



Advancing Science  
& Practice in the  
Retail Environment

# Tobacco Retailer Density

What it is, why it matters, and resources to help talk about it

August 25, 2020



STANFORD PREVENTION  
RESEARCH CENTER  
*the science of healthy living*



Washington  
University in St. Louis



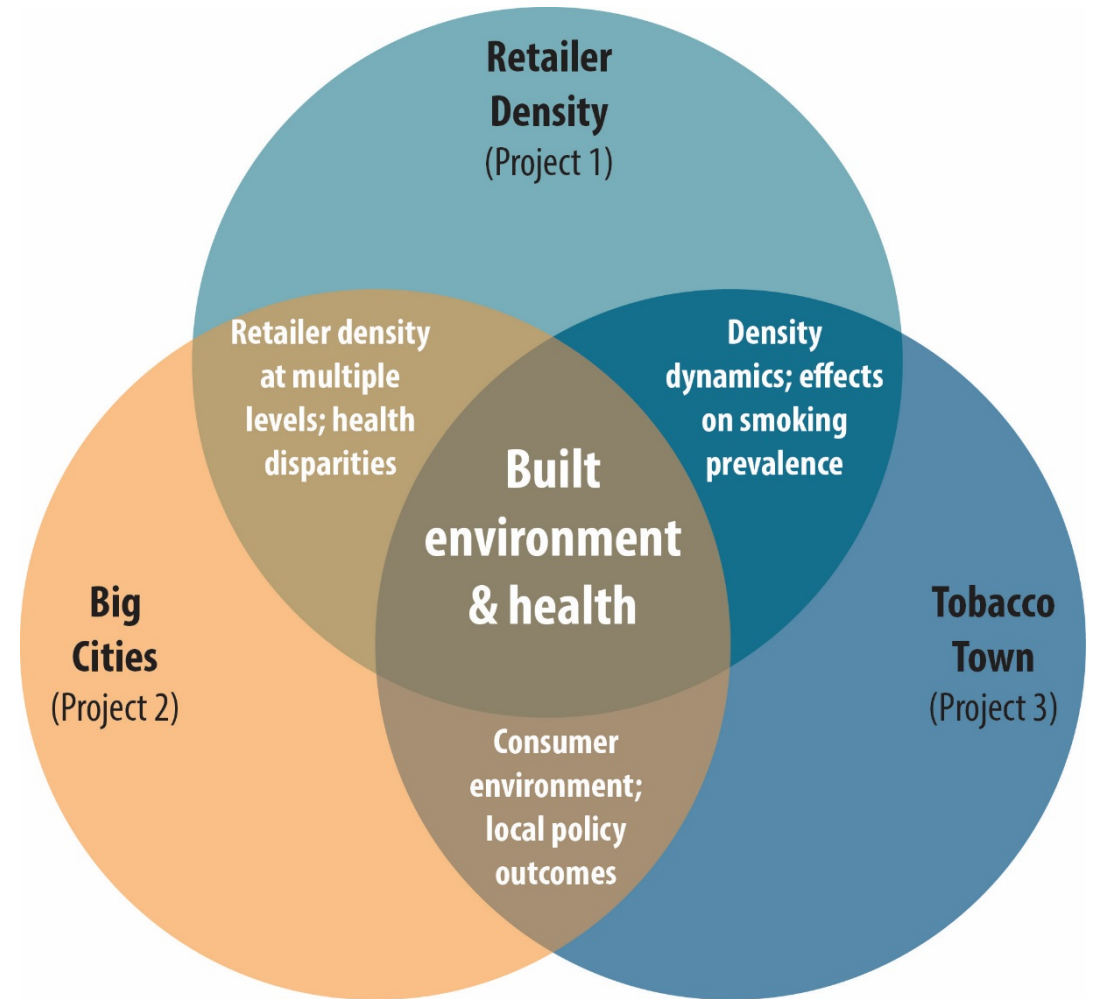
Center for Public Health  
Systems Science  
Brown School



