

Outercity Policing: Racial and Renter Threats in Suburban California

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POLISCI239T

Final Project Presentation

Motivation

- Case studies suggest a rise in punitive (police-centered) policies directed specifically at Black and Latino renters in California suburbs on the receiving end of gentrification
 - Lancaster's mayor declared time to "go to war" with Section 8 (Kurwa 2015)
 - Antioch set up special police task force "dedicated to patrolling voucher households and Section 8 properties, particularly among the African American population" (Kneebone and Berube 2014:53)
 - 2019 HUD fair housing lawsuit alleges the city of Hesperia, with support from the sheriff's department, sought to expel Black and Latino renters through the city's Crime-Free Rental Housing Program

Research Question & Hypothesis

- How does police spending vary across California? Do changes in police spending track alongside demographic changes in coastal versus inland suburban jurisdictions?
- I will empirically test the evidence of racial, economic, and renter threats across cities in California.
- Primary hypothesis: the interaction between racial threat and renter threat as well as a measure of renter segregation will significantly influence police spending, measures that have been left out of previous studies.

Main Data Sources



City-level police spending from the California State Controller's Office



Racial composition, housing tenure, and renter segregation data from the US Census and American Community Survey



Housing price and foreclosures data from Zillow



Voter data from the California Secretary of State



Violent and property crime data from the FBI's Uniform Crime Reporting data

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Reading in policing data from Excel Workbooks

Screenshot of Microsoft Excel showing two workbooks being compared.

The main window displays the "CIX_EachDataSet_20181127" workbook, which contains a single sheet titled "Entity Name". This sheet lists various entities with columns for Entity Name, Entity ID, Entity Type, County, Nan City, State, Zip, Estimated Population, Class Data, Fiscal Year, Paper Repo, Electronic Report, and Due Date.

A modal dialog box titled "Activate" is overlaid on the main window, showing the "ENTITIES" sheet from another workbook. This sheet is titled "Police Total Expenditures - California Cities: Including operating, capital outlay and debt service." It includes a header row with years from 1991-92 to 2004-05, followed by a "TOTAL" row and a "COUNT" row. The data rows show expenditure values for each city across the specified years.

The status bar at the bottom of the Excel window shows the following tabs: CIX_INTER_SERV_FUND, CIX_AIRPORT_ENTERP_FUND, CIX_ELECTRIC_ENTERP_FUND, CIX_GAS_ENTERP_FUND, CIX_HARBOR_PORT_ENTERP_FUND, CIX_HOSPITAL_ENTERP_FUND, CIX_SEWER_ENTERP_FUND, CIX_SOLID_WASTE_ENTERP_FUND, and CIX_TRANSIT_ENTERP_FUND.

Cleaning and constructing my variables of interest in a data frame

	city_name	year	entity_id.x	total_expend	total_rev	police_total
1	Adelanto	2016	1128	23692799	14565863	5300217
2	Agoura Hills	2016	1129	31218079	28100766	4106157
3	Alameda	2016	1130	200513189	215187532	28981569
4	Albany	2016	1131	31910800	35120955	5948514
5	Alhambra	2016	1132	108343335	115993675	25941842
6	Aliso Viejo	2016	8635	19092520	20608025	7154514
7	Alturas	2016	1133	4850095	5761271	984617
8	Amador	2016	1134	494142	349467	74881
9	American Canyon	2016	1135	38108875	39553539	6430452
10	Anaheim	2016	1136	1184264881	1177907888	136777628
11	Anderson	2016	1137	11697540	13138675	4013420
12	Angels	2016	1138	8326220	7653993	1648250

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Getting data from the Census API

- The "tidycensus" package makes this process fairly straightforward, but I wanted to pull data for multiple variables across several years
- Started off with the basic command to the API:

```
pov100_18 <- get_acs(geography = "place", variables = "B06012_002",  
summary_var = "B06012_001", state = "CA", survey = "acs5")
```

- But this required me to duplicate this command for every year from 2009 to 2018 then use rbind to combine the data into a single data frame just for this one variable...

Getting data from the Census API

- But I found a much faster way of doing this:

```
260 # acs race data
261 years <- lst(2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018)
262
263 race_acs <- c(
264   total_pop = "B03002_001",
265   nhw = "B03002_003",
266   nhb = "B03002_004",
267   nhaian = "B03002_005",
268   nha = "B03002_006",
269   nhnh = "B03002_007",
270   nhsor = "B03002_008",
271   nhmixed = "B03002_009",
272   his = "B03002_012",
273   hiswhite = "B03002_013",
274   hisblack = "B03002_014"
275 )
276
277 pop_by_race_year_place <- map_dfr(
278   years,
279   ~ get_acs(
280     geography = "place",
281     variables = race_acs,
282     state = "CA",
283     year = .x,
284     survey = "acs5"
285   ),
286   .id = "year"
287 )
288
```

