

Crim 250: Statistics for the social sciences

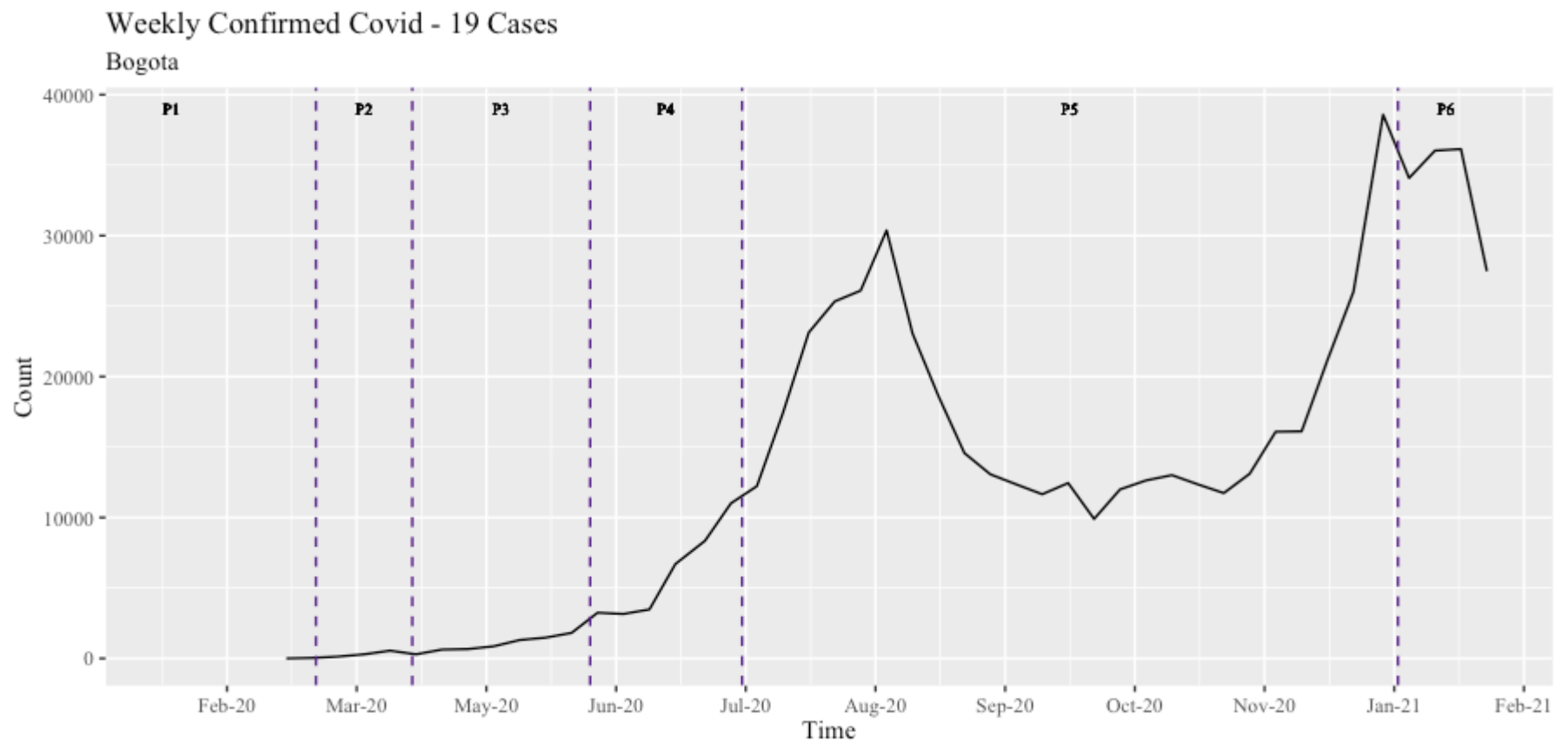
Introduction

Outline

- Syllabus
- How Covid-19 has affected crime in Bogota, Colombia

Syllabus

Covid hits Bogota, Colombia

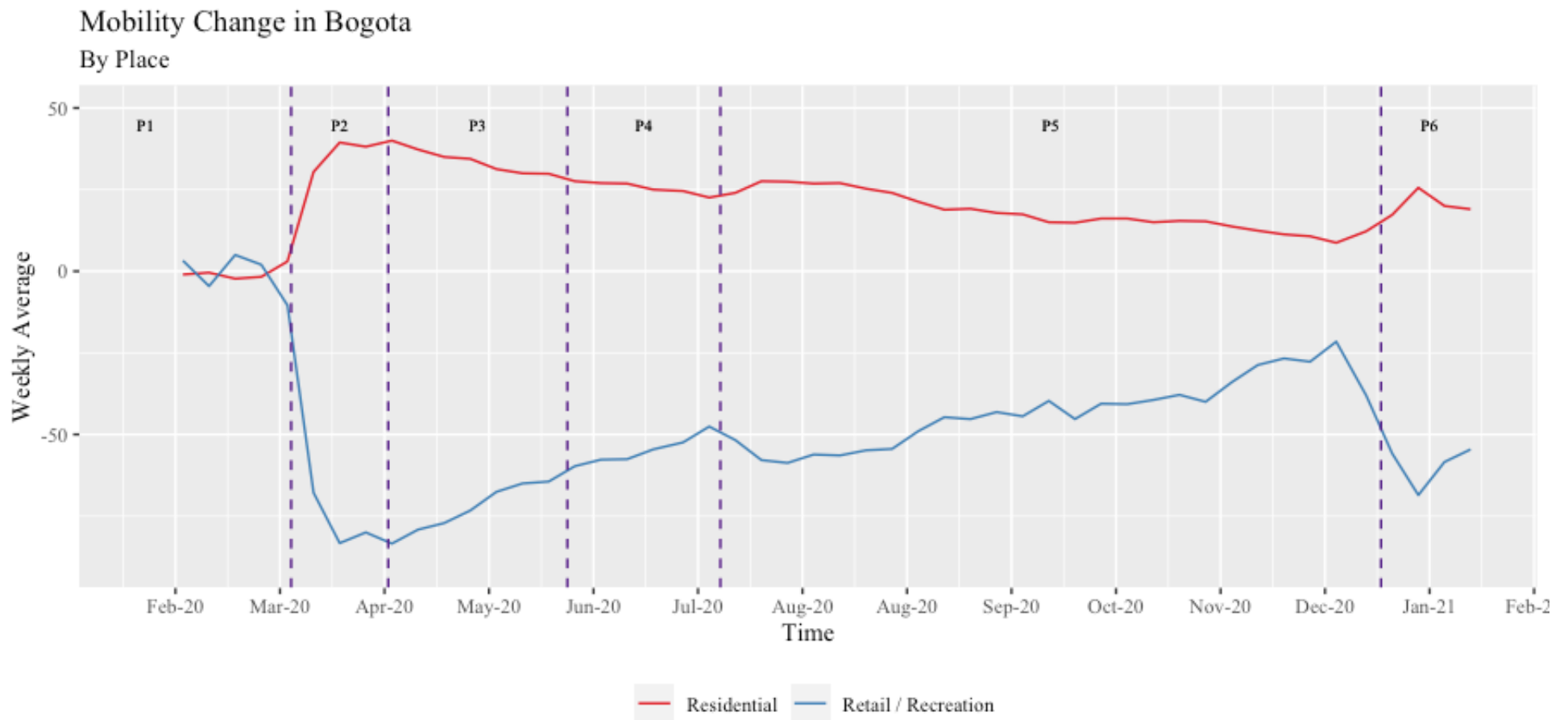


Source: Saludata - Bogota

A variety of lockdown policies

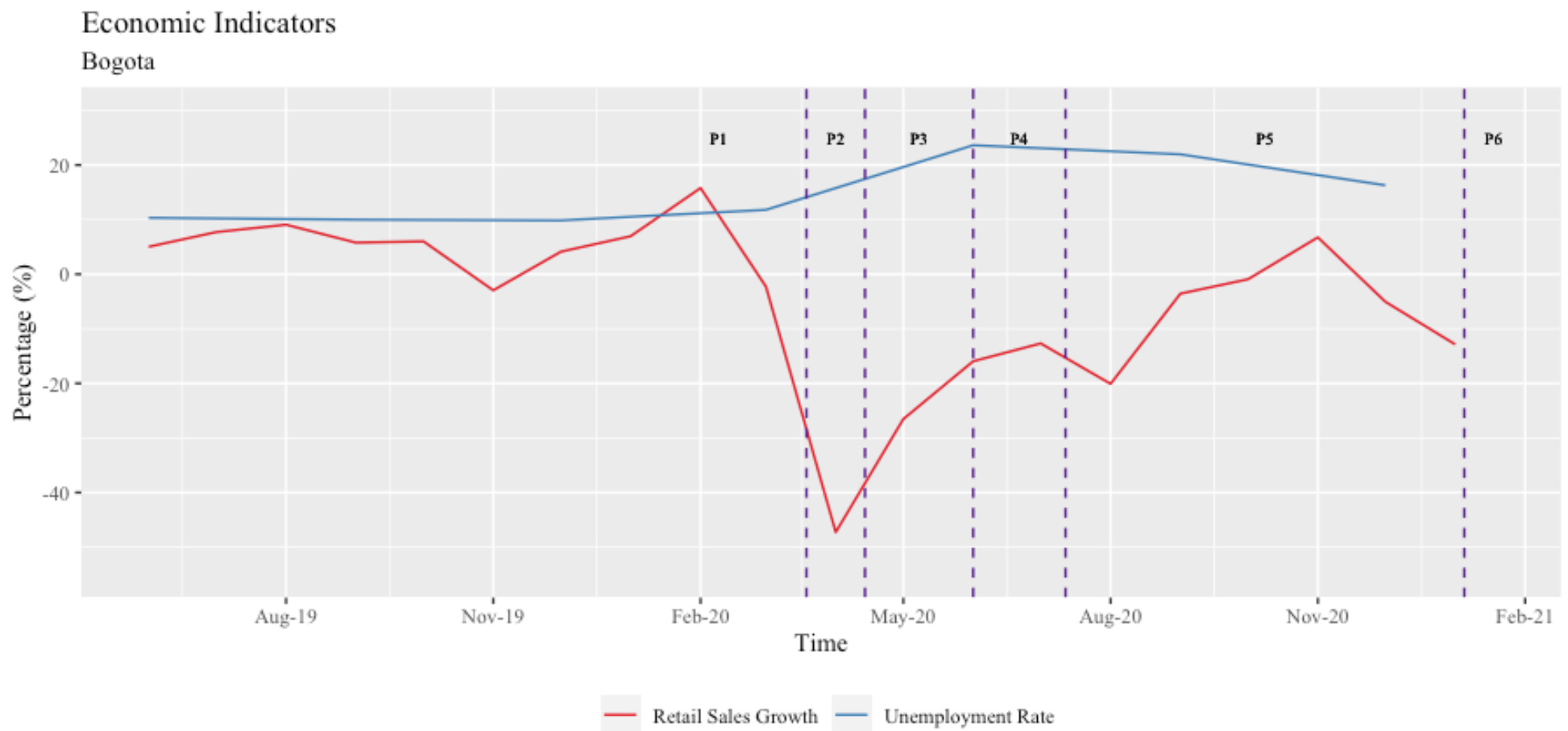
Year	Weeks	Period	Description
2020	01 - 11	P1 - Normality	Little to no change in behavior / mobility
2020	12 - 16	P2 - National Lockdown	Sudden lockdown
2020 -	23 - 25	P3 - First Sectorized Lockdown	A large portion of the city was in lockdown, restricting the mobility of over 1 million individuals. Nonetheless, mobility restrictions began to be more permissive compared to the National Lockdown.
2020	29 - 35	P4 - Iterated Sectorized Lockdown	Large sections of the city begin 14-day lockdowns
2020	35 - 52	P5 - Restrictions Lifted	Most mobility restrictions were lifted
2021	2 - 5	P6 - New Iterated Sectorized Lockdowns	After new contagion spikes, the city resumes sectorized lockdowns

