

Best Project 2 Awards

DSC 106: Data Visualization

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Given to the top 8% of submissions (**top 6** out of 72 projects).

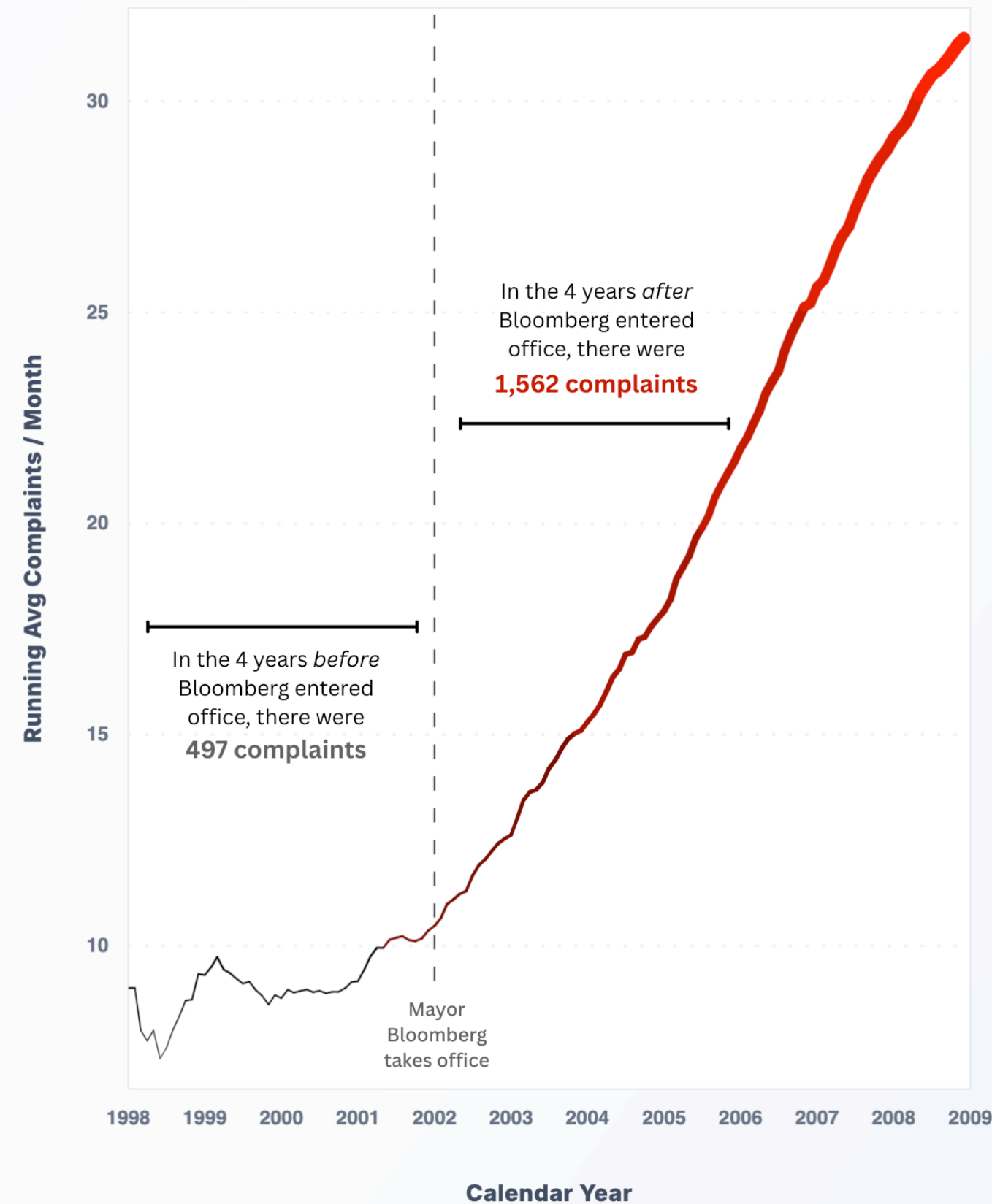
Include on your resume + portfolio website!

Proposition: Police misconduct spiked after Bloomberg implemented the stop-and-frisk policy.

The NYPD Complaint Rate Climbed Steadily After Bloomberg Expanded Stop-and-Frisk

By the end of 2001, the running average of civilian complaints had settled at ~10 per month. By the end of Bloomberg's second term in 2008, it had climbed to ~31 per month — a 3x increase.

(Running cumulative mean of unique CCRB complaints/month since Jan 1998.)