GILLINGS SCHOOL OF  
GLOBAL PUBLIC HEALTH

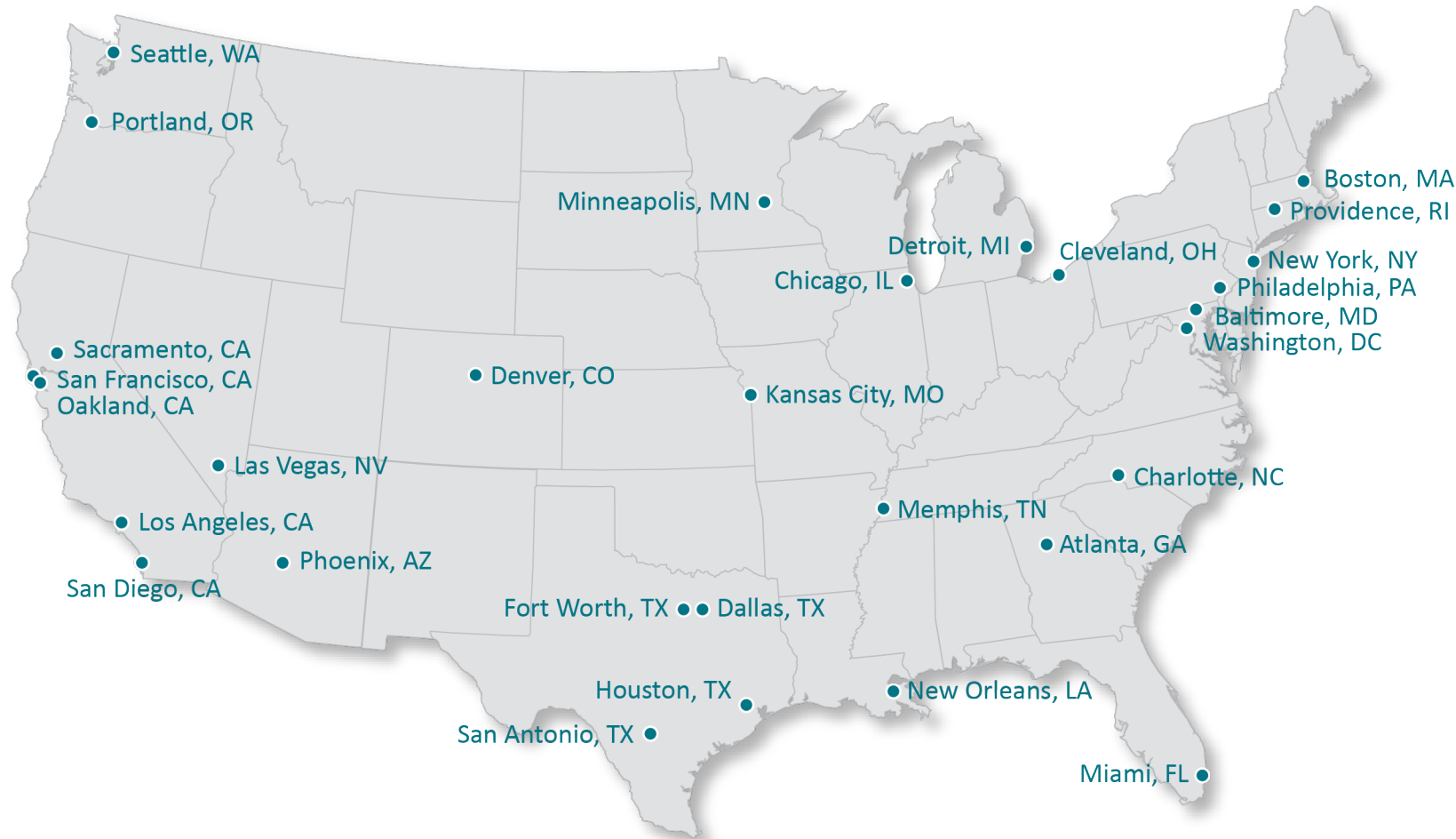
# ASPiRE

- **Goal:** *to build a rigorous, scientific evidence base for effective tobacco control in the retail environment to reduce the public health burdens of tobacco use*
- 3 research projects
- 3 support cores
  - Administrative core
  - Data core
  - D & I core



# ASPiRE Community Advisory Board

## 30 Big Cities



## Organizations



IT'S TIME ENERGIZE THE MOVEMENT

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**aspirecenter.org**



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# Tobacco Retailer Availability – Why does it Matter for Health and Equity?

Texas Tobacco Control Funded Partners: August 25, 2020

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Food Mart

SODA CIGARETTES WATER



GET  
YOUR  
RHINO  
HERE!



EMERGENCIES: 1.800.258.7466  
NO SMOKING @  
FLAMMABLE LP GAS



Food Mart

Regular  
**2.79**<sup>9</sup>/<sub>10</sub>  
V-Power **3.19**  
Diesel **3.13**

Accepted

OTTIANS



# CIGARETTE STORE

fun every  
\$ minutes

TOBACCO

ACCESSORIES

FRESH

Eagle  
20's  
\$ 3.39

GREAT PRICE  
Marlboro  
\$ 4.15

DISCOUNT  
OPEN  
CIGARETTE

GREAT PRICE  
Marlboro  
\$ 49.99

3.99

10  
\$ 29.99

OUR  
BEST  
BARGAIN  
\$ 3.69





1604 Cortelyou Road

WE ACCEPT  
FOOD  
STAMPS

# GROCERY & DELI



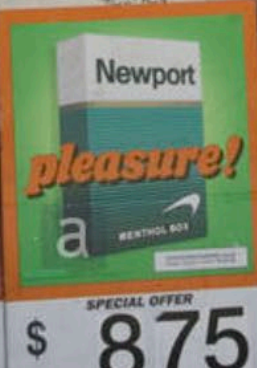
Calling  
Card

CIGARETTES • COLD BEER • SODA • COLD CUTS • CANDY  
HOT COFFEE • ICE CREAM • NEWS PAPER • LAUNDRY DETERGENTS

MetroCard



ATM  
ATLAS ATM (718) 729-7793  
www.atlasatmcorp.com



TRY OUR  
GRILLED  
SPECIAL  
BREAKFAST  
LUNCH  
COFFEE

Marlboro  
Special Price  
\$ 9.00



alamy





# CAMPUS CONVENIENCE

Tobacco • Grocery • Frozen Food • Ice Cream

WE BUY TEXTBOOKS

- Tobacco
- Grocery
- Frozen Food
- Ice Cream
- Drinks
- Candy



OPEN  
Cam  
Cotton Candy  
CONVENIENCE



**\$4 80**

### 3 Packs

A circular logo for Copenhagen Long Cut cigarettes. The text "SATISFACTION SINCE 1823" is curved along the top inner edge. In the center, the word "BLACK" is above "Copenhagen" in a large, stylized font, with "LONG CUT" below it. The bottom inner edge of the circle contains the text "MADE IN DENMARK".

**WARNING:** This product is not a safe alternative to cigarettes.

**\$2.79**

**\$2.79**

# MARLBORO

**DISCOVER**  
REGULAR TO MENTHOL

REGULAR TO MENTHOL

**Special Blend**  
\$3.95 PER PK 100 CIGARETTES  
3 PACK

**Marlboro 72's**  
\$3.90 PER PK 100 CIGARETTES  
3 PACK

**\$4.50**  
**SPECIAL PRICE**  
**WHEN YOU BUY 3**



**NEW!**  
ADVANCED CIGARETTE FILTER

**LASTS LONGER  
TASTES  
SMOOTHER**

**CAMEL**

© 2000 Camel Cigarettes, Inc. All rights reserved. Camel, the Camel logo, and Camel Lights are registered trademarks of Camel Cigarettes, Inc. All other trademarks are the property of their respective owners.