Getting data from the Census API

	year	GEOID	NAME	variable	estimate	moe
1	2009	0600212	Acton CDP, California	total_pop	1804	297
2	2009	0600212	Acton CDP, California	nhw	1439	315
3	2009	0600212	Acton CDP, California	nhb	0	132
4	2009	0600212	Acton CDP, California	nhaian	0	132
5	2009	0600212	Acton CDP, California	nha	83	143
6	2009	0600212	Acton CDP, California	nhnh	0	132
7	2009	0600212	Acton CDP, California	nhsor	0	132
8	2009	0600212	Acton CDP, California	nhmixed	12	19
9	2009	0600212	Acton CDP, California	his	270	142
10	2009	0600212	Acton CDP, California	hiswhite	140	112
11	2009	0600212	Acton CDP, California	hisblack	0	132
12	2009	0600296	Adelanto city, California	total_pop	26981	43
13	2009	0600296	Adelanto city, California	nhw	5149	758
14	2009	0600296	Adelanto city, California	nhb	4713	1018
15	2009	0600296	Adelanto city, California	nhaian	129	120
16	2009	0600296	Adelanto city, California	nha	724	425
17	2009	0600296	Adelanto city, California	nhnh	22	25
18	2009	0600296	Adelanto city, California	nhsor	137	132
19	2009	0600296	Adelanto city, California	nhmixed	476	288
20	2009	0600296	Adelanto city, California	his	15631	1125

Analyzing data from the Census API

- I wanted to compute a “renter segregation” measure
- Most common measure: index of dissimilarity
- Steps:
 1. Get renter and owner household-level data for census tracts AND for places/cities for 2000 to 2018
 2. Use crosswalk provided by the U.S. Census linking census tracts to cities to merge tract and place-level datasets
 3. Calculate index of dissimilarity (unit: tract)
 4. Save a new file of the data at the place-level (my unit of analysis)
- Main problem:
 - Tract boundaries change every decennial census, so I need to find the 2000 xwalk to complete analysis for 2000 census and 2009 ACS
 - For smaller cities, tract-level data is too big, so I want to rerun with block group data.

