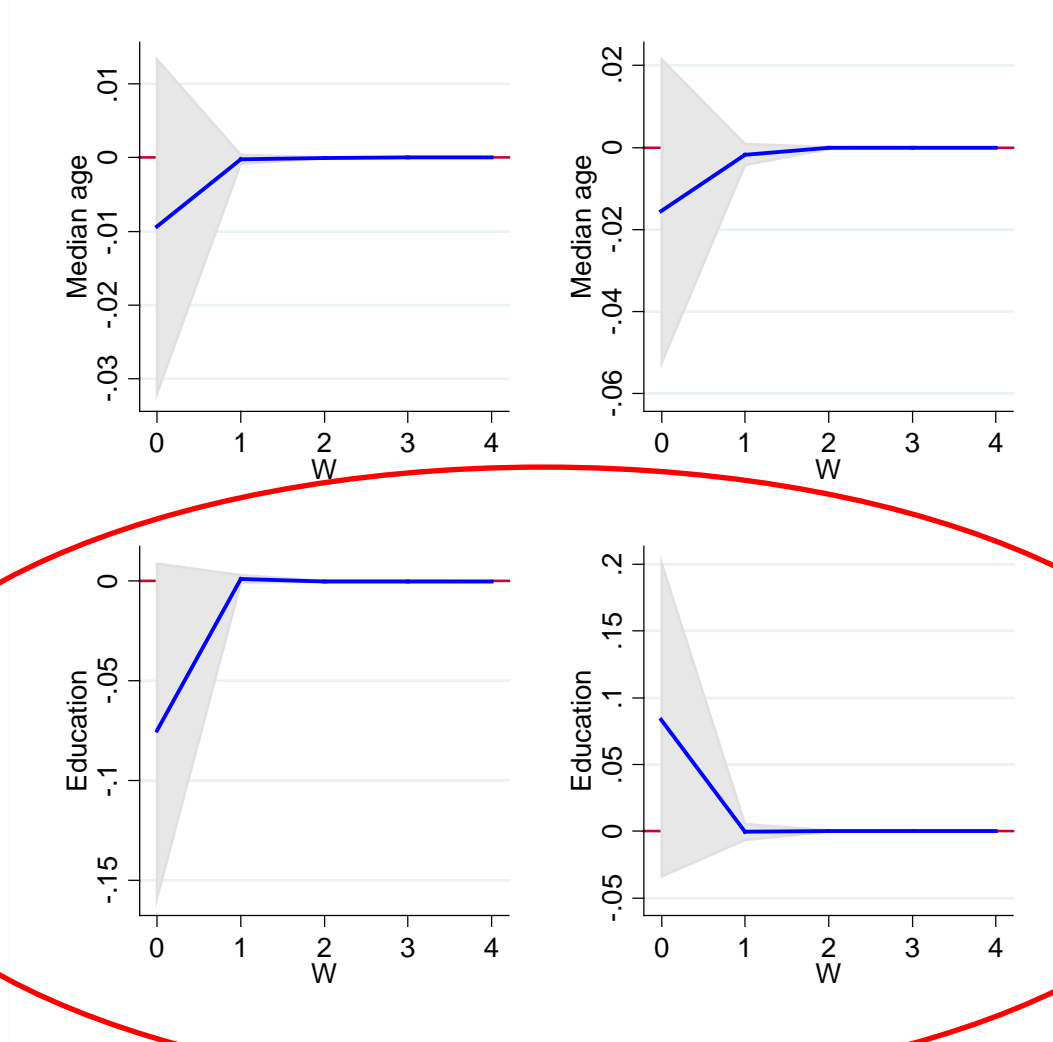


## Results 2: Spatial Regressions

# Partitioned Effects: Income and Economic Inactivity (PNEA)



# Partitioned Effects: Age and Education



## Conclusions

**Spatial regimes:** homicide is not spatially random across Mexico

**Lag effect of violence:** homicide rates in one unit affects homicide in other units

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## Policy Implications

Taken together, education and PNEA findings suggest a **“local schools/regional economy”** approach to violence prevention, i.e., to building “resilient communities”

In any case, a regional approach is also in order given:

- cross-jurisdictional spatial regimes
- lag effect of homicide itself

Governments and aid agencies should emphasize policies that:

- (1) identify regions of municipalities that are connected in relevant ways, even if straddling state boundaries
- (2) emphasize education, which can be targeted locally
- (3) emphasize regional economic development
- (4) target funding, recognition, prizes, etc., to projects that emphasize these objective, evidence-based criteria

Thank you

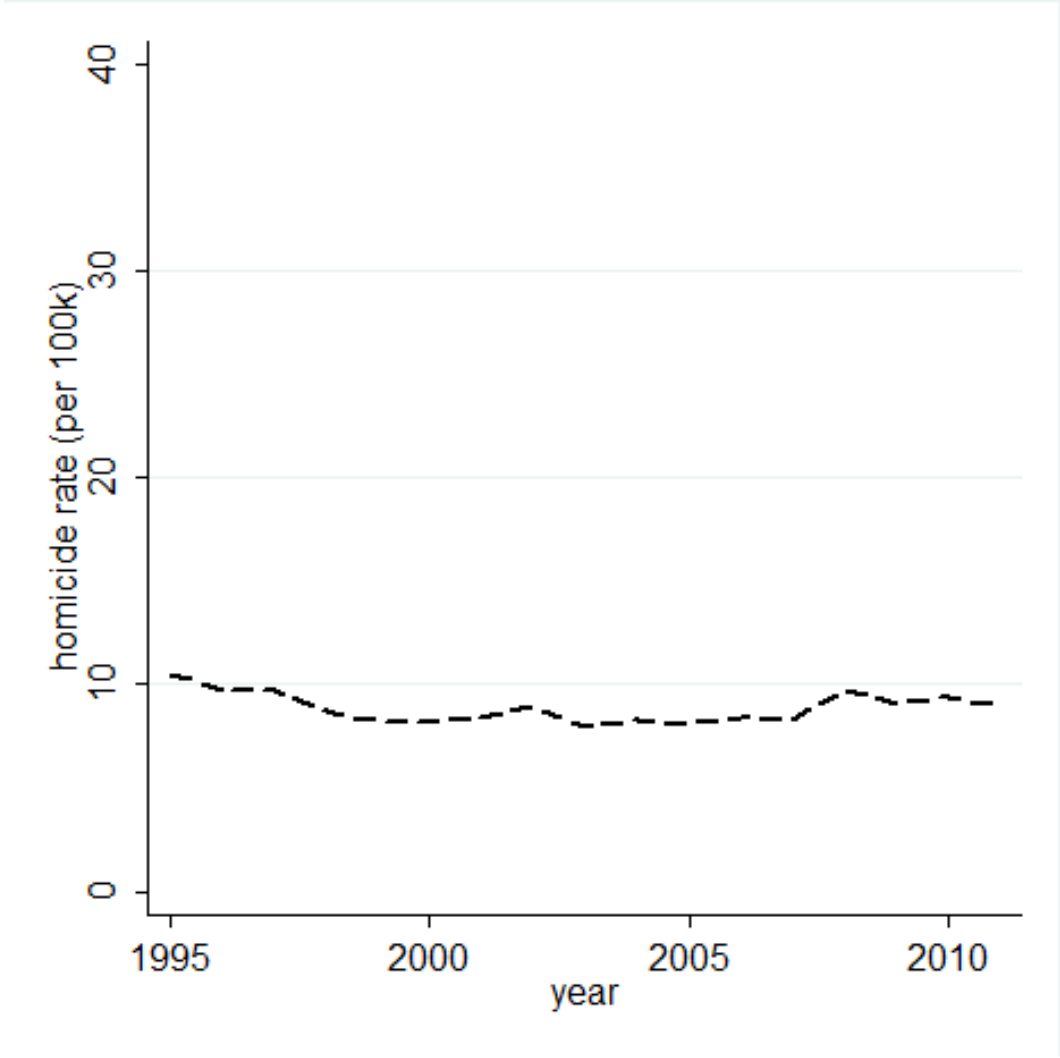
Additional Slides

# Homicide Data

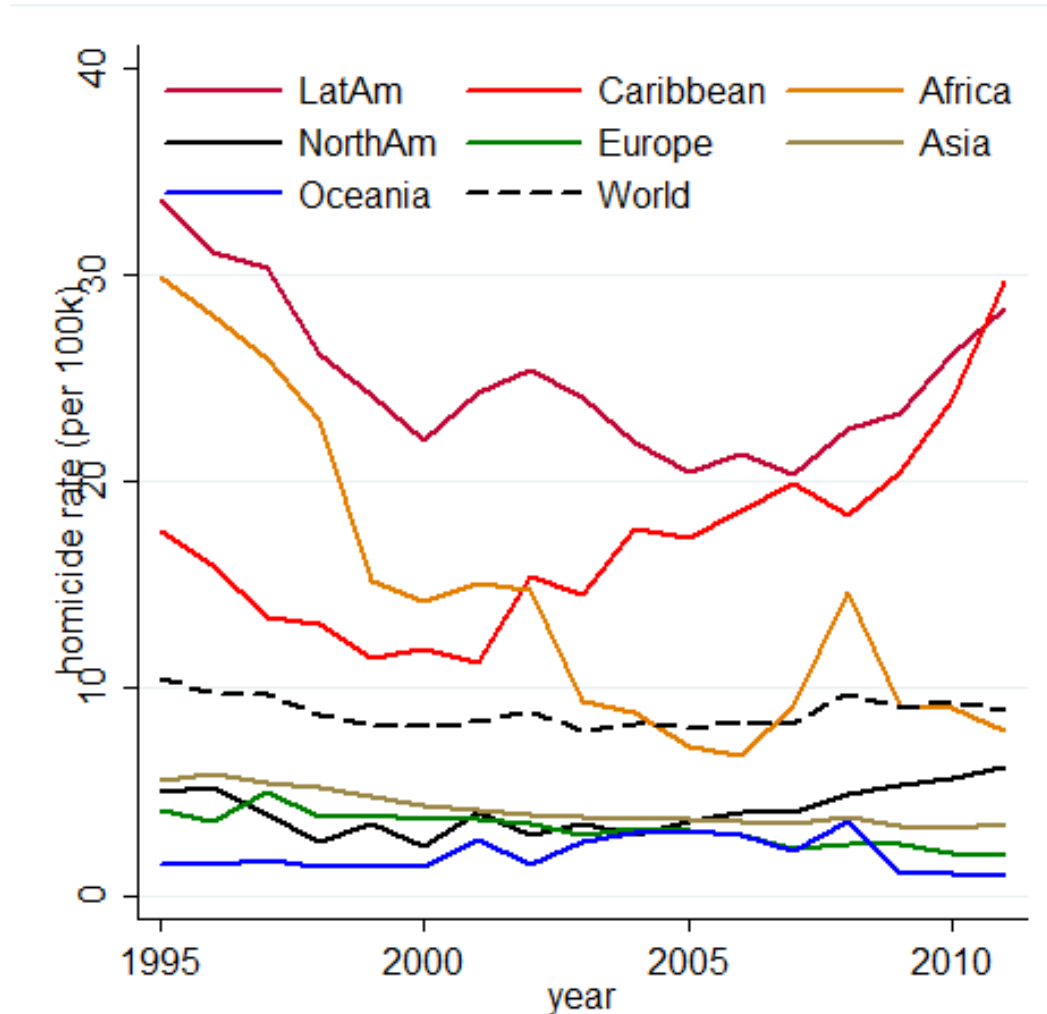
- Regional
- National
- First subnational administrative division
- Municipal in Mexico