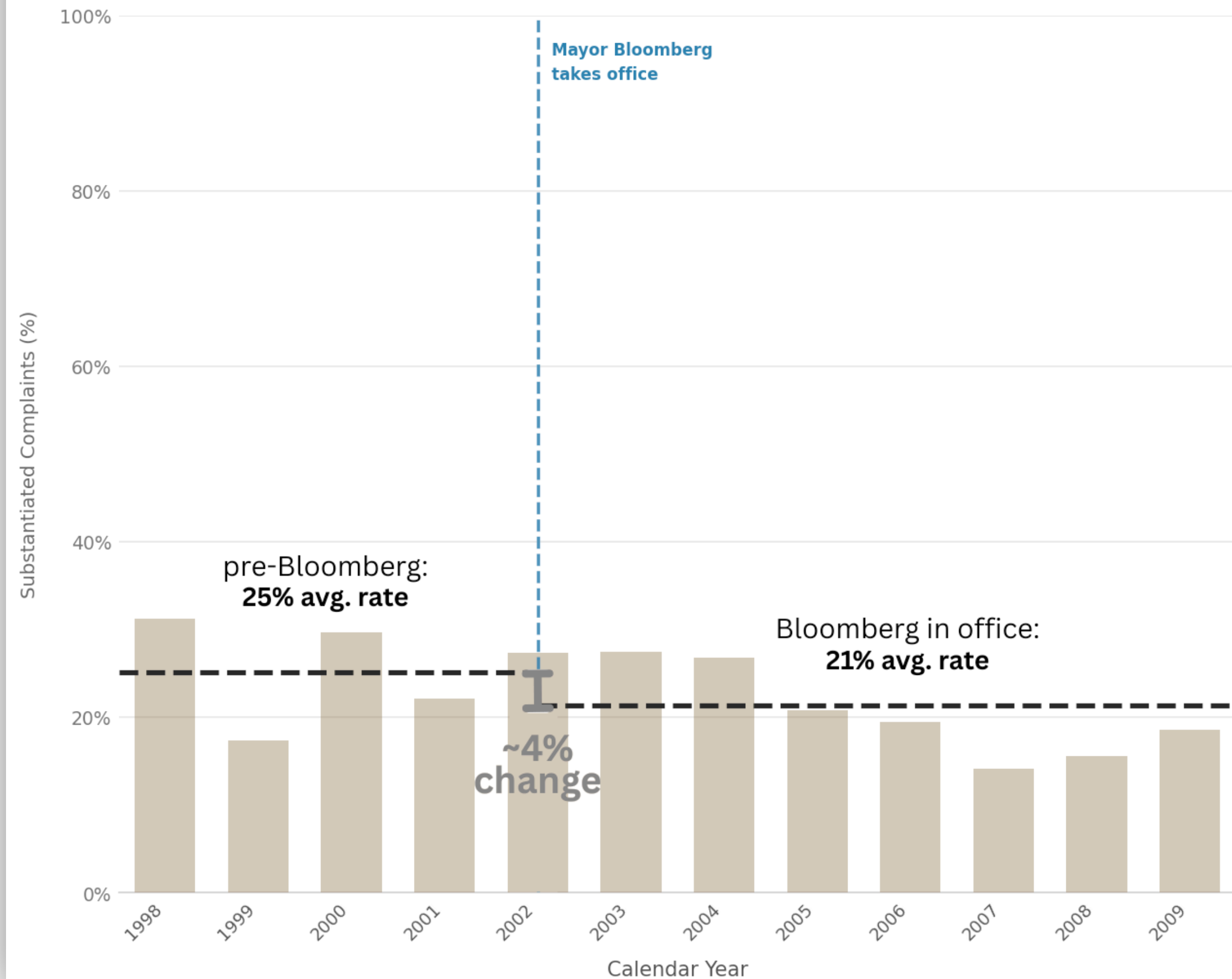


The Rate of Substantiated Complaints Remained Relatively Flat as Bloomberg Expanded Stop-and-Frisk

Before Bloomberg took office, the average substantiation rate was ~25%.

After Bloomberg took office, the average substantiation rate slightly decreased to ~21%.

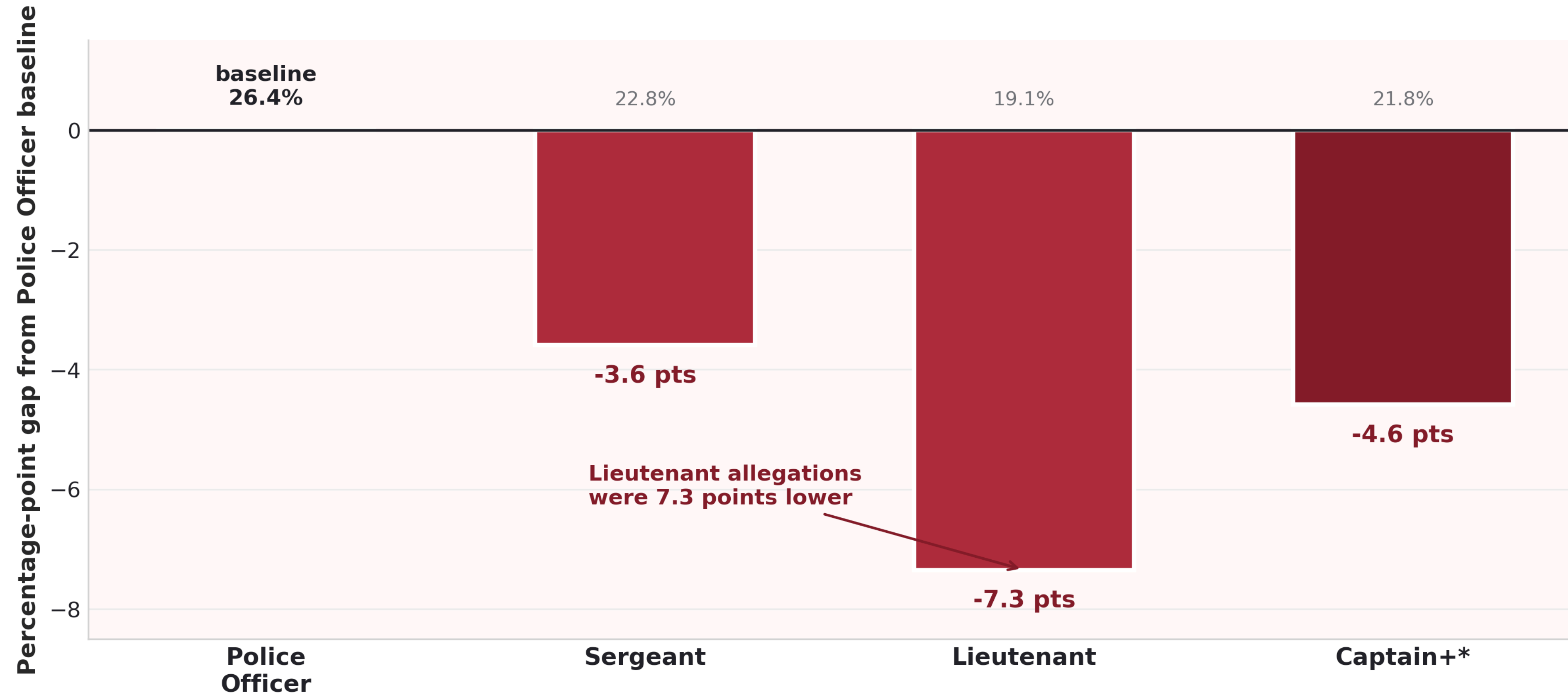
(Share of unique CCRB complaints substantiated per year, 1998-2009.)



