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Assessing Arrest & Traffic Stop Patterns in South Portland, ME

AN ANALYSIS OF SOUTH PORTLAND POLICE DEPARTMENT DATA

Acknowledgments

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Introduction

Background

With an authorized strength of 54 sworn officers and 4 full-time and 1 part-time civilian employees, the **South Portland Police Department serves the fourth largest municipality** in the state of Maine. In addition to uniformed operations, the department houses numerous units, teams and programs that respond to a wide range of community needs, including the following:

- **Special Reaction or "Tactical" Team (SRT) and Crisis Negotiators Team (CNT),** for the stabilization and resolution of high risk calls;
- **Crisis Intervention Team (CIT)** to respond and de-escalate people experiencing a mental health crisis;
- **High School Resource Officer,** a community-policing approach practiced in a school environment;
- **Community Response Unit,** to focus on neighborhood problems and nuisances that would otherwise be difficult for the police department to address; and
- **Community Policing programs** (e.g., Hotel/Motel Liaison, Business Employee Training, Prescription Fraud, Senior Driver Safety Program, Landlord Training, Smokeless Saturday, and Police Reaching Youth).

The South Portland PD, like many departments across the country, faced community outrage in the aftermath of George Floyd's killing in May of 2020. Following these events and the protests held in Portland, the city of South Portland passed a resolution which re-allocated funds from the Police Department's budget to form a Human Rights Commission. The city of South Portland also created the Police Services Review Working Group (PSRWG), which released a report with recommendations to improve responses to calls for service in South Portland.[1]

In 2021, Portland's Police Chief commissioned an analysis of the department's data to better understand whether racial and ethnic disparities exist in the decision to arrest individuals and to issue traffic citations and, if so, the need for any internal policy changes to reduce these disparities. The Portland PD subsequently invited the South Portland Police Department to take part in the analysis. **This was an unusual step as most studies of racial disparities within policing are not requested by law enforcement agencies themselves, but rather are conducted at the behest of state or federal oversight agencies.** Both departments hired the Catherine Cutler Institute at the University of Southern Maine and the Institute on Race and Justice at Northeastern University. The Roux Institute of Northeastern University's Roux Institute, which has a large presence in Portland, provided additional funding to support this project as part of their ongoing commitment to improve the quality of life for local Maine communities.

About This Report

It is important to firmly place our local inquiry against the backdrop of national trends and to acknowledge the systematic factors which contribute to myriad disparities experienced by historically marginalized communities nationwide, even if many of them are outside the scope of this targeted examination. Structural racism and discrimination in America are widespread and deeply rooted in our criminal legal systems, public health systems, education systems and economic opportunities. Nationwide data show that BIPOC[2] people in the U.S. have higher rates of poverty,[3] higher rates of

1 For more information about the South Portland PSRWG work visit their website here and read the full report.

2 BIPOC is used throughout this report as a category that includes individuals who are Black, Indigenous, and Persons of Color.

3 Creamer, J. (September 15, 2020). Inequalities Persist Despite Decline in Poverty for All Major Race and Hispanic Origin Groups. Washington D.C.: U.S. Census Bureau, Poverty Statistics Branch. https://www.census.gov/library/stories/2020/09/poverty-rates-for-blacks-and-hispanics-reached-historic-lows-in-2019.html

school discipline[4] and disconnection,[5] higher rates of experiencing homelessness[6] and housing instability,[7] and health disparities.[8,9] In Maine, racial, socioeconomic, education, and criminal justice disparities persist similar to national trends. For example, in 2020, 39.7% of Black or African American children in Maine lived in families whose income was below the federal poverty level compared to 12.5% of White children.[10] Furthermore, BIPOC, particularly Black or African American, individuals are overrepresented in every facet of the U.S. criminal justice system.[11] Previous research in Maine has found that BIPOC people are overrepresented in Maine's prisons and jails.[12,13] BIPOC individuals also experience higher instances of individual bias, discrimination, and hate crimes[14] and a recent report found that anti-Black or African American hate or bias crimes were the most frequently reported in Maine between 2008 and 2017.[15]

Within this context, this project examined the available arrest and traffic citation data from the Portland and South Portland Police Departments to determine if there is any evidence of disproportionate enforcement activities in either city. **This report outlines the findings of the analysis for the South Portland Police Department** and makes recommendations for next steps. The Portland data analysis and findings can be found in a separate report. Specifically, this report looks at racial, ethnic, age, gender and geographical factors which may be associated with South Portland PD arrests and traffic citations among adults and juveniles between 2018 and 2020, a period inclusive of both the early part of the pandemic and the protests.

The following research questions guided the analysis:

- Are there differences in arrests and traffic citations by race, ethnicity, gender, or age?
- To what extent do time associated factors, crime types, demographics, time of day, and location impact the likelihood of getting arrested or receiving a traffic citation?
- What does this data tell us about individual officer discretion and how it may affect disparities in arrests?

4 U.S. Department of Education Office for Civil Rights. (March 2014). Civil Rights Data Collection, Data Snapshot: School Discipline, Issue Brief No. 1. Washington, D.C. https://ocrdata.ed.gov/assets/downloads/CRDC-School-Discipline-Snapshot.pdf

5 Lewis, K. (2021). A Decade Undone: 2021 Update. New York: Measure of America, Social Science Research Council. https://ssrc-static.s3.amazonaws.com/moa/ADecadeUndone2021Update.pdf

6 Moses, J. (2018). Demographic Data Project, Part III: Race, Ethnicity, and Homelessness. National Alliance to End Homelessness. https://endhomelessness.org/demographic-data-project-race/

7 Greene, S. & McCargo, A. (May 29, 2020). New Data Suggests COVID-19 is Widening Housing Disparities by Race and Income. Washington D.C.: Urban Institute. https://www.urban.org/urban-wire/new-data-suggest-covid-19-widening-housing-disparities-race-and-income

8 Carratala, S., & Maxwell, C. (May 7, 2020). Health Disparities by Race and Ethnicity. Center for American Progress. https://www.americanprogress.org/article/health-disparities-race-ethnicity/

9 Center for Disease Control and Prevention. (May 18, 2022). Health Disparities: Provisional Death Counts for Coronavirus Disease 2019 (COVID-19). https://www.cdc.gov/nchs/nvss/vsrr/covid19/health_disparities.htm#RaceHispanicOrigin

10 The Annie E. Casey Foundation. (2022). Kids Count Data Center, Children in poverty by race and ethnicity (5-yr ACS) in Maine. https://datacenter.kidscount.org/data/tables/9738-children-in-poverty-by-race-and-ethnicity-5-yr-acs#detailed/2/any/false/574,1729,37,871,870,573,869/10,172,9,12,1,13,185/19003

11 Sawyer, W., & Wagner, P. (March 14, 2022). Mass Incarceration: The Whole Pie 2022. Prison Policy Initiative. https://www.prisonpolicy.org/reports/pie2022.html#community

12 Vera Institute of Justice. (2019, December). Incarceration Trends in Maine. https://www.vera.org/downloads/pdfdownloads/state-incarceration-trends-maine.pdf

13 Prison Policy Initiative. (2021). Maine profile. https://www.prisonpolicy.org/profiles/ME.html

14 U.S. Department of Justice. (2020). FBI Releases 2020 Hate Crime Statistics. https://www.justice.gov/hatecrimes/hate-crime-statistics

15 Brintlinger, H., Shaler, G., & McDevitt, J. (2022). Bias and Hate Crimes in Maine: Reconciling Reported and Investigated Crimes. Maine Statistical Analysis Center. Portland, ME: University of Southern Maine. https://cpb-us-w2.wpmucdn.com/wpsites.maine.edu/dist/2/115/files/2017/10/2022-Bias-and-Hate-Crimes-in-Maine-Report.pdf

Summary of Key Findings

This analysis did not find statistical evidence of biased-based policing by members of the South Portland Police Department, that is, instances where an officer made a decision or took action based on the individual's race or ethnicity rather than the individual's behavior. This does not mean such incidents do not happen, but rather no patterns emerge that demonstrate severe and persistent occurrences.

However, despite limitations in the scope of this study, **this analysis does provide evidence of some racial and ethnic disparities in arrests and traffic stops particularly among Black or African American individuals.** Further research is needed to determine to what extent the observed disparities are the result of factors that were outside the scope of this analysis such as specific policing practices (e.g., patrol patterns, officer-level arrest trends, and officer attitudes), and other social circumstances (e.g., socio-economic conditions, mental health and wellbeing, etc.).

The following key findings emerged from the analysis of the South Portland Police Department data:

BLACK OR AFRICAN AMERICAN INDIVIDUALS EXPERIENCE DISPARITIES IN ARRESTS IN SOUTH PORTLAND. Although direct comparisons between police data and the population are limited because they are measured differently in each data source, our study found that Black or African American individuals accounted for 15% of all arrests among Maine residents in South Portland, and only 3.5% of the population estimate. Among South Portland residents, Black or African American individuals were arrested at an average annual rate that is nearly five times higher than White residents. Many factors which could be contributing to these disparities were outside the scope of this study and therefore more research is recommended.

- There is no evidence that race and ethnicity were related to the decision to request multiple charges, which prior research suggests can be an indicator of biased decision-making.[16]

THE HIGHEST NUMBER OF ARRESTS OCCURRED IN THE MAINE MALL/SOUTH PORTLAND GARDENS/CROCKETT'S CORNER NEIGHBORHOODS (PATROL AREA 7), which accounted for one-third (35%) of all arrests during the study period. There were notable differences in location based on race/ethnicity. Black and Latinx individuals were more likely to have been arrested in Patrol Area 7 compared to White individuals, whereas White individuals were more likely to have been arrested in the Ferry Village/SMCC/Knightville areas (Patrol Area 4). The odds of an arrested individual being Black or Latinx increased 78% when the incident occurred in Patrol Area 7.

