

Tobacco Retail Density in the Southcoast Public Health Coalition



SOUTHCOAST



July 2025

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Introduction

Smoking is the leading cause of preventable death across the United States. Nearly 500,000 Americans die every year due to smoking, averaging one smoking death per minute ^{vi}. Massachusetts is no exception to these statistics.

Nicotine, a toxic substance found in tobacco products, is highly addictive. It can cause long-term health consequences to the brain, particularly in people under 26 years old while the brain is still developing. Smoking can negatively affect brain development and other nearly every organ in the body. It is associated with multiple preventable chronic diseases including coronary heart disease, stroke, type 2 diabetes, chronic obstructive pulmonary disease, asthma, and numerous types of cancer ^{vi, iv}.

Massachusetts spends almost \$5 billion a year on health care costs directly caused by smoking. Smoking-caused productivity losses from smoking-related premature deaths and illnesses that prevent people from working has cost Massachusetts at least \$7 billion annually ^{ix}. These calculations do not include health care costs caused by exposure to secondhand smoke, smoking-caused fires, or use of non-cigarette tobacco products.

How Tobacco Affects the Health of Our Community

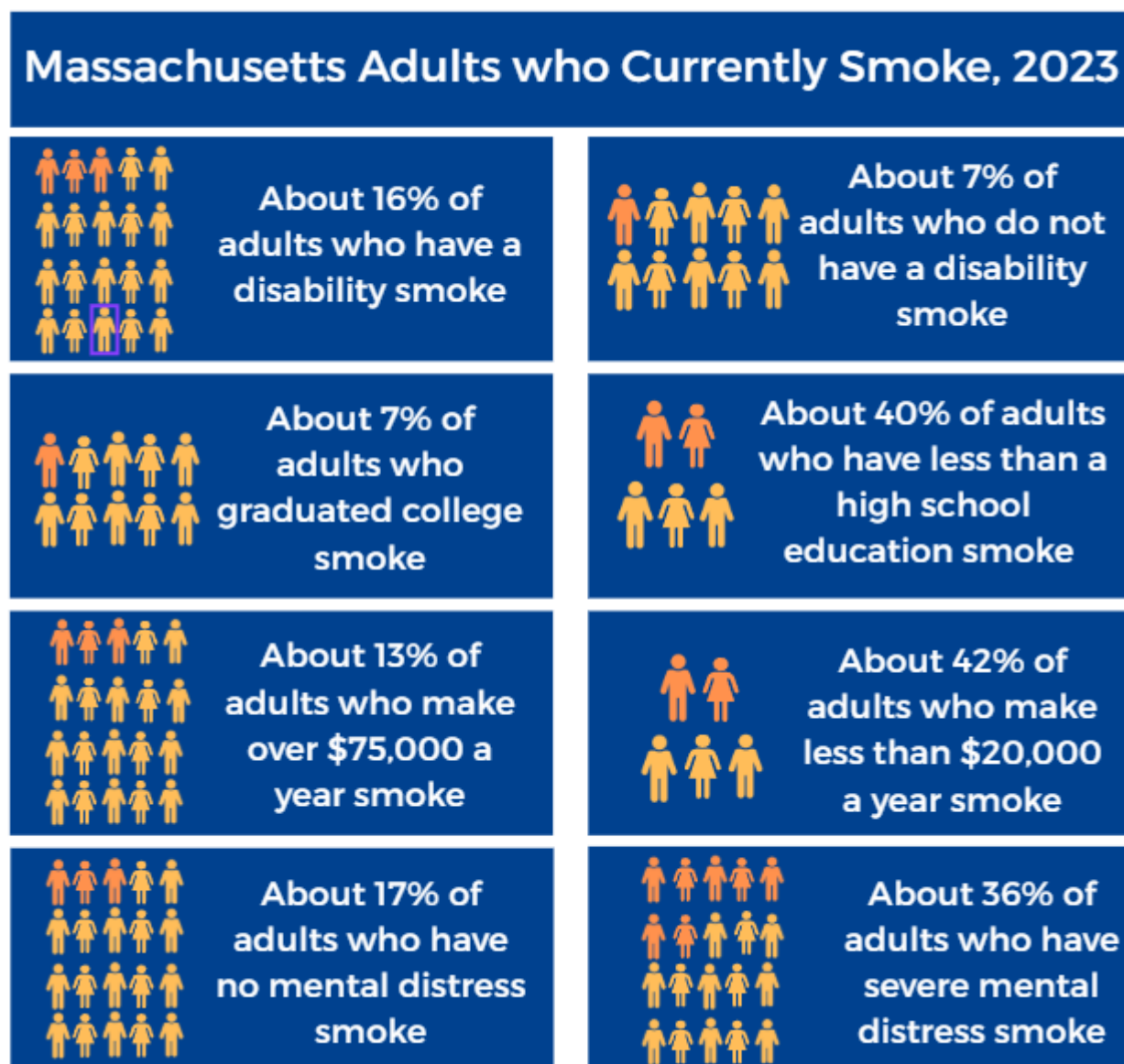
The community where we live, work, and play is vital in determining our overall health. Differences in the social, environmental, and economic conditions impact health risk behaviors and long-term health outcomes of individuals in that community. Historically, many elements of these conditions have been manipulated to perpetuate segregation and wealth inequalities. For example, low-income communities and communities of color have a greater tobacco retail density and poorer health outcomes than their higher-income counterparts ⁱⁱ.

The tobacco industry has historically taken advantage of state and federal governments' efforts to systematically segregate people into neighborhoods on the basis of race and income. These segregated neighborhoods allow for the tobacco industry to more easily target marginalized communities using tactics like price discounts and culturally-aimed ads; for example, advertising and selling menthol cigarettes to primarily Black populations ⁱⁱⁱ. This intentional segregation and targeted marketing has led to disproportionate rates of smoking-related illness and mortality in these marginalized populations.

In Massachusetts there are significant gaps in smoking prevalence among certain demographic groups. The following populations have higher smoking rates, lower quit rates, and higher rates of tobacco-related health outcomes:

- Black non-Hispanics and Hispanics
- Individuals that have MassHealth insurance
- Individuals with lower income
- Individuals with less than a high school education
- Persons with disabilities
- Individuals experiencing poor mental health
- Individuals who identify as LGBTQ+

