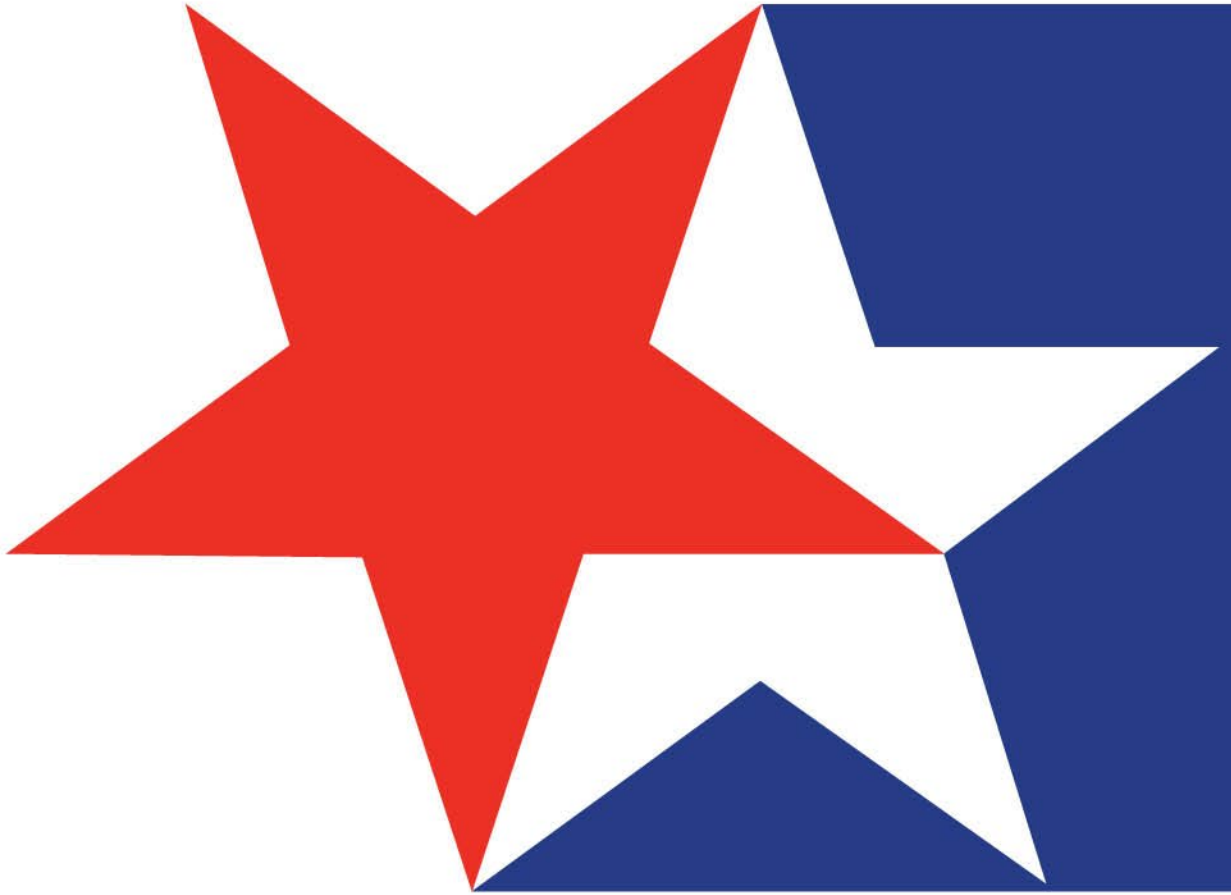

Draining the tobacco swamps: Shaping the built environment to reduce tobacco retailer proximity to residents in 30 big US cities

January 9, 2024

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Today's Presenter

Veronica Chaitan

Senior Data Analyst
Center for Public Health Systems Science
Brown School at Washington University in St. Louis

ASPiRE

Advancing Science & Practice in the Retail Environment

aspirecenter.org

Tobacco Hotspots

Tobacco retailer density and resident-to-retailer proximity in 30 ASPiRE cities

Veronica Chaitan | January 9, 2024

STANFORD PREVENTION RESEARCH CENTER
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Open access publication

Draining the tobacco swamps: Shaping the built environment to reduce tobacco retailer proximity to residents in 30 big US cities

Todd B. Combs, Joseph T. Ornstein, Veronica L. Chaitan, Shelley D. Golden, Lisa Henriksen, Douglas A. Luke

https://doi.org/10.1016/j.healthplace.2022.102815

ISSN: 1353-8292

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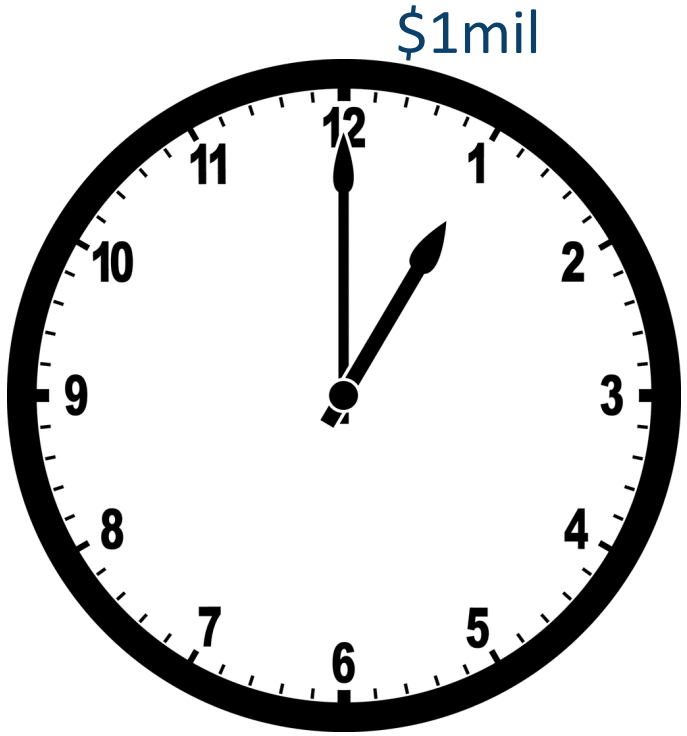
Tobacco use