16 Roh, S. & Robinson, M. (2009). A Geographic Approach to Racial Profiling: The Microanalysis and Macroanalysis of Racial Disparity in Traffic Stops. Police Quarterly, 12(2), 137-169.

PEOPLE EXPERIENCING HOMELESSNESS REPRESENTED 10% OF ALL SOUTH PORTLAND PD ARRESTS. Individuals who were unhoused at the time of their arrest were more likely to be White, men, between the ages of 40 and 59 and more likely to be arrested multiple times throughout the study period. In fact, the odds of the individual receiving multiple charges increased 69% when the individual was unhoused. In addition, they were more likely to be arrested in the Thornton Heights/Cash Corner neighborhood (Patrol Area 6) which accounted for 32% of all arrests among people who were unhoused.

CRIMINAL TRAFFIC VIOLATIONS AND OUI'S REPRESENTED 42% OF ALL ARRESTS IN SOUTH PORTLAND. There was no statistically significant difference between racial and ethnic groups regarding these charges. White individuals, however, were more likely to be arrested for drug violations compared to Black or Latinx individuals.

BLACK OR AFRICAN AMERICAN DRIVERS EXPERIENCE DISPARITIES IN TRAFFIC CITATIONS OVERALL. While Black or African American drivers represented only 3.6% of the driving aged population, they accounted for 7.6% of all traffic citations among Maine residents.

- Black or African American individuals were stopped more frequently during the nighttime (16%) than during the daylight hours (6%). This finding contradicts the "Veil of Darkness" theory,[17, 18] which suggests Black or African American drivers would be more likely stopped during the day in cases of racial profiling or discrimination.

THE MOST COMMON LOCATION FOR TRAFFIC CITATIONS WERE THE FERRY VILLAGE/SMCC/KNIGHTVILLE NEIGHBORHOODS (35% OF TOTAL). However, Black or African American drivers were more likely to receive a traffic citation in the Maine Mall/South Portland Gardens/Crockett's Corner neighborhoods (Patrol Area 7) compared to White drivers (41% vs. 24%). The odds of the driver being Black or African American increased by 160% when the stop occurred in this area (Patrol Area 7).

17 Grogger, J., & Ridgeway, G. (2006). Testing for racial profiling in traffic stops from behind a veil of darkness. Journal of the American Statistical Association, 101(475), 878-887

18 Pierson, E., Simoiu, C., Overgoor, J. et al. A large-scale analysis of racial disparities in police stops across the United States. Nat Hum Behav 4, 736–745 (2020).

Methodology

Data Extraction and Analysis

In order to answer the research questions, the research teams from University of Southern Maine's (USM) and Catherine Cutler Institute and the Institute on Race and Justice at Northeastern University worked with the Portland and South Portland police departments to develop appropriate data extracts. It is important to note that the Portland and South Portland Police Departments provided all the data for these analyses. The staff within each department designed and used queries to pull the data from their respective management information systems. The data files were sent to the USM team using secure data transfer protocols. All data files were cleaned and de-identified prior to analysis to secure confidentiality.

The arrest data included records for all adults and juveniles arrested over a three-year period (2018-2020). As the data files were pulled in multiple extracts, the research team first matched the files using a combination of arrest/incident ID numbers, individual names, and dates of birth. The research team then cleaned the data files to remove test records or to standardize fields and terminology that were inconsistently recorded (e.g., some individuals who were unhoused listed the shelter address, while others were marked as transient). In some cases, the research team also created new variables and categories from various fields to aid the final analysis (see definitions on the next page). Location data was also cleaned and recoded to assign regional groups and geo-tagged for mapping purposes.

The traffic stop data included records of citations from the same period (2018-2020) for both cities, and warnings from Portland only. Data on warnings was not available for South Portland for the period studied. These files were similarly cleaned and combined using record ID numbers. Duplicate and test/error records were removed, and fields were recoded to standardize terminology like the arrest data. Traffic citations were also coded into groups to categorize the types of citations.

The research teams used statistical software to conduct analysis (descriptive statistics and multivariate analyses). A chi-square goodness of fit test was used to compare the population characteristics to that of the various samples. Tests of column proportions and/or chi-square tests were used to compare groups within the samples as noted throughout the report. In both cases, a statistically significant result indicates that the observed differences are greater than we might expect by chance alone. In addition, to further test the association of variables the research team conducted multiple logistic regression models. The results of these models identify where statistical disparities may exist which may or may not indicate incidents of bias.

Definitions & Coding

Race
Includes a recoded version of the original race data from the data extract. In most cases, the data extract did not allow for multiple race selections and therefore the multiracial data is unavailable in the police data unless otherwise noted. Categories include Asian or Pacific Islander, Black or African American, Native American or Indigenous, or White. In the police department data, race is recorded as perceived by the officer and is not self-identified by the individual.

Ethnicity
Includes records which were identified as being Latinx or Hispanic origin. This category is not exclusive with race. For example, an individual may be identified as both Latinx and Black or African American. In the police department data, ethnicity is recorded as perceived by the officer and is not self-identified by the individual.

BIPOC
A grouped category identifying individuals as either BIPOC or White. The BIPOC group includes all individuals who were identified as Asian or Pacific Islander, Black or African American, Native American or Indigenous, or Latinx.

Unhoused
The adult arrest data extracts included a flag which identified individuals as being "homeless" or "transient" at the time of their arrest. This information was combined with other variables to identify all records where the individual was unhoused at the time of the arrest. Address information was also examined and anyone with a shelter address or motel address was also identified as unhoused.

The Portland-South Portland Metro Area
U.S. Census Metro designation which includes towns and cities surrounding the two cities (Durham, Baldwin, Cape Elizabeth, Casco, Chebeague Island, Cumberland, Falmouth, Freeport, Frye Island, Gorham, Gray, Long Island, Naples, New Gloucester, North Yarmouth, Portland, Pownal, Raymond, Scarborough, Sebago, South Portland, Standish, Westbrook, Windham, Yarmouth, Arundel, Biddeford, Buxton, Cornish, Dayton, Hollis, Kennebunk, Kennebunkport, Limerick, Limington, Lyman, Old Orchard Beach, Saco, and Waterboro).

Registration Violations
Include failure to display or produce a registration, inspection, or insurance information.

Moving Violations
Include but are not limited to speeding, failure to stop at a stop sign/red light, driving the wrong way, failure to yield, distracted driving, driving without a valid license, and safety belt or car seat violations.

Equipment Violations
Include any defective vehicle violation such as a broken light, inappropriate or unsafe tires, excessive exhaust noise, tinted windows, etc.

Samples and Population Estimates

The various data extracts resulted in multiple datasets (Table 1), including:

- Adult Arrest Records for both Portland and South Portland
- Juvenile Arrest Records for both Portland and South Portland
- Traffic Citations (South Portland and Portland) and Warnings (Portland only)

The South Portland datasets and analysis are the focus of this report.

The research team downloaded population totals, and demographics on gender, age, and race/ethnicity from various population tables on the U.S. Census Bureau (2022) website. Race and ethnicity data by age was pulled from single race data tables and combined. All population level data are 2020 American Community Survey (ACS) 5-year estimates.[19,20,21,22,23,24,25,26,27]

Population data was pulled for specific age groups: adults (18+), juveniles (under 18), and drivers (15+). Table 2 shows the total population for the three age groups.[19-27] Both cities have many visitors and commuters coming into their cities each day which changes the demographics of the population with whom each department interacts. To account for this, the research team adjusted the population estimates based on the residence distribution of the arrest and traffic stop samples. For example, Portland residents accounted for 71% of the arrests made by Portland PD, and therefore we used Portland demographics to account for 71% of our population estimates. Although out-of-state and unknown records are included in the remainder of the report, we excluded them from the residence distribution used in this calculation because we could not adjust the demographics appropriately.

Table 1

Total Records by Dataset

	PORTLAND PD	SOUTH PORTLAND PD
Adult Arrests	7,536	2,542
Juvenile Arrests	166	289
Traffic Citations	5,056	4,020
Traffic Warnings	8,965	N/A

Table 2

Population Estimates for Various Age Groups, U.S. Census 2020 Data

AGE GROUP	MAINE	PORTLAND	SOUTH PORTLAND
Total	1,340,825	66,706	25,665
Adults (18+)	1,089,858	56,442	21,417
Juveniles (Under 18)	250,967	10,264	4,248
Drivers (15+)	1,135,578	57,948	22,311

Demographic characteristics were then calculated for each of the sub-population groups to establish baseline population comparisons for the various samples (Adult Arrests, Juvenile Arrests, and Traffic Stops). While the adjusted population estimates may not capture the true population of individuals who come into contact with police, they represent a closer approximation for comparing the data given the methodological limitations. Full population demographic estimates for each group can be found in Appendix A.

19 U.S. Census Bureau. (2022a). 2020 American Community Survey 5-Year Estimates [Data Table: S0101].

20 U.S. Census Bureau. (2022b). 2020 American Community Survey 5-Year Estimates [Data Table: B01001B].

21 U.S. Census Bureau. (2022c). 2020 American Community Survey 5-Year Estimates [Data Table: B01001G].

22 U.S. Census Bureau. (2022d). 2020 American Community Survey 5-Year Estimates [Data Table: B01001I].

23 U.S. Census Bureau. (2022e). 2020 American Community Survey 5-Year Estimates [Data Table: B01001D].

24 U.S. Census Bureau. (2022f). 2020 American Community Survey 5-Year Estimates [Data Table: B01001E].

25 U.S. Census Bureau. (2022g). 2020 American Community Survey 5-Year Estimates [Data Table: B01001C].

26 U.S. Census Bureau. (2022h). 2020 American Community Survey 5-Year Estimates [Data Table: B01001F].

27 U.S. Census Bureau. (2022i). 2020 American Community Survey 5-Year Estimates [Data Table: B01001H].

Data & Analysis Limitations

This analysis provides insights into the arrests and traffic stops for the cities of Portland and South Portland over a three-year period, however, it is limited in scope. There are many factors that lead to and influence an arrest or traffic stop interaction and outcomes, and many of these factors are external or unmeasured in this analysis. This analysis looked solely at the available records from the two departments and did not consider any systemic policies or practices, or any community or individual experience information. In many instances, this data can tell us that there is a difference between various groups, but it does not always tell us why that difference exists.