**Newt!**  
 NEWT! capsules  
 \$3.74  
 PER PACK WHEN YOU BUY

# Newport pleasure


**\$4.74** **Newport** menthol **\$4.14**

PER PACK WHEN YOU BUY 7 PER PACK WHEN YOU BUY 7




**CRUSH**  
EXPERIENCE

**\$4.20** SPECIAL PRICE WHEN YOU BUY 3



**\$3.46** **PER PACK**  
When You Buy  
**3 PACKS!**

PALL MALL

**Premium tobacco  
pleasure!** 



**pick your please**

**ure!** 




**Newport** SMOOTH SELECT

**MAVERICK**  
THE REAL DEAL



1000

MAVERICK



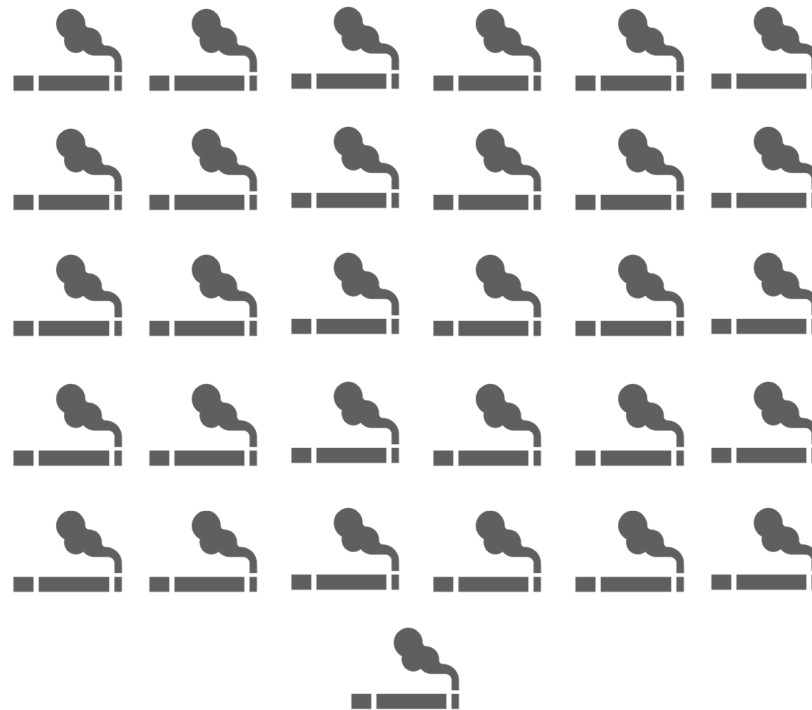
**TRICK** \$374 PER PACK  
When You Buy 1 Pack

**MAVERICK**

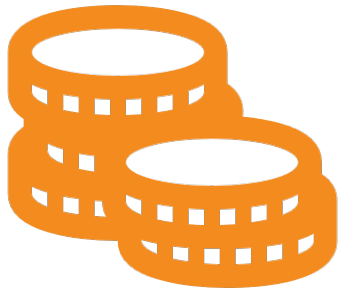


# In 2017, there were approximately 355,000 tobacco retailers.

(UNC, Project 1)







**In 2018, the tobacco industry spent over \$1 million/hour on tobacco product advertising and promotions.**





**We should be concerned about an inequitable distribution of tobacco retailers and marketing by neighborhood sociodemographic characteristics.**