People started staying home



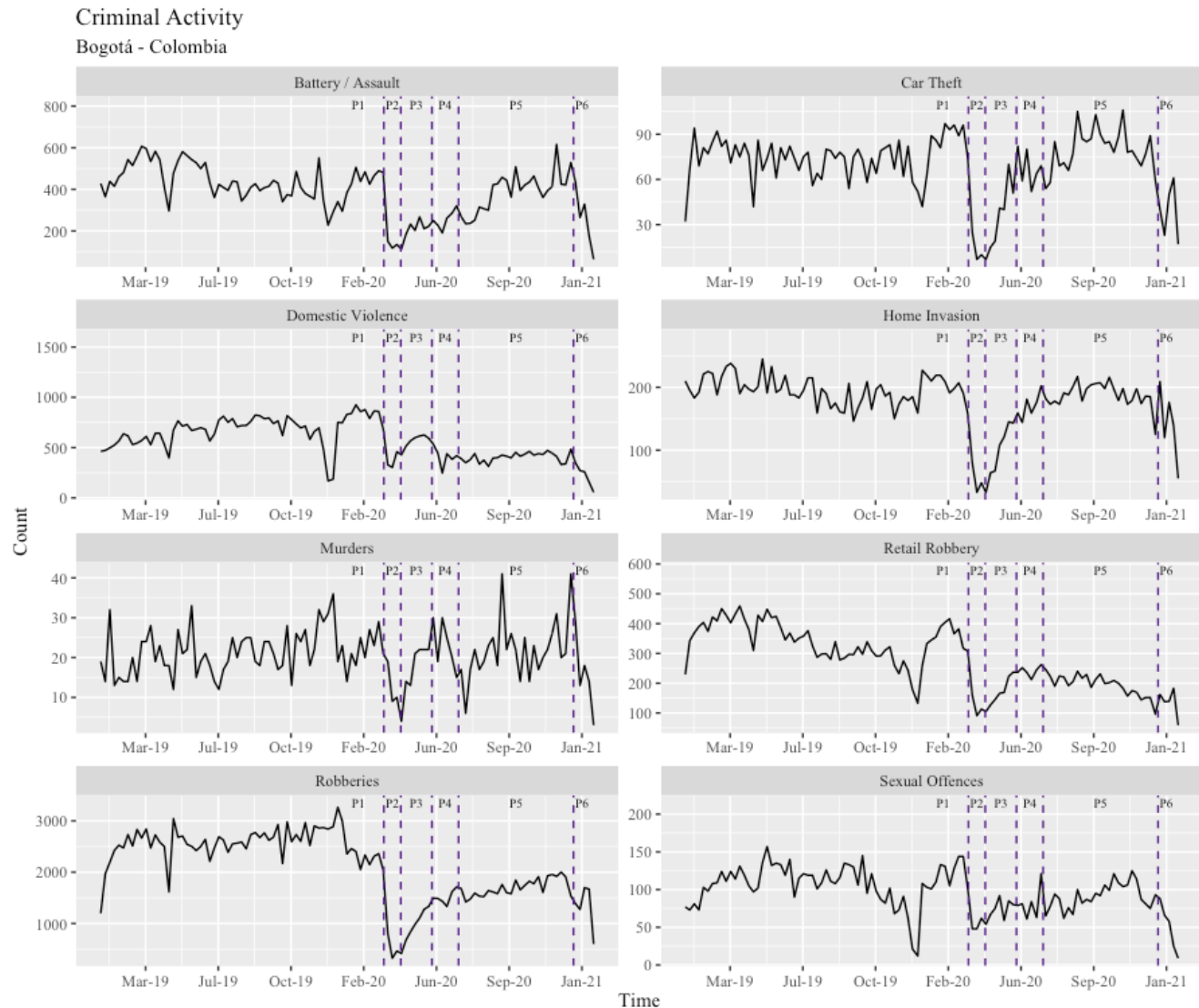
Source: Google

The economy all but collapsed