When interpreting the data and making conclusions, it is important to keep these limitations in mind.

- **The data includes only records that lead to an arrest or citation.** It does not include every interaction with the departments where an arrest was not made, verbal warnings, or a warning/citation was not given. A sample that included the data on every interaction with the departments would offer more opportunities for analyzing the relationship between the various characteristics and the likelihood of getting arrested or receiving a citation during a traffic stop, especially at it pertains to race and ethnicity.

- **This analysis only includes incidents where the local police departments were the primary agency.** This does not include arrests or traffic incidents in either location where the primary agency was a state or federal department such as the Drug Enforcement Agency (DEA), Immigration and Customs Enforcement (ICE), or the Maine State Police. In addition, given the proximity of several other large towns and cities, there may be cases where Portland police department was involved in an incident, but again not the primary responding agency as local departments sometimes collaborate.

- **The data are reported and entered by the officers and identities and characteristics are not self-reported by the individuals themselves.** Therefore, in some cases, the racial and ethnic identities of the individuals may not reflect how an individual self-identifies, and thus certain groups may be under- or over-represented. In addition, the U.S. Census data includes self-reported race and ethnicity information and has its own limitations in the ability to accurately count all groups; therefore, comparisons of population data and police department data must be viewed with caution.

- **This study did not include input from the point of view of the directly impacted individual.** These events and the experiences of the directly impacted individual(s) are important in understanding the full context of an incident. This analysis did not interview or survey the individuals involved in any incident (police officer or community member) to learn their perception of the incident.

- **This analysis did not examine policy or system level issues (at the local, state, or national level) or context.** Procedures and policies such as staffing decisions, COVID-19 policy decisions, mandatory arrest rules, etc. may impact these results but are out of the scope of this study.

- **Due to the unknown influence of factors not included in this study, a statistical disparity does not necessarily point to officer discrimination or racial profiling.** The methods used in this study measure the patterns and trends that may indicate racial disparities and point to potential biased decision-making. However, there are many unmeasured external factors (the individual's economic situation, the officer's thought process, institutional or systemic factors, patrolling patterns, etc.) that were out of the scope of this study to be able to conclude whether an incident was one of bias. In some cases, missing data led the research team to remove some cases from the analysis.

Even with these limitations, this study provides an overview of police department data and identifies many patterns and trends for further exploration. The insights from this analysis also point to specific areas where the Police Department and the city can work together to identify solutions to further improve safety and wellbeing of the local communities.

South Portland Police Department Arrests, 2018-2020

Between 2018 and 2020, the South Portland PD made 2,542 arrests of 2,347 adults (18+). There were 152 (7%) individuals who were arrested multiple times during the study period (ranging from 2-8 times). The individuals who were arrested multiple times accounted for 14% of all adult arrests between 2018 and 2020 in South Portland.

The majority of arrests (78%) were individuals from the Portland-South Portland Metro Area,[28] including 35% from South Portland. Only a small proportion of arrests (5%) were individuals from out of state.[29]

Among adult arrests (including all residences) the majority were White (80%), men (69%). Nearly one-fifth (20%) of the arrest records were individuals who were identified as BIPOC, including 15% identified as Black or African American and 4% Latinx or Hispanic. Table 3 depicts these data in detail. The sample demographics are compared to the overall population in detail later in this report.

Table 3

Demographics of the Full Sample of Adult Arrests by South Portland PD, 2018-2020 *(n=2,542)*

GENDER	# OF ARRESTS	%
Men	1,746	68.7%
Women	796	31.3%
RACE/ETHNICITY		
BIPOC	499	19.6%
Black or African American	386	15.2%
Latinx/Hispanic	88	3.5%
Asian/Pacific Islander	30	1.2%
Native American/Indigenous	6	0.2%
White	2,043	80.4%
AGE		
18–24	574	22.6%
25–29	470	18.5%
30–39	692	27.2%
40–49	403	15.9%
50–59	269	10.6%
60 or older	134	5.3%

28 The Portland-South Portland Metro Area includes towns and cities surrounding the two cities. See definitions for the full list of towns/cities included.

29 Residence information was missing from 7% (n=175) of the arrest records.

Arrest Location

The research team examined the location of the incident to identify patterns of arrests around the city. The South Portland PD uses Patrol Areas[30] as a means for dividing up the city into areas for officers to patrol. As Table 4 shows, **the highest number of arrests (35%) occurred in the Maine Mall/South Portland Gardens/Crockett's Corner neighborhoods (Patrol Area 7).**

TABLE 4

Location of Arrest by South Portland Patrol Area, 2018-2020 (*n=2,542*)

SOUTH PORTLAND PD PATROL AREA		ARRESTS	
		N	%
7	**Maine Mall/South Portland Gardens/Crocketts Corner**	885	34.8%
4	**Ferry Village/SMCC/Knightville**	685	27.0%
6	**Thornton Heights/Cash Corner**	598	23.5%
5	**Pleasantdale/Broadview Park/ Stanwood Park**	314	12.4%
	Out of Town	59	2.3%

The highest number of arrests occurred in the Maine Mall/ South Portland Gardens/ Crockett's Corner neighborhoods (Patrol Area 7).

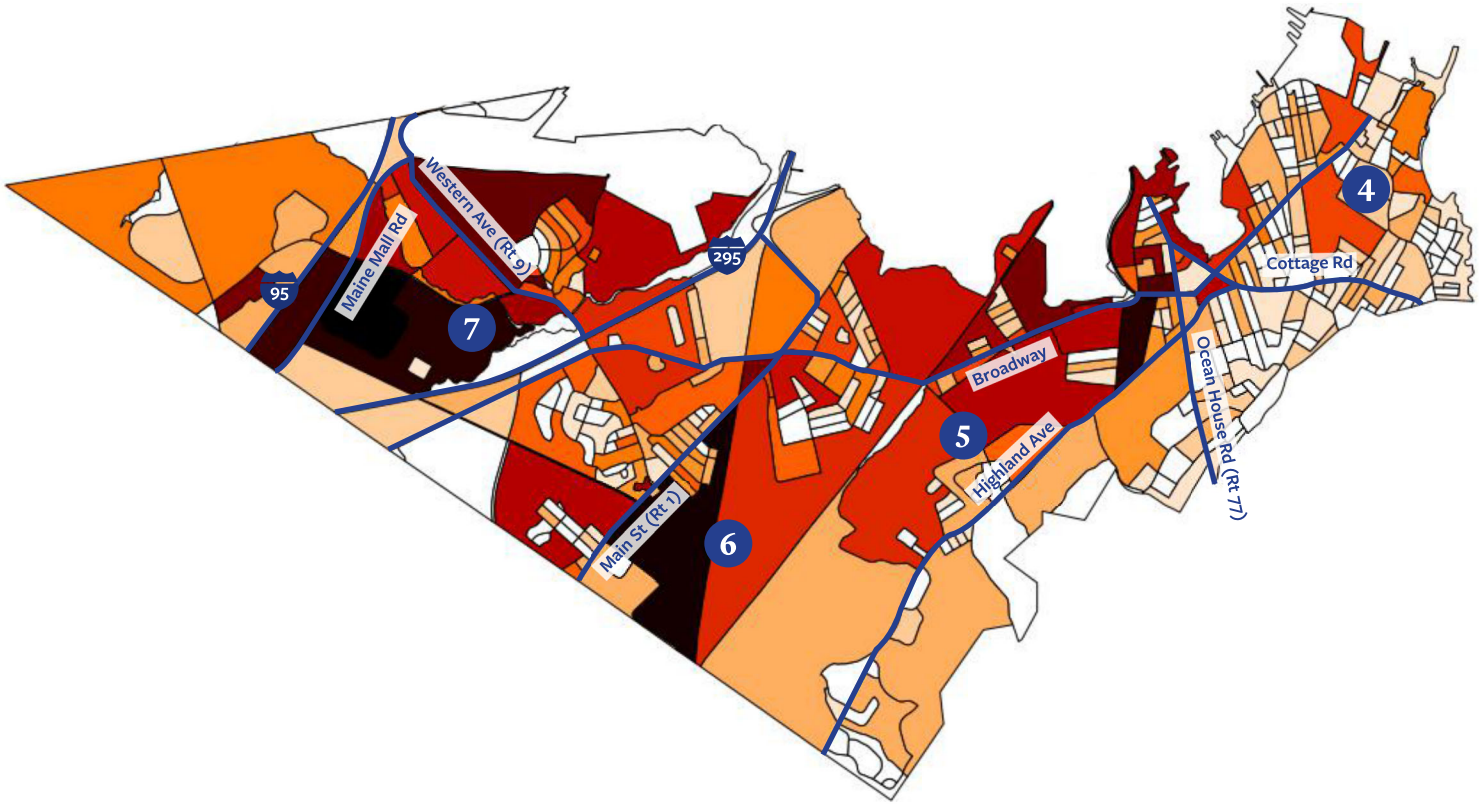
Furthermore, the research team mapped the number of arrests by Census Tract to identify areas with a high density of arrests. The map on the next page displays these areas which is consistent with the data in Table 4. Specifically, the Maine Mall area and Thornton Heights are shown as high areas of concentrations for arrests in South Portland. In addition, the area around the South Portland police station is also highly concentrated, likely due to incidents being assigned the station address as people come into the station to report a crime.

30 See the appendix for a map of the South Portland PD Patrol Areas (also known as Police Beats). This includes 4 different designations. In the table above neighborhood designations are approximate as they do not align exactly with the police Patrol Areas. See appendix for full list and street details.