**Tobacco retailer density is a measure of the availability of tobacco retailers in a geographic area.**





# Tobacco retailer density measures



# Tobacco retailer density measures



0.5 retailers per square mile

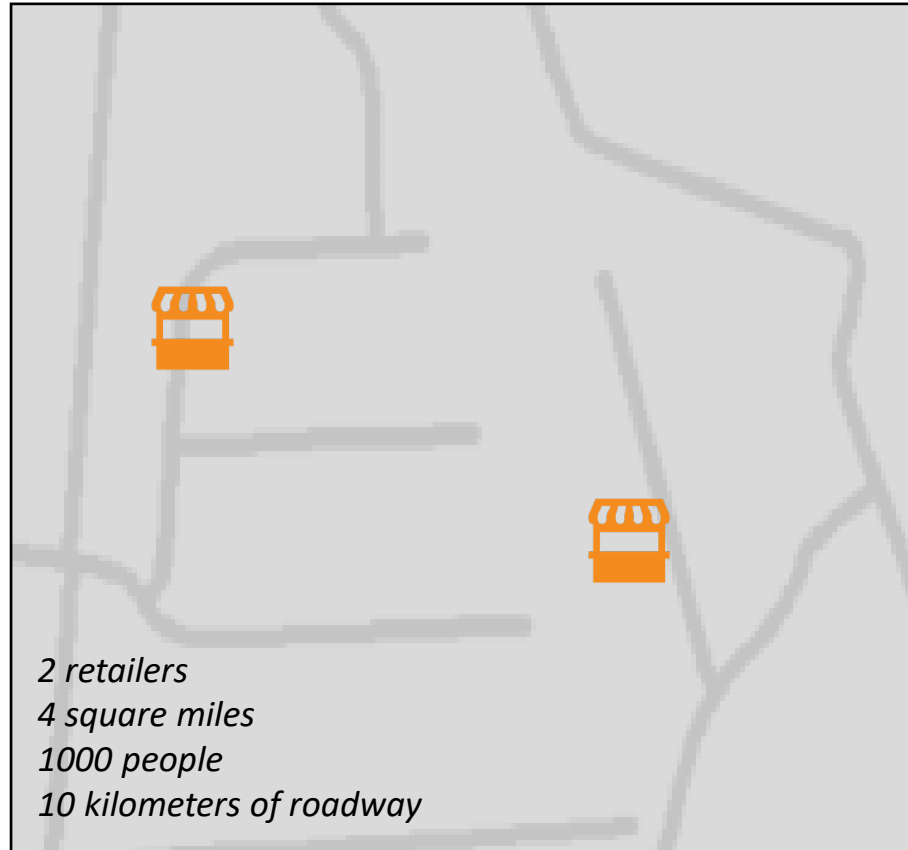
# Tobacco retailer density measures



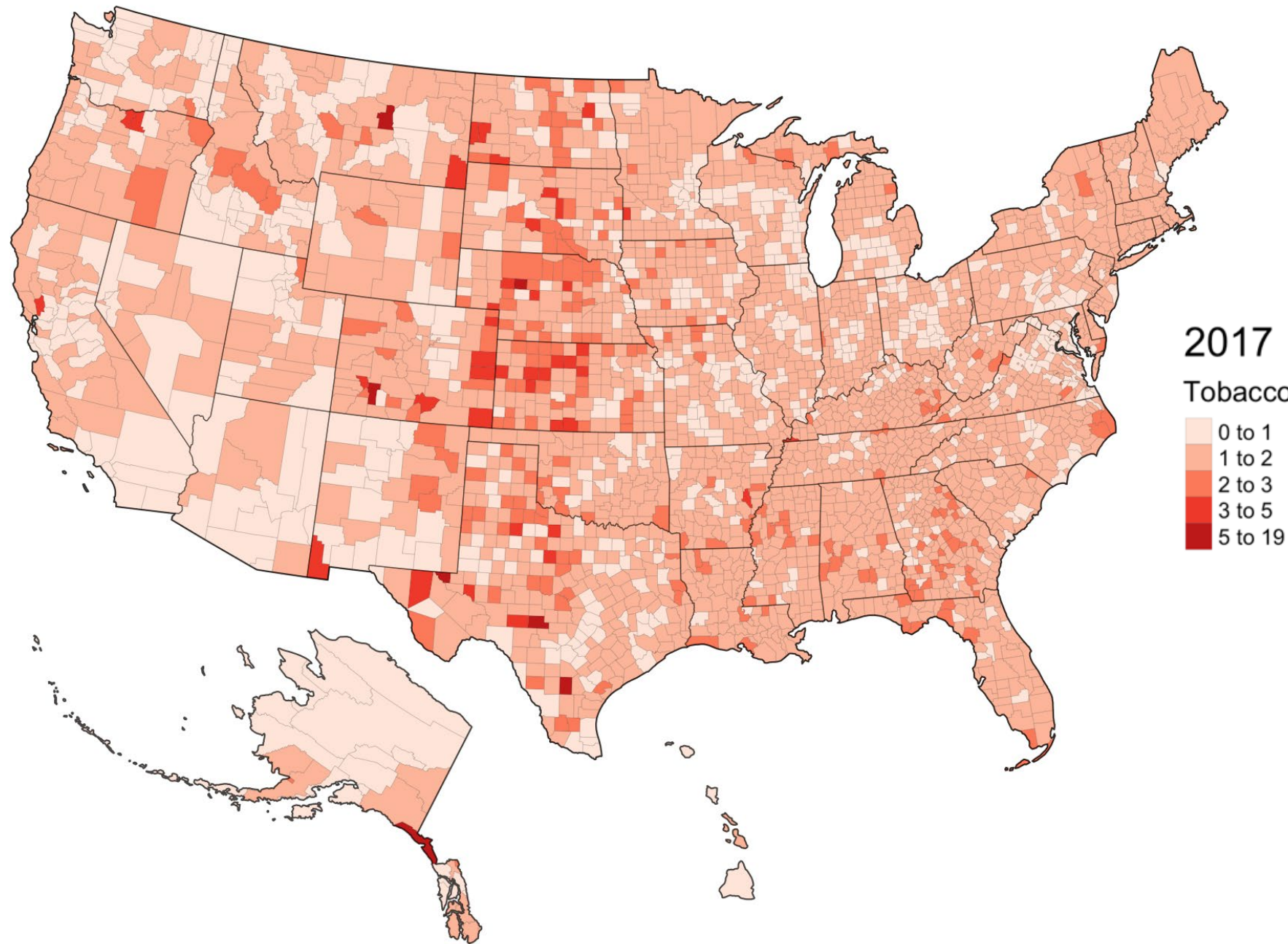
0.5 retailers per square mile  
2 retailers per 1000 people



# Tobacco retailer density measures

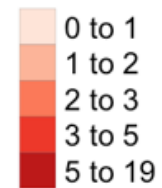


0.5 retailers per square mile  
2 retailers per 1000 people  
2 retailers per 10km roadway



2017

Tobacco Retailers per 1,000 People



# Tobacco retailer density & point-of-sale marketing

1. Clemens T, *Tobacco Control* (2018)
2. Henriksen L, *Preventive Medicine* (2008)
3. Robertson L, *Tobacco Control* (2016)
4. Lipton R, *International Journal of Medical Sciences* (2007)
5. Galiatsatos P, *Tobacco Control* (2018)
6. Lee JG, *J Epidemiol Community Health* (2017)
7. Lee JG, *American Journal of Public Health* (2015)
8. Kong A, *Nicotine & Tobacco Research* (2020)
9. Mills S, *Health & Place* (2018)



# Tobacco retailer density & point-of-sale marketing

**Smoking and  
cessation behaviors**

Youth initiation, current smoking,  
impulse purchases<sup>1-3</sup>

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# Tobacco retailer density & point-of-sale marketing

<b>Smoking and cessation behaviors</b>	Youth initiation, current smoking, impulse purchases <sup>1-3</sup>
<b>Health outcomes</b>	COPD hospitalizations, life expectancy, mortality <sup>4-5</sup>

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# Tobacco retailer density & point-of-sale marketing

<b>Smoking and cessation behaviors</b>	Youth initiation, current smoking, impulse purchases <sup>1-3</sup>
<b>Health outcomes</b>	COPD hospitalizations, life expectancy, mortality <sup>4-5</sup>
<b>Neighborhood sociodemographics</b>	Socioeconomic status, racial composition <sup>6-9</sup>

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2. Henriksen L, *Preventive Medicine* (2008)
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# Key Takeaways



Tobacco retailers are abundant, and there is ample tobacco marketing at the point of sale.



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Tobacco retailer density and marketing are associated with smoking behaviors and related health outcomes.

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Tobacco retailer density and marketing are associated with smoking behaviors and related health outcomes.



There is an inequitable distribution of tobacco retailers and marketing, which may put some historically marginalized and minoritized groups at a higher risk of tobacco use and related disease.





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& Practice in the  
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# Tobacco Retailer Density Fact Sheets

Texas Tobacco Control Funded Partners | August 25, 2020

Ilana Raskind, PhD | Stanford Prevention Research Center



STANFORD PREVENTION  
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GLOBAL PUBLIC HEALTH**



# ASPiRE 30 Big Cities



# Tobacco retailer density fact sheets

## FACT SHEET

### Tobacco Retailer Density in Dallas

#### Retailer Fast Facts

- Dallas has 1,410 tobacco retailers, 24 times more retailers than McDonald's restaurants and 17 times more than Starbucks.



1,410



60



83

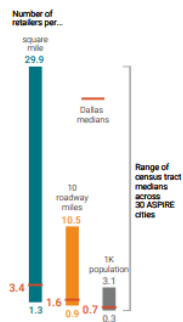
- 44.0% of tobacco retailers are within 500 feet of another tobacco retailer (~1 city block); average distance between a tobacco retailer and its nearest competitor is 1,026 feet (~2 city blocks).

#### Density Described

We can measure the density of tobacco retailers in several ways. Here, we compare three popular density measures (square mile, 10 roadway miles, and 1K population). Find the one that resonates best with you, your community, and other stakeholders.

Depending on the denominator—retailers per square mile, roadway miles, or population—density measures can look very different.

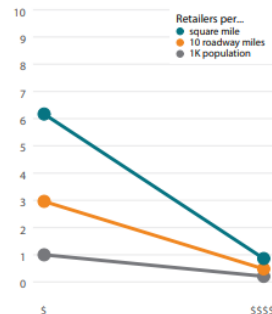
For each measure, we gathered data at the census tract level and found the median for all 30 ASPIRE CAB cities. See where your city falls.