- Smoking is leading cause of preventable death in the US
- Harmful effects include cancer, heart disease, lung disease
- Approximately 28 million US adults identified as current smokers in 2021

Tobacco industry spending

- Spending on cigarette advertising and promotion: $8.01 billion in 2022



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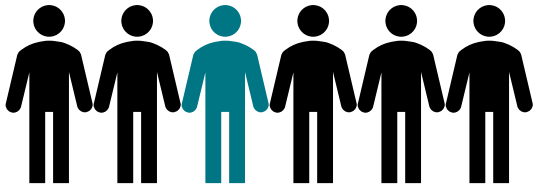
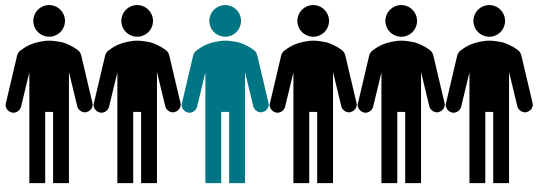
ASPiRE cities

ASPiRE cities



ASPiRE cities



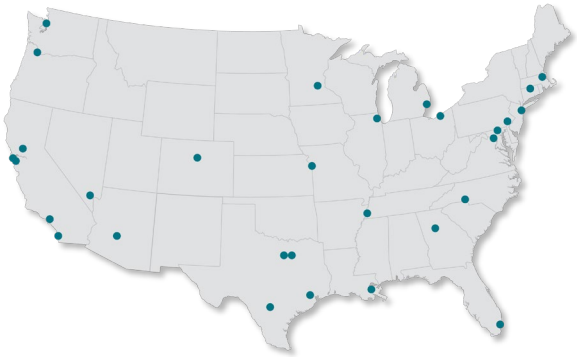
Tobacco hotspots

- Areas with a glut of tobacco retailers
- Areas with high tobacco retailer concentration

  - High tobacco retailer density
    - Large # per square mile or per 1,000 people
  - High tobacco retailer proximity
    - Large % of population within a 5- or 10-minute walk to a retailer
    - Short median distance from residents to retailers, e.g., 500m, 1000m
  - Proximity ≠ Density

Retailer concentration in ASPiRE cities

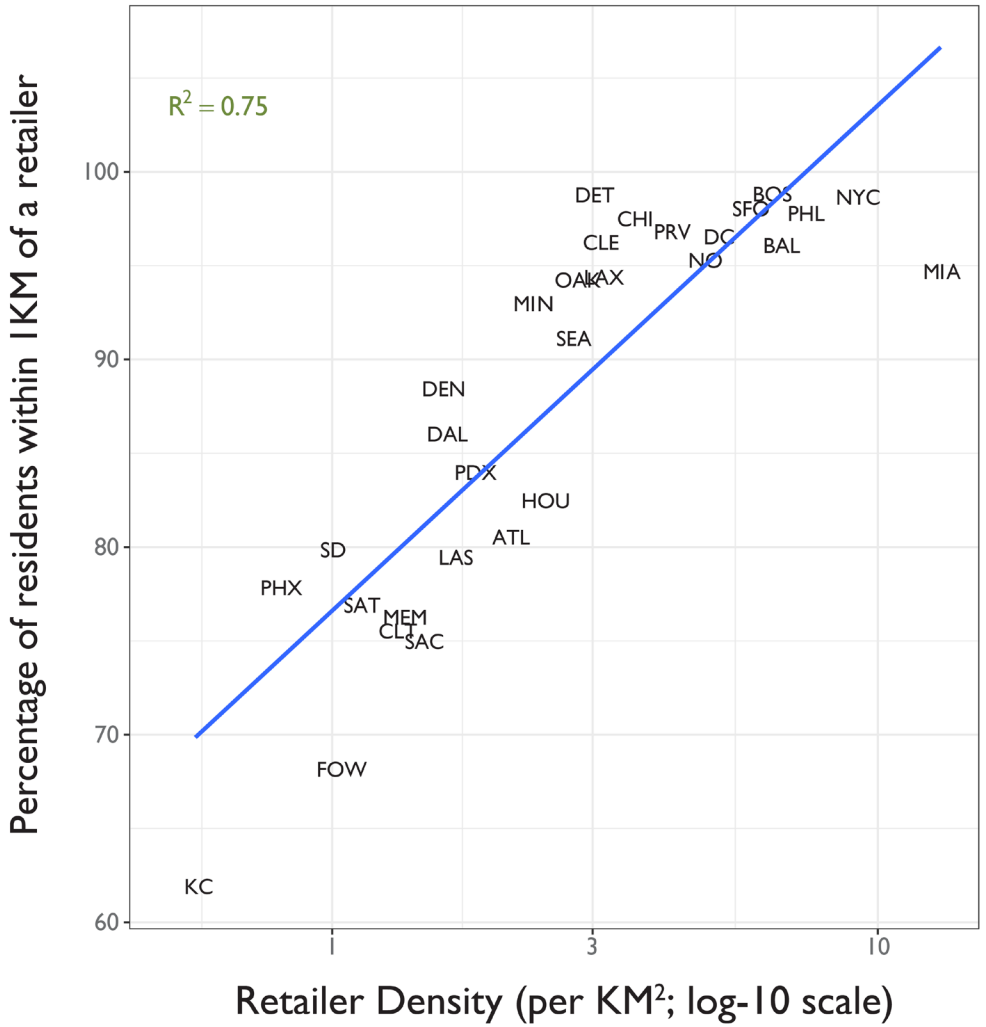
- Goals
  - Compare measures of tobacco retailer density and resident-to-retailer proximity in the 30 cities
  - Compare the impact of retail policies on density and proximity
  - Consider the importance of context for policy impact