Proposition: The CCRB complaint process appeared to protect higher-ranking NYPD officers from substantiated findings.

FOR: Higher supervisory ranks show lower substantiation rates than frontline officers

Substantiation rate transformed into a gap from Police Officer findings.



* Captain+ combines several high-ranking titles.

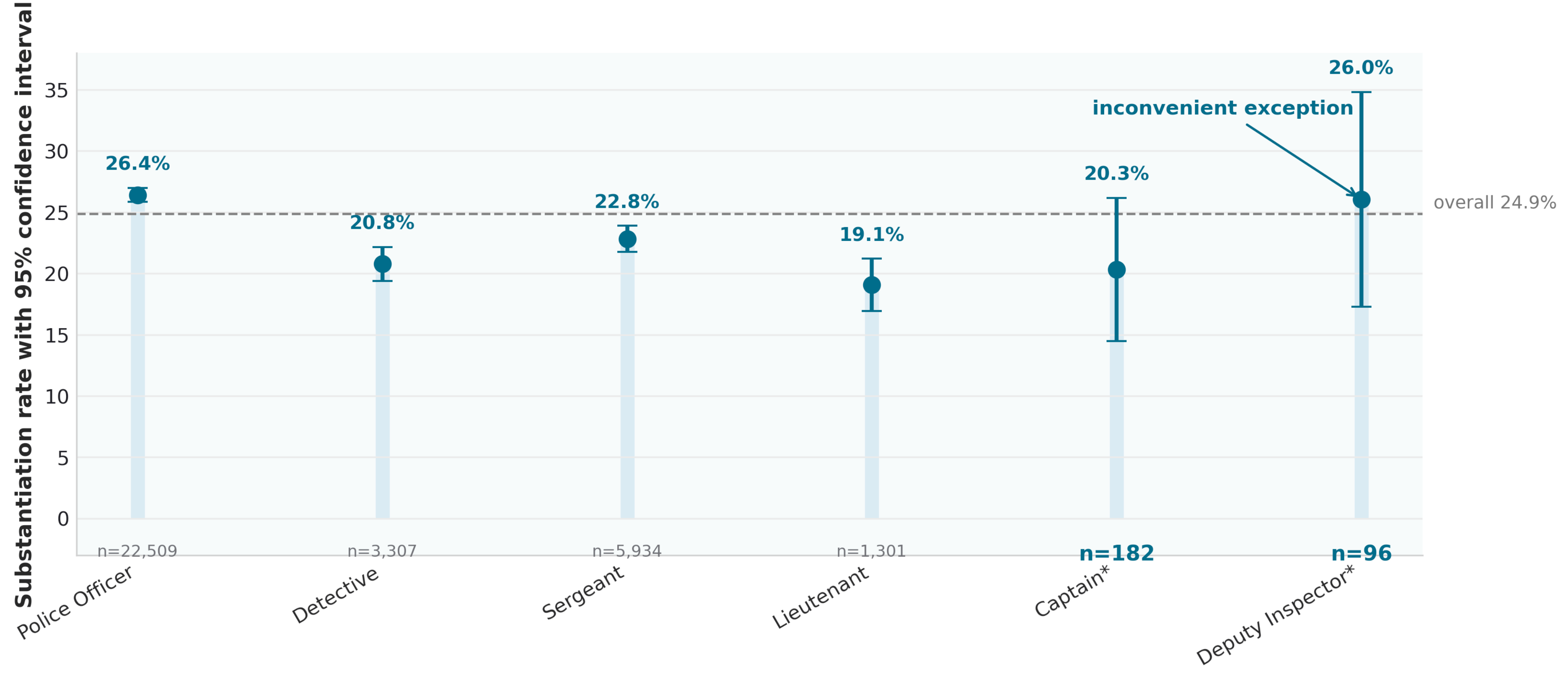
Source: ProPublica/CCRB allegation records. Unit of analysis: allegation record. Chart groups Captain+ and does not display sample sizes in the main frame.

Zonglin Zhang, La Li, Vincent Gao

Proposition: The CCRB complaint process appeared to protect higher-ranking NYPD officers from substantiated findings.

AGAINST: The clean “rank protection” ladder breaks when all large ranks are shown

Deputy Inspector returns to the Police Officer level, while small high-rank groups have much wider uncertainty.