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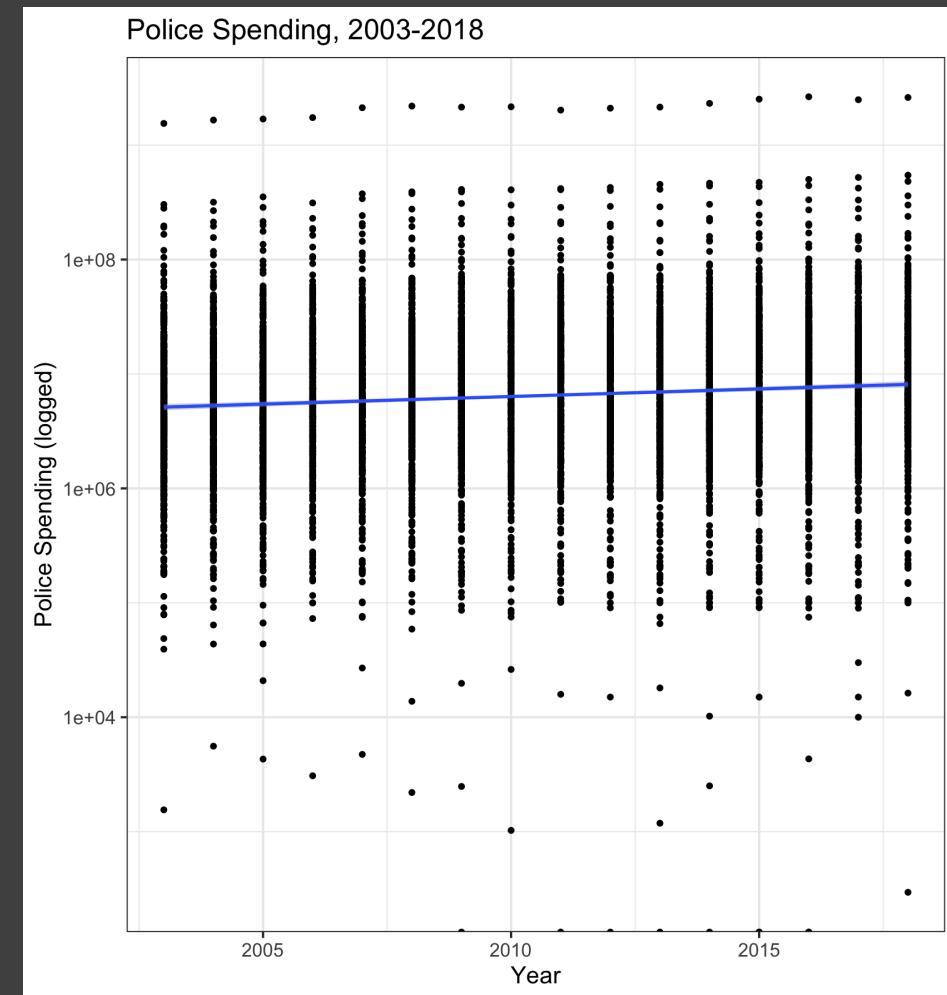
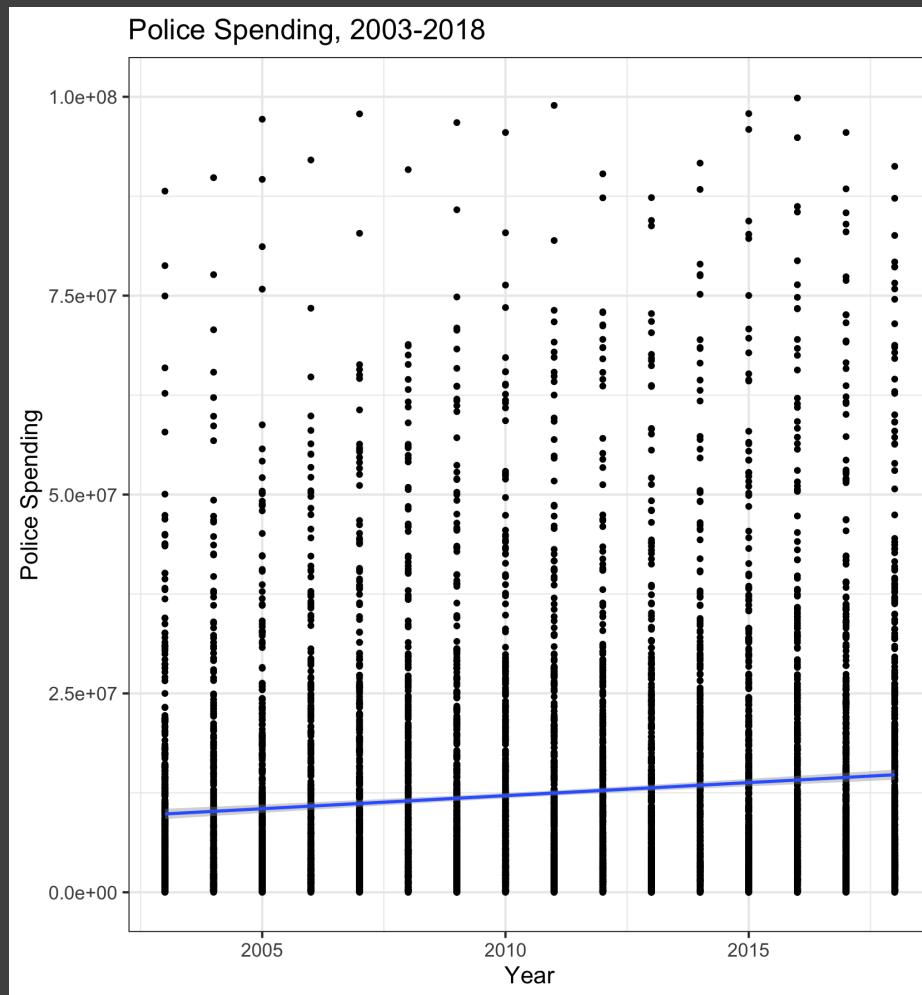