#### Density & Income Disparity

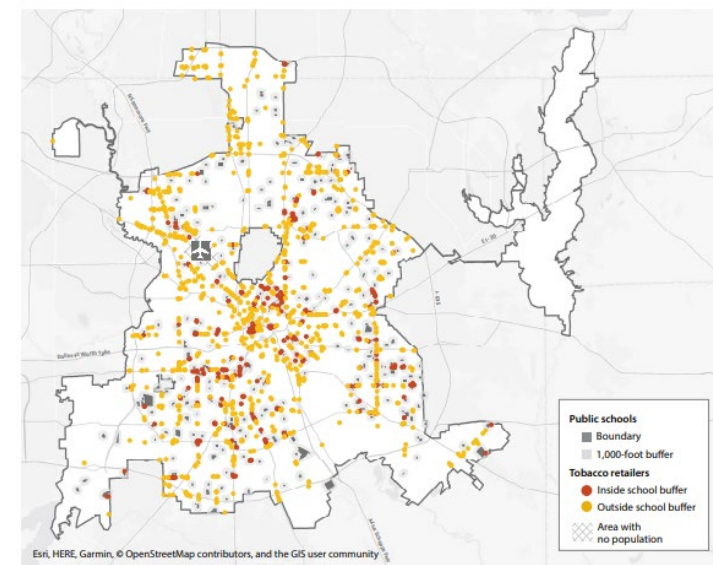
Lower-income neighborhoods (census tracts) typically have higher tobacco retailer density than higher-income neighborhoods. Sometimes this depends on which measure of density is used.

Here is the median tobacco retailer density for tracts with the lowest and highest quartiles of household income in Dallas:



Suggested citation: Tobacco Retailer Density Fact Sheet for Dallas, TX (May, 2020), Advancing Science & Practice in the Retail Environment (ASPIRE, [aspirescience.org](https://aspirescience.org)), funded by the National Cancer Institute #P01-CA225597.

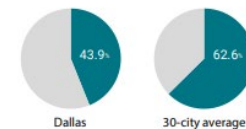
### Tobacco Retailers & Schools in Dallas



#### The Dallas map illustrates that:

- 43.9% of public schools are within 1,000 ft of a tobacco retailer
- 22.3% of tobacco retailers are within 1,000 ft of a school

Dallas has fewer schools near tobacco retailers than the 30-city average



About these data: State licensing identified cigarette and tobacco retailers (State of Texas, Comptroller of Public Accounts, Aug. 2019). McDonald's and Starbucks obtained from AggData (2020). City block length estimated to be 540 feet, the average for 19 of 30 cities with block size data. For census tracts, land area and roadway miles were obtained from TIGER/Line Shapefiles (machine-readable data files) prepared by the U.S. Census Bureau, 2019 (<https://www.census.gov/geographies/tigerfiles/index.php>); population size and median household income obtained from American Community Survey (2013-2017). School boundary shape files were created by GreenInfo Network. ESRI ArcGIS 10.6.1 used for geocoding and maps. Suggested citation: Tobacco Retailer Density Fact Sheet for Dallas, TX (May, 2020), Advancing Science & Practice in the Retail Environment (ASPIRE, [aspirescience.org](https://aspirescience.org)), funded by the National Cancer Institute #P01-CA225597.

One in six US adults lives in one of the 30 ASPIRE Community Advisory Board (CAB) cities. The cities vary with respect to state/local tobacco control policies and region. Products like this provide the 30 cities with readily usable snapshots of information on the consumer and built environments for tobacco in their cities and in comparison to the other cities. CAB representatives can use these products in communications with staff, policymakers, and other stakeholders.



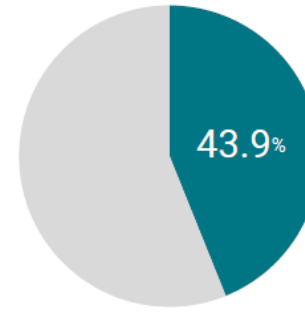
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[aspirescience.org](https://aspirescience.org)