# Global Homicide Trend, 1995-2011

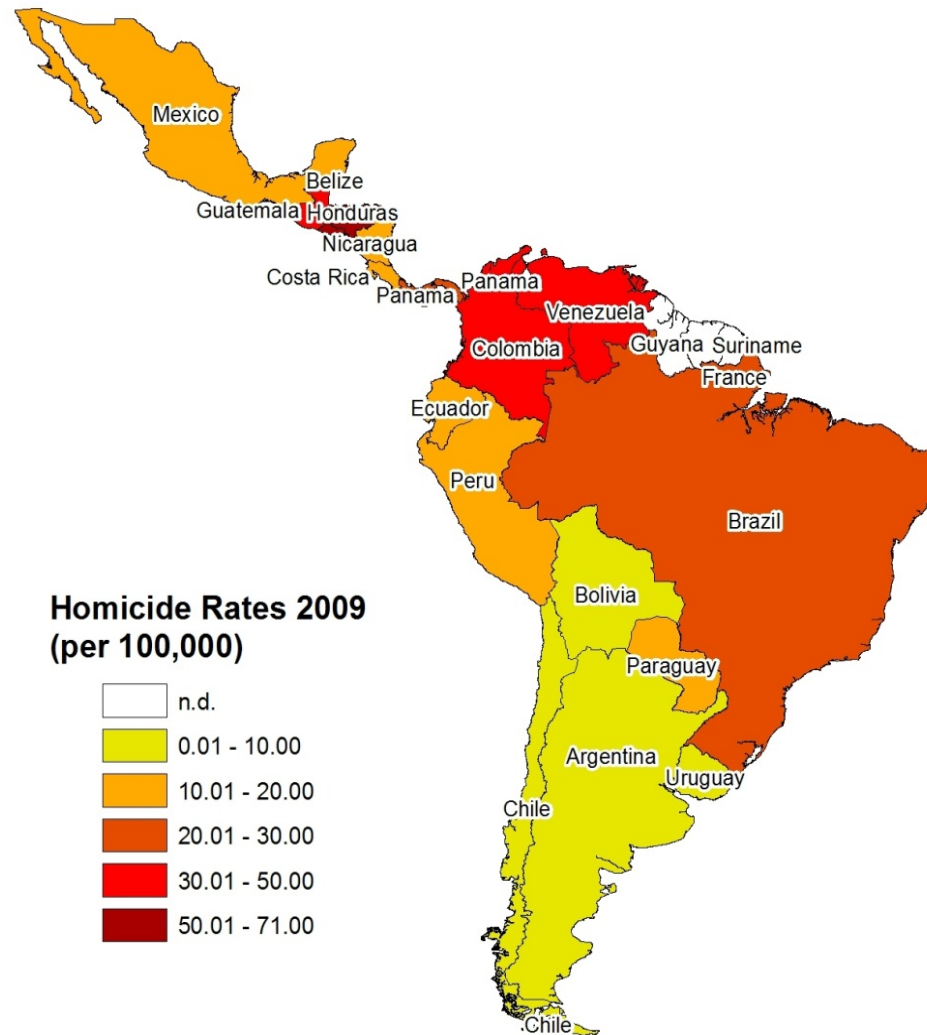


# Why Study Violence in Americas?