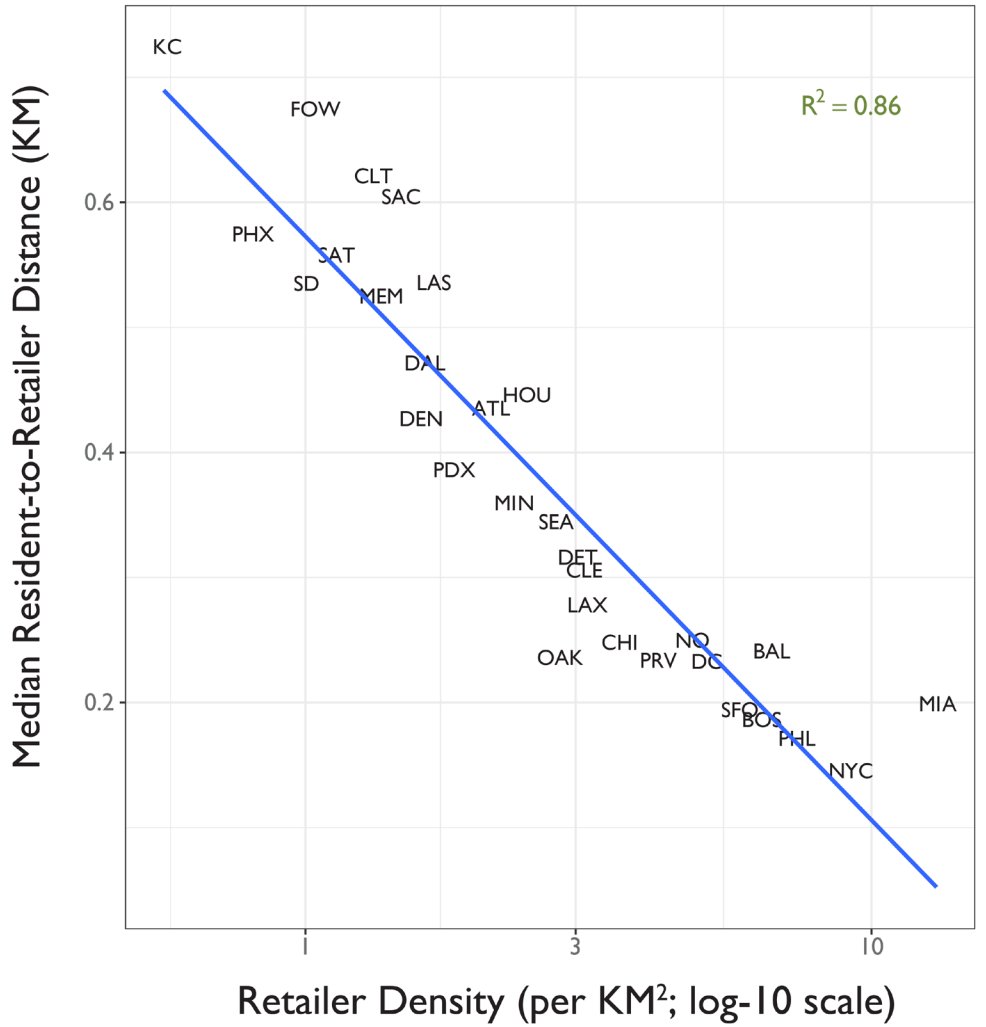


Retail policy simulations

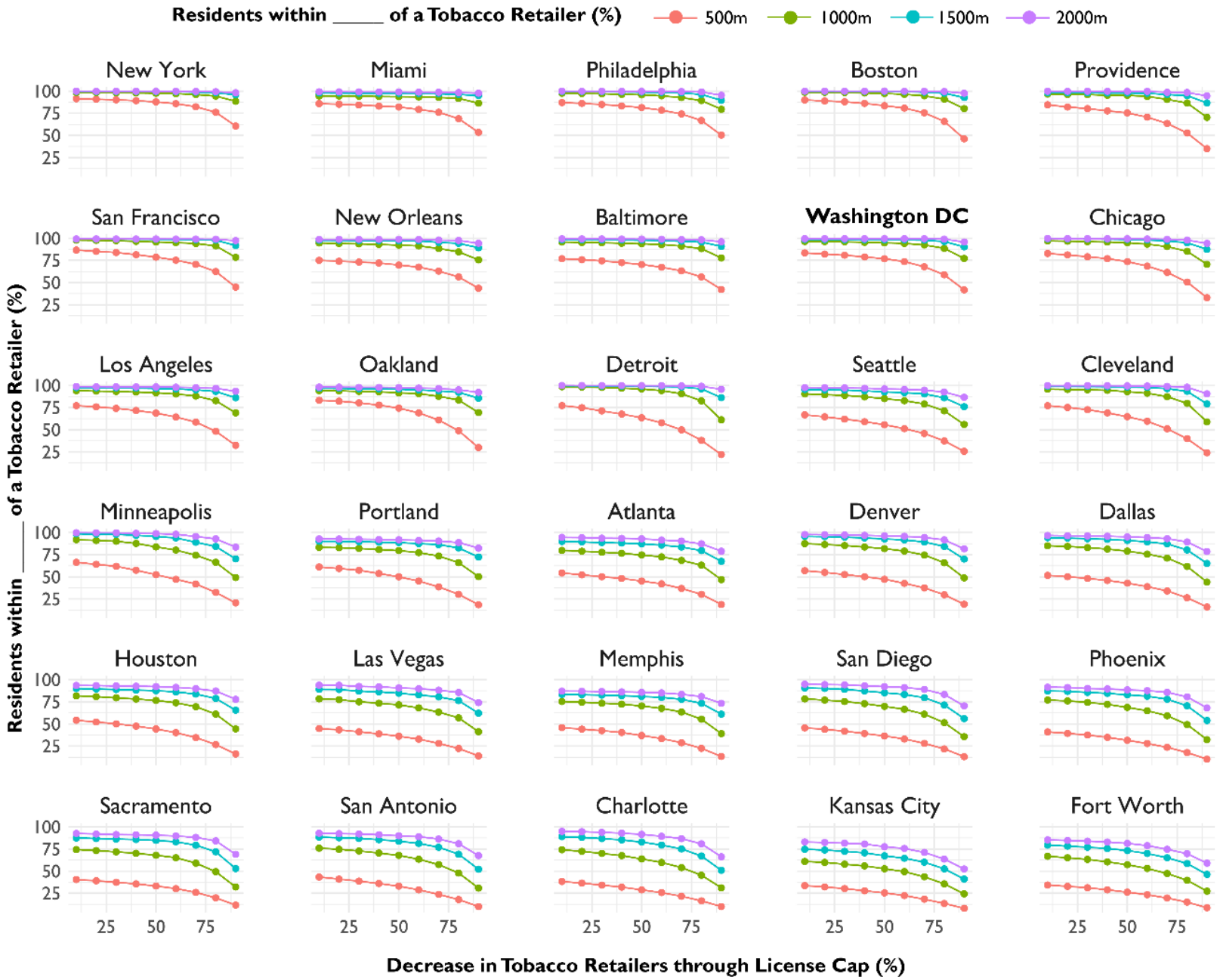
- License Cap (LC)
- Retailer-to-Retailer Buffer (R2R)
- School-to-Retailer Buffer (S2R)