FIGURE 1

Map of Total Number of Arrests in South Portland by Census Tract, 2018-2020

4–7 = South Portland PD Patrol Area



The research team also examined arrest locations to determine if any patterns emerged among different areas of the city and the various racial and ethnic groups. As shown in Table 5, **Black and Latinx individuals were more likely to have been arrested in Patrol Area 7, whereas White individuals were more likely to have been arrested in Patrol Area 4.**

Arrest locations were also mapped to compare the locations of arrests among individuals who were Black or Latinx to those who were White. The map on the next page shows the number of arrests by Census Tract and reveals areas of high concentrations of arrests in certain areas of the city for Black or Latinx Individuals.

TABLE 5

Arrest Location of Black/Latinx Individuals Compared to White Individuals
(n=2,505)

SOUTH PORTLAND PD PATROL AREA		BLACK OR LATINX		WHITE	
7	Maine Mall/South Portland Gardens/ Crocketts Corner	229	**49.5%^**	644	**31.5%**
6	Thornton Heights/Cash Corner	109	**23.5%**	476	**23.3%**
4	Ferry Village/SMCC/Knightville	70	**15.1%**	610	**29.9%^**
5	Pleasantdale/Broadview Park/ Stanwood Park	46	**9.9%**	262	**12.8%**
	Out of Town	9	**1.9%**	50	**2.4%**

^ Indicates a statistically significant difference (z-test for column proportions) between Black/Latinx individuals and White individuals ($p<.05$).

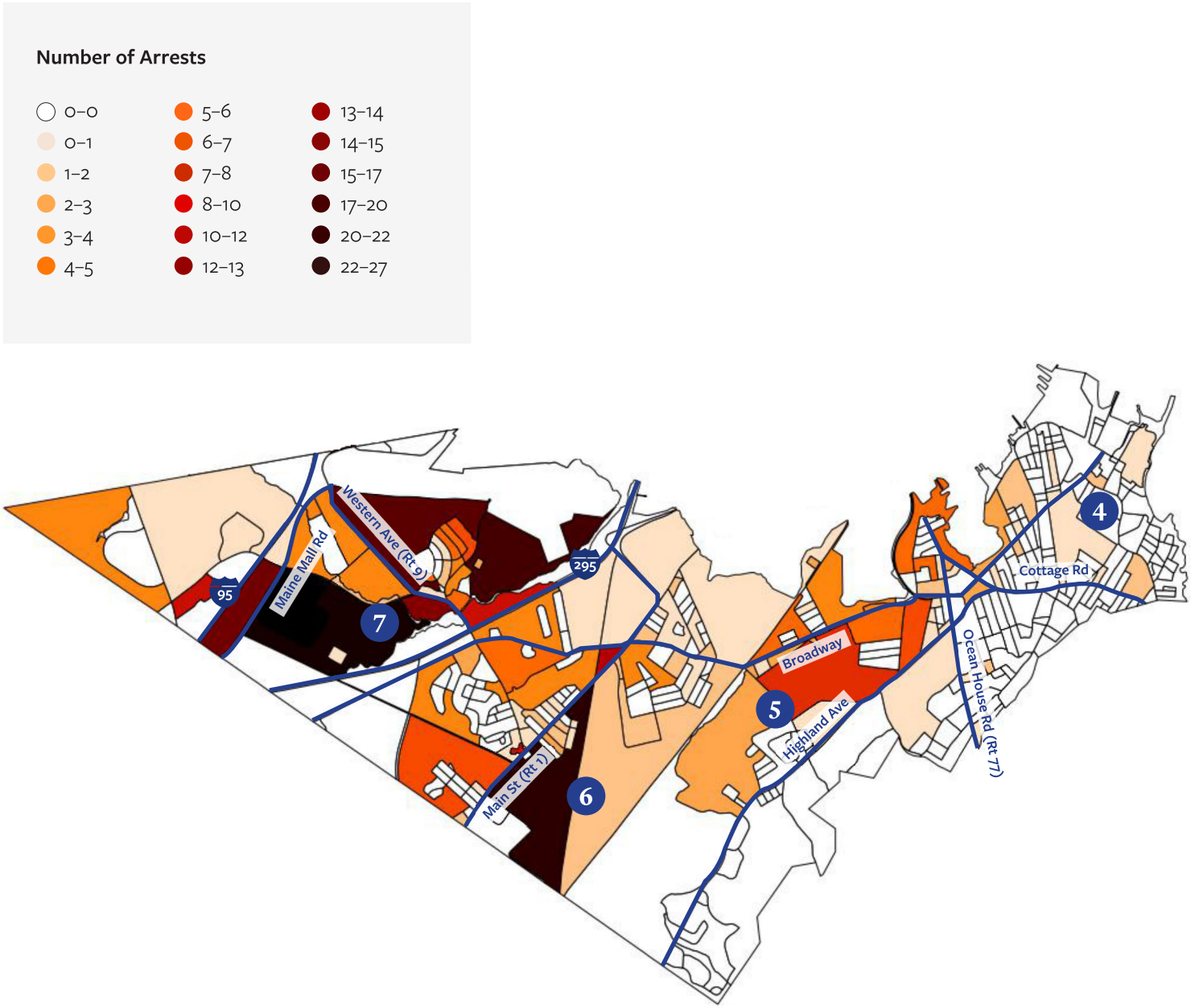
Other race/ethnicity groups (Native American/Indigenous and Asian/Pacific Islander) are not included in the table or maps due to small sample sizes.

▶ Black and Latinx individuals were more likely to have been arrested in Patrol Area 7

FIGURE 2

Map of Total Number of Arrests Among Black/Latinx Individuals in South Portland by Census Tract, 2018-2020

4-7 = Portland PD Patrol Area



Circumstances Surrounding the Arrest

The South Portland PD arrest records include incidents that were grouped into three categories based on the type of the incident: summons,[31] on-view arrest (non-warrant), and on-view warrant arrest. Nearly half (48%) of all incidents were summons, meaning the individual received a summons to appear in court later but was not taken into custody at that time. On-view arrests where there was no outstanding warrant accounted for 40% of all arrests in South Portland, and arrests where the individual had an outstanding warrant accounted for just 13% of arrests. In the case of warrants, an officer is required to make an arrest. Black/Latinx individuals were more likely than White individuals to be arrested with no outstanding warrant (46.4% vs. 37.5%).[32] In the case of warrants, an officer is required to make an arrest. While dependent on the severity and type of offense, arrests that are officer-initiated and no warrant is present tend to be more discretionary on the part of the arresting officer.

Types of Charges

Charges were grouped into categories to compare trends. Most people received one (53%) or two charges (26%), with an average number of 1.4 charges per incident. As Table 7 shows, **top charges included criminal traffic violations (not including OUIs),** OUIs, and all other offenses.[33]

Charges were further examined by race/ethnicity group to identify any patterns. There was no significant difference between Black or Latinx individuals and White individuals among most of the top charges. White individuals, however, were more likely to be arrested for drug violations (5% vs. 1%)[34] compared to Black or Latinx individuals.

TABLE 6

Type of Arrest, South Portland PD, 2018–2020

INCIDENT TYPE	SO. PORTLAND PD	
	%	N
Summons	47.9%	1,218
On-view Arrest (no warrant)	39.5%	1,003
Warrant Arrest	12.6%	321

TABLE 7

Top Charges, South Portland PD Adult Arrests *(n= 2,954)*

INCIDENT TYPE	SO. PORTLAND PD	
	%	N
Criminal Traffic Violations	31.6%	934
All Other Offenses (Undefined)	19.0%	561
OUI	10.3%	305
Theft	8.9%	262
Warrant	7.3%	216
Assault	6.5%	193
Drug Violations	4.0%	118
Criminal Trespassing	2.5%	73
Disorderly Conduct	2.2%	66
Criminal Mischief	1.5%	45
Liquor Law Violations	1.4%	42
Other Charges	5.0%	139

31 Summons are an order directing the individual to appear in court and answer the charges later.

32 Black/Latinx individuals were more likely than White individuals to have been taken into custody without an outstanding warrant present (on-view arrest, no warrant), $X2(4)=20.215$, $p<.001$.

33 Total n=2,954 due to multiple charges per incident. Percentages are calculated out of the total number of charges. All other offenses is a category of undefined charges that is commonly used in South Portland. The "Other Charges" category at the bottom of the table represents all other charges as a grouped field.

34 Differences are statistically significant (z-test for column proportions, $p<.05$). Data not shown.

Arrests Compared to Population-level Characteristics

A population estimate was created using 2020 5-year ACS data[19–27] to be more representative of the population with whom the South Portland PD is interacting.[35] As outlined previously, comparing arrests to U.S. Census population data is difficult, and observed population disparities do not necessarily mean that police discrimination or biased-based policing are the cause of the disparities. Nonetheless, the comparison provides a useful starting point by which to identify areas and patterns in need of further exploration, and possible solutions to mitigate existing disparities.

As shown in Table 8, when the sample of arrested individuals is compared to the population estimate,[36] some notable differences emerge. Similar to national trends, men are arrested more often than women. In addition, **one-fifth (20%) of the adults who were arrested by South Portland PD were identified as BIPOC, while only 10% of the South Portland PD population estimate is BIPOC.** This difference is made up mostly of individuals who were identified as Black or African American, who represent only 4% of the population but account for 15% of those arrested by the South Portland PD during the study period. The number of arrests also includes a higher proportion of individuals under the age of 50 compared to the population. When we limit the sample to only arrests of South Portland residents (35% of all arrests), the same patterns hold.