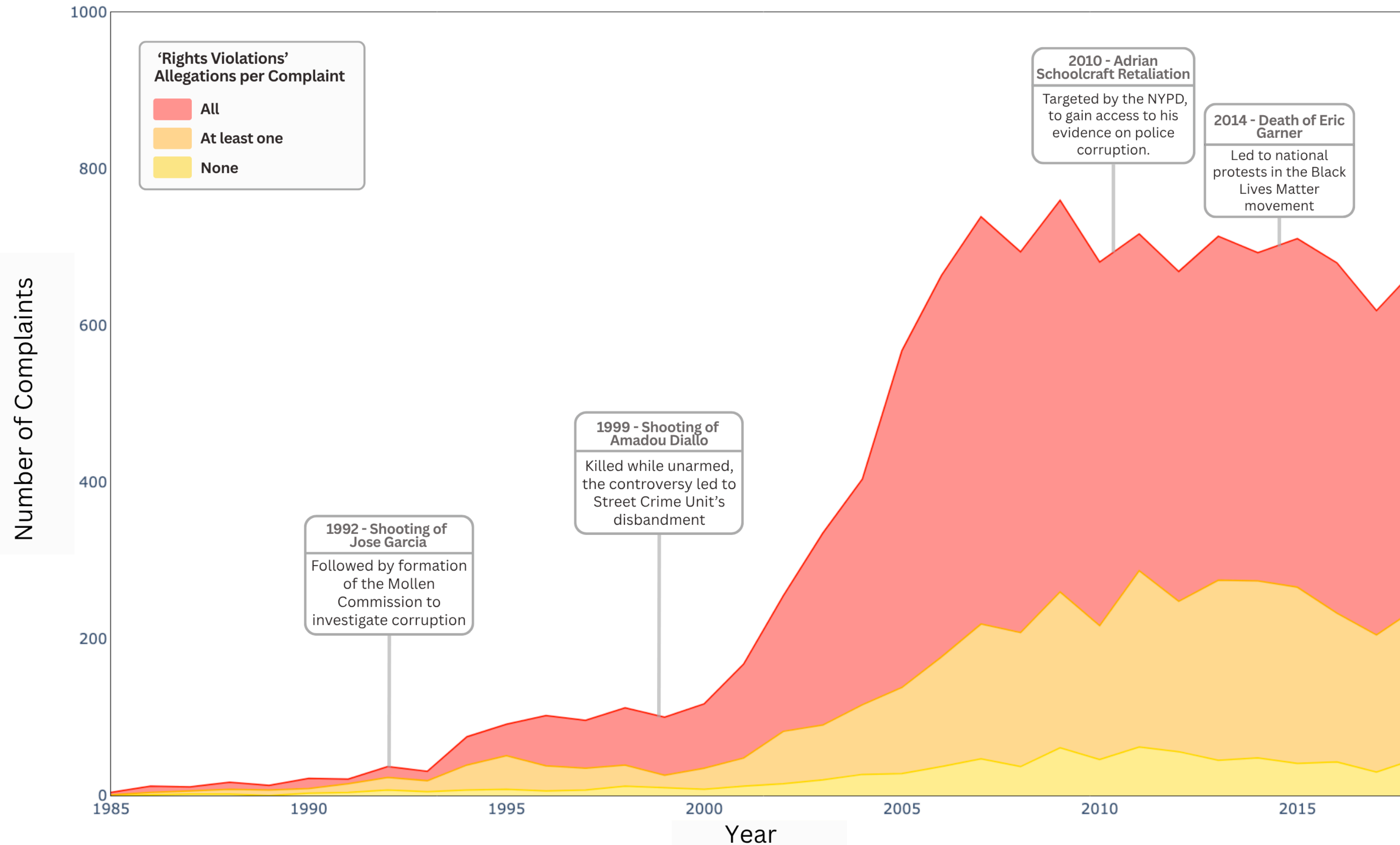
* Small samples make these estimates unstable.

Source: ProPublica/CCRB allegation records. Ranks with fewer than 50 allegation records are excluded from this uncertainty view.

Zonglin Zhang, La Li, Vincent Gao

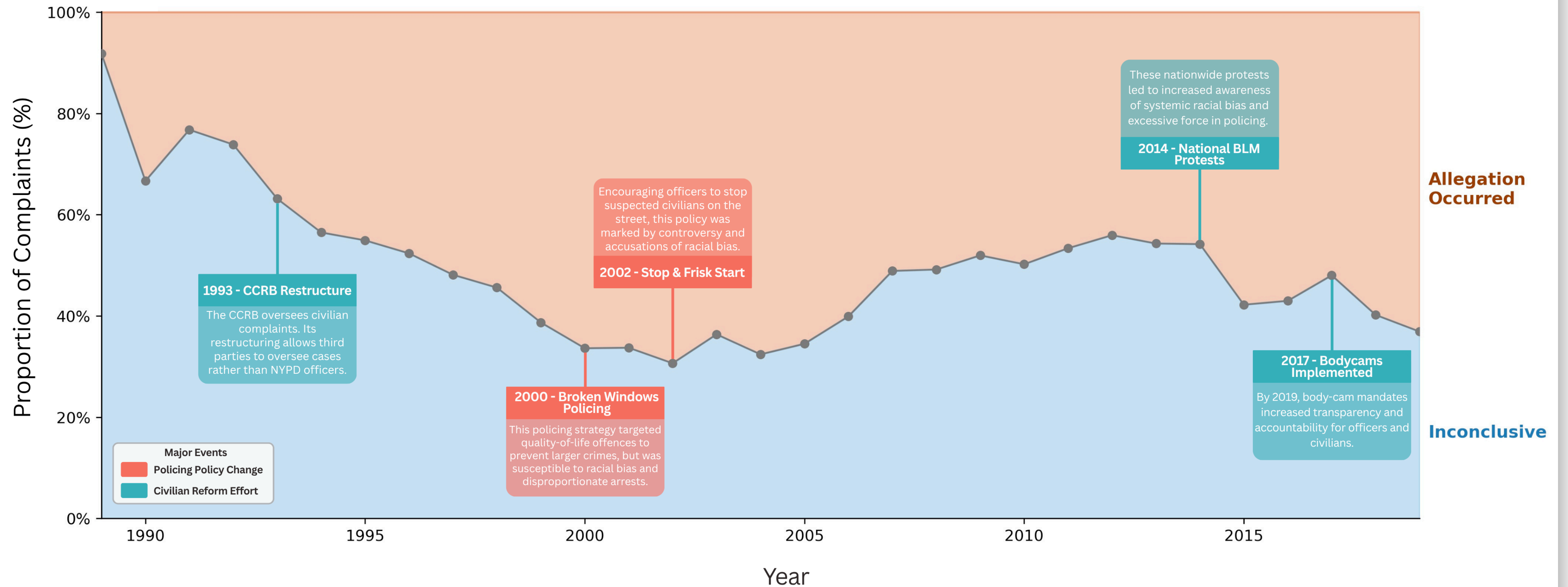
The Illusion of Reform: Complaints Continue to Rise as Misconduct Continues