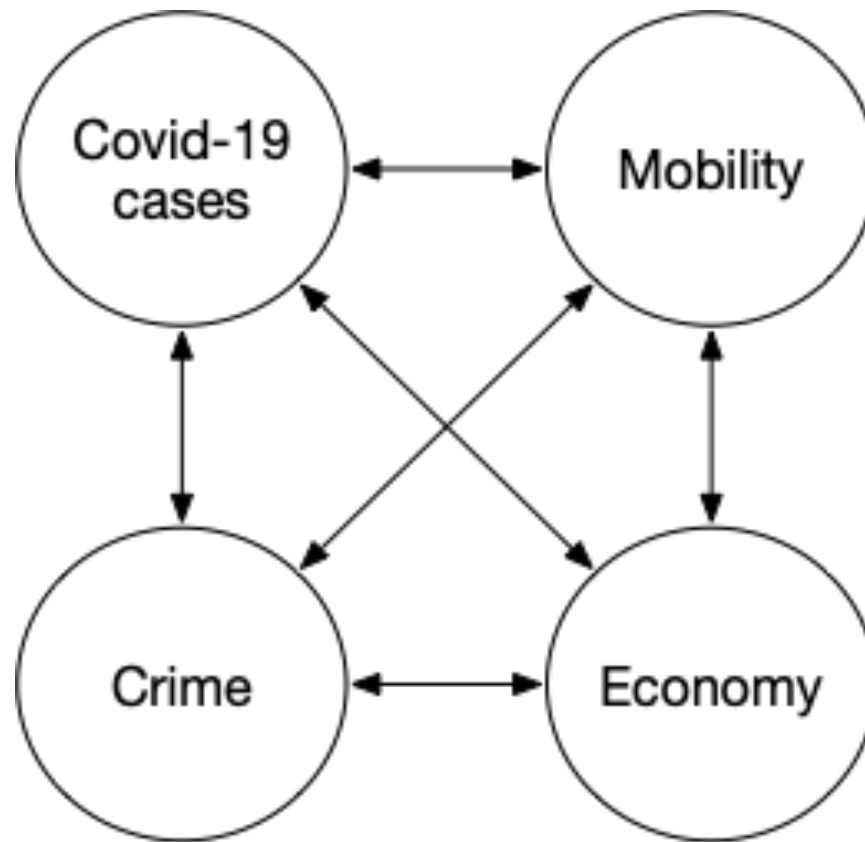
Source: Dane - Colombia

How did criminal activity change?