Violent and property crime data from the FBI's Uniform Crime Reporting data

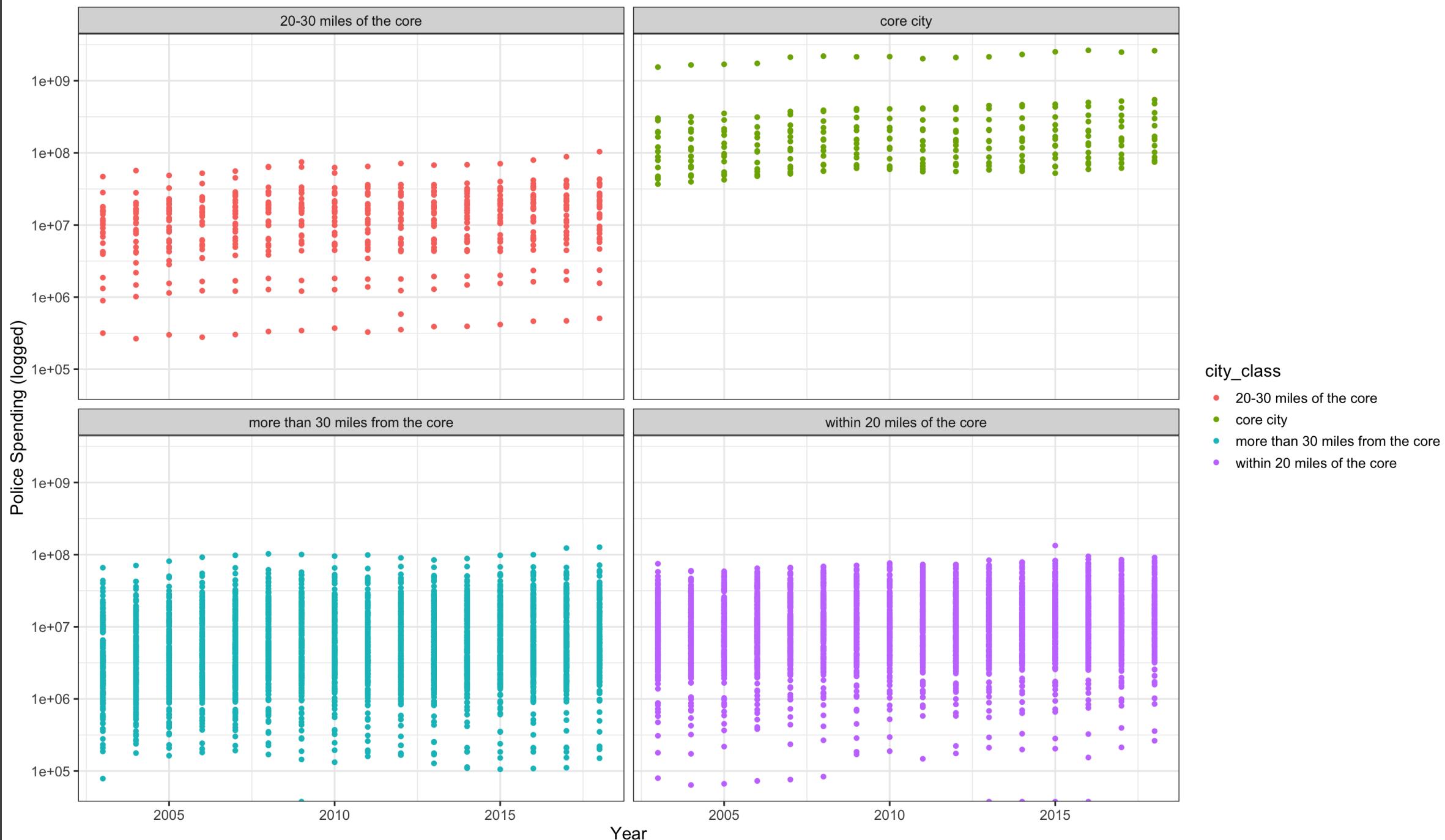
Analyzing and Visualizing Main Variables

- Dependent variable: city-level spending on police
- Independent variables of interest:
 - Interaction of racial threat (% Black) and renter threat (% renter)
 - Share of renters who are Black (and quadratic term)
 - Renter segregation
- Interested in variation across the metropolis: are core cities and inner-ring suburbs responding differently than exurbs (e.g. places more than 20 or 30 miles from the core)?