Retailer concentration in ASPiRE cities





Policy impact on proximity



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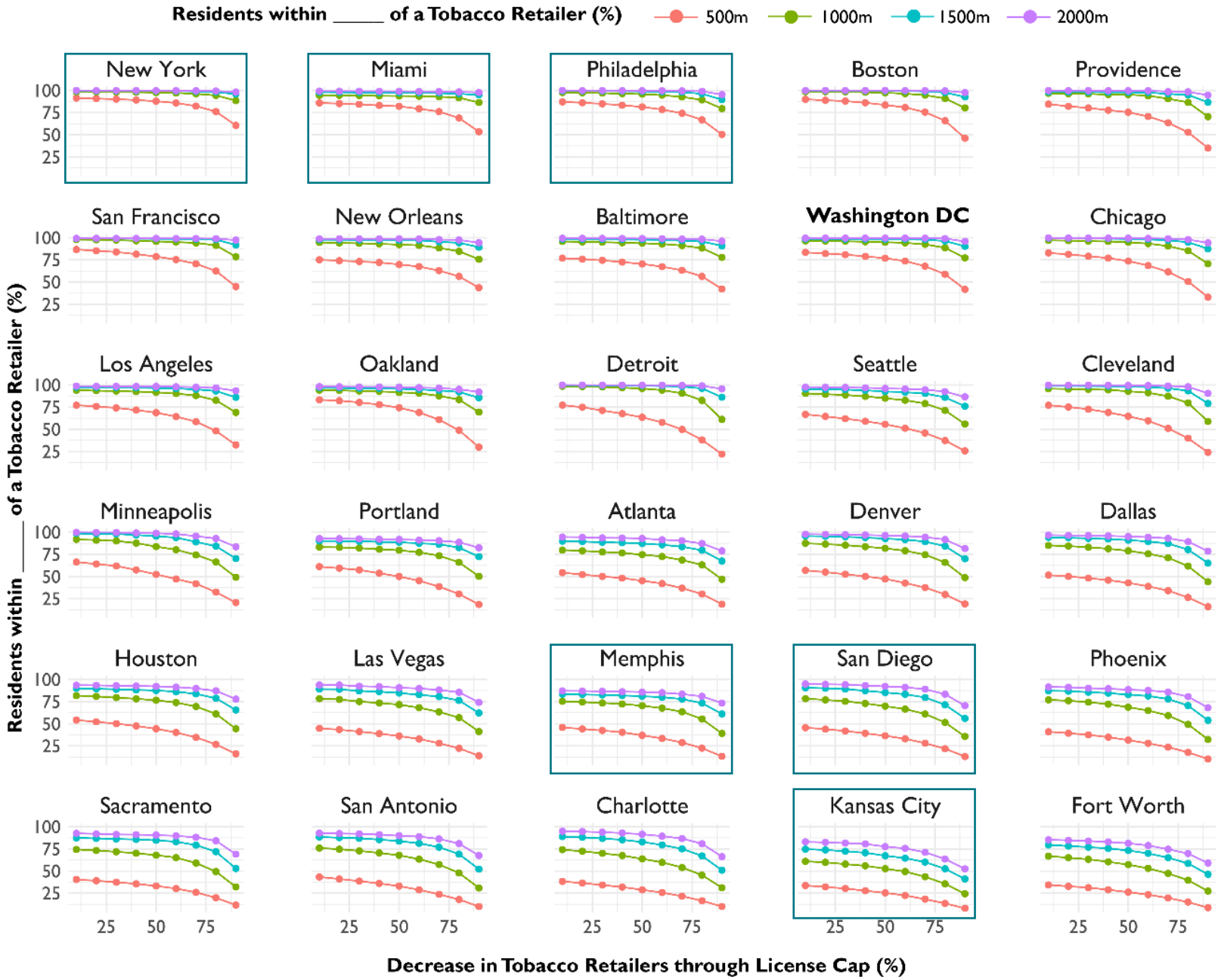