Complaints against the NYPD continue to rise despite high profile misconduct and police reform efforts between 1985 and 2018. A vast majority of these complaints involve serious allegations of violating civilian rights and safety, which include excessive force and abuses of authority.

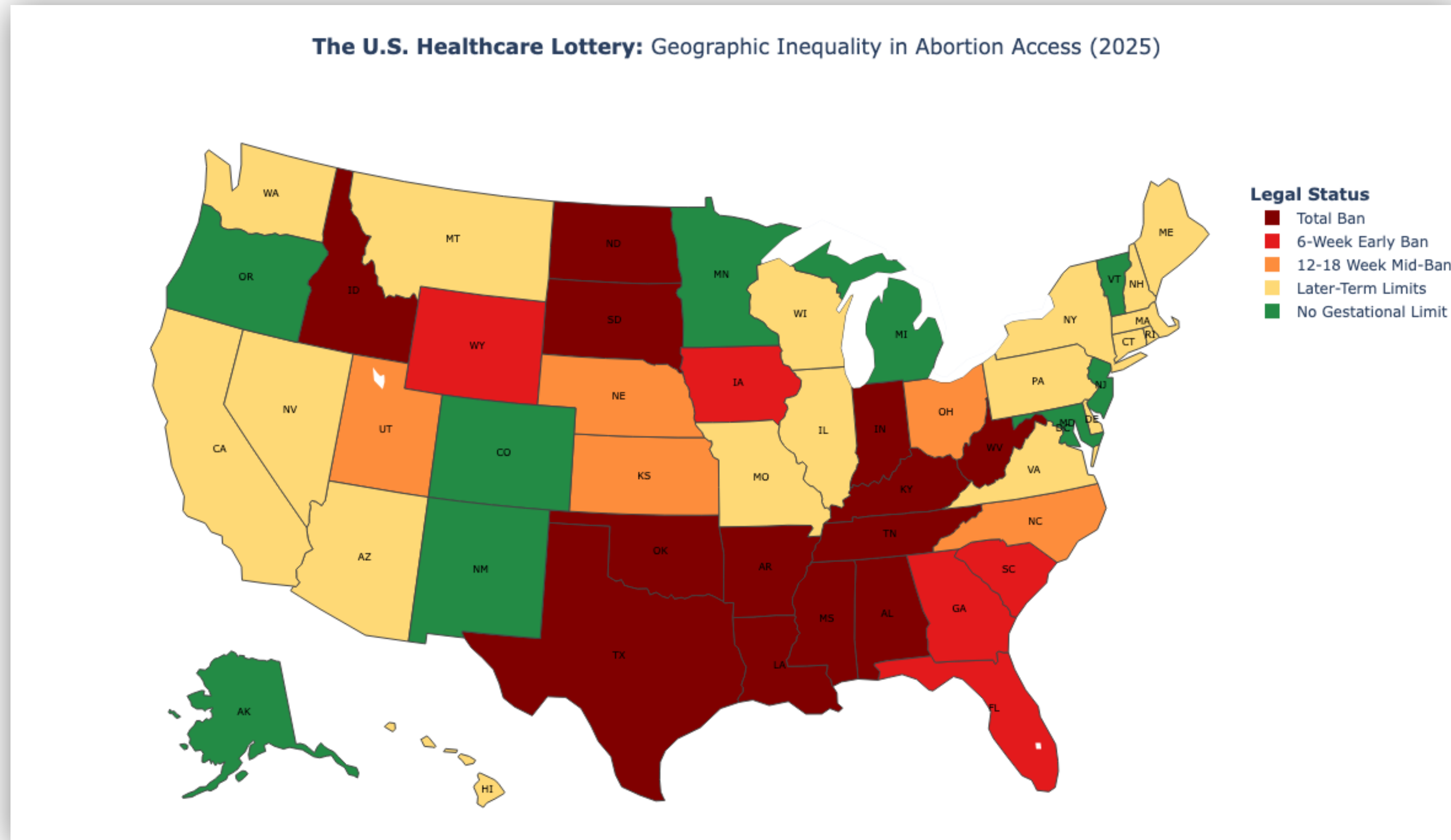


The Road to Accountability: How the NYPD Stopped Burying Misconduct Complaints

Grouping complaints by investigation results reveals the proportion of inconclusive complaints has fallen from 92% to 37% between 1989 to 2019, but only after the CCRB restructuring, BLM protests, and bodycam mandates forced police commitment to fully investigating allegations.