Figure 1: Massachusetts Adults who Currently Smoke, 2023

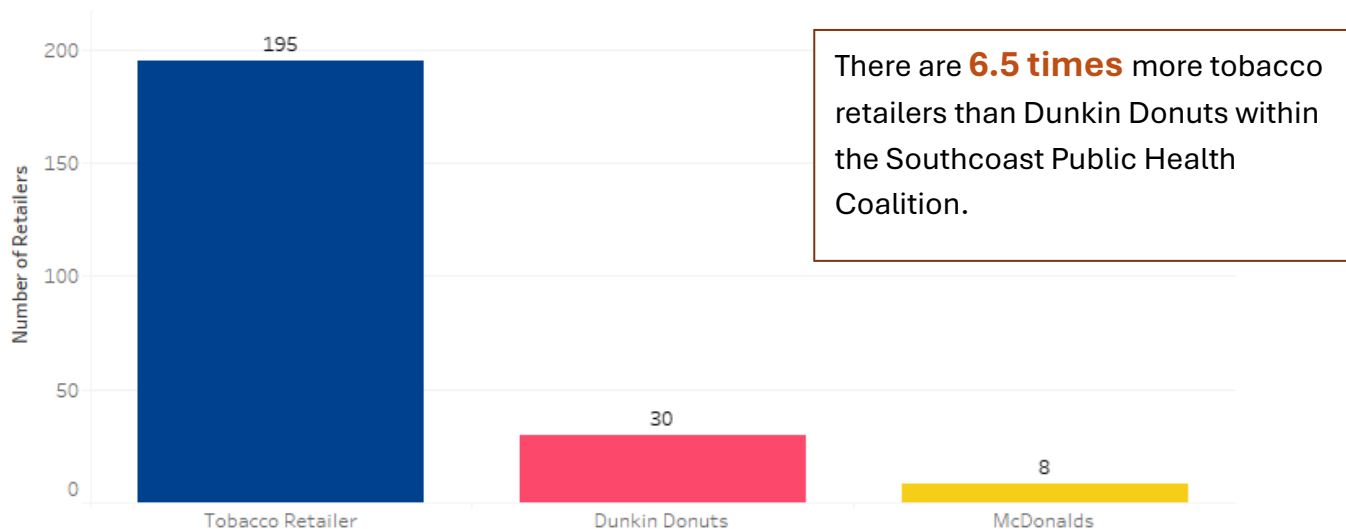


Local Tobacco Industry Influence

It is not out of the ordinary to see tobacco and nicotine products for sale in your community. Despite well-documented evidence of the negative health effects of tobacco and nicotine use, smoking has become normalized in our society.

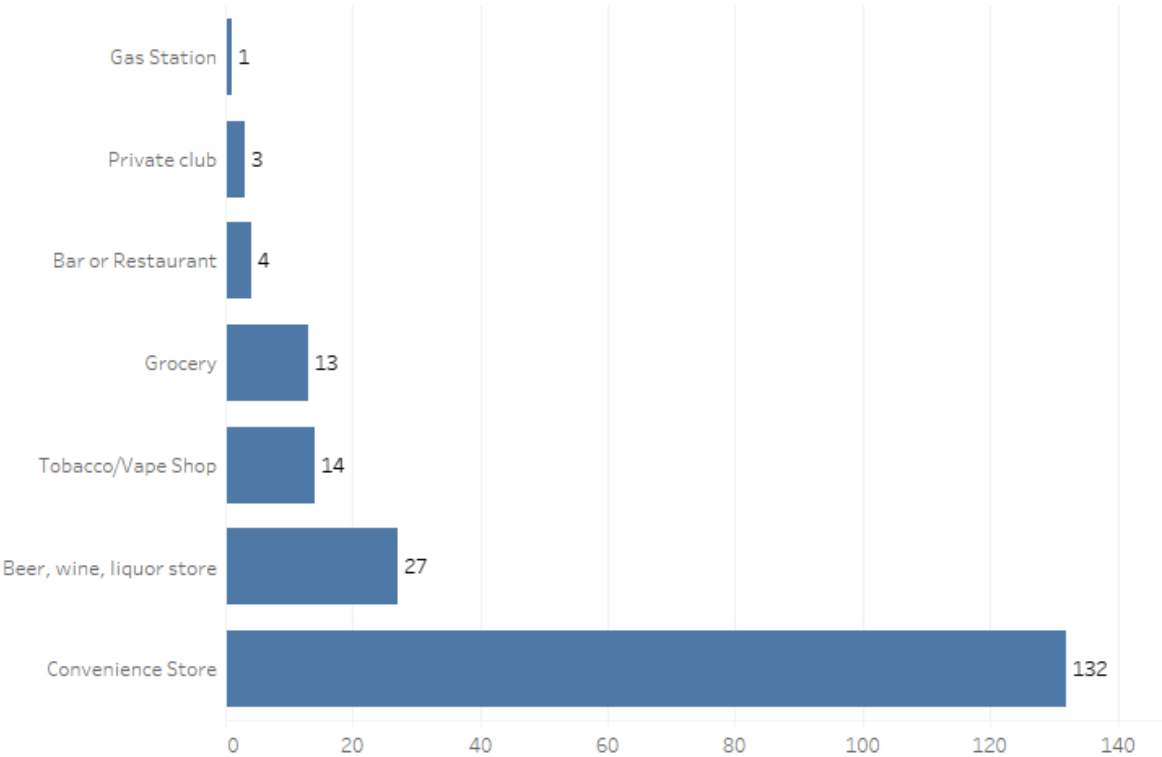
In 2023, there were 195 retail establishments with a license to sell tobacco in Fall River, Swansea, Somerset, and Seekonk. The number of tobacco retailers far outnumber popular restaurant chains, such as Dunkin' Donuts or McDonald's.

Figure 2: The Number of Tobacco Retailers Compared to Popular Chains



Tobacco retailers are made up of a wide variety of stores and many of these are frequented for reasons other than to purchase tobacco products. Convenience stores selling snacks, drinks, and other goods make up 68% of tobacco retailers across the Southcoast Public Health Coalition.

Figure 3: Types of Retailers with a License to Sell Tobacco Products



Health Effects of Smoking

Cigarette smoking causes many harmful health effects to nearly all systems of the body. Smoking has been linked to lung cancer, chronic obstructive pulmonary disease (COPD), coronary heart disease, stroke, diabetes mellitus, increased risk for ectopic (tubal) pregnancy, and impaired fertility^{vi}.

Compared to Massachusetts overall, all four municipalities within the Southcoast Public Health Coalition have greater smoking prevalence among adults, higher incidence rates of lung cancer, and higher prevalence of heart disease.



Local Effects of Smoking

Table 1: Adults (18+) South Coast Coalition, 2023

City	Adult Smoking Prevalence	Asthma Prevalence	Lung Cancer Incidence Rate (per 100,000)	Heart Disease Prevalence
Fall River	19.8%	13.5%	65.4	8.6%
Seekonk	12.6%	11.9%	67.6	7.4%
Somerset	12.6%	11.6%	65.6	7.8%
Swansea	13.4%	11.8%	65.6	7.9%
Massachusetts	11.5%	11.6%	56.6	6.6%

An estimated 18,800 smokers live in Fall River, which makes up 19.8% of the adult population.

Between 2017 and 2021, there were an average of 82 new cases of lung cancer every year in Fall River. That's 65 cases of lung cancer for every 100,000 people living in Fall River.

An estimated 2,000 smokers live in Seekonk, which makes up 12.6% of the adult population.

Between 2017-2021 there were an average of 14 new cases of lung cancer per year in Seekonk. That's 67.6 cases of lung cancer for every 100,000 people living in Seekonk.

An estimated 2,300 smokers live in Somerset, which makes up 12.6% of the adult population.

Between 2017-2021 there were an average of 16 new cases of lung cancer per year in Somerset. That's 65.6 cases of lung cancer for every 100,000 people living in Somerset.

An estimated 2,300 smokers live in Swansea, which makes up 13.4% of the adult population.

Between 2017-2021 there were an average of 15 new cases of lung cancer per year in Swansea. That's 65.6 cases of lung cancer for every 100,000 people living in Swansea.

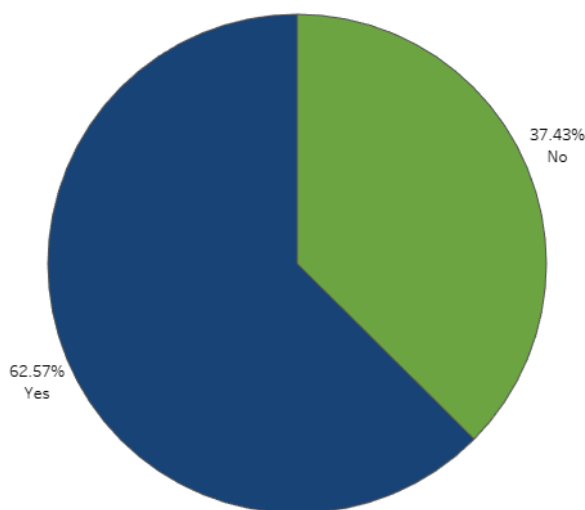
E-Cigarettes

In recent years, e-cigarettes have gained popularity as a “safe alternative” to burning tobacco cigarettes and smoking cessation tools. While there is some evidence that e-cigarettes help in smoking cessation, a 2020 report from the Surgeon General^{vi} found that “the long-term health effects of using these products remain unknown, and short-term risks are only slowly coming into focus.”