TABLE 8

South Portland PD Arrests Compared to Weighted Population Characteristics, All Maine Residents (*n*= 2,244)

	POPULATION ESTIMATE	SAMPLE ALL YEARS
GENDER		
Men	47.7%	**67.7%^**
Women	52.3%^	32.3%
RACE/ETHNICITY		
BIPOC	10.1%	**19.6%^**
Black or African American	3.5%	15.2%^
Asian/Pacific Islander	2.3%^	1.2%
Native American/Indigenous	0.5%^	0.1%
Latinx/Hispanic	2.2%	3.5%^
Two or More Races	2.1%	-
White, Not Hispanic	89.9%^	80.4%
AGE (*n*= 6366)		
18–24	12.0%	**22.8%^**
25–29	9.8%	**18.6%^**
30–39	15.6%	**26.8%^**
40–49	14.3%	**15.9%^**
50–59	17.7%^	10.5%
60 or older	30.7%^	5.4%

^ Indicates a statistically significant difference between the South Portland PD Population and the sample of South Portland PD arrests (where p<.05). Full chi-square test results can be found in Appendix D.

All population estimates are based on 2020 5-year ACS estimates from the U.S. Census Bureau. See methods section for more information.

Race and ethnicity categories are not exclusive and may add to more than 100%.

35 See the methods section for more information.

36 The South Portland PD interacts with individuals from locations outside of South Portland. Therefore, in order to compare to population level characteristics, the research team created a population baseline that is representative of the residences of the arrestees in the South Portland PD data. This comparison also excludes anyone from out of state and those who were missing residence information. See the methods section for more information.

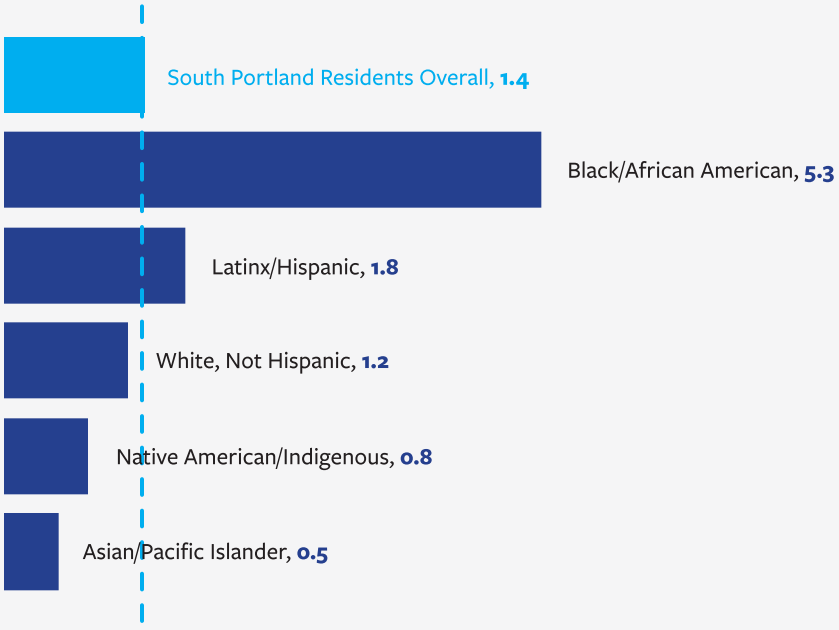
Arrest Rates Among South Portland Residents

In 2020, the city of South Portland had a population of 25,665 people with 21,417 over the age of 18.[37] Overall, 35% (879) of South Portland PD arrests were people from the South Portland. The arrests among South Portland residents were examined in comparison to city-level population data.[27-35] This data was used to create average annual rates of arrest out of 100 South Portland residents in each subgroup.[38]

As shown in Figure 3, **South Portland residents who were Black or African American were arrested at an average annual rate more than 4 times higher than White residents** (5.3 vs. 1.2 out of 100). As previously noted, while this comparison to U.S. Census data is limited,[39] this analysis points to a disparity which should be used as a guideline for the South Portland Police Department to look deeper into the arrests of BIPOC individuals, particularly those who are Black or African American.

FIGURE 3

Rate of Arrest (Out of 100 People) by South Portland PD, South Portland Residents



37 U.S. Census Bureau. (2022a). 2020 American Community Survey 5-Year Estimates [Data Table: S0101].

38 See the appendix for more details on this calculation.

39 The comparison of the Portland PD arrest data to U.S. Census data is limited due to differences in the ways the data is collected (self-reported vs. officer reported) and U.S. Census limitations in representing all groups accurately. See the methods and limitations sections for more information. Even with these limitations the U.S. Census data provides the best comparable data set to help identify differences between the population and the sample of arrests.

South Portland PD Juvenile Arrests

In 2020, Maine had an estimated 250,957 young people under the age of 18, with 4,248 of those youth living in the city of South Portland.[40] **From 2018 to 2020, the South Portland PD made 289 arrests of 223 youth (under the age of 18).** During the study period, 16% (n=36) of these individuals had multiple records of arrest and accounted for 35% of all juvenile arrests. The majority of these young people were from the Portland-South Portland Metro Area (88%), including 44% from South Portland. A small number were youth from out of state (4%) or other areas of Maine (9%).

Researchers calculated a weighted population estimate for the South Portland PD juvenile population using population-level characteristics and adjusting for residence.[41] As shown in Table 9, compared to the population estimate, the juvenile arrests during the study period were more likely to be youth who were BIPOC (35%).[42] **Black or African American youth represented 27% of all South Portland juvenile arrests, but only 9% of the population estimate.** Overall, there was no significant difference in arrests between boys and girls compared to the population estimates. Even with the small sample sizes, these data demonstrate disparity in arrests among BIPOC youth in South Portland, which is similar to the trends in adult arrests found in this analysis as well as nationwide. While some previous research has been done statewide,[43] additional research such as qualitative exploration and community conversations could help explain some of these trends among the juvenile population in South Portland. The similar patterns of disproportionate arrests of Black or African-American youth and adults should spur the South Portland Police Department to look deeper into these arrests patterns.

Table 9

South Portland PD Juvenile Arrests Compared to Population Estimates, 2018-2020 *(n=278)*

GENDER	POPULATION ESTIMATE (UNDER 18)	SPPD ARRESTS
Boys	53.8%	54.7%
Girls	46.2%	45.3%
RACE/ETHNICITY		
BIPOC	19.7%	35.3%^
Black or African American	8.7%	27.3%^
Asian/Pacific Islander	1.7%	1.8%
Native American/Indigenous	0.5%	
Latinx/Hispanic	4.2%	6.1%
Two or More Races	5.5%	2.2%
White, Not Hispanic	80.3%^	64.7%
AGE		
5–9	24.8%	0.7%
10–14	31.7%	27.3%
15–17	18.9%	72.0%^

Race and ethnicity categories are not exclusive and may add to more than 100%.

40 U.S. Census Bureau. (2022a). 2020 American Community Survey 5-Year Estimates [Data Table: S0101].

41 This does not represent the population of the city of South Portland but rather a weighted average based on the residences in the sample to account for other areas around Maine. For more information about this population estimate see the appendix and methods sections.

42 The differences between the PPD juvenile arrests sample and the population characteristics were tested for statistical significance where p<.05. All significant differences in the table between the arrests sample and the corresponding subgroup are noted with a "^". Full chi-square test results can be found in the appendix.

43 See the Place Matters report series which includes several reports examining youth pathways and opportunities in Maine.

People Experiencing Homelessness in South Portland

Research shows that housing instability has long been associated with justice system involvement.[44],[45] In January 2020, an estimated 2,097 people were unhoused in Maine,[46] up from 1,714 in 2018,[47] an 18% increase in just two years.[48] This increase was likely impacted by a combination of the economic effects from the rising housing crisis in Maine, and the influx of asylum seekers during this same time period. In recent years, South Portland has increasingly hosted families in area hotels to accommodate overflow from the Portland shelters. Although outside the timeframe of this report, in June 2022, an estimated 280 individuals were housed at two hotels in South Portland as part of a contract with Maine Housing.[49]

From 2018 to 2020, people experiencing homelessness represented 10% (251) of all South Portland PD arrests.[50] Individuals who were unhoused at the time of their arrest were more likely to be White, men, between the ages of 40 and 59 compared to those who were housed at the time of their arrest.[51]

In addition, **people experiencing homelessness were more likely to be arrested multiple times throughout the study period compared to people who were housed (1.62 arrests on average vs. 1.36)**.[52]

TABLE 10

South Portland PD Arrests by Housing Status at the Time of Arrest, 2018-2020 (*n=165*)

	UNHOUSED (*n=251*)		HOUSED (*n=2,291*)	
GENDER	N	%	N	%
Men	193	76.9%^	1,553	67.8%
Women	58	23.1%	738	32.2%^
RACE/ETHNICITY				
BIPOC	35	13.9%	464	20.3%^
White, Not Hispanic	216	86.1%^	1,827	79.7%
AGE				
18–24	30	12.0%	544	23.7%^
25–29	37	14.7%	433	18.9%
30–39	73	29.1%	619	27.0%
40–49	54	21.5%^	349	15.2%
50–59	43	17.1%^	226	9.9%
60 or older	14	5.60%	120	5.2%

^ Indicates a statistically significant difference between the two subgroups ($p<.05$).

44 Chapin Hall, Voices of Youth Count. (2017). Missed Opportunities: Youth Homelessness in America, National Estimates. Retrieved from https://voicesofyouthcount.org/wp-content/uploads/2017/11/VoYC-National-Estimates-Brief-Chapin-Hall-2017.pdf

45 Gillespie, S., & Batko, S. (September 16, 2020). Feature: Five Charts That Explain the Homelessness- Jail Cycle and How to Break It. Washington D.C.: Urban Institute. Retrieved from https://www.urban.org/features/five-charts-explain-homelessness-jail-cycle-and-how-break-it

46 U.S. Department of Housing and Urban Development. (2021). HUD 2020 Continuum of Care Homeless Assistance Programs Homeless Populations and Subpopulations Report-Maine. Retrieved from https://files.hudexchange.info/reports/published/CoC_PopSub_State_ME_2020.pdf

47 U.S. Department of Housing and Urban Development. (2019). HUD 2018 Continuum of Care Homeless Assistance Programs Homeless Populations and Subpopulations Report-Maine. Retrieved from https://files.hudexchange.info/reports/published/CoC_PopSub_State_ME_2018.pdf

48 The 2020 count is used as a reference to be comparable to the study sample. However, recent data shows that the population of people experiencing homelessness in Maine has continued to grow, reaching an estimated 3,455 people as of January 2022. See the Maine Housing Point in Time Survey for more information.