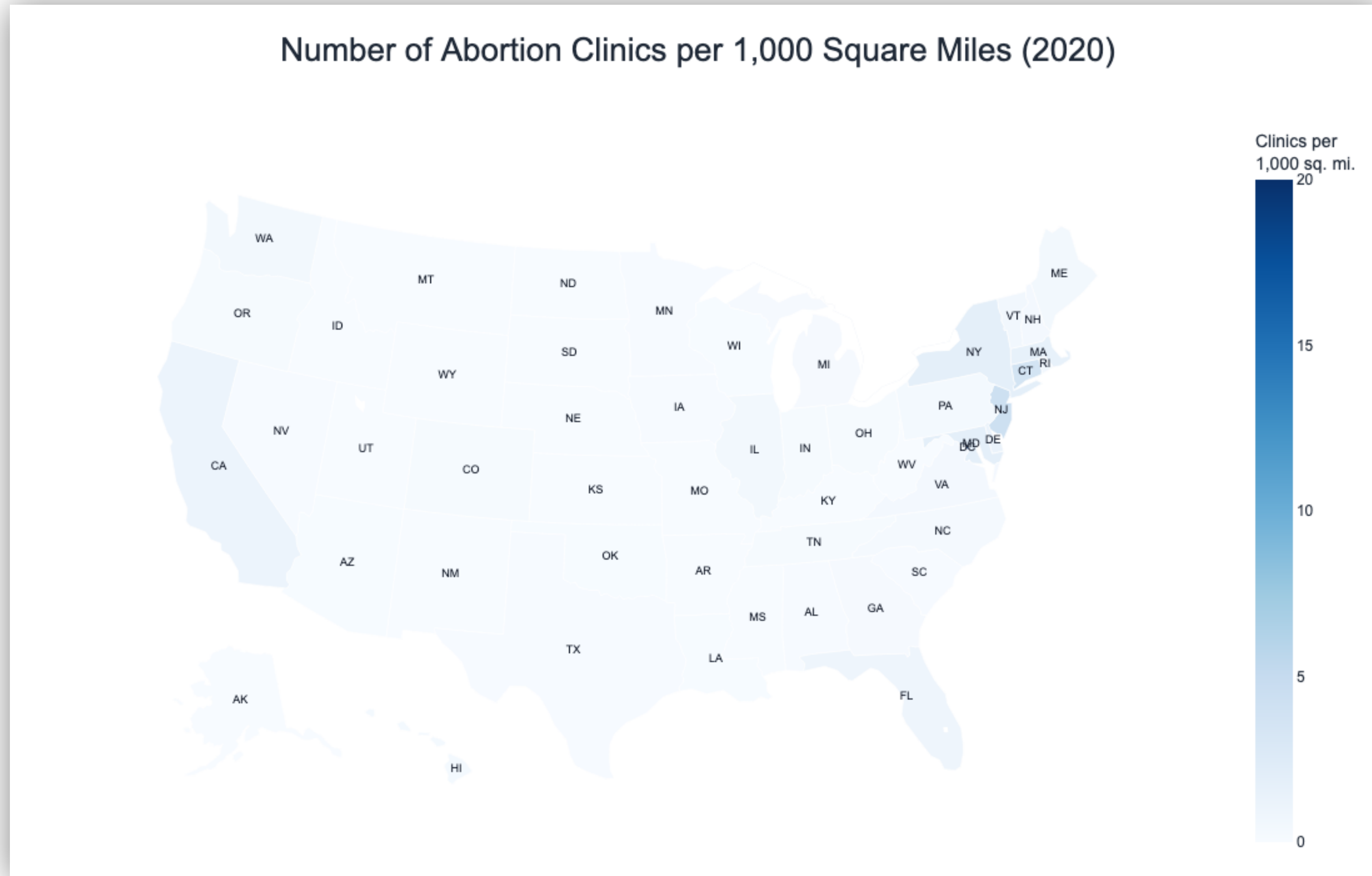


Proposition: The geographic access to abortion across US states is deeply unequal and unfair



Hannah Huang, Romy Ramrakhyani, Julia Dial

Proposition: The geographic access to abortion across US states is deeply unequal and unfair



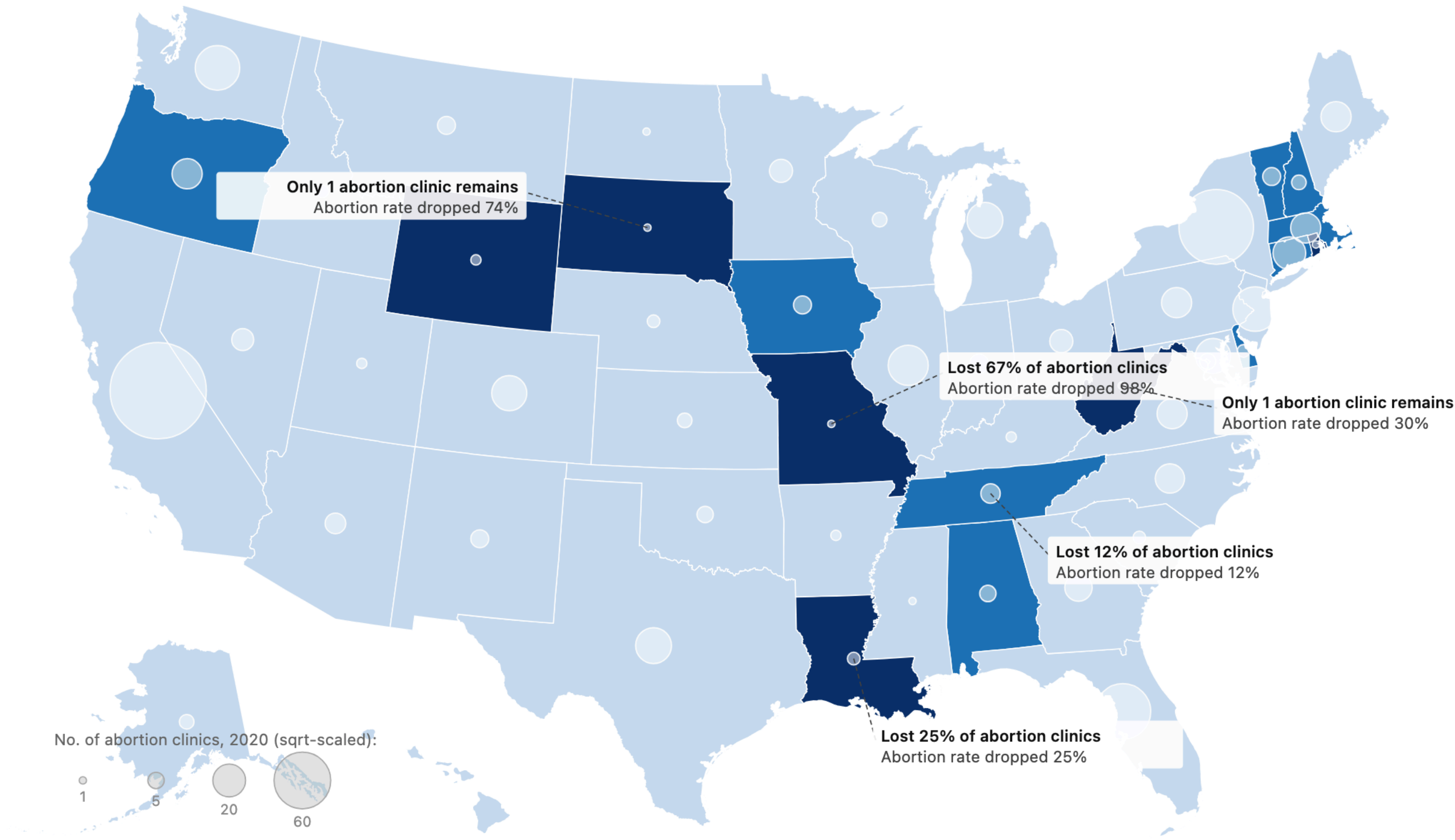
Hannah Huang, Romy Ramrakhyani, Julia Dial