In 2010, e-cigarette manufacturers began adding flavors like fruit or mint and changed the chemistry to double the concentration of nicotine in these devices. The FDA only began regulating these e-cigarettes as “new tobacco products” in 2016, issuing a partial ban on certain flavored products in 2020 due to their appeal to youth^v.

E-cigarette manufacturers have utilized marketing tactics used by tobacco companies to target children. These strategies include attending youth-oriented events with free samples, utilizing celebrity spokespeople, running social media ads, and producing fun, kid-friendly flavors. These targeted advertisements work to expand their customer base to young, previously non-smokers.

Figure 4: Percent of Tobacco Retailers that Sell E-Cigarettes



70% of middle & high school students have been exposed to e-cigarette advertisements.

42% of high school students who use e-cigarettes reported vaping **20 or more days/month**.

Tobacco Retail Density in Our Communities

Retail Density

Retail density is the number of tobacco retailers per 1,000 individuals in a given geographic area. Tobacco retail density can be calculated for adults and youth populations separately, and at the community, county and state-level. No matter how it is calculated, retail density acts as a measure of the concentration of tobacco availability.

Tobacco retail density can influence individual behavior and the overall health of the community. Greater retailer presence increases tobacco product sales and high visibility ads can make it harder to quit smoking. These marketing strategies normalize smoking by giving the impression that it is common and acceptable to smoke in our communities^{vii}.

There are typically more tobacco retailers in communities of color and low-income areas, therefore, people who live in these areas are more likely to experience increased exposures to tobacco and nicotine products and advertisements.

The presence of tobacco products in the community undermines quit attempts, keeps current users addicted, and attracts new users.

In 2023, retail density for the Southcoast Public Health Coalition was **1.3** retailers per 1,000 individuals.

- Adult retail density was **1.7 retailers per 1,000 adults 18+**
- Youth retail density was **6.71 retailers per 1,000 youth under the age of 18**

Table 2: Retail Density by City within the Southcoast Public Health Coalition

City	Retail Density	Adult Retail Density	Youth Retail Density
Fall River	1.35	1.7	6.49
Seekonk	1.76	2.18	9.12
Somerset	1.15	1.42	5.95
Swansea	1.23	1.52	6.62

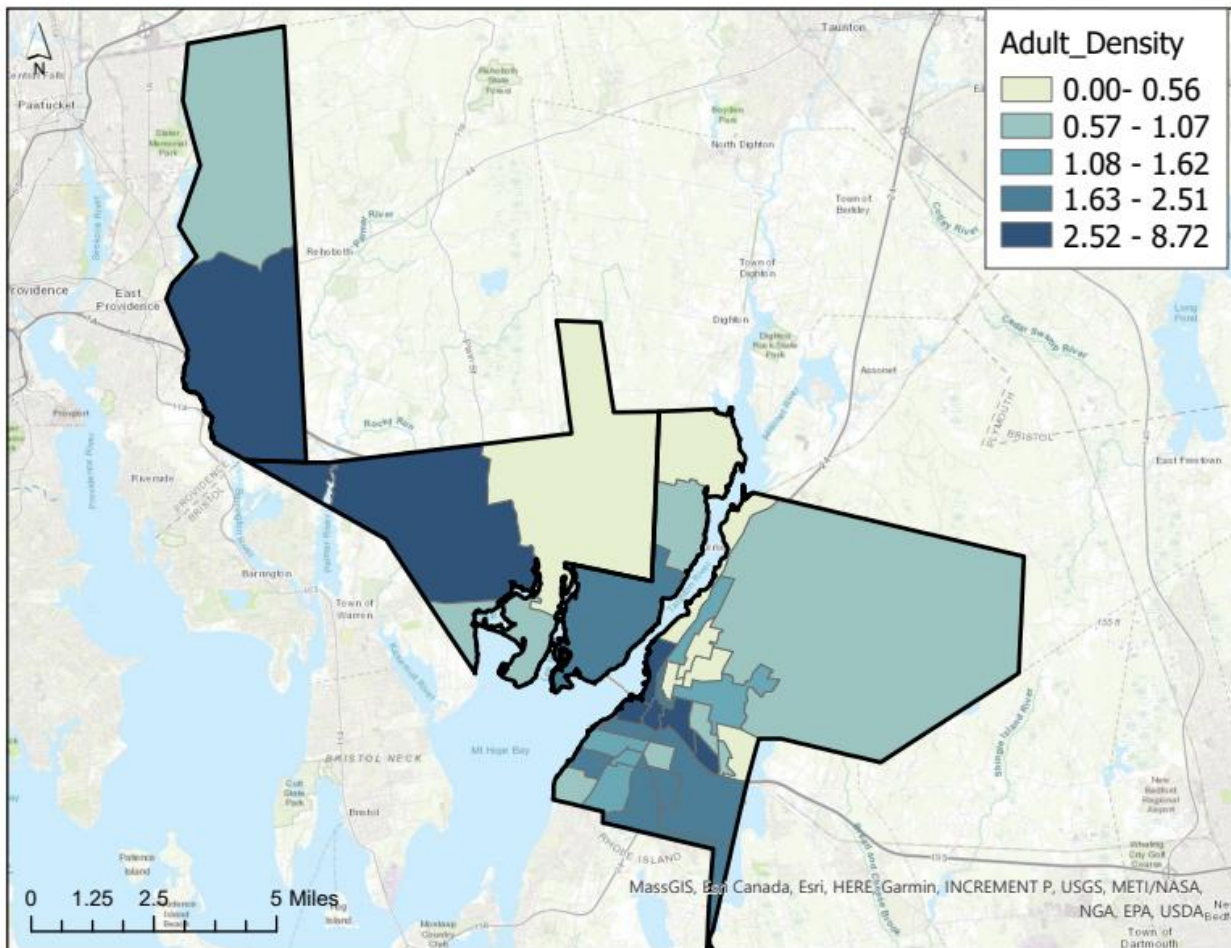
Retail Density

- 0.00 - 0.32
- 0.33 - 0.86
- 0.87 - 1.47
- 1.48 - 2.09
- 2.09 - 7.73

0 1.25 2.5 5 Miles

MassGIS, Esri Canada, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS, Town of Dartmouth

Figure 6: Adult Retail Density by Census Tract, Southcoast Public Health Coalition



The census tract with the highest overall, adult, and youth retail density is tract 6411.01. This tract contains areas from the Corky and Lower highlands neighborhoods, split by Route I-195. About 25% of people in this area identify as Hispanic or Latino and 31.4% are classified as being below the federal poverty level.

As of 2024, there are 11 retailers within this area. There are 8.7 tobacco retailers per 1,000 adults and **67.9 retailers per 1,000 youth** in this census tract area: **the highest density within the Southcoast Coalition.**

People who live in this neighborhood are likely to experience disproportionate exposure to tobacco and nicotine products and advertisements.