Policy impact on proximity and density

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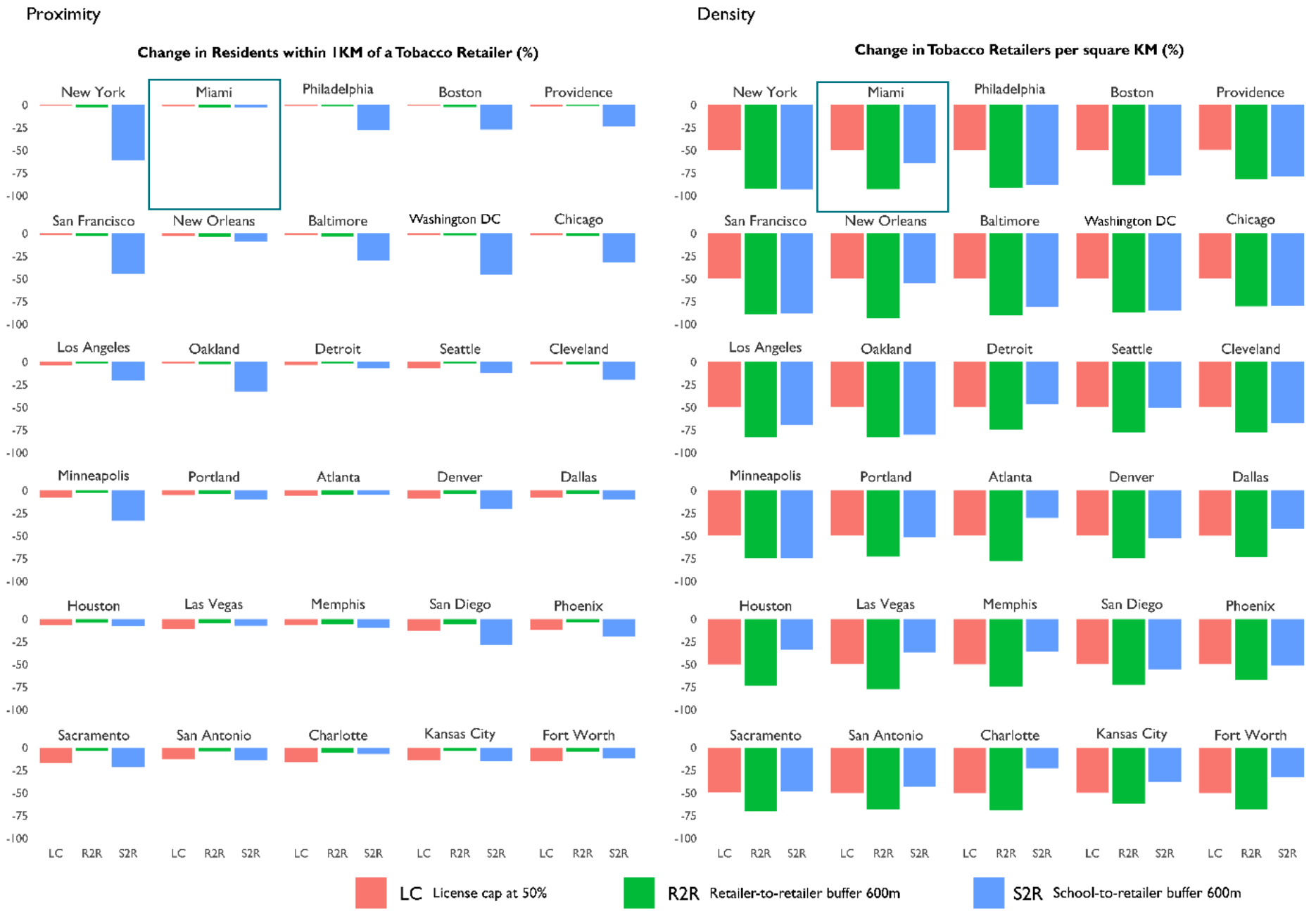
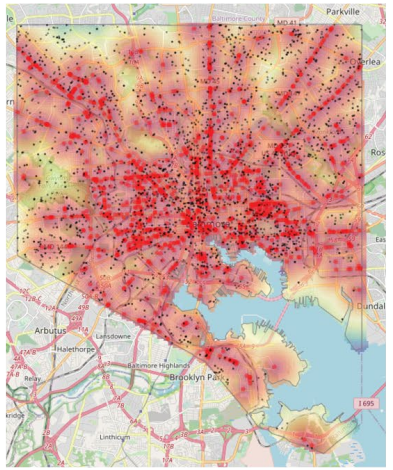


Policy impact on proximity at different levels

Policy impact on proximity and density: take 2

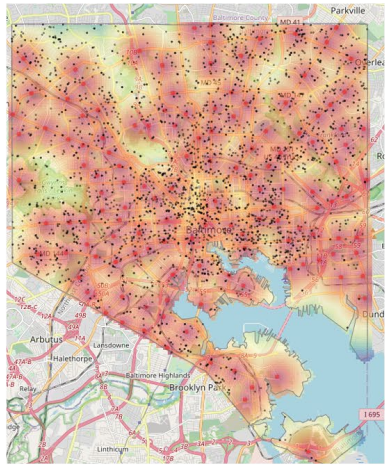
Baltimore

Baseline



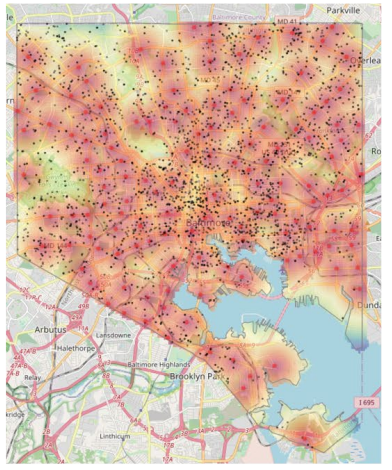
Density 5.80/km^2
Median proximity 0.24 km
Residents within 1km 96%

License cap 50%



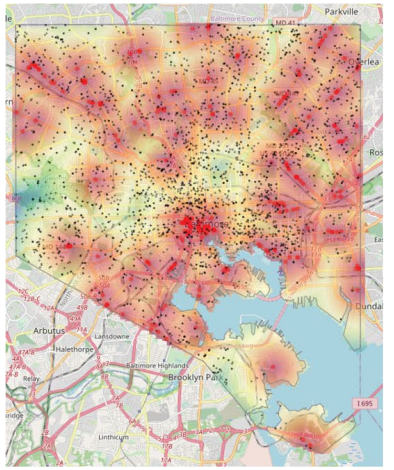
Density 2.90/km^2
Median proximity 0.31km
Residents within 1km 94%

Retailer-to-retailer buffer 600m



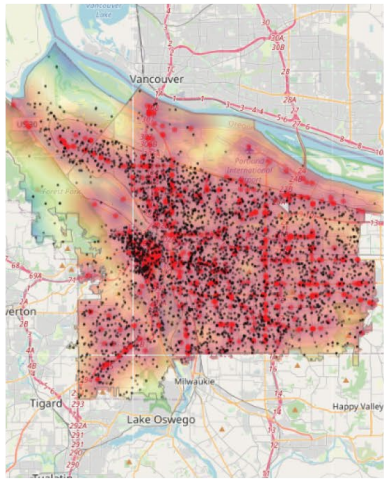
Density 0.56/km^2
Median proximity 0.51 km
Residents within 1km 93%