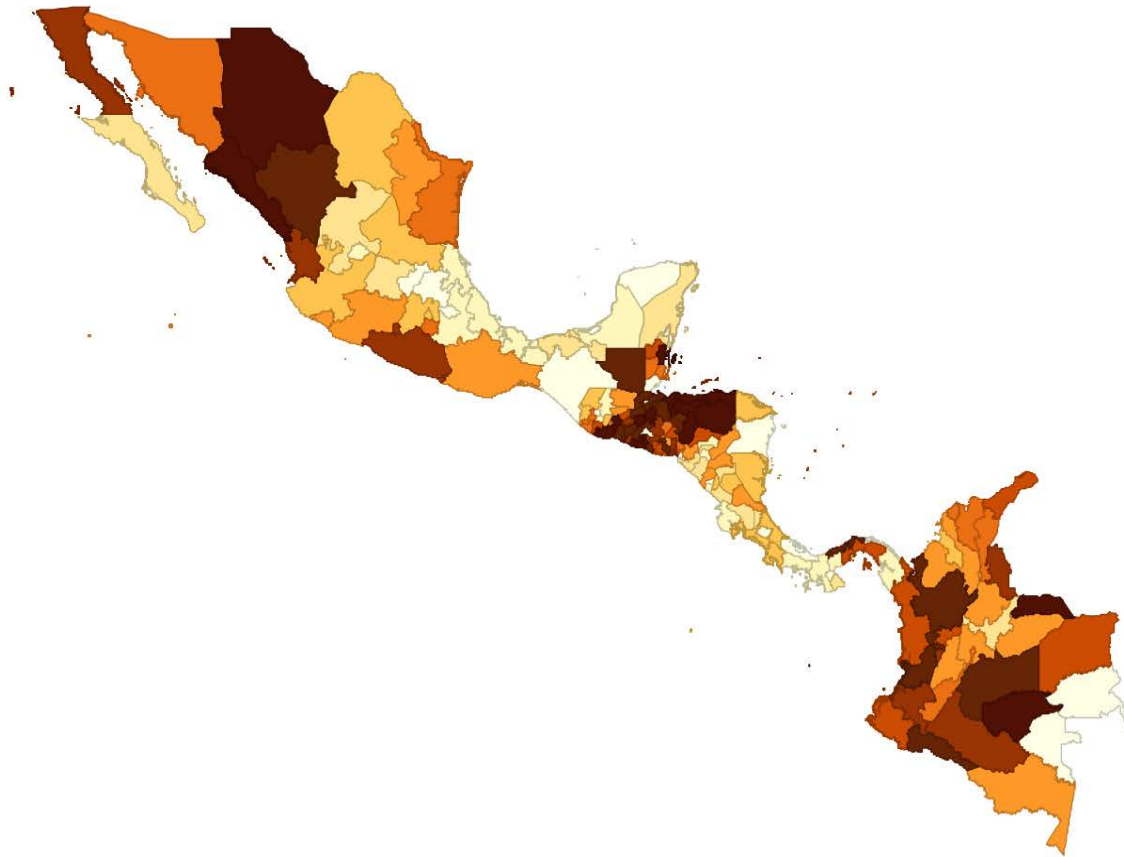


2 patterns set  
LAC apart:  
(1) Level  
(2) Trend

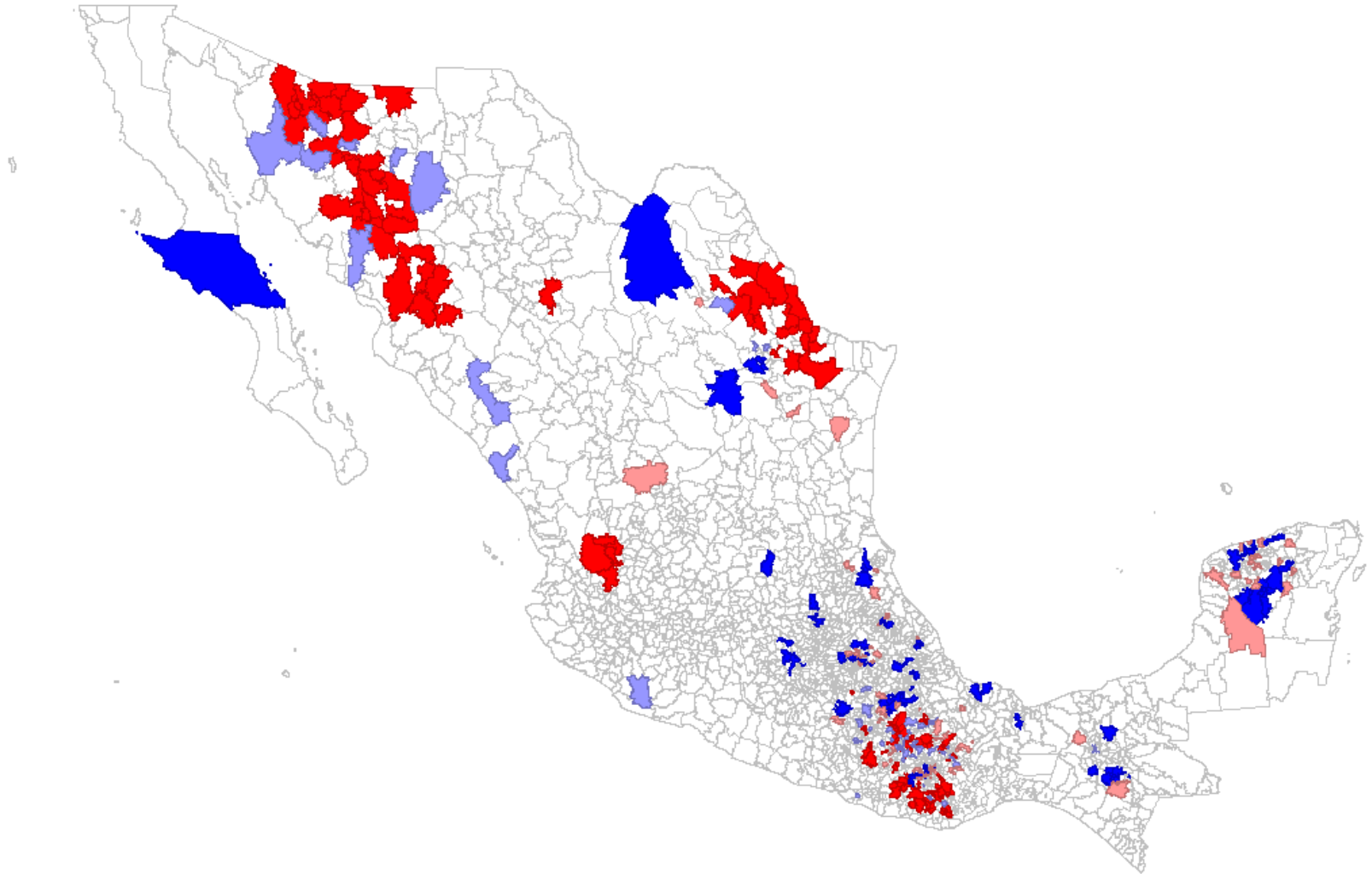