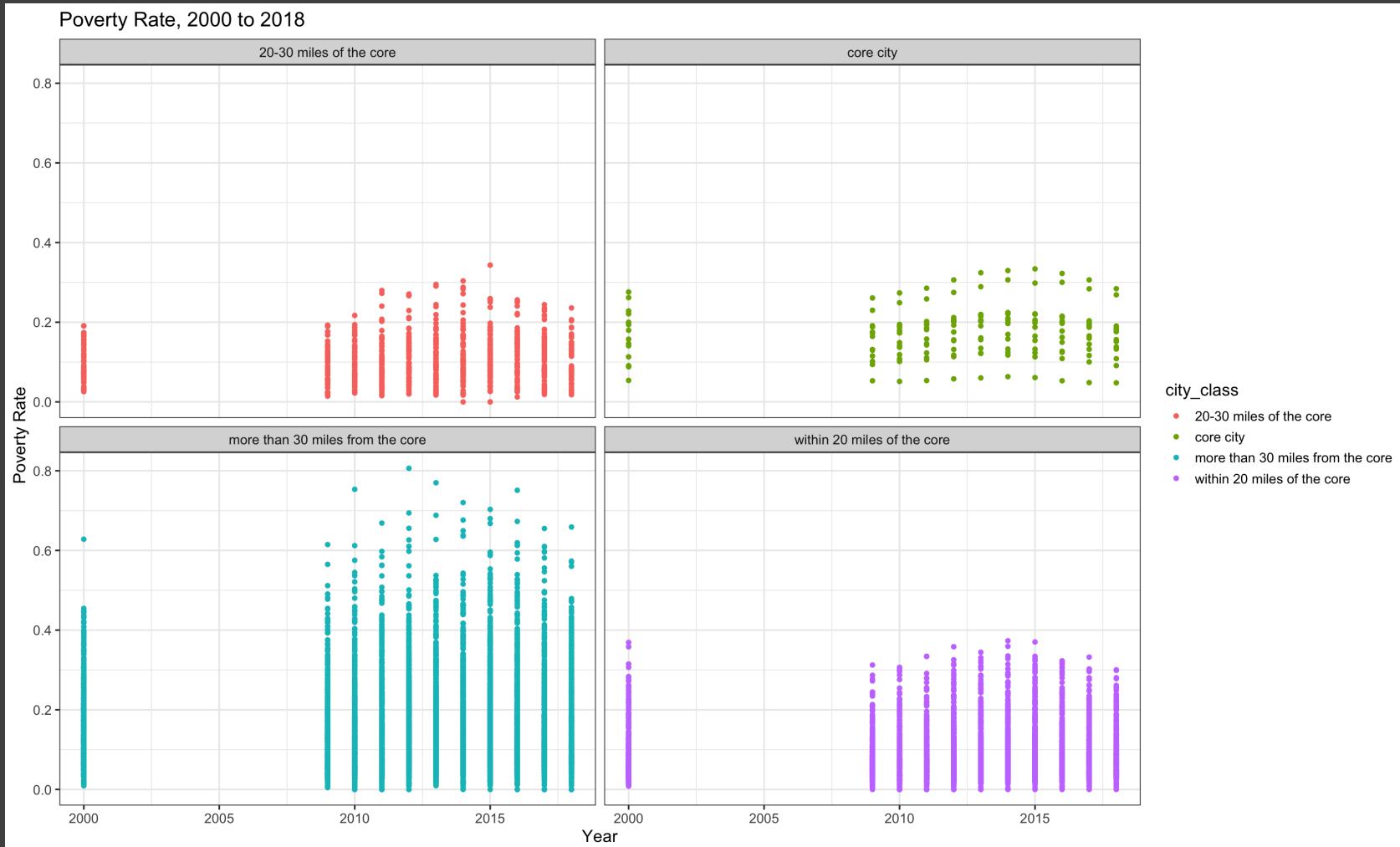
Dependent variable



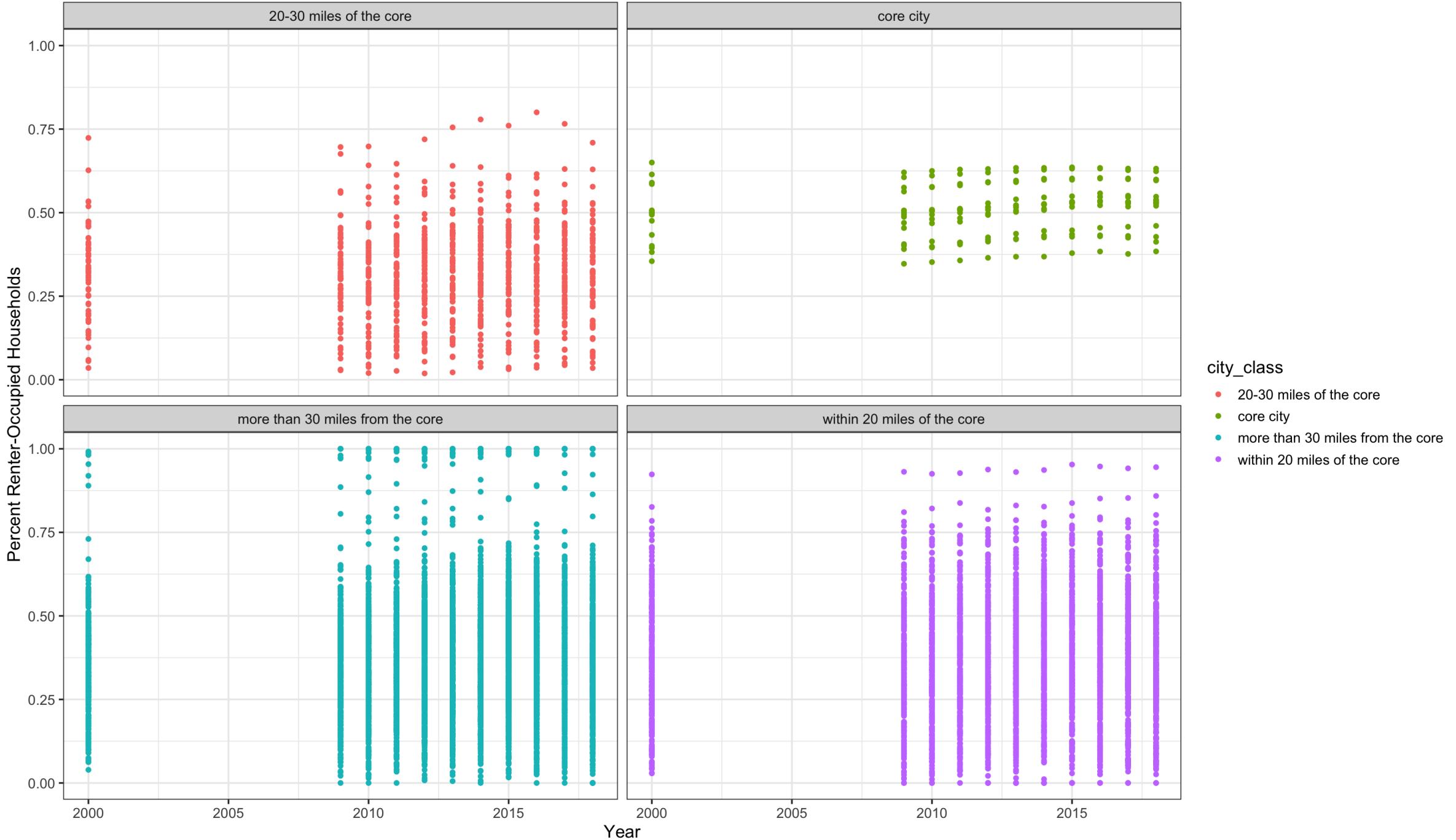
Police Spending in California Cities, 2003-2018