School-to-retailer buffer 600m

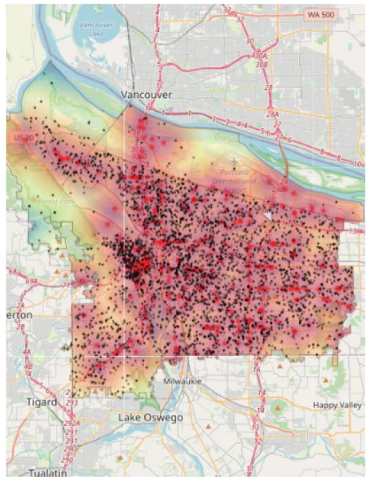


Density 1.1/km^2
Median proximity 0.74 km
Residents within 1km 68%

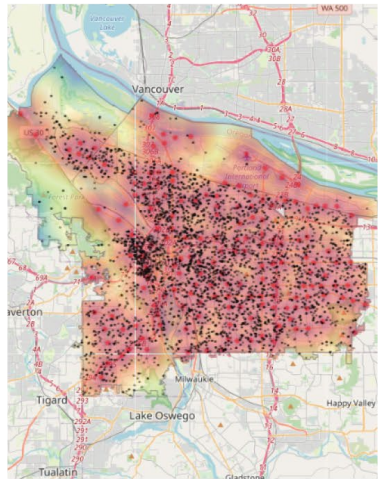
Portland



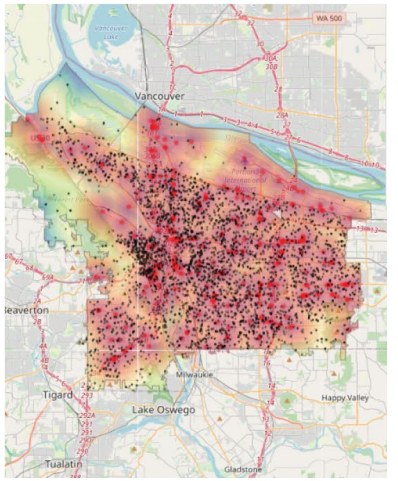
Density 1.66/km^2
Median proximity 0.39 km
Residents within 1km 84%



Density 0.83/km^2
Median proximity 0.51 km
Residents within 1km 80%



Density 0.45/km^2
Median proximity 0.55 km
Residents within 1km 81%

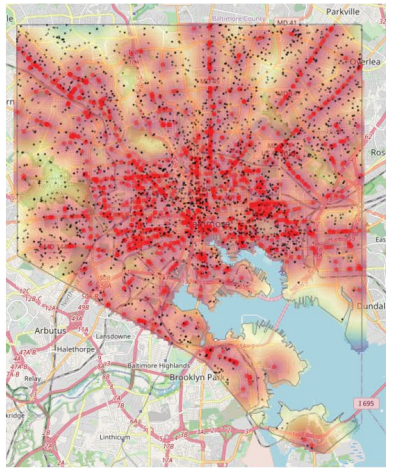
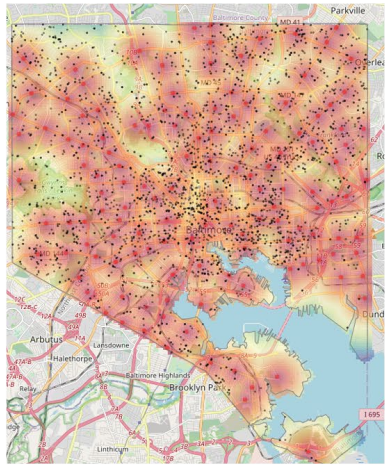
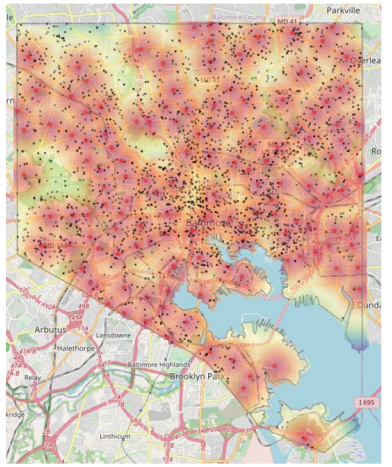
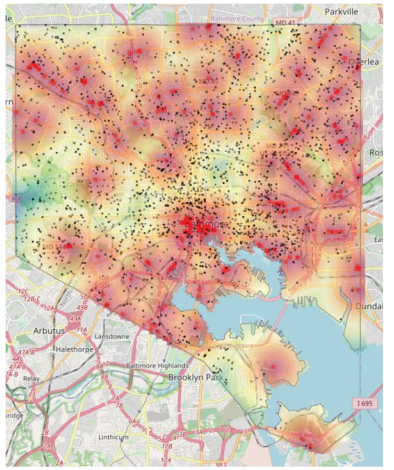


Density 0.80/km^2
Median proximity 0.63 km
Residents within 1km 76%

https://aspirecenter.org/tobacco-swamps/

Policy impact on proximity and density: take 2

Baltimore

	Baseline	License cap 50%	Retailer-to-retailer buffer 600m	School-to-retailer buffer 600m
				
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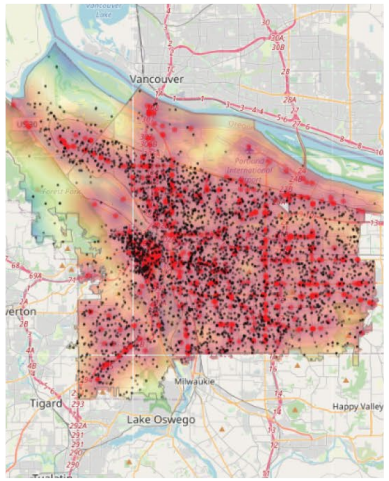
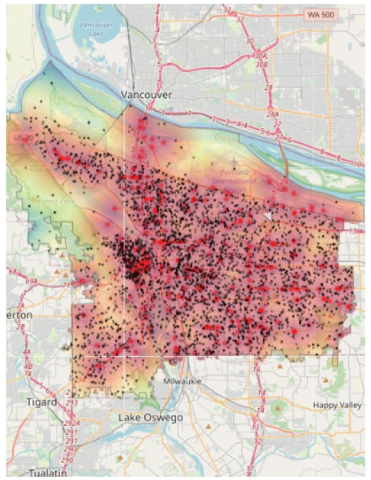
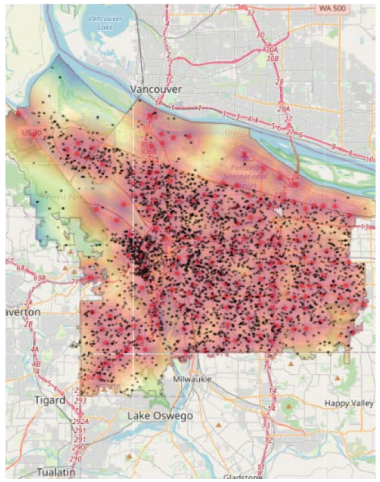
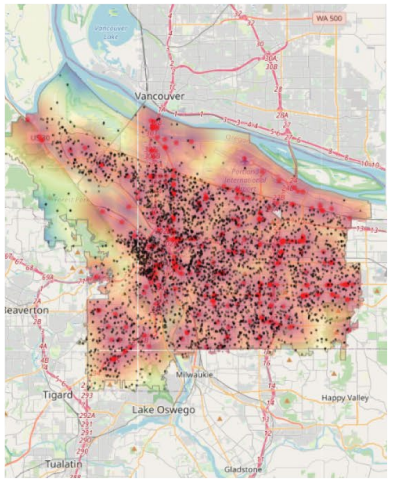
Portland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Policy impact on proximity and density: take 2