Figure 7: Retail Density within Census Tract 6411.01

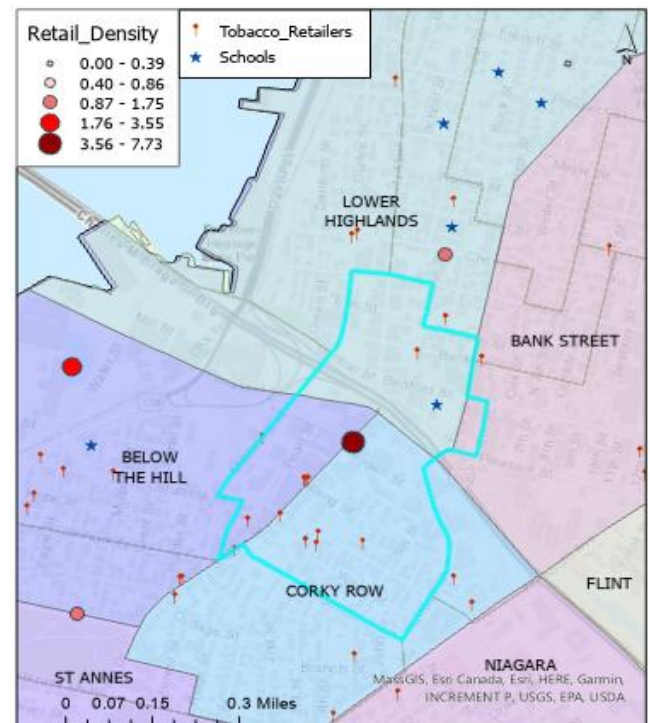
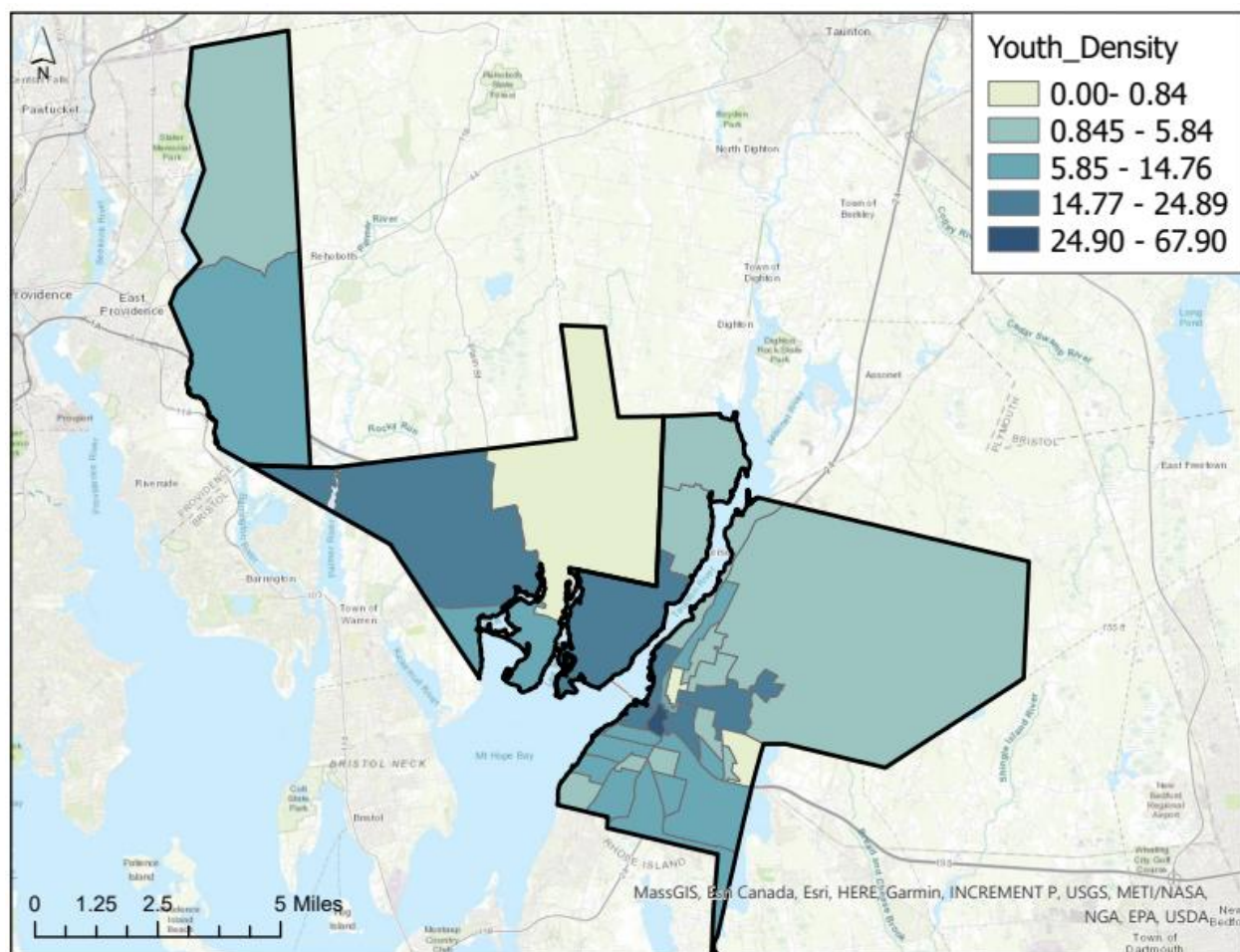


Figure 8: Youth Retail Density by Census Tract, Southcoast Public Health Coalition



Higher retail density contributes to uptake of youth smoking.

Tobacco retail density is associated with youth initiation and experimentation of tobacco products.

Tobacco Retail Density and Schools

Research shows that tobacco advertising is more prevalent in stores where youth are likely to shop, and in stores located near schools^{viii}.

In Fall River, about **1/3** of retailers (33%) are located within 1,000 feet of a school; **1/5** of these retailers sell e-cigarettes (20%).

In comparison, in Somerset only **1/10** of retailers are located within 1,000 feet of a school. In Swansea and Seekonk there are no tobacco retailers within 1,000 feet of a school.