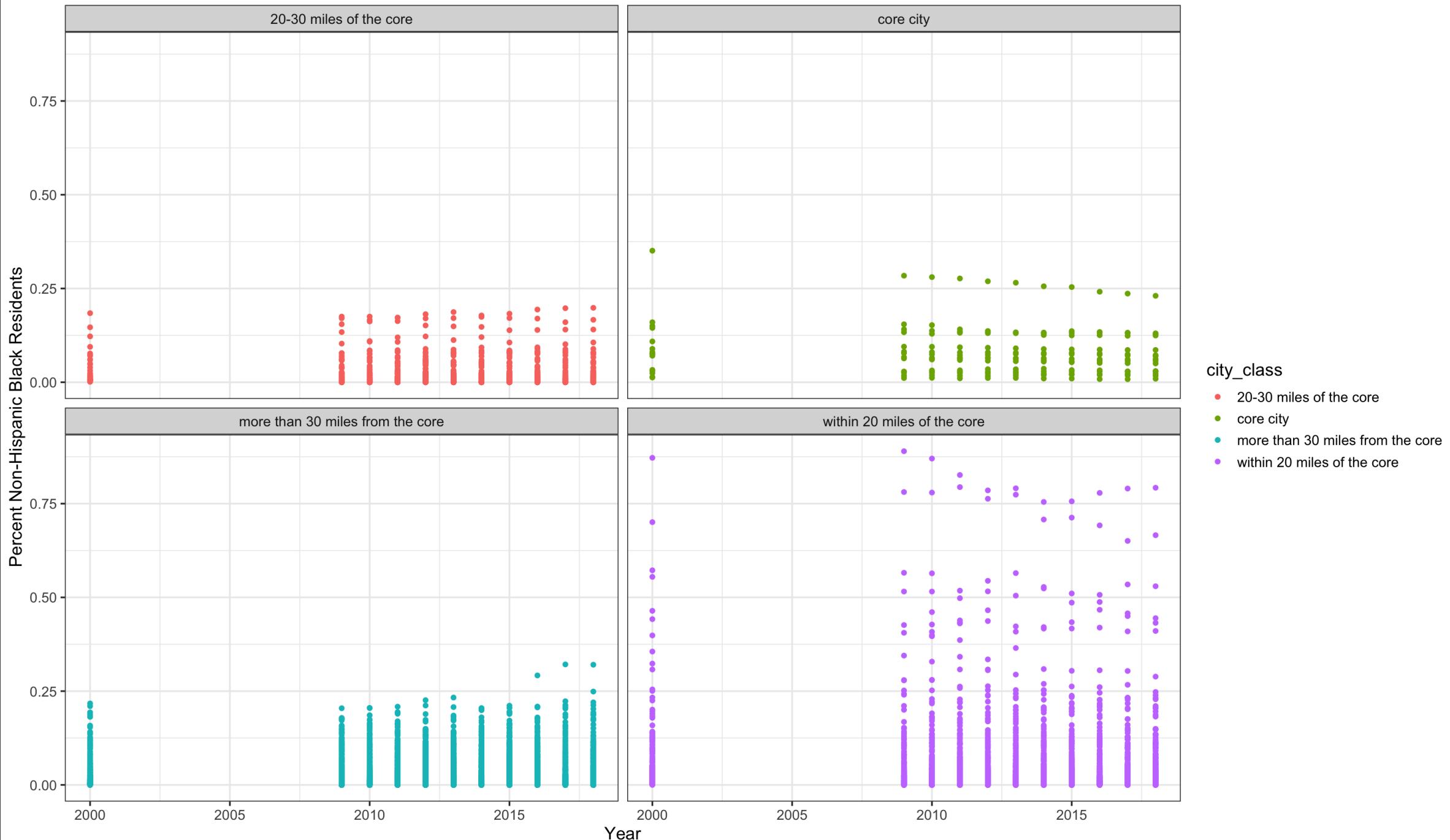
Independent variables of interest



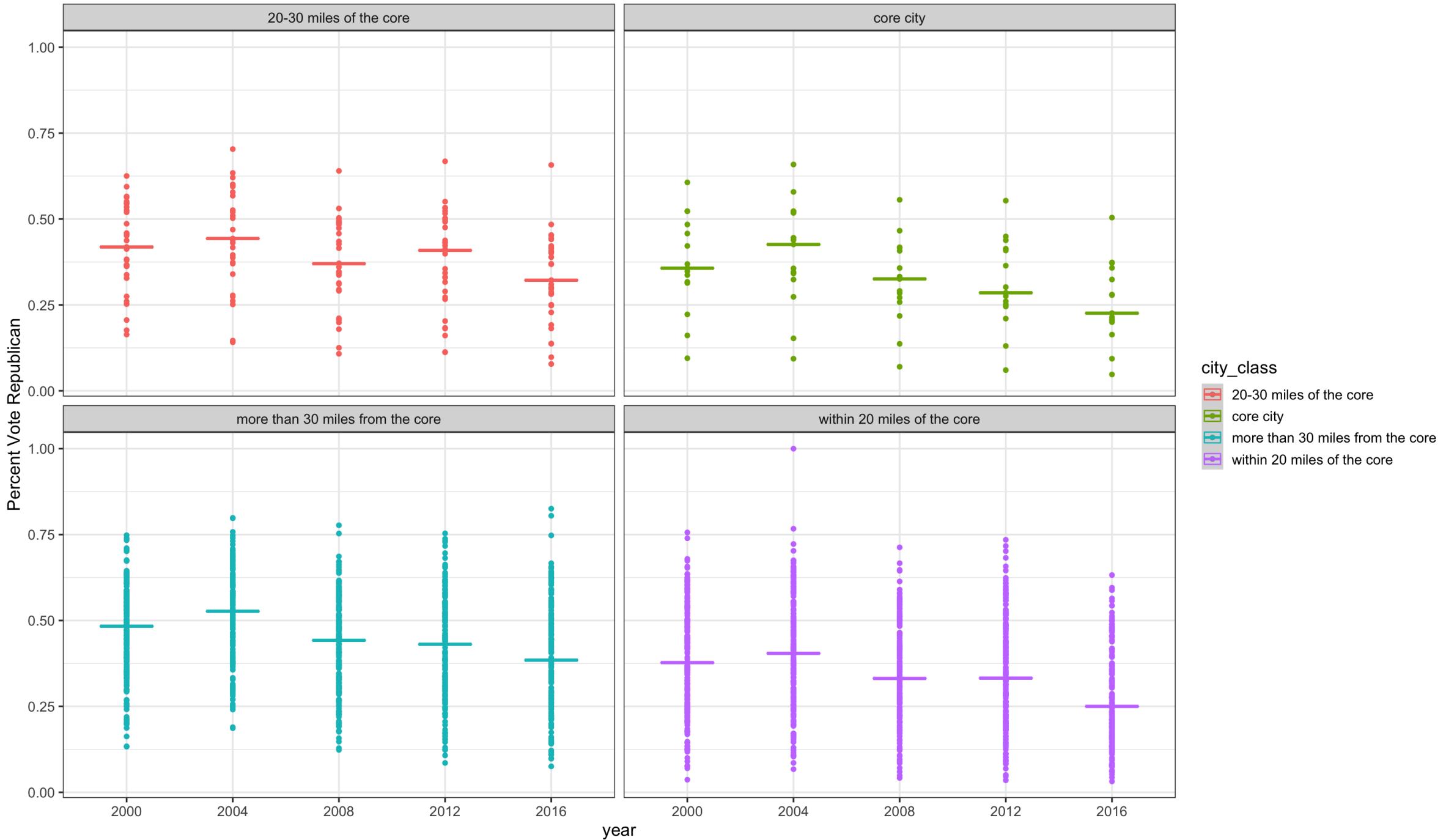
Share of Renters, 2000 to 2018



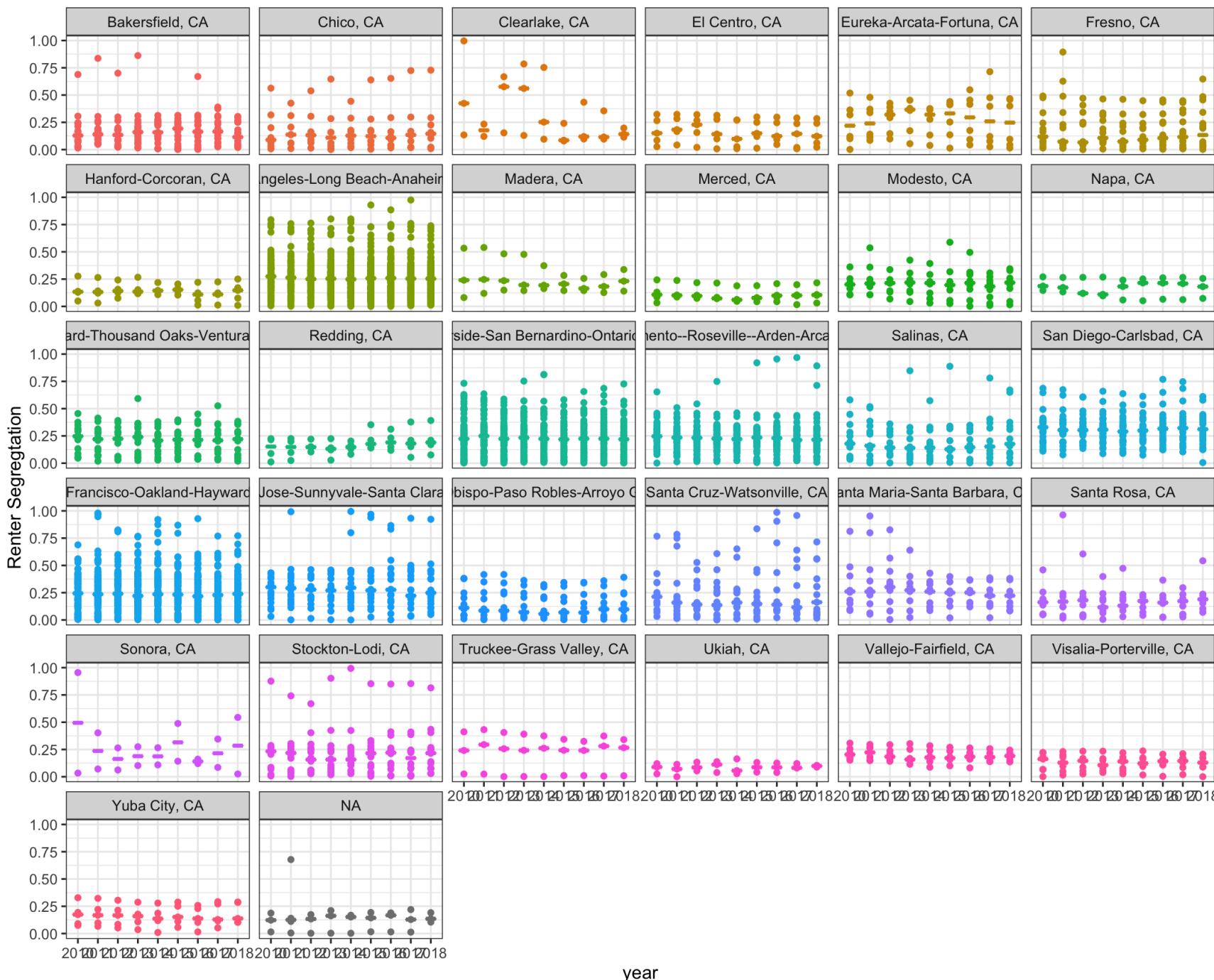
Share of Black Residents, 2000 to 2018



Percent of Votes for Republican Presidential Candidate



Renter Segregation, 2010-2018



Constructing Analysis Dataset

- Merging all the data from the 5 main sources into a single data frame (using `left_join` and joining by year and `city_id`)
- Running fixed-effects regression from 2000 to 2018 across 3 samples (all cities, central city + inner-ring suburbs, suburbs 20+ mi from the core) to assess the evidence of racial and renter threats

Issues + Next Steps

- Main Issues
 - Interpolating census data from 2000 to 2009 and using annual data or splitting up into time periods
 - Lagging all the independent/control variables or leading my dependent variable
 - Different boundaries for census tracts and block groups from 2000 to 2010
- Next Steps
 - Joining the pre-2003 policing data to the data frame
 - Recomputing the renter segregation measure at the block group level
 - Computing an alternative measure of segregation using Theil's H index
 - Combining full datasets so I don't lose any years
 - Running the analysis