Baltimore

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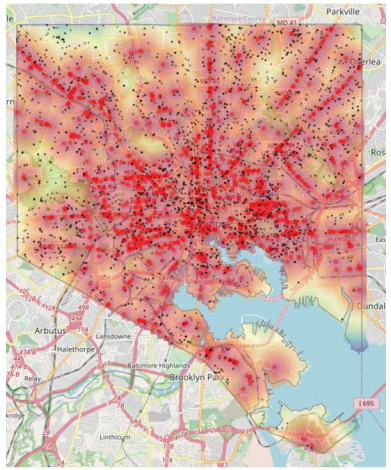

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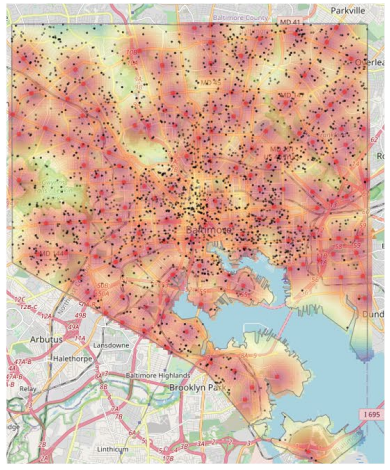

Density	2.90/km^2
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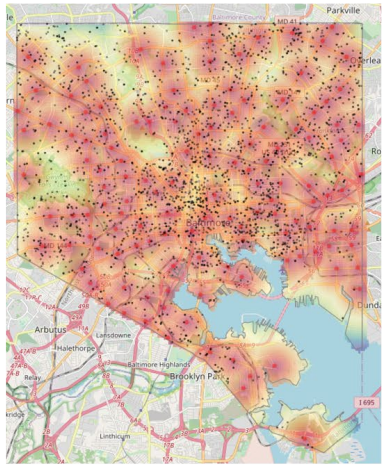
Retailer-to-retailer buffer 600m



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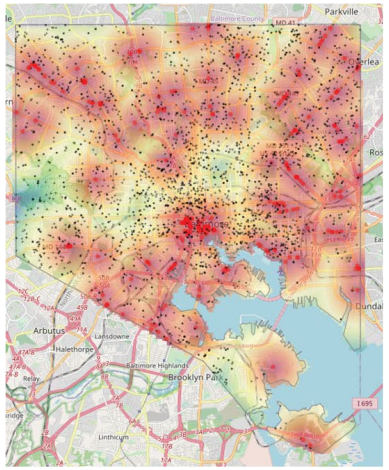

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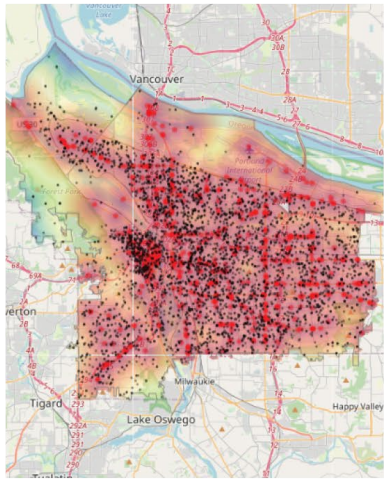

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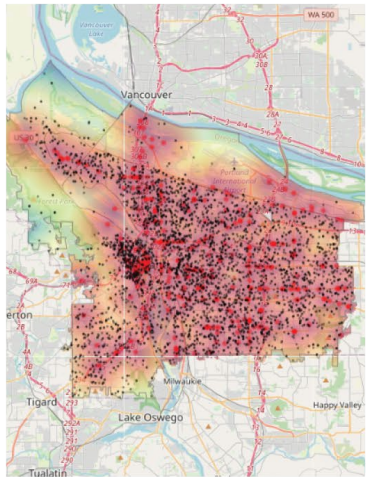

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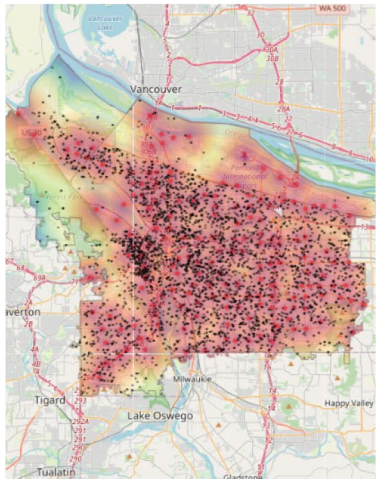

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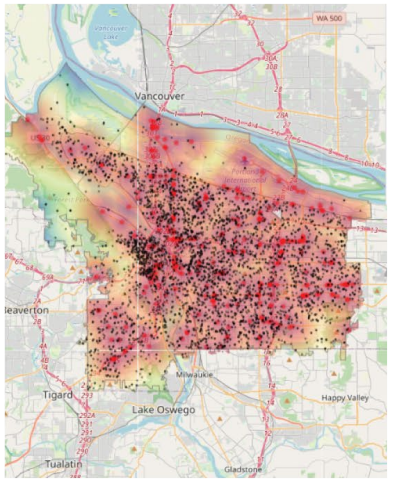

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Policy impact on proximity and density: take 2