Figure 9: Tobacco Retailers Near Schools

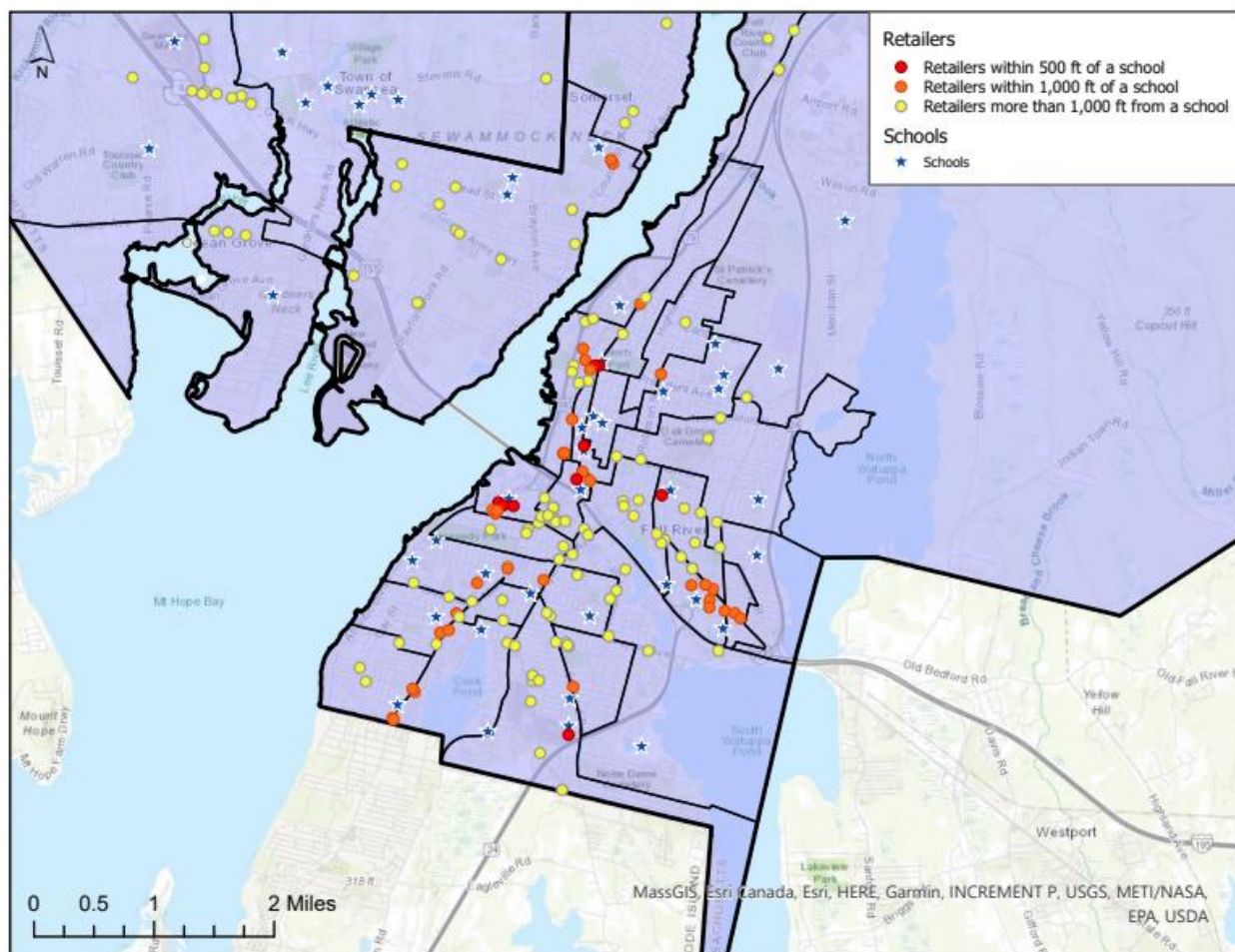


Table 3: Tobacco Retailers Near Schools

Distance From Schools	Number of Retailers	Percent of Retailers
Within 500ft	9	4.62%
500-1,000ft	33	17.44%
>1,000ft	152	77.95%

Figure 10: Tobacco Retailers Near Schools

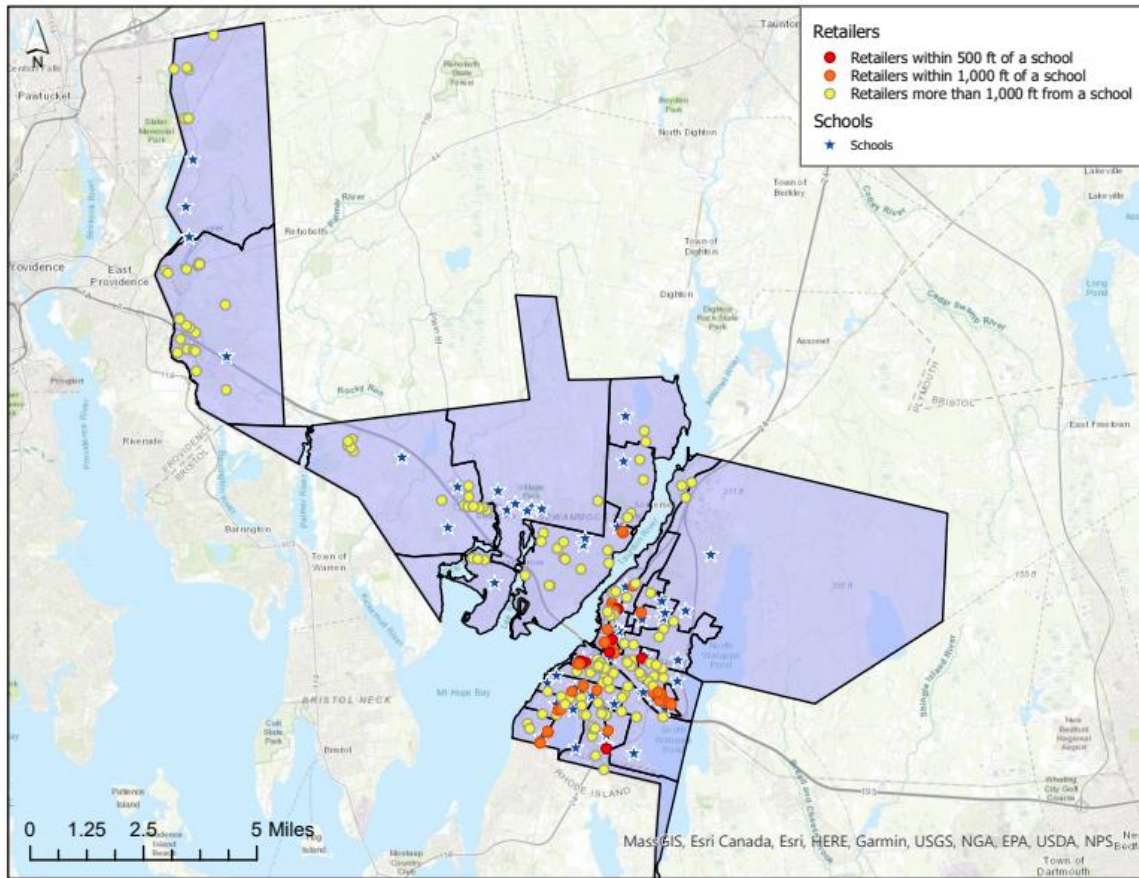


Table 4: Tobacco Retailers Near Schools

Distance From Schools	Convenience Store	Beer, Wine, Liquor Store	Tobacco / Vape Shop	Grocery/ Supermarket	Private Club	Gas Station	Total
Within 500ft	4	1	0	2	1	0	9
500-1,000ft	26	2	1	2	1	0	33
>1,000ft	102	24	13	9	1	1	152

Within the Southcoast Public Health Coalition, **68%** of all tobacco retailers are convenience stores. About **1/5** of all tobacco retailers are within 1,000 feet of a school.