Source: Colombian Police / Dijn

Causal framework

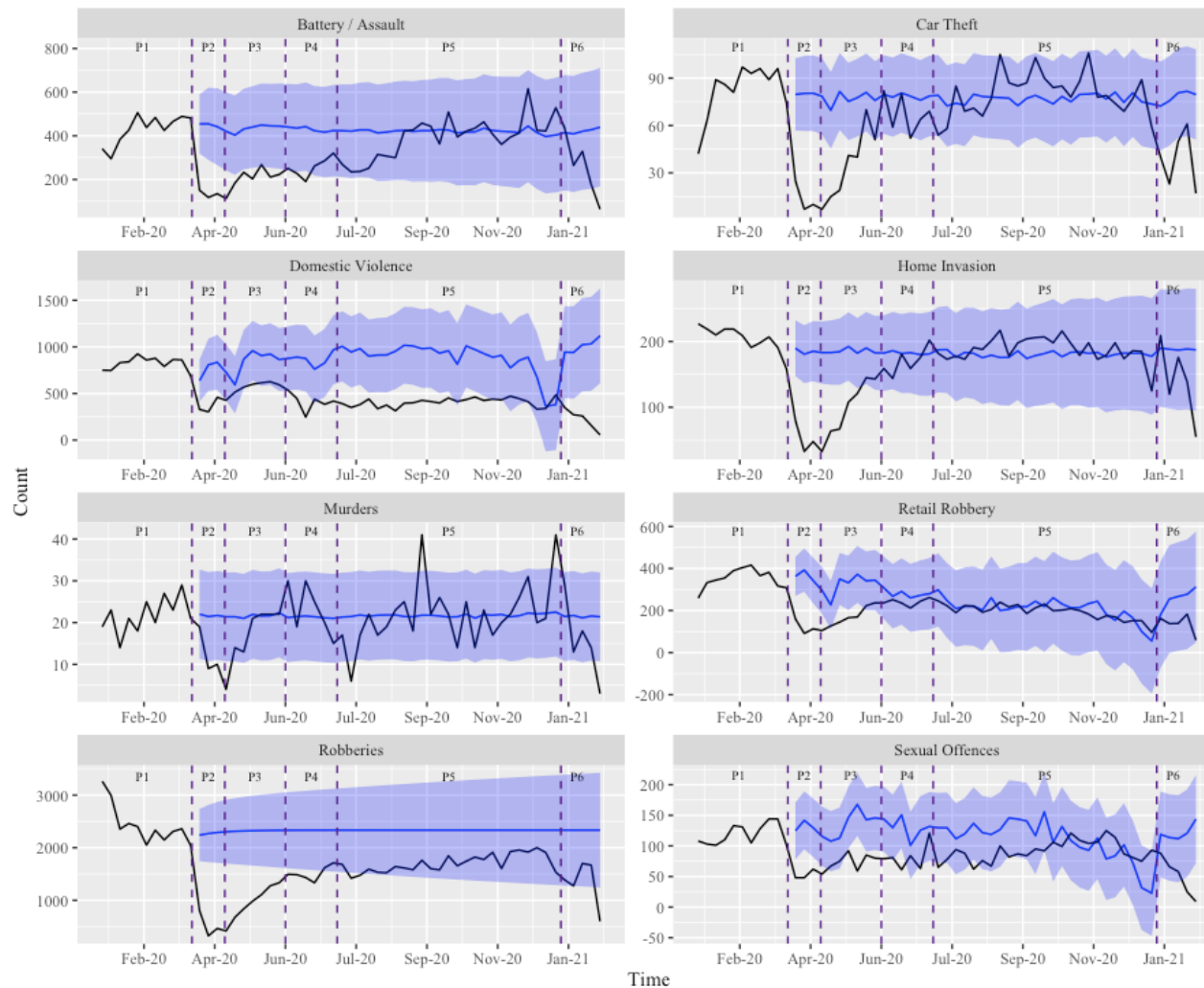


Lockdowns by week, by locality

Years	2020																	2021			
Weeks	12	13	14	15	16	...	23	24	25	...	29	30	31	32	33	34	35	2	3	4	5
Usaquén	x	x	x	x	x											x	x	x	x	x	
Chapinero	x	x	x	x	x						x	x	x			x	x				
Santa Fe	x	x	x	x	x						x	x	x			x	x				
San Cristobal	x	x	x	x	x						x	x	x						x	x	x
Usme	x	x	x	x	x						x	x	x						x	x	x
Tunjuelito	x	x	x	x	x						x	x	x						x	x	x
Bosa	x	x	x	x	x							x	x	x					x	x	x
Kennedy	x	x	x	x	x		x	x	x			x	x	x							
Fontibón	x	x	x	x	x							x	x	x							
Engativá	x	x	x	x	x								x	x	x			x	x	x	
Suba	x	x	x	x	x								x	x	x			x	x	x	
Barrios Unidos	x	x	x	x	x								x	x	x						
Teusaquillo	x	x	x	x	x											x	x				
Los Martires	x	x	x	x	x						x	x	x								
Antonio Nariño	x	x	x	x	x											x	x				
Puente Aranda	x	x	x	x	x							x	x	x		x	x		x	x	x
La Candelaria	x	x	x	x	x											x	x				
Rafael Uribe Uribe	x	x	x	x	x						x	x	x						x	x	x
Ciudad Bolivar	x	x	x	x	x						x	x	x						x	x	x