49 Bouchard, K. (June 29, 2022). South Portland hotels will continue housing homeless individuals. Portland: Portland Press Herald. https://www.pressherald.com/2022/06/29/south-portland-hotels-will-continue-housing-homeless-individuals/#:~:text=Currently%2C%20506%20single%20adults%20are,Howard%20Johnson%20in%20South%20Portland.

50 The arrest records data includes a flag that identifies an individual as unhoused. Researchers used this information and also flagged any record where the given address was a city shelter, hotel, or motel to identify individuals who were experiencing homelessness at the time of their arrest. This includes all records which may have been people from out of state or from other areas in Maine as well as those with missing residence information who were also identified as unhoused in the South Portland PD data system.

51 Unhoused individuals were more likely to be men, $X2(1)=8.720$, $p=.003$; White, $X2(1)=5.707$, $p=.017$; and between the ages of 40-59, $X2(5)=33.369$, $p<.001$

52 This difference is statistically significant, (t-test of means, $p<.001$).

As shown in Table 11, **nearly one-third (32%) of the arrests of people who were unhoused at the time of their arrest occurred in South Portland Patrol Area 6 (Thornton Heights/ Cash Corner).** People experiencing homelessness were significantly more likely to have been arrested in this area compared to those who were housed at the time of their arrest. Patrol Area 6 is also the location of the hotels that are hosting people experiencing homelessness. Both groups, regardless of housing status were equally likely to have been arrested in Patrol Areas 4 and 7. However, people experiencing homelessness were less likely to have been arrested in Patrol Area 5 (compared to those who were housed).

TABLE 11

Arrest Location by Housing Status (*n*=2,542)

SOUTH PORTLAND PD PATROL AREA		UNHOUSED		HOUSED	
4	Ferry Village/SMCC/Knightville	23.5%	59	27.3%	626
5	Pleasantdale/Broadview Park/ Stanwood Park	3.2%	8	13.4%^	306
6	Thornton Heights/Cash Corner	31.5%^	79	22.70%	519
7	Maine Mall/South Portland Gardens/ Crocketts Corner	38.2%	96	34.5%	789
	Out of Town	3.6%	9	2.2%	50

^ Indicates a statistically significant difference (z-test for column proportions, p<.05) between people who were unhoused and people who were housed at the time of their arrest.

People experiencing homelessness were significantly more likely to have been arrested in South Portland Patrol Area 6 (Thornton Heights/Cash Corner) compared to those who were housed at the time of their arrest

The most common charges among people who were experiencing homelessness at the time of their arrest included all other offenses (33%)[53], warrants (13%), theft (9%), criminal trespassing (8%), assault (8%), and drug violations (7%). They were more likely to have been arrested for all other offenses, warrants, criminal trespassing, and drug violations compared to people who were not experiencing homelessness.[54]

53 All other offenses is a category of undefined charges that is commonly used in South Portland and provides no further information about what is included in this category.

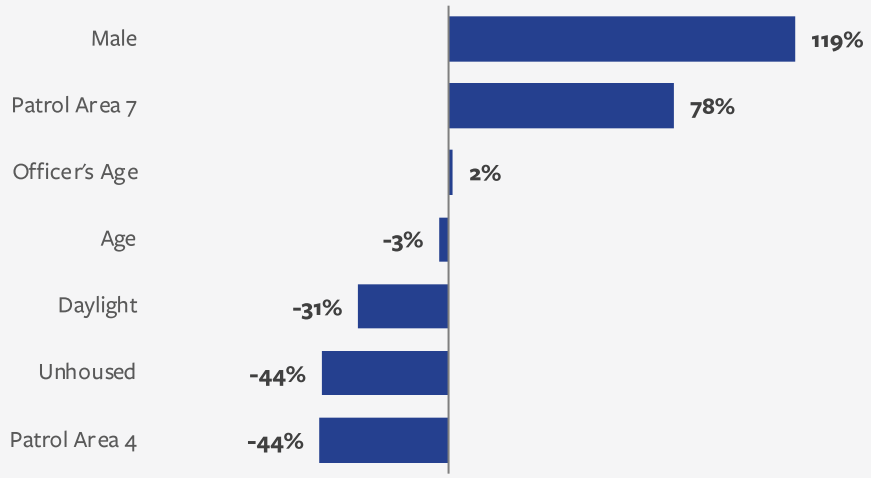
54 Data not shown. Differences are statistically significant (z-test of column proportions, p<.05).

Factors Influencing the Race of the Arrested Individual

Based on the findings from the descriptive analysis, the researchers identified several factors which were further examined using multiple logistic regression. This approach helps to isolate the extent to which a variable is associated with an outcome, while also accounting for the other factors in the model that might influence that outcome. The model assessed the effect of age, gender, housing status, time of day, and Patrol Area on the likelihood of an arrested individual being Black or Latinx (dependent variable). Because an officer in South Portland is required to make an arrest if an individual has an outstanding warrant, the researchers included outstanding warrants in the model as well.

FIGURE 4

Percent Increase/Decrease in Odds of the Arrested Individual Being Black/Latinx



Overall, Figure 4 shows that **the odds of the arrestee being Black or Latinx increased when the incident occurred in Patrol Area 7, and when the individual was male.** The odds of an individual being Black or Latinx decreased when the incident occurred during the day, in Patrol Area 4, and when the individual was unhoused.[55] Although these variables accounted for only 11% of the variance, which suggests that many factors which influence arrests by race/ethnicity are external to this analysis, the analysis upholds the findings of disparities shared in the previous sections.

55 This logistic regression model showed that the above variables were all significantly associated with the arrested individual being Black or Latinx ($X^2(7)=179.780$, $p<.001$). These variables explained 11.2% of the variance in the race/ethnicity and correctly predicted 81.6% of the cases. See the appendix for the full results.

Multiple Charges Analysis

The decision to request multiple charges from the District Attorney is typically a discretionary decision by a police officer making the arrest. Prior research has suggested that race or ethnicity may have an impact on the number and severity of charges which police officers request, and has found that officers request multiple charges in cases they believe are a high risk to the community.[56] For this study, the researchers conducted multiple logistic regression analysis to examine the association between gender, race, age, location, housing status, and time of day with the decision to request multiple charges.

Overall, the results of the model[57] showed that the odds of an individual receiving more than one charge increased when the individual was male, unhoused, and when the incident occurred between the hours of 9 pm and 11:59 pm, or between 3:00 am and 5:59 am. **It is important to note that in this analysis the race or ethnicity and the gender of the person arrested were not significantly related to the decision to request multiple charges.** The model supports the findings in the previous sections of this report showing that people who were experiencing homelessness at the time of their arrest were more likely to receive multiple charges. In fact, people who were unhoused had a 69% increase in the odds of receiving multiple charges. In addition, men had a 24% increase in the odds of receiving multiple charges. This model only accounted for 2% of the variance in multiple charges and therefore additional research is needed to determine other factors which may be influencing these requests that are external to this analysis.

56 Roh, S. & Robinson, M. (2009). A Geographic Approach to Racial Profiling: The Microanalysis and Macroanalysis of Racial Disparity in Traffic Stops. Police Quarterly, 12(2), 137-169.

57 This logistic regression model showed that the noted variables were all significantly associated with multiple charges being requested ($X2(4)=35.755$, $p=.000$). These variables explained 2.0%(R2) of the variance and correctly predicted 73.2% of the cases. See the appendix for the full results.

South Portland PD Traffic Citations, 2018-2020

From 2018 to 2020 the South Portland PD conducted 4,020 traffic stops which resulted in a citation. In 2020, there was a 21% decrease in citations likely due to the COVID-19 pandemic. At the time of this study, South Portland did not collect information on stops which resulted in a written or verbal warning, therefore this analysis focuses only on stops that resulted in a citation.

Just over one-third (34%) of all citations were individuals from South Portland. Half (51%) were individuals from other Portland-South Portland Metro Area locations, and another 11% of citations were individuals from other areas of Maine. Only 4% of all citations were people from out of state.[58]

Overall, the majority of drivers who were issued citations were men or boys (59%). In addition, while the majority of drivers cited were White (86%), 8.2% of drivers were BIPOC. **Black or African American drivers alone represented 7.6% of all citations which is higher than population estimates (3.6%).**[59]

TABLE 12

Demographics of Individuals who Received a Traffic Citation from South Portland PD, 2018-2020 (*n*=4,020)

	CITATIONS	
GENDER	N	%
Men/Boys	2,363	58.8%
Women/Girls	1,504	37.4%
Missing	153	3.8%
RACE/ETHNICITY		
BIPOC	328	8.2%
Black or African American	306	7.6%
Asian/Pacific Islander	21	0.5%
Native American/Indigenous	0	0.0%
Latinx/Hispanic	1	0.0%
White, Not Hispanic	3,462	86.1%
Missing	230	5.7%
AGE		
Under 15	1	0.0%
15–17	99	2.5%
18–24	782	19.5%
25–29	655	16.3%
30–39	998	24.8%
40–49	636	15.8%
50–59	439	10.9%
60 or older	368	9.2%
Missing	42	1.0%

58 Data not shown in the figure above. Out of state represented 3.8% (n=151) of all citations and another 0.4% were missing residence information (n=18). When comparing to the population, the citations records where residence information is missing and people from out of state were excluded from analysis (n=169).

59 The proportion of Black or African American drivers in the citations sample was significantly higher than population estimates (z-test of column proportions, p<.05).