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	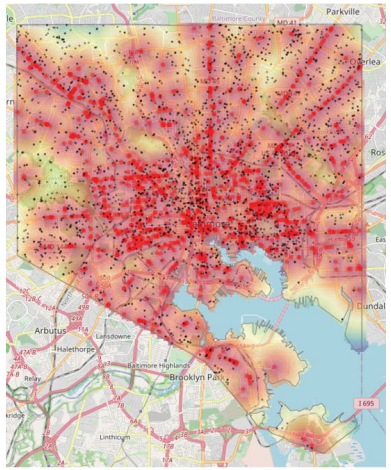	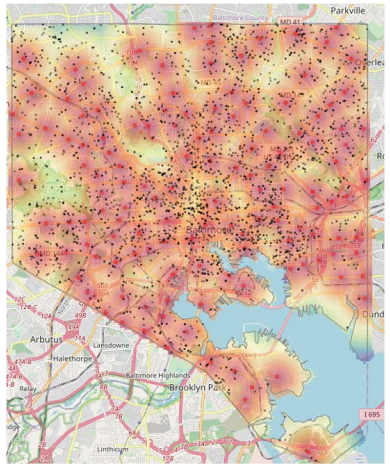	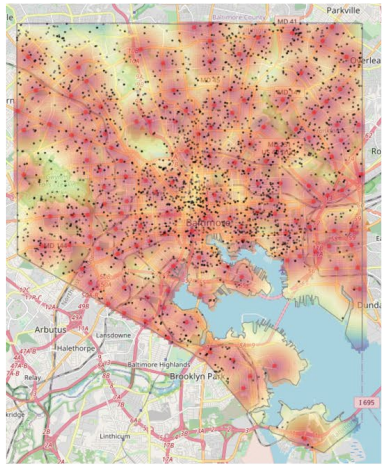	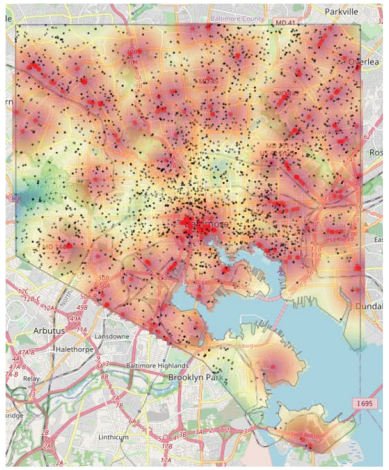
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	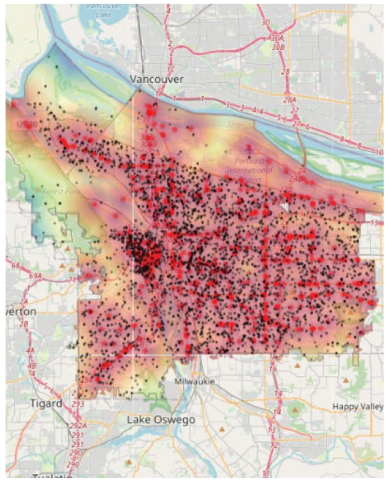	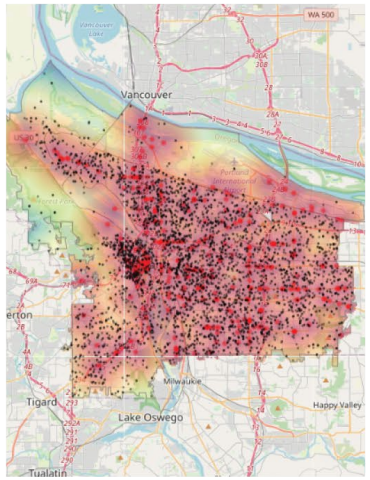	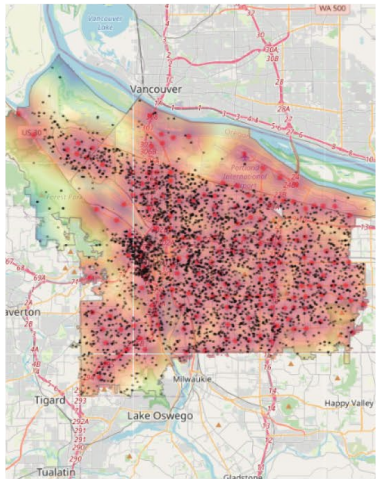	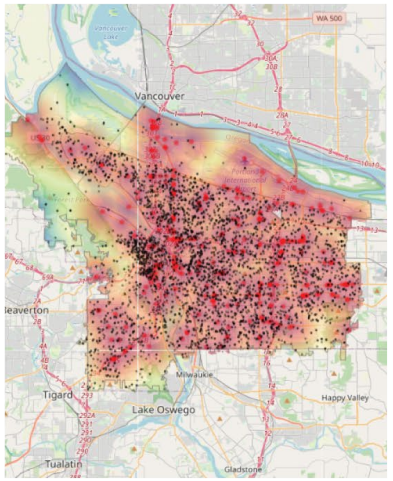
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Residents within 1km	84%	80%	81%	76%

Key takeaways

- Proximity ≠ Density
  - And the impact of policies is different
- Context is important
  - Baseline built environment for tobacco matters
  - Other factors likely matter as well
- Policymakers should know that policies will affect the measures differently
  - Plan for this for gauging policy successes
  - Different measures, e.g., proximity of retailers to schools, may resonate differently across groups

Open access publication

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Next steps

- Simulations with a focus on equity
  - We know there are racial, ethnic, and economic disparities in tobacco retailer density and resident-to-retailer proximity
  - There are differential impacts across groups and communities from retailer reduction policies as well
  - For example, how does a 600m (~2000ft) school-to-retailer buffer affect low-income communities as compared to higher-income ones, or communities of color and predominately non-Hispanic white communities, in terms of tobacco retailer density and proximity reductions?
  - Aside from traditional sociodemographics, there are structural measures of equity we investigate and compare: social capital index, social vulnerability index, entropy index, etc.

Contact us

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Questions from CADCA

- Have you started additional research on this topic?
- Who have you presented your findings to and who would you want to reach?
- How can coalitions and substance use preventionists in the field best use the findings from your research?

Mark Your Calendars for the next RIA!

Tuesday, February 27th at 12pm

“Long-term behavioral effects of a school-based prevention program on illicit drug use among young adults”

Dr. Kenneth Griffin

Coming Soon!

2024

Annual Survey of Coalitions

Thank You!

CADCA wishes to thank Veronica for her timely and insightful presentation.

For help with any evaluation or research related issue, or questions about this webinar, please send an email to **evaluation@cadca.org**