Proposition: Restricting abortion access through clinic closures effectively reduces abortion rates.

Fewer abortion clinics means fewer abortions. Restrictions are working.

States were grouped by how sharply their abortion rates changed 2017–2020. The darkest states lost the most clinics — and their tiny bubbles confirm nearly none remain. 8 of the 12 states that lost abortion clinics saw abortion rates fall.

■ Abortion rate fell ≥20% ■ Abortion rate fell 5–20% ■ Abortion rate stable or increased ○ Abortion clinics remaining, 2020 (√-scaled)



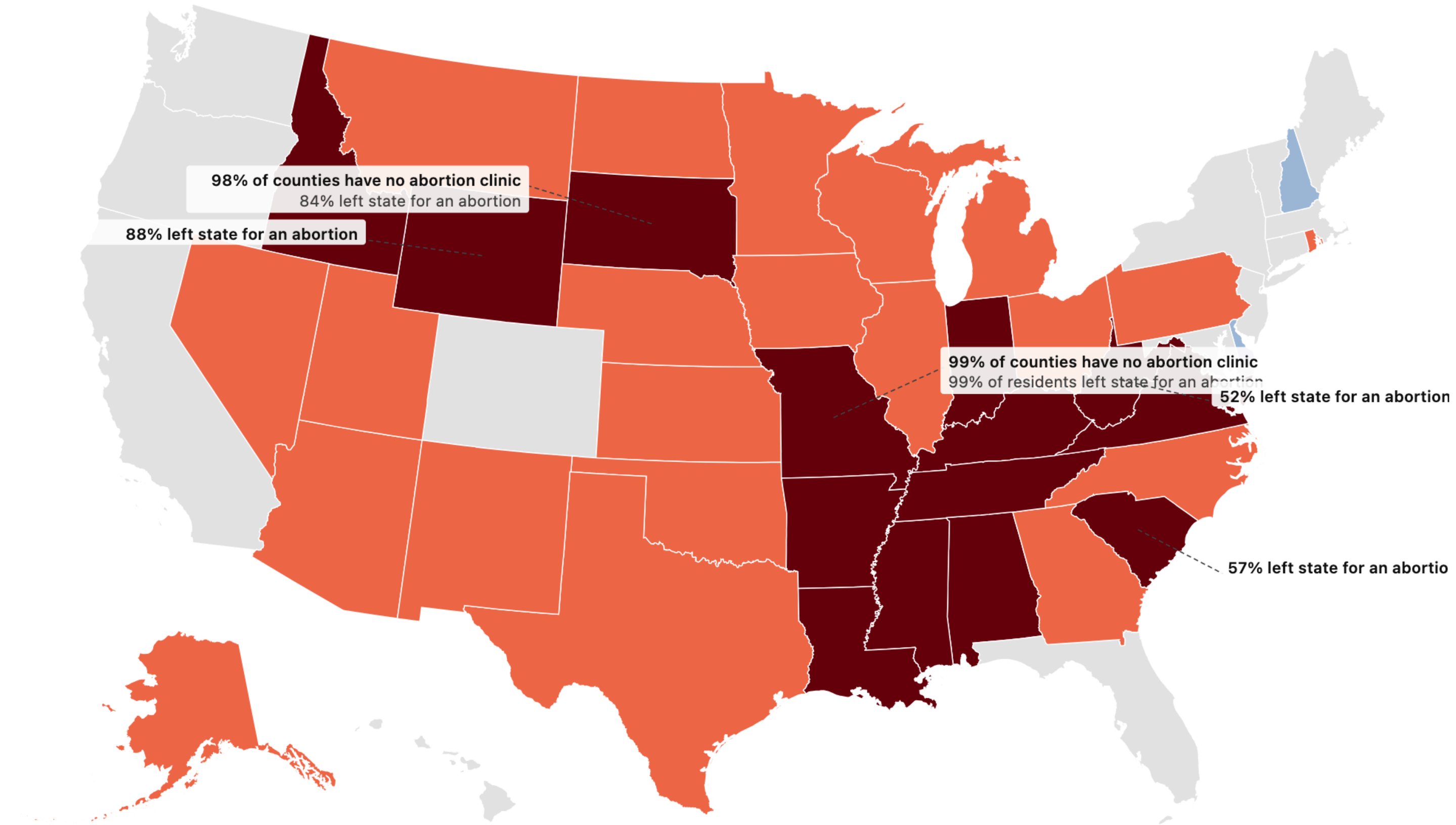
Source: Guttmacher Institute. Abortion rate = abortions per 1,000 women aged 15–44 by state of occurrence, 2017–2020.