Tobacco Retailer Violations

Figure 11: Tobacco Violations by Retailer Type, 2023

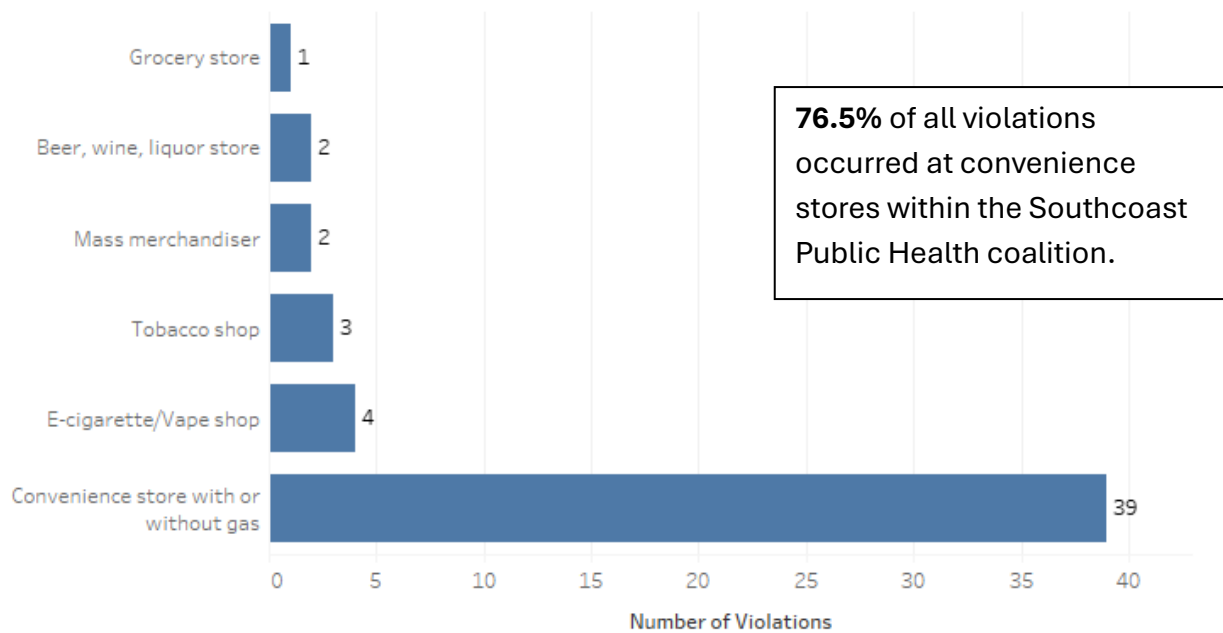
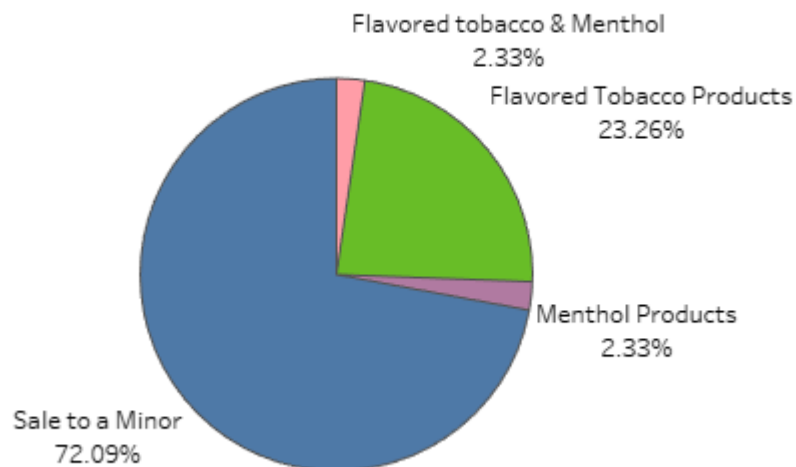


Figure 12: Tobacco Violations by Violation Type, 2023



Violations Near Schools

Table 5: Tobacco Violations by Distance from School

Distance from School (ft)	Menthol Products	Flavored Tobacco Products	Sale to a Minor
<500 ft			1
500-1,000ft		1	4
> 1,000ft	2	9	23

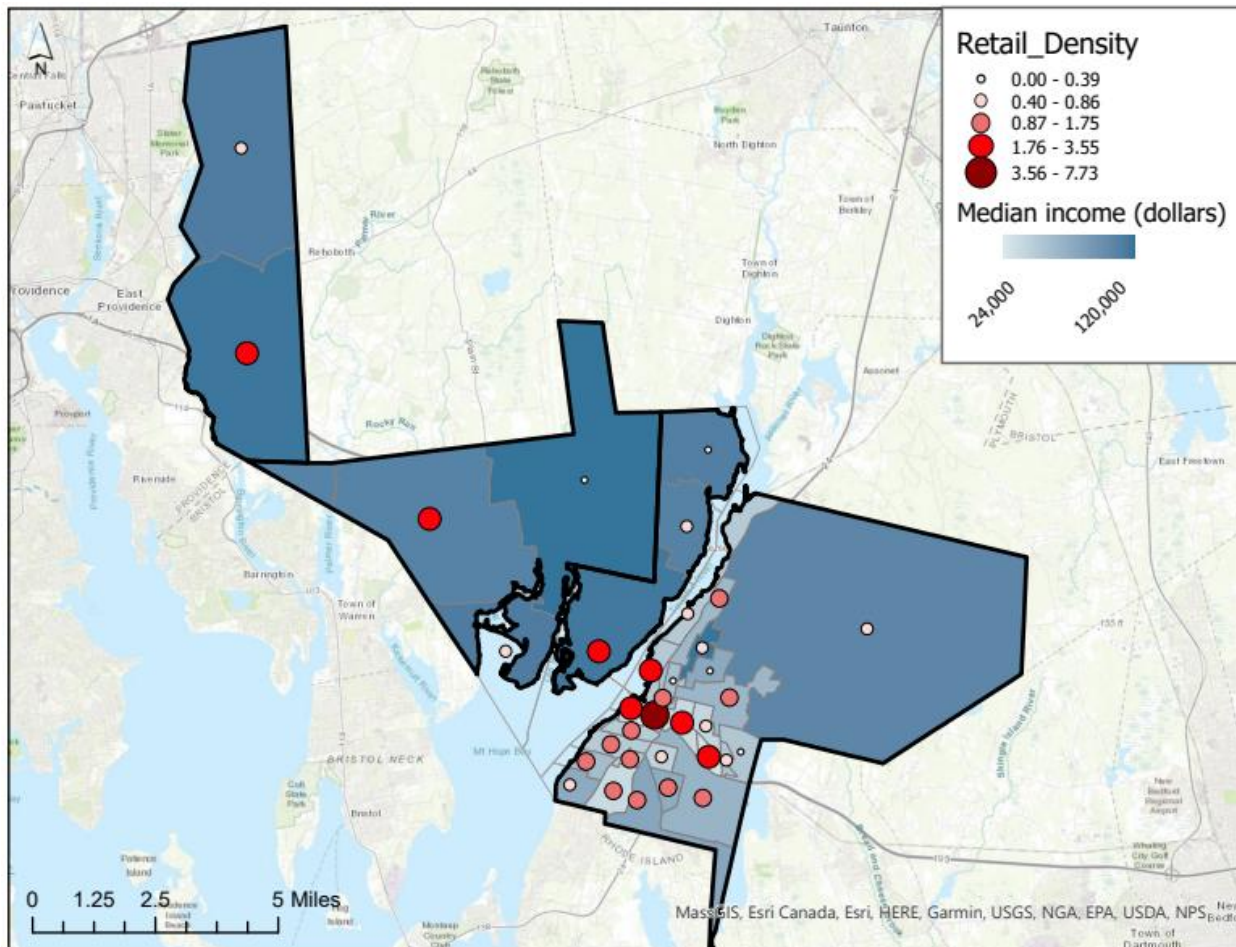
Figure 13: Tobacco Retailers & Violations Near Schools



The Impact of Tobacco Retailers in the Community Does Not Affect Everyone in an Equal Way

People who live in low-income neighborhoods and neighborhoods of color are likely to experience increased exposure to tobacco and nicotine products and advertisements. The tobacco industry has historically used deliberate marketing strategies to target low-income populations and communities of color, which is tied directly to the likelihood of smoking in these populationsⁱⁱ.