# Visualizing Variation in Violence



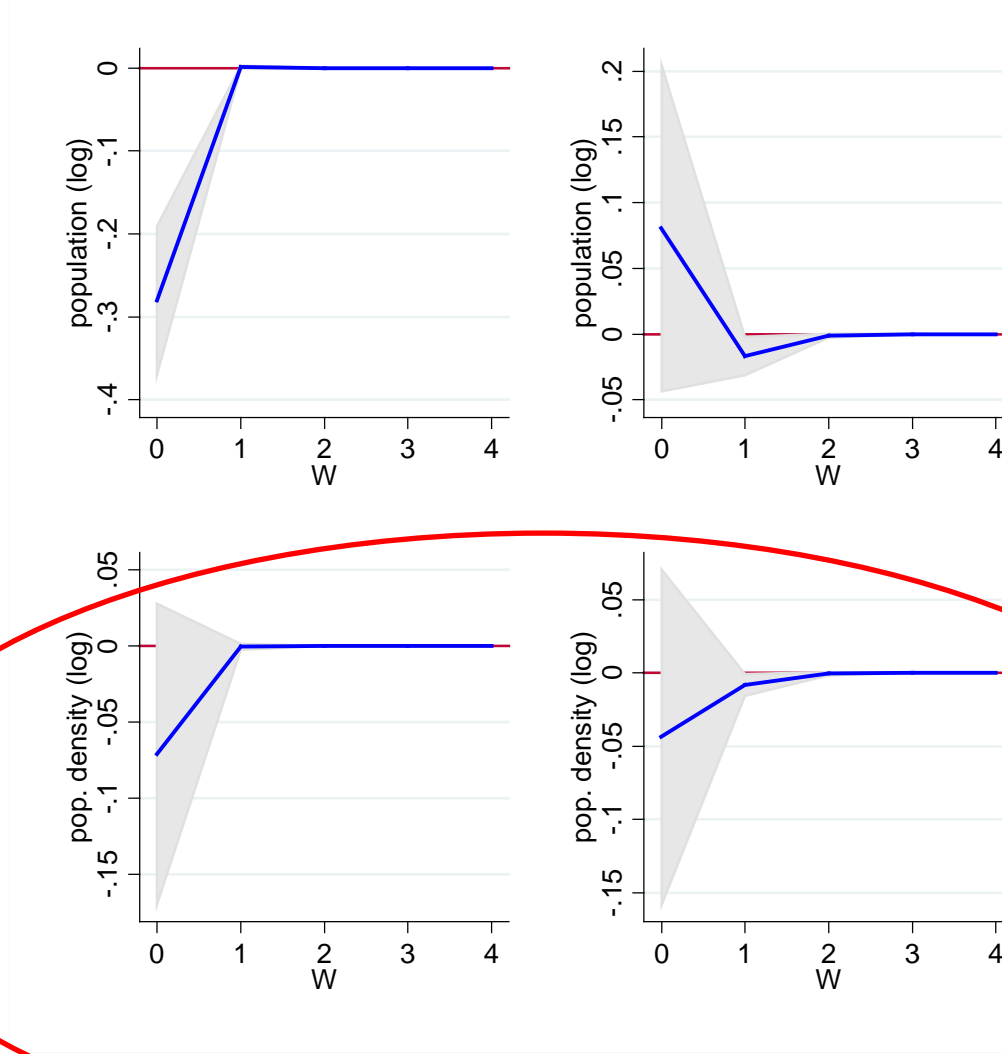
# Mexico to Colombia (2010, deciles) Subnational (first admin level)