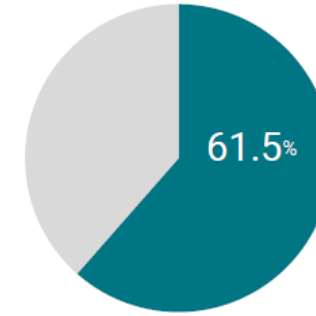
# Ubiquitous



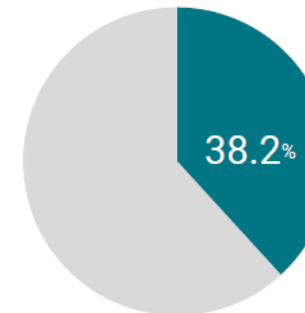
# Located near schools



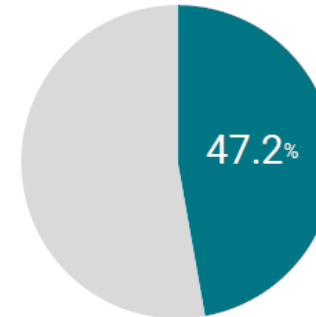
Dallas



Houston



Fort Worth



San Antonio

# Easy to access

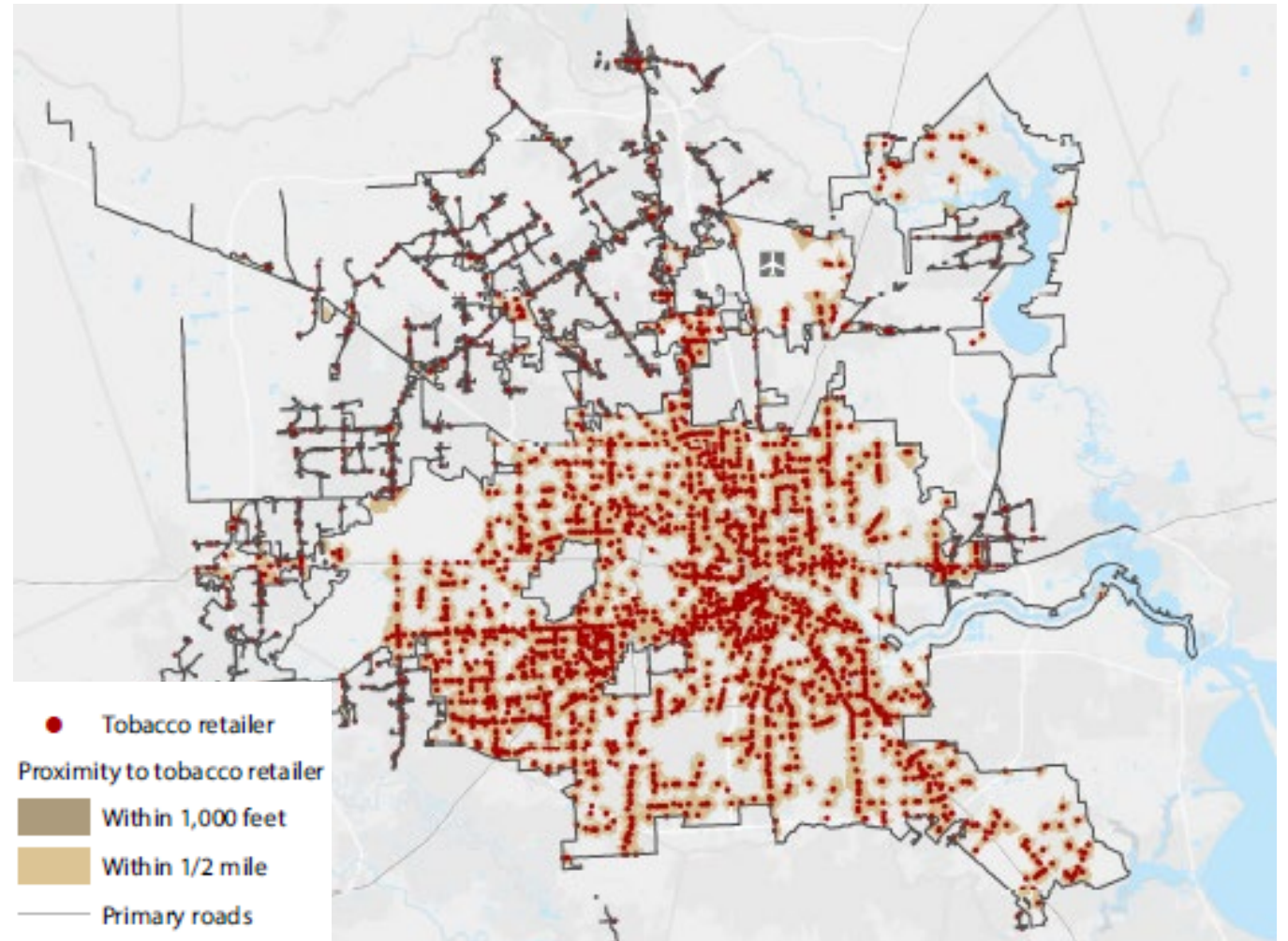
- On average, **70%** of 30 city residents live within ½ mile of a tobacco retailer
  - **54%** in Dallas
  - **49%** in Fort Worth
  - **67%** in Houston
  - **55%** in San Antonio



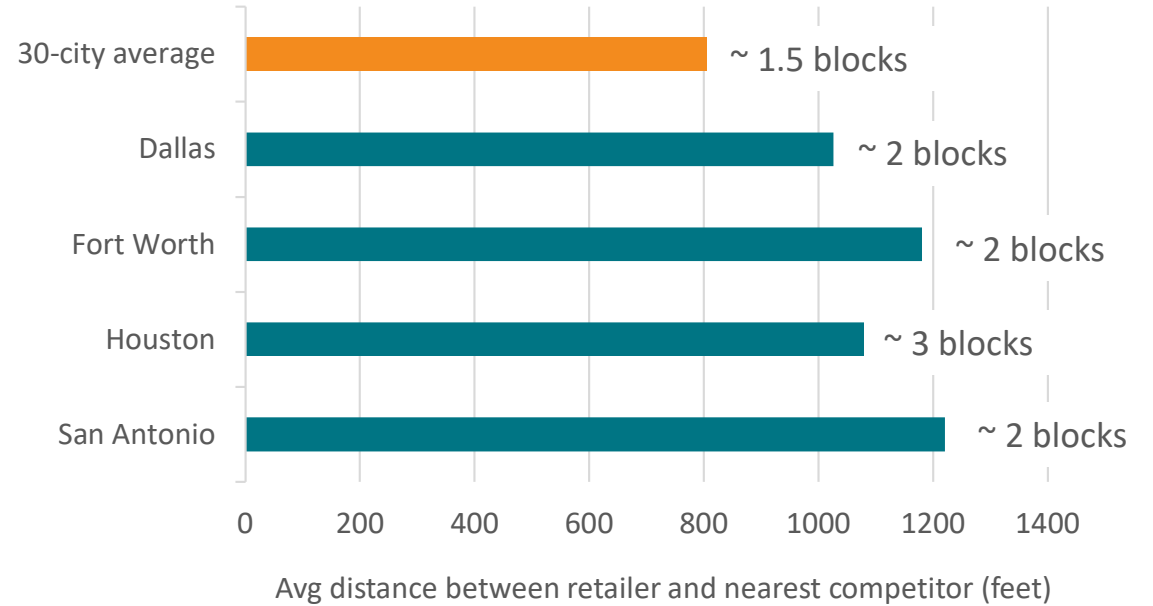
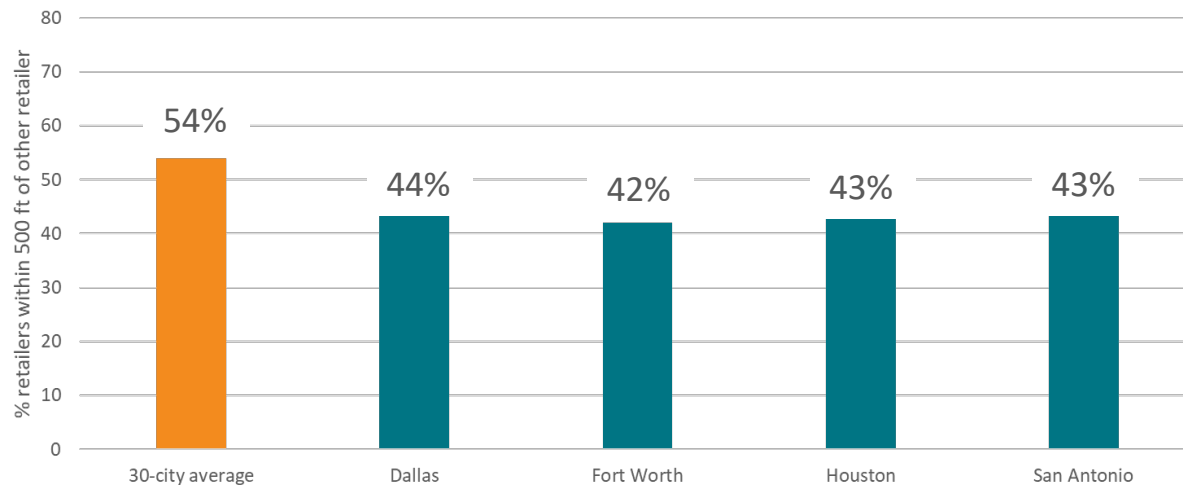