Interrupted time series predictions

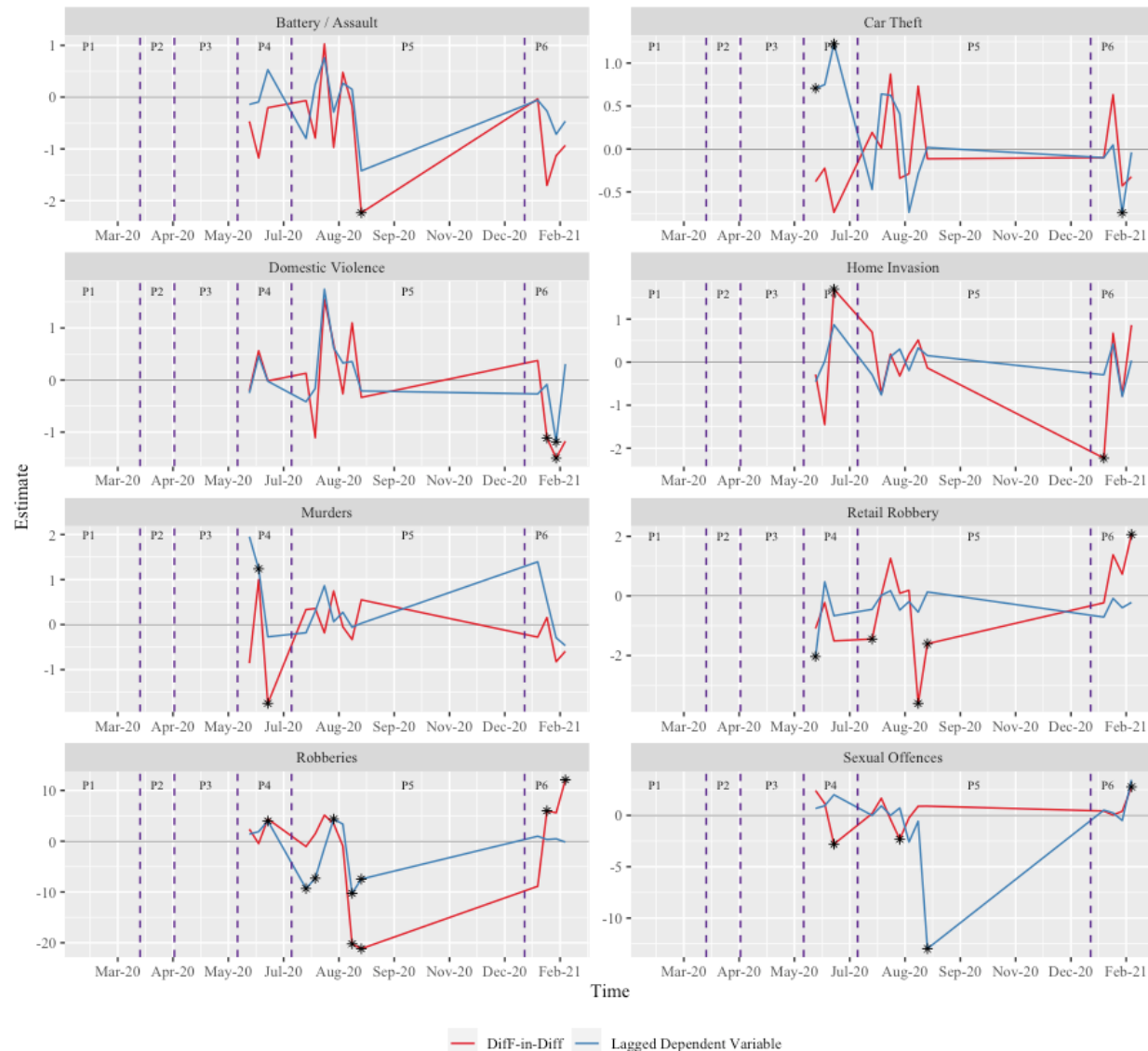
Forecasted Crime Occurrences vs Observed
Comparison



Was there a difference in crime between the areas under lockdown and the areas not under lockdown that week?

Effect of Localized Quarantines

Comparison



Why did crime rates change during lockdown? A criminology theory