Time of Day

Previous research has suggested one way to examine the presence of bias in traffic stops is to examine the time of day and whether the stop occurred at night or during daylight hours.[60, 61] This is commonly referred to as the "veil of darkness" hypothesis, which assumes that a police officer's bias in initial stops may be reduced at night because the visibility of the driver (and their race) is limited. Time associated factors were analyzed, and all traffic stops that resulted in a citation were coded based on the incident time to estimate whether the incident took place during daylight hours or nighttime. In total, 19% (754) of the South Portland PD traffic stops which resulted in a citation took place during nighttime hours.

TABLE 13

South Portland PD Traffic Stops by Time of Day and Race/Ethnicity

RACE/ETHNICITY	DAYLIGHT (n=3,266)	DARKNESS (n=754)
BIPOC	6.7%	17.5%^
Black or African American	6.2%	**16.4%^**
Asian/Pacific Islander	0.4%	1.1%^
Native American/Indigenous	0.0%	0.0%
Latinx/Hispanic	0.0%	0.0%
White, Not Hispanic	93.3%^	82.5%

^ Indicates a statistically significant difference between the daylight and darkness subgroups (p<.05).

Contrary to the "veil of darkness" theory, Black or African American individuals were stopped more frequently during the nighttime than the daylight

The Veil of Darkness theory suggests that in cases of discrimination, Black or African American drivers would be more likely to be stopped during the day since it would be easier for officers with conscious or unconscious biases to determine the race of the driver. As shown in Table 13, **contrary to the theory, Black or African American individuals were more likely to have received a citation during the nighttime (16%) than during the daylight hours (6%).**[62] More specifically, Black or African American drivers were more likely to receive a citation between the hours of 9:00 PM and 5:59 AM. In fact, among Black or African American drivers, 28% of all citations occurred during those hours compared to 10% of citations for all other race and ethnic groups.[63] While there are a number of citicisms of

60 Grogger, J., & Ridgeway, G. (2006). Testing for racial profiling in traffic stops from behind a veil of darkness. Journal of the American Statistical Association, 101(475), 878-887

61 Pierson, E., Simoiu, C., Overgoor, J. et al. A large-scale analysis of racial disparities in police stops across the United States. Nat Hum Behav 4, 736–745 (2020).

62 Black or African American individuals were more likely to be stopped at night than during the daylight hours and White individuals were more likely to be stopped during the day, $X2(3)=85.536$, p=.000. While sample sizes for other groups were small, BIPOC individuals as a group were more likely to be stopped at night compared to the day, $X2(1)=84.602$, p=.000. Sample sizes for Native American/Indigenous and Latinx groups are very small (<5) interpret with caution.

63 Data not shown. Black or African American individuals were more likely to have received a citation compared to all other race/ethnicity groups between 9:00 PM and 11:59 PM (9% vs. 4%), 12:00 AM and 2:59 AM (16% vs. 5%), and 3:00 AM and 5:59 AM (4% vs. 2%), $X2(7)=108.211$, p=.000.

the "Veil of Darkness" approach, according to this theory, this data does not indicate widespread profiling in traffic stops based solely on the driver's race or ethnicity during this study period.

South Portland PD Traffic Citations Compared to Population-level Characteristics

A population estimate for drivers (age 15+) was created using 2020 ACS 5-year estimates and adjusted to make it comparable to the sample of traffic citations.[19-27] While the previous "Veil of Darkness" analysis did not find evidence of racial profiling in traffic citations, compared to the population estimate men, Black or African American individuals, and people ages 18-49 are overrepresented in the sample of South Portland PD citations.[64] In particular, people who were identified as Black or African American are overrepresented compared to the population of driving aged individuals (8% of citations vs. 4% of the population). These findings are consistent with the trends and disparities identified in the arrest records analysis and may indicate other factors involved that are outside the scope of this study.

TABLE 14

South Portland PD Traffic Citations Among Maine Residents Compared to the Population Estimate, 2018-2020

	POPULATION ESTIMATE	CITATIONS SAMPLE (*n=3,851*)
GENDER (*n= 3,722*)		
Men	48.2%	**60.8%^**
Women	51.8%^	39.2%
RACE/ETHNICITY (*n=4573*)		
BIPOC	10.2%^	8.7%
Black or African American	3.6%	**8.1%^**
Asian/Pacific Islander	2.2%^	0.6%
Native American/Indigenous	0.5%	0.0%
Latinx/Hispanic	2.1%^	0.0%
Two or More Races	2.2%	0.0%
White, Not Hispanic	89.8%	91.3%^
AGE (*n= 4664*)		
Under 15		0.0%
15–17	3.8%	2.6%
18–24	11.4%	**19.3%^**
25–29	9.2%	16.7%^
30–39	14.9%	24.8%^
40–49	13.8%	16.2%^
50–59	17.1%^	11.3%
60 or older	29.9%^	9.1%

^ Indicates a statistically significant difference between the South Portland PD Population and the sample of South Portland PD citations (where $p<.05$). Full chi-square test results can be found in Appendix E.

Race and ethnicity categories are not exclusive and may add to more than 100%.

64 The population estimate and sample compared exclude people from out of state and those with missing residences. The population estimate is a weighted average of Maine and city-level data adjusted to be comparable to the residence of the individuals in the citations sample. See the methods section for more information and Appendix A for more details on the population data.

TABLE 15

Type of Citation Violation Issued, South Portland PD

	TOTAL		BLACK DRIVERS		WHITE DRIVERS	
	N	%	N	%	N	%
Registration Violations	2,529	**57.6%**	152	44.1%	2,225	59.1%^
Moving Violations	1,452	33.1%	166	48.1%^	1,204	32.0%
Speeding	364	8.3%	43	12.5%^	294	7.8%
Seat belt or Child Car seat Violation	308	7.0%	21	6.1%	279	7.4%
Failure to Stop	282	6.4%	25	7.2%	241	6.4%
Operating Without a Valid License	210	4.8%	26	7.5%^	175	4.6%
Other Moving Violation	202	4.6%	27	7.8%^	158	4.2%
Permit Violation	50	1.1%	21	6.1%^	24	0.6%
Distracted Driving	36	0.8%	3	0.9%	33	0.9%
Equipment Violations	72	1.6%	14	4.1%^	52	1.4%
Defective Vehicle Violation	66	1.5%	14	4.1%^	46	1.2%
Excessive Noise	6	0.1%	0	0.0%	6	0.2%
Other	334	7.6%	13	3.8%	286	7.6%^
TOTAL	4,387		345		3,767	

^ Indicates a statistically significant difference (z-test of column proportions) between Black/African American drivers and White drivers (p<.05). Other race/ethnicity groups (Latinx, Native American/Indigenous, Asian/Pacific Islander) are not shown due to small sample sizes.

Types of Citation

Citations were grouped into four categories: registration violations, moving violations, equipment violations, or other.[65] As Table 15 shows,[66] **the most common type of citation violations were registration violations which represented 58% of all citations between 2018 and 2020.** Another one-third (33%) of citations were moving violations, and a small number were equipment (2%) or other violations (8%). Black or African American drivers were more likely to have received a moving violation (48% vs. 32%) and equipment violations (4% vs. 1%) compared to drivers who were White. Meanwhile, drivers who were White were more likely to have received a registration violation (59% vs. 44%).[67]

The most common type of moving violation was speeding which accounted for 8% of all citations. Black or African American drivers were significantly more likely to receive a citation for speeding compared to White drivers (13% vs. 8%). In addition, Black or African American drivers were more likely to have received citations for operating without a valid license compared to White drivers (8% vs. 5%). While violations related to learner's permits (driving with non-family passengers, driving after curfew, etc.) were only 1% of citations overall, Black or African American drivers were more likely than White drivers to have received a citation for a permit violation (6% vs. 0.6%).

65 Registration violations include failures to display/produce registration, insurance, or inspection information. See the methods section for more details on what is included in each category.

66 Other race/ethnicity groups (Latinx, Native American/Indigenous, Asian/Pacific Islander) are not shown in the table due to small sample sizes.

67 The difference in citation types between Black/African American drivers and White drivers was statistically significant, $X2(6)=65.010$, $p<.001$.

TABLE 16

Location of South Portland PD Traffic Citation, by Patrol Area and Race/Ethnicity Group, 2018-2020 (n=4,016)

		TOTAL		BLACK/AFRICAN-AMERICAN DRIVERS		WHITE DRIVERS	
	SOUTH PORTLAND PD PATROL AREA	N	%	N	%	N	%
4	Ferry Village/SMCC/Knightville	1,394	34.7%	62	20.30%	1,247	36.1%^
7	Maine Mall/South Portland Gardens/Crocketts Corner	1,042	25.9%	125	40.8%^	840	24.3%
6	Thornton Heights/Cash Corner	905	22.5%	83	27.1%	769	22.2%
5	Pleasantdale/Broadview Park/ Stanwood Park	626	15.6%	35	11.4%	557	16.1%
	Out of Town	49	1.2%	1	0.3%	46	1.3%

^Indicates a statistically significant difference between Black or African American drivers and white drivers (z-test for column proportions, p<.05). Other race/ethnicity groups (Latinx, Native American/Indigenous, Asian/Pacific Islander) are not shown due to small sample sizes.

Location of Traffic Citations

Traffic citations were slightly more dispersed around the city compared to arrests. **The top location for traffic citations were the Ferry Village/SMCC/Knightville neighborhoods (Patrol Area 4) where 35% of citations occurred.** While Patrol Area 7 was the top location for arrests in South Portland, it was second for traffic stops with 26% of all citations.

The research team further examined Patrol Areas by the drivers' race/ethnicity to identify any patterns in specific areas of the city. As shown in Table 16, Black or African American drivers were significantly more likely to receive a citation in Patrol Area 7 compared to White drivers (41% vs. 24%). White drivers were more likely to receive a citation in Patrol Area 4 compared to Black or African American drivers (36% vs. 20%).[68]

68 In the table above, ^ indicates a statistically significant difference between Black or African American drivers and White drivers (z-test for column proportions, p<.05). Other race/ethnicity groups (Latinx, Native American/Indigenous, Asian/Pacific Islander) are not shown due to small sample sizes.