Figure 14: Tobacco Retailers and Median Income by Census Tract



Environmental Justice and Tobacco Retail Density

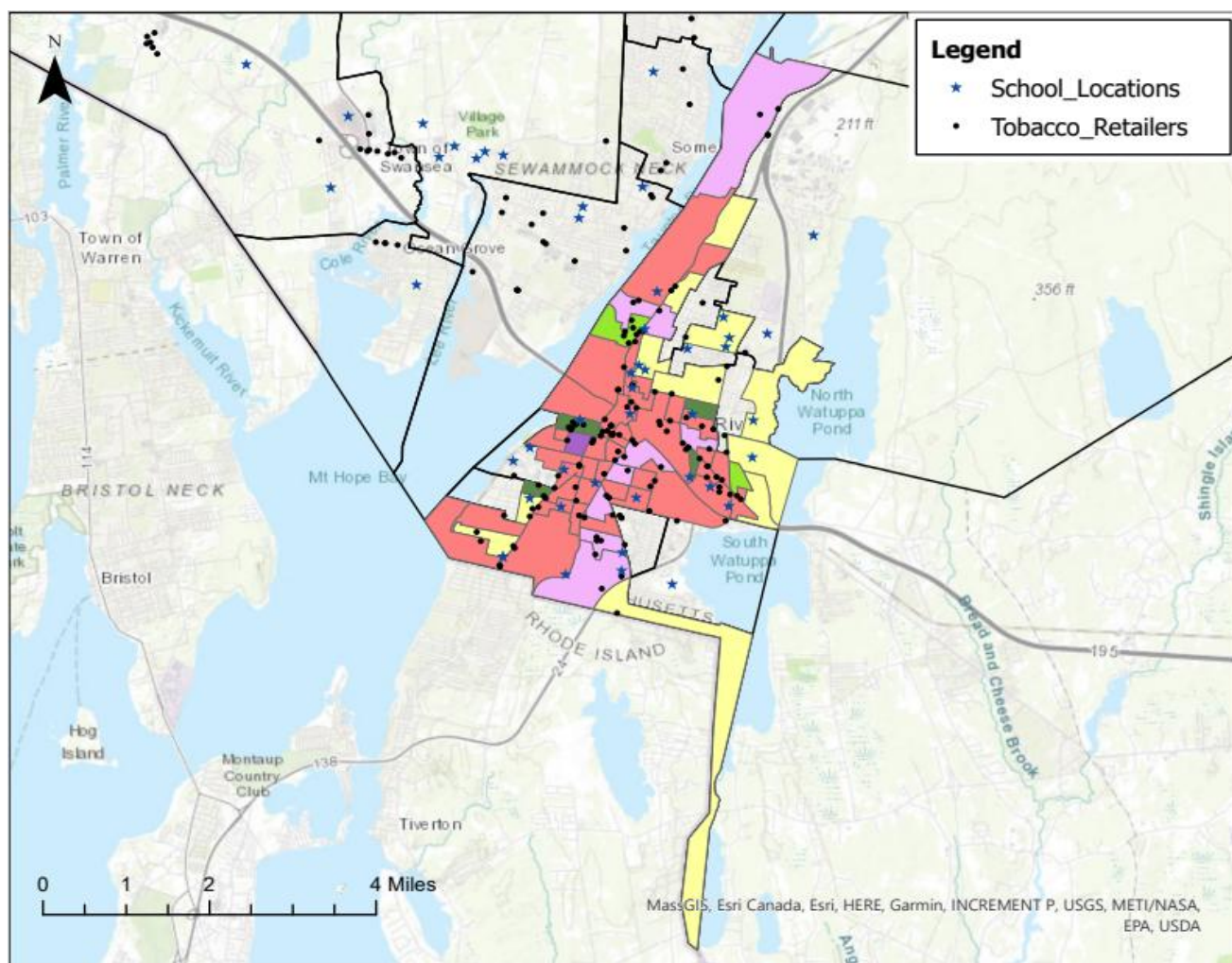
Environmental Justice (EJ) is based on the principle that all people have a right to be protected from environmental hazards and to live in communities that promote health. Historically, public resources have been divested away from communities of color to predominately white communities, resulting in a disproportionate burden of pollution and environmental harm to people of color^x.

Using 2010 U.S. Census data, researchers at the Massachusetts GIS department were able to identify areas and populations that meet the EJ block group criteria. EJ block groups can help visually determine who is most at risk of exposure to the tobacco retail environment. Block groups are a subsection of Census groups, usually capturing 600-3,000 people.

Environmental justice block groups are classified as block groups that meet any of the following criteria:

1. The annual median household income is not more than 65 percent of the statewide annual median household income;
2. Minorities comprise 40 percent or more of the population;
3. 25 percent or more of households lack English language proficiency; or
4. Minorities comprise 25 percent or more of the population and the annual median household income of the municipality in which the neighborhood is located does not exceed 150 percent of the statewide annual median household income.

Figure 15: Environmental Justice Block Groups and Tobacco Retailers, Fall River, MA 2025



EJ Block Groups

- Income
- Income and English isolation
- Minority
- Minority and English isolation
- Minority and income
- Minority, income and English isolation

About **52%** of tobacco retailers in Fall River are located in high minority and low-income block groups.

87% of tobacco retailers in Fall River are located in EJ block groups.

Table 6: EJ Block Groups & Tobacco Retailers

EJ Region	% of Retailers	Retailer Density
Income	7.94%	0.75
Income & English Isolation	6.35%	3.30
Minority	13.49%	1.45
Minority & English Isolation	0.79%	0.76
Minority & Income	51.59%	1.50
Minority, Income & English Isolation	7.14%	2.31

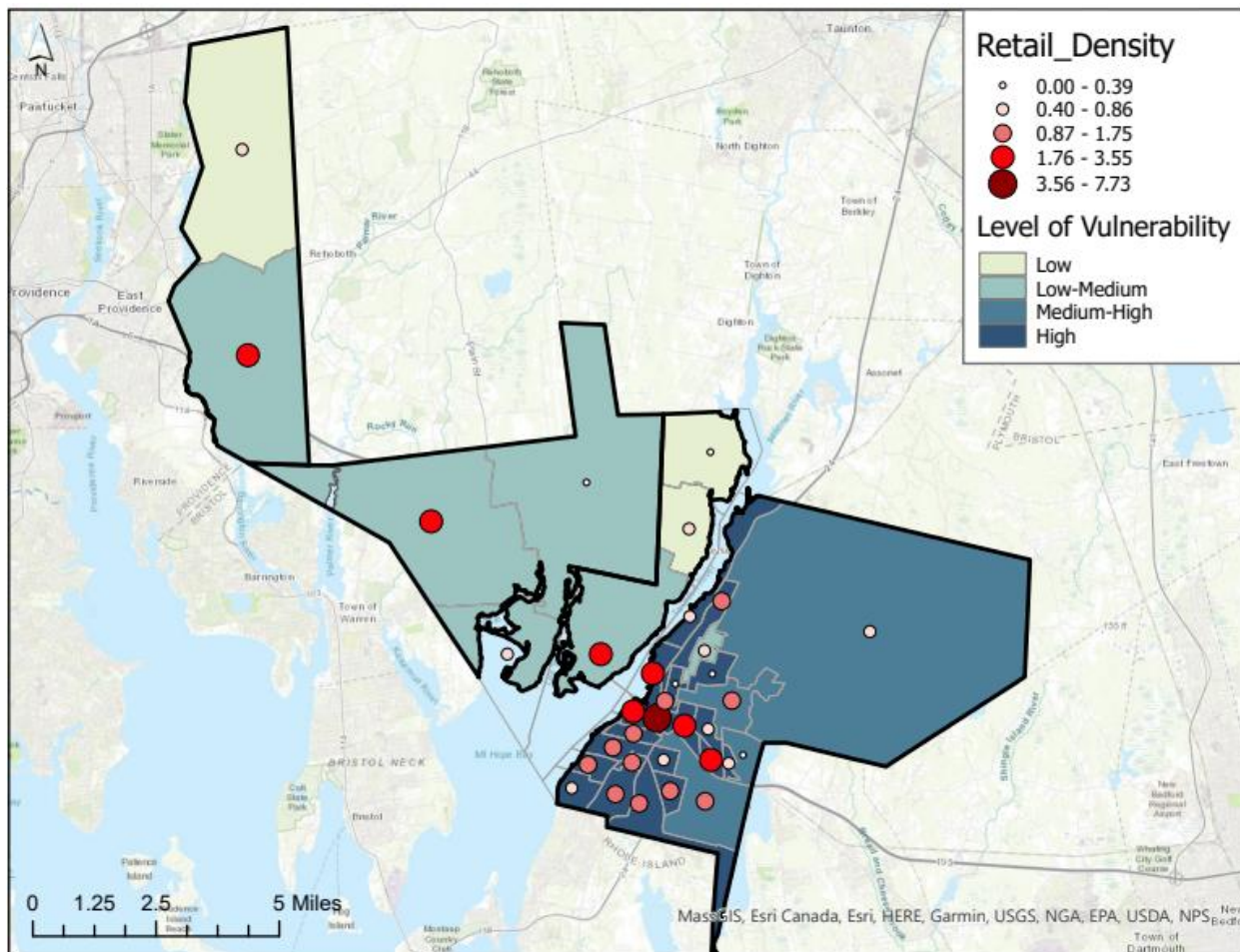
Social Vulnerability and Tobacco Retail Density

Social Vulnerability Index (SVI) is a measure of a community's vulnerability to disaster. The tool was created to identify and map communities that need the most support during emergencies like hurricanes or disease outbreaks^{xi}.