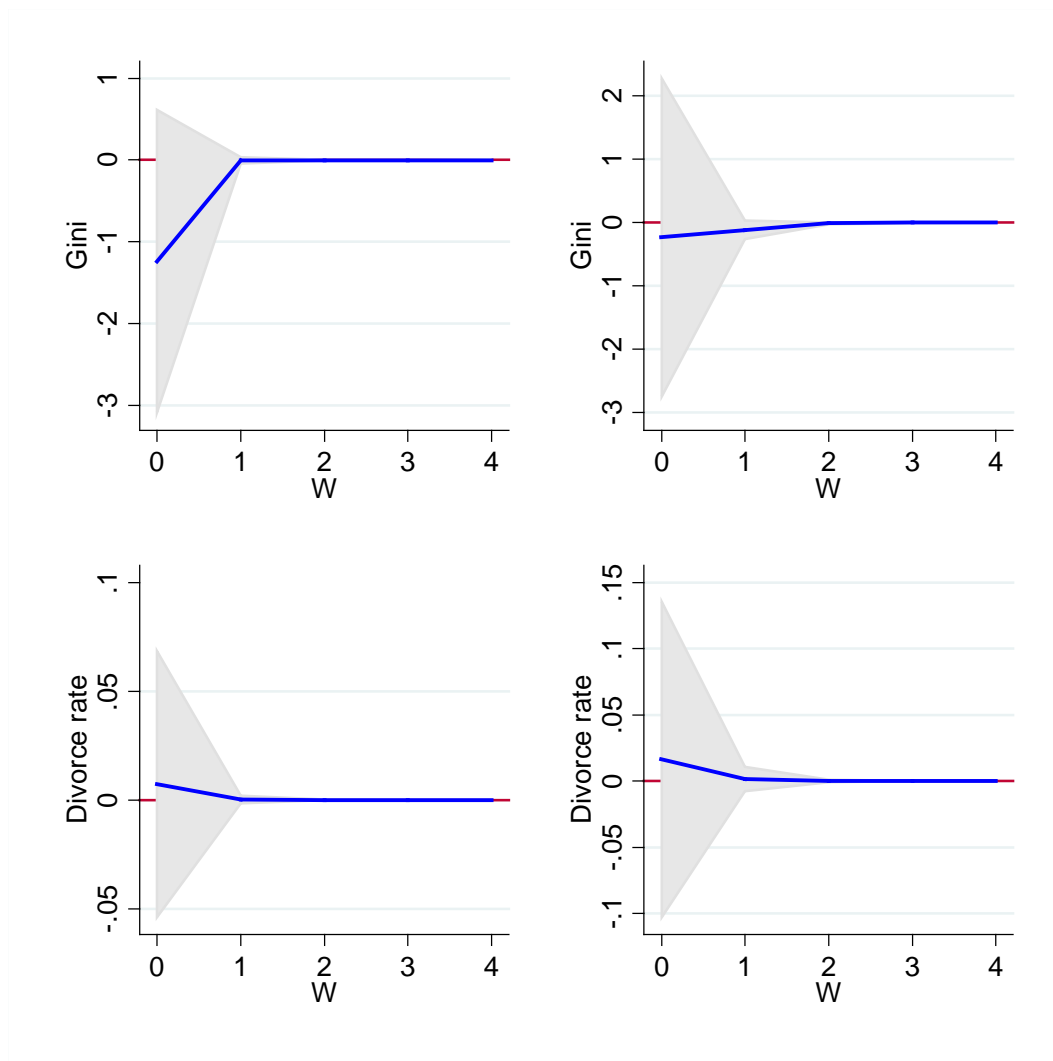
# Mexico



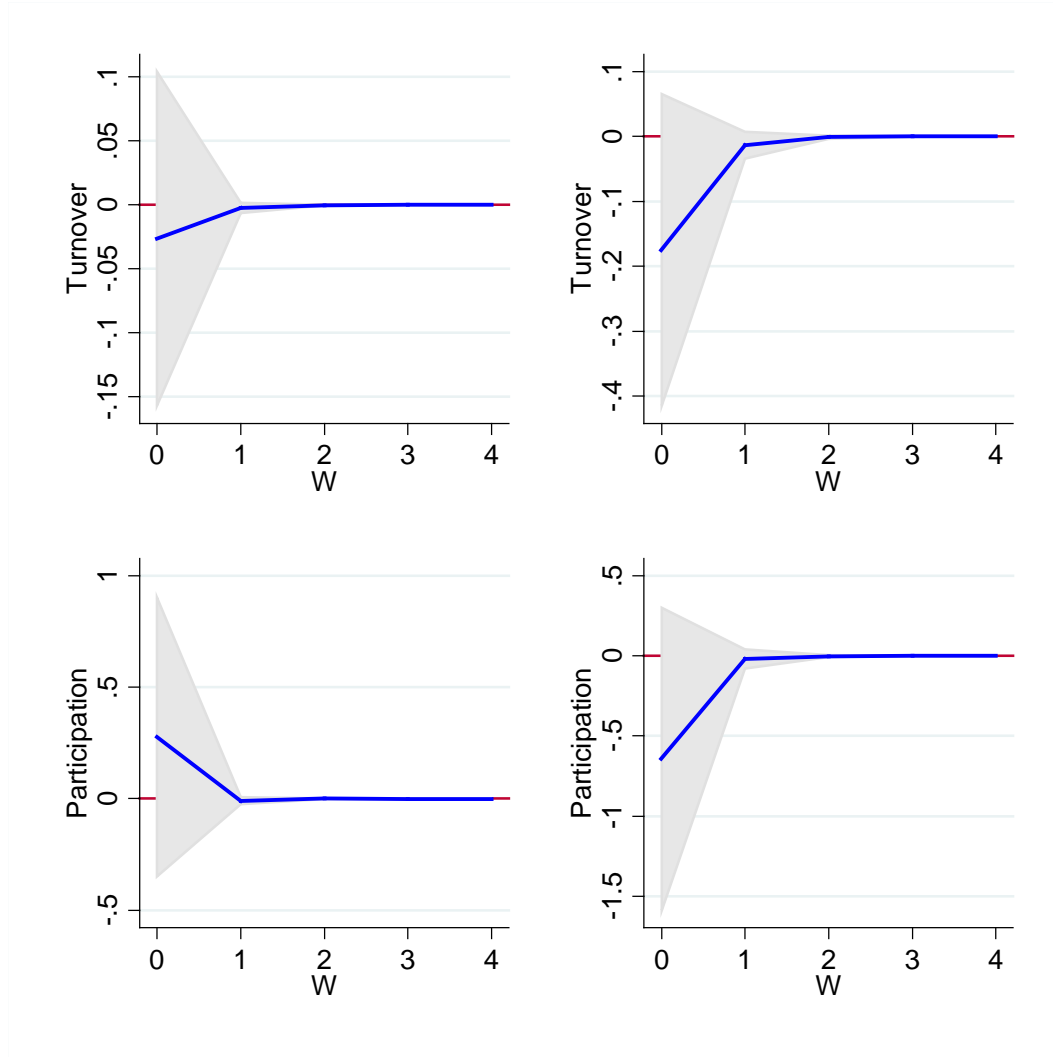
# Partitioned Effects: Pop and Pop Density



# Partitioned Effects: Inequality and Divorce



# Partitioned Effects: Turnover and Partic.





# Partitioned Effects: Uneven Terrain