Proposition: Restricting abortion access through clinic closures effectively reduces abortion rates.

Closing abortion clinics does not reduce abortions. It sends residents out of state to get them.

Each state was classified on two dimensions simultaneously: how many of its counties have no abortion clinic, and how many of its residents crossed state lines to get one. States with both few clinics and high out-of-state travel cluster across the South and Plains, revealing that restrictions displace abortions, not demand.

- Few abortion clinics + many residents left state
- Few abortion clinics + few residents left state
- Many abortion clinics + many residents left state
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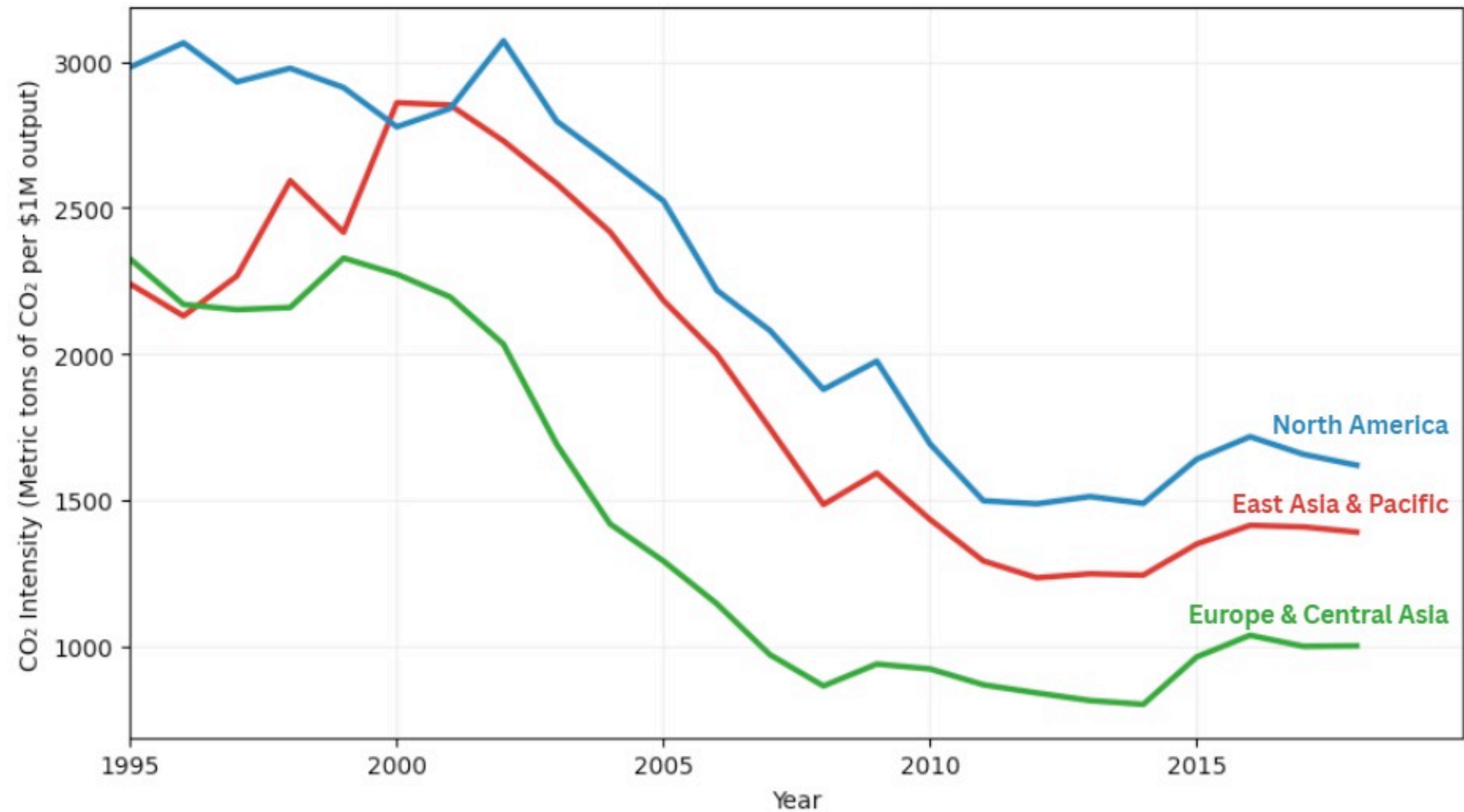


Source: Guttmacher Institute. "Few abortion clinics" = $\geq 80\%$ of counties have no known abortion clinic (2020). "Many residents left state" = $\geq 20\%$ of residents traveled out of state to obtain an abortion (2020).

Proposition: Aviation is becoming more sustainable.

Aviation Carbon Intensity Is Falling

Trends based on average carbon intensity values across regions for air transport show that emissions per unit of output have decreased substantially from 1995 to 2018.



Alisha Wang, Calvin Chen, Ziyang Liu

Aviation Emissions Are Taking Off

Trends based on yearly totals of country-level CO₂ emissions for air transport show that emissions have increased substantially from 1995 to 2018.