The SVI database uses US Census tracts data (subdivisions of counties) to ranks tracts based on 15 social factors of vulnerability. These factors are grouped into four themes: Socioeconomic Status, Household Characteristics, Racial & Ethnic Minority Status, and Housing Type & Transportation.

Once calculated, the overall SVI score ranges from 0 (least vulnerable) to 1 (most vulnerable).

Figure 16: Social Vulnerability Index areas and Tobacco Retailer Density



Within the Southcoast Public Health Coalition, the areas with the highest vulnerability also happen to have the highest tobacco retailer density. These areas are mainly found within the western half of Fall River.

Tobacco Retailer Regulations:

Statewide Tobacco Policies

Tobacco Excise Tax:

- Cigarettes are required to be sold at a minimum price determined by the Department of Revenue (DOR).
- Cigars and smoking tobacco are taxed at 40% of the wholesale price of the products.
 - Smokeless tobacco products are taxed at 210% of the wholesale price.

Smoke-free Workplace Laws:

- Prohibit smoking in schools, restaurants, taxis, private offices, and other places of work.
- The sale of tobacco and vaping products is prohibited in health care institutions, including pharmacies (12/31/2018).

Sales to Minors:

- It is illegal to sell tobacco products to anyone under the age of 21 in Massachusetts.

Flavored Tobacco:

- The sale of flavored tobacco products, including menthol, are restricted to licensed smoking bars for onsite consumption (06/01/2020).
- The sale of non-flavored nicotine vaping products (with a nicotine content > 35 mg/mL) is restricted to licensed, adult-only retail tobacco stores and smoking bars (06/01/2020).

Licensing:

- All retailers wanting to sell tobacco products must obtain a state tobacco license. Local municipalities may also require separate local tobacco licenses in addition to the state license.

Policy Definitions

Flavored Tobacco Product Restriction:

Restricting flavored tobacco products to adult-only licensed smoking bars is another way of reducing exposure and access to flavored tobacco products, which appeal to youth.

Capping:

Retail permit “capping” limits the number of tobacco retail licenses that are available in a given municipality. Capping is a long-term strategy to reduce tobacco retail density and decrease youth exposure to tobacco.

Capping strategies could be applied to existing markets or only to new emerging retailers. One county in CA prohibited tobacco retailers within 1,000 feet from a school and within 500 feet of another tobacco retailer. Nearly one-third of tobacco retailers in this county ended their tobacco sales due to these limitations.

Single Cigars:

Cigar minimum pricing policy requires single cigars to be sold for no less than \$2.50 or packs of 2 or more for at least \$5.00. By increasing the price of single cigars, communities with this policy see a reduction in availability and therefore a reduction in use.



Pharmacy Ban:

Since 2018, healthcare establishments designed to provide health-related services or products, such as pharmacies, are prohibited from selling tobacco products in Massachusetts.



Recommended Regulations

Local regulations are enacted through community efforts, guided by the local boards of health. The Massachusetts Association of Health Boards' has published sample regulation restricting the sale of tobacco products. Some of those additional regulations at the local level are listed below^x.

Additional Recommended Regulations for Restricting the Sale of Tobacco Products:

1. No permit renewal if outstanding fines exist
2. No permit renewal if three sales to persons under 21
3. No sales to the following people: Any person under the age of 21 AND/OR *Nicotine Free Generation
4. No new permits within (1,000, 2,000, 3,000) feet of a school
5. No new permits within (1,000, 2,000, 3,000) feet of an existing retailer
6. Cap and/or reduce number of permits
7. Ban Smoking Bars
8. Include minimum cigar package size/price
9. Oral Nicotine Pouches- Prohibit more than 6 mg of nicotine per pouch & sale restricted to adult retailers
10. Ban blunt wraps
11. Ban free distribution of tobacco products
12. Ban redemption of coupons
13. Ban self-service displays
14. Ban tobacco product sales in educational institutions
15. Fining Structure System- Separate State and Local Fines
16. Choose suspension periods
 - First violation: 1 day | 3 days | 7 days
 - Second violation: 3 days | 7 days | 14 days
 - Third or more violations: 7 days | 14 days | 30 days

* New proposed legislation as of January 16, 2025. Under the proposed legislation, it would be illegal to sell nicotine products, other than FDA-approved nicotine replacement therapy, to all individuals born on or after January 1, 2006. The bill does not penalize the purchase, use, or possession of tobacco products. The bill does not take away access to nicotine products for any current adult.

Glossary

Prevalence: Smoking prevalence refers to the proportion of a population that smokes tobacco products. It's typically measured as the percentage of individuals who currently smoke, either daily or occasionally, and can be further categorized by product type (e.g., cigarettes, cigars, e-cigarettes) and frequency of use.

Smoking Rate: Percentage of the population who smoke cigarettes (small area estimate of 2015-2019 Behavioral Risk Factors Surveillance System, or BRFSS data). The municipality-level smoking numbers are obtained using a statistical technique called a "Small Area Estimate" using BRFSS, Census and American Community Survey data. Estimates cannot be produced for municipalities with small sample sizes. Only valid estimates are reported at the municipality-level.

Lung Cancer Standard Incidence Rate: The observed number of lung cancer cases divided by the population (*100,000) (MA Cancer Registry 2011-2015)

Number of Retailers: Total number of tobacco retail stores in a given geography

Retail Density: Total number of tobacco retail stores in a given geography divided by total population of that same geography (*1000)

Youth Retail Density: Total number of tobacco retail stores in a given geography divided by population of that same geography who are under the age of 18 (*1000)

Data Sources:

Massachusetts Behavioral Risk Factor Surveillance System (BRFSS) is an annual phone survey of Massachusetts adults that looks at health-related behavioral risk factors, chronic health conditions, and use of preventive services. All data in BRFSS is self-reported by respondents. People who chose to participate in the survey may be different from those who do not participate. As BRFSS is conducted through telephone, the sample may not adequately capture those who are institutionalized, incarcerated, or live in places or households that do not have a telephone. Those with severe limitations or disabilities may be unable to participate.

Western Bristol County Tobacco Collaborative The Fall River Tobacco Control Program is part of a collaborative serving 9 cities/towns in Western Bristol County. We serve Boards of Health in Attleboro, Berkley, Dighton, Fall River, Norton, Somerset, Swansea, Taunton and Westport as part of the collaborative. Our mission is to promote, implement and enforce policies to reduce youth access to tobacco and nicotine products, as well as to ensure retailer compliance of all tobacco related regulations.

Massachusetts Health Data Tool is a publicly available web resource to locate what we know about the health of people who are born, live, work, play and age in Massachusetts. The tool includes a wide variety of reliable, up-to-date sources for information on population demographics, health outcomes, the physical and social environment, education, housing and many other topics.

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