# Houston, TX

- Tobacco swamps are areas with a glut of tobacco retailers
  - **18%** of residents live within 1,000 feet of a tobacco retailer
  - **67%** of residents live within ½ mile (~10-minute walk)

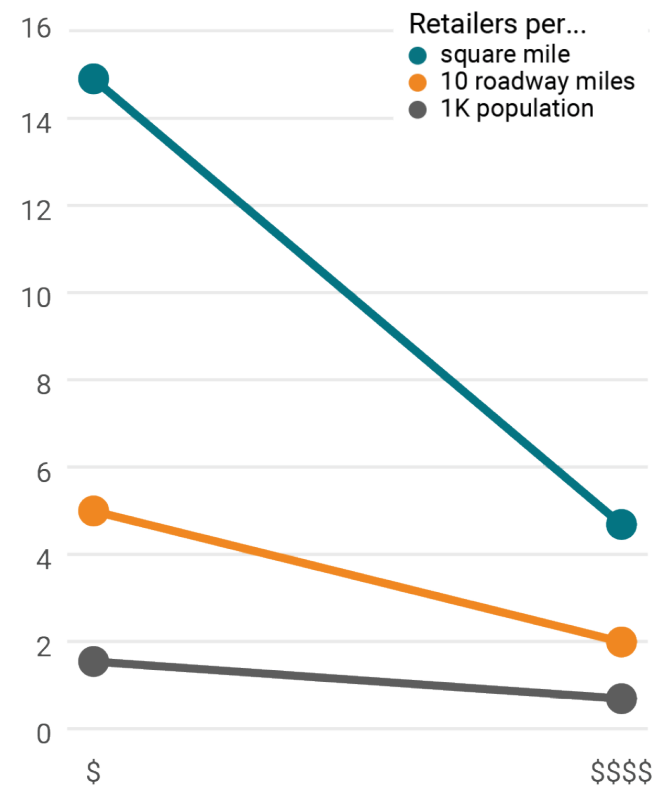


# Clustered together

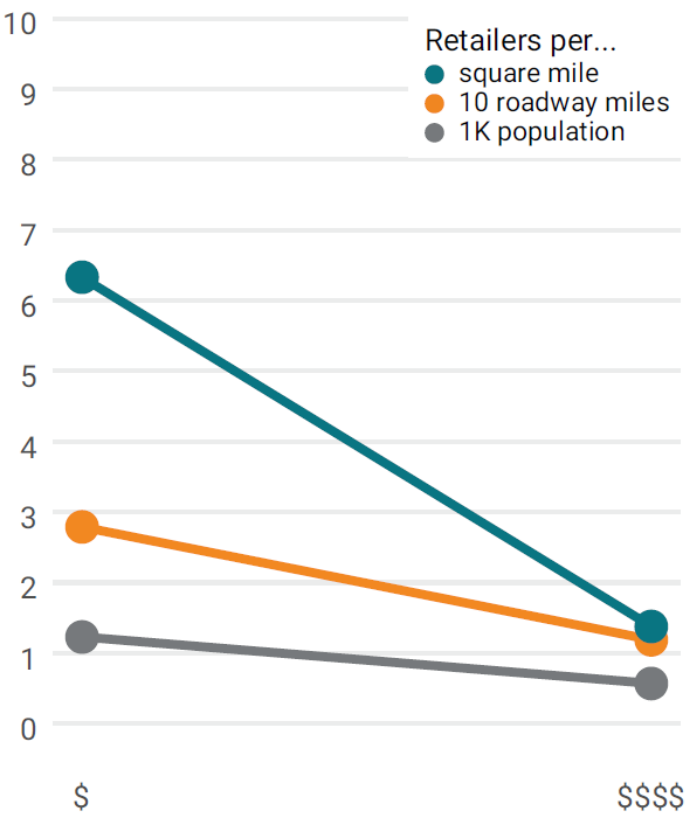


# A note on measuring density

Here are the 30-city averages for median tobacco retailer density for tracts with the lowest and highest quartiles of household income:

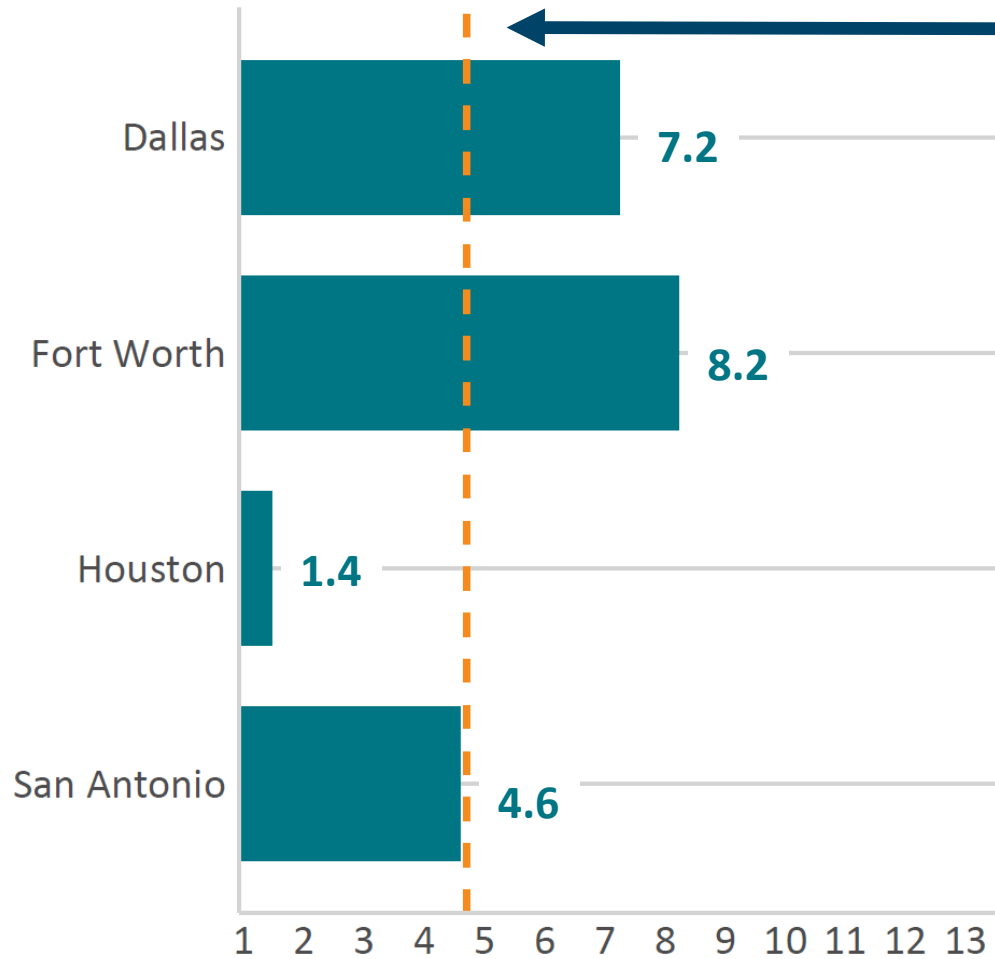


Here is the median tobacco retailer density for tracts with the lowest and highest quartiles of household income in **San Antonio**:





# Concentrated in lower-income areas



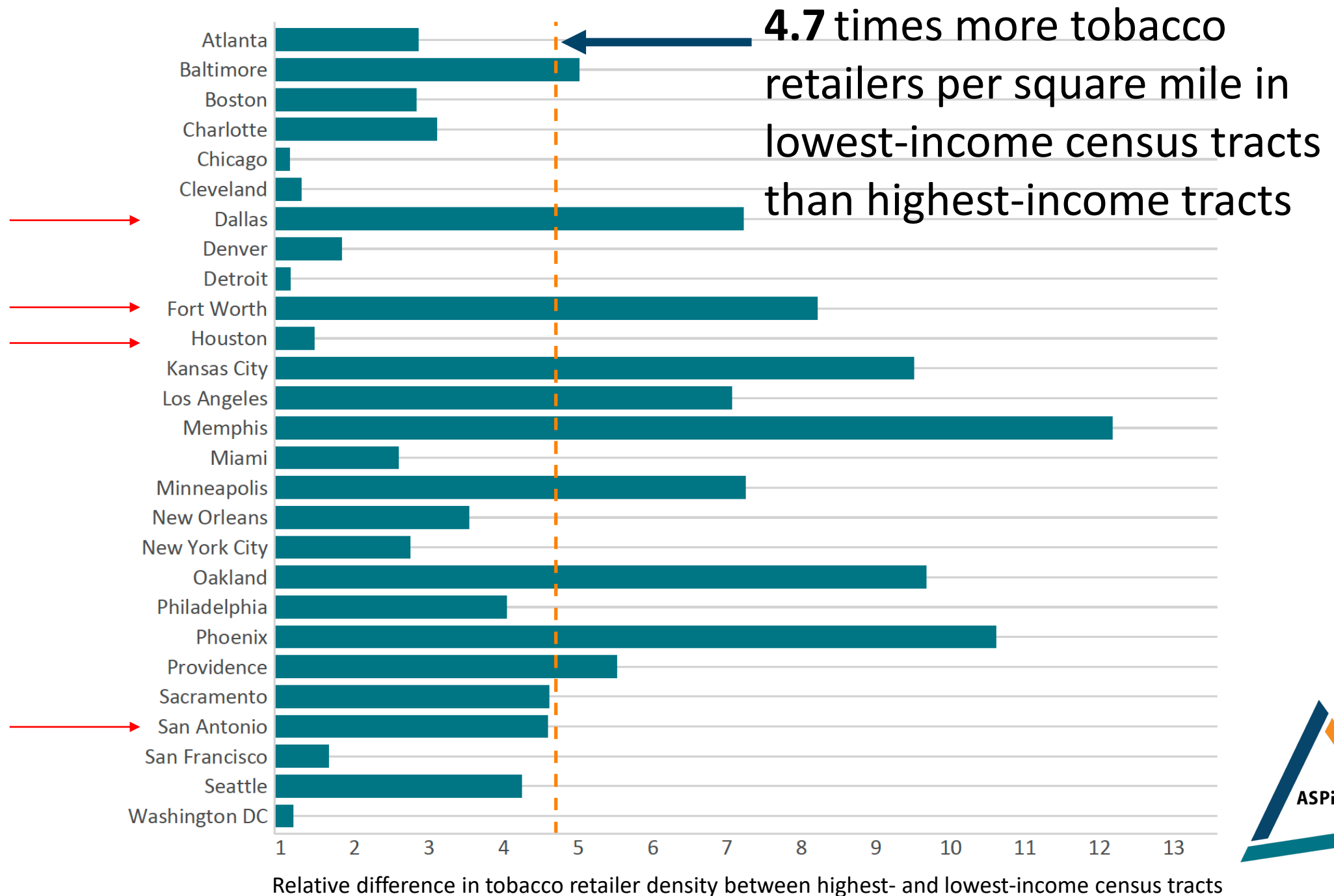
Relative difference in tobacco retailer density between highest- and lowest-income census tracts

**4.7** times more tobacco retailers per square mile in lowest-income census tracts than highest-income tracts

Density and income inequities in **Houston**?

- How is neighborhood defined?
- Patterns of gentrification or other structural factors?





# Key takeaways

- Tobacco retailers are:
  - Ubiquitous
  - Located near schools
  - Easy to access
  - Clustered together
  - Concentrated in lower-income areas



# Helpful URLs

- **The ASPiRE Center:** <http://aspirecenter.org/>
- **Tobacco Swamps Dashboard:**  
<https://aspirecenter.org/tobacco-swamps/>
- **Tobacco Retailer Density Fact Sheets and more:**  
<https://aspirecenter.org/tobaccoretailers/>
- **Go directly to all resources for your city:**  
<https://aspirecenter.org/dallas/>

# Contact us

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