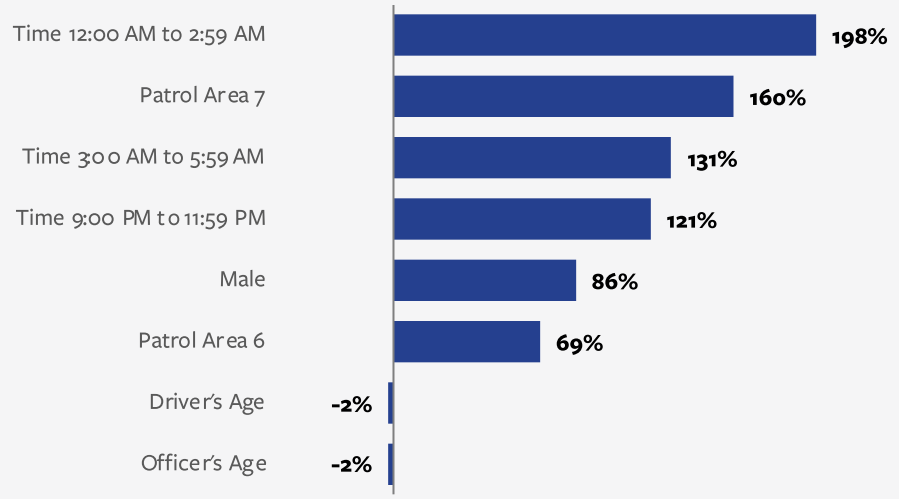
Factors Influencing the Race of the Driver Who Was Stopped

Based on the findings from the descriptive analysis, the researchers identified several factors which they further examined using multiple logistic regression. As stated previously, this approach helps to isolate the extent to which a variable is associated with an outcome, while also controlling for other the other factors in the model that might influence that outcome. The model assessed the effect of age, gender, time of day, and Patrol Area on the likelihood of the driver stopped being Black or African American (dependent variable).[69]

As shown in Figure 5, **the odds of the driver being Black or African American increased when the driver was male, when the incident occurred in Patrol Areas 6 or 7, and when it occurred at night between the hours of 9:00 pm and 5:59 am.** These variables accounted for only 10% of the variance in the driver's race, however, meaning that many important factors are not captured by this analysis.[70]

FIGURE 5

Percent Increase/Decrease in Odds of the Stopped Individual Being Black or African American



69 While the arrest data regressions used Black/Latinx as a group for the dependent variable, the traffic records included only a small number (n=1) identified as Latinx and thus these records were excluded from the regression analysis.

70 This logistic regression model showed that the above variables were all significantly associated with the driver being Black or African American ($X^2(8)=168.190$, p=.000). These variables explained 10.2%(R^2) of the variance in the race/ethnicity and correctly predicted 91.9% of the cases.

Conclusion

The analysis did not find statistical evidence of biased-based policing by members of the South Portland Police Department, that is, instances where an officer made a decision or took action based on the individual's race or ethnicity rather than the individual's behavior. In particular, our analysis does not find significant evidence that race and ethnicity were related to the decision to request multiple charges, which prior research suggests can be an indicator of biased decision-making.[71] Additionally, in terms of traffic enforcement this analysis found that, contrary to the Veil of Darkness theory, Black or African American individuals were not stopped more frequently during daylight hours. This does not mean such incidents do not happen, but rather no patterns emerge that demonstrate severe and persistent occurrences; indeed, identifying officer attitudes and individual acts of bias-based policing by individual police officers was beyond the scope of this report.

However, despite limitations in the scope of this study, the analysis does provide some evidence of racial and ethnic disparities in arrests and traffic stops, particularly among Black or African American individuals. Black/Latinx individuals were also more likely than White individuals to be arrested with no outstanding warrant. Specific factors influencing these disparities in South Portland include location (notably, Patrol Area 7), gender, and time of day. In addition, this analysis found disparities involving people who were experiencing homelessness at the time of their arrest, who were more likely to receive multiple charges.

The research team has identified many next steps which could help the South Portland PD dig more deeply into these particular areas, such as changes to data collection and further analysis, including at the officer level. Indeed, many factors which were external to this analysis should be explored further in order to better understand the patterns observed in arrests and traffic stops in South Portland. The first set of recommendations below are for the South Portland PD, specifically, and are activities that the Department can undertake unilaterally to improve their practice. The second set of recommendations will require the South Portland PD and the city of South Portland to collaborate with local social service providers and community partners to work towards these common goals. It is our firm belief that undertaking the best practices outlined below will help to reduce the disparities observed in this study, support local communities, and bridge relations between the police department and the people they serve.

71 Roh, S. & Robinson, M. (2009). A Geographic Approach to Racial Profiling: The Microanalysis and Macroanalysis of Racial Disparity in Traffic Stops. Police Quarterly, 12(2), 137-169.

Recommendations for South Portland Police Department

The South Portland PD should explore additional research and analysis to address the limitations of this study and further explain some of the findings, particularly those involving racial and ethnic disparities. In addition, making system-wide updates to data collection and implementing ongoing monitoring processes would allow for better transparency, accountability, and more effective analysis moving forward. These recommendations are also aligned with statewide efforts and recent legislation[72] to improve the data collection and procedures associated with traffic stops in order to eliminate racial profiling, as well as recommendations from the city of South Portland's Police Services Review Working Group (PSRWG).[73] Moreover, these represent areas where the South Portland PD can lead by example in supporting anti-racism and anti-bias policies, practices, and programs.

01. Promote transparency, engagement, and monitoring.

South Portland PD leadership should initiate and participate in community meetings to share and discuss these findings with community groups, city leadership, organizations concerned about racial equity, and local human rights commissions. In addition, the department should expand their current practices for sharing data with the City Council and the public, including social media and periodic presentations, which will allow for ongoing reporting and monitoring of key data points and transparent reporting of race and ethnicity statistics to the public.

72 For more information about this law see LD132/HP88 An Act to Implement the Attorney General's Recommendations on Data Collection in Order to Eliminate Racial Profiling in Maine.

73 Freshley, C. (February 2021). Report of Findings and Recommendations. South Portland, ME: South Portland Police Services Review Working Group. https://www.southportland.org/files/9916/1356/9426/South_Portland_Police_Services_Review_Working_Group_-_Report_of_Findings_and_Recommendations_-_2021-02-12.pdf

02. Implement data collection improvements.

The first step to being able to identify patterns of racial profiling and bias is to collect accurate and complete data on all stops and interactions that police officers have with community members, regardless of the outcome of that interaction. This study revealed data quality, gaps, and tracking issues which should be addressed to improve data quality and efficiency for future research and monitoring purposes. The data extraction required a complex, time consuming process to gather data from multiple database tables. In many cases, information was not available and there were a large number of errors, inconsistencies, and missing data. As the department rolls out the new data management system, the following are specific items that could improve the efficiency and quality of reporting:

- Inconsistencies in coding and naming conventions limit efficient and quality reporting abilities. Standardized naming and procedures should be implemented to reduce this in the future.
- Use of force data was not able to be matched up to the arrest records which did not allow for any analysis on this topic. Ensuring that the records in the new system can be properly linked is important for future analysis.
- South Portland did not have consistent call source information that was available to match up to arrest records and therefore additional analysis and data is needed on this topic.
- Officers should collect basic demographic data on all traffic stops, including those that resulted in a warning or a verbal warning only, the reason for the initial stop, and information on searches conducted. Officers may need additional training to support this effort and standardize the results.
- The department should explore ways to capture data on all interactions that police officers have with community members, including incidents where an arrest was not made, or a warning/citation was not issued.

03. Conduct additional research.

The limitations in this study mean additional research is needed to further understand the trends and patterns detected in the data and determine if there is evidence of individual officer bias. Specifically, a high priority for the department should be an in-depth analysis of call source and the reason for the initial stop or arrest incident. Call source data also provides deeper insight into officer-initiative activities and the level of officer discretion, both of which are areas in need of further research in South Portland. Specific attention should be paid to arrests that include highly discretionary activities such as drinking, drug use, or disorderly conduct. This new analysis should compare (and control for) patterns of officers who work in similar areas and on similar shifts to determine if any officers are outliers in terms of the groups they arrest or cite. The department should also explore the patrol patterns in the neighborhoods identified in this analysis specifically where Black or Latinx individuals are more likely to be arrested (Patrol Area 7). In addition, an analysis of traffic stops which resulted in only a verbal or written warning and a closer examination of

patrol patterns could help explain some of the differences observed in this study. Because the numbers are low, but the disparity notable, some additional qualitative research to explore juvenile arrests could also be beneficial to the department.

04. Continue to fund and implement ongoing anti-bias efforts for all staff.

Our analysis found some evidence of disparities in arrests and traffic citations. Given the potential impact of officer bias (even implicit), the South Portland PD should continue to implement and/or expand measures to reduce officer bias and increase accountability, such as annual training on systemic racism and implicit bias, and adequately assessing applicants for bias. These strategies are strongly supported by national research as effective means to reduce racial inequities in the criminal justice system[74] and align with recommendations from local community and advocacy groups. The City of Portland Racial Equity Steering Committee (RESC) made several recommendations for specific consultants including the Mid Atlantic Equity Consortium (MAEC) or GARE.[75] In addition, the Fair and Impartial Policing Curriculum developed by the University of Southern Florida is another that might be considered. South Portland could consider partnering with Portland in order to streamline and expand training efforts across the two cities.

05. Continue to develop recruitment and advancement pathways to increase staff diversity.

Although not included elsewhere in our analysis because the numbers were so small, only 4% (n=2) of the officers listed in the arrest records were BIPOC. In keeping with best practices, the South Portland PD should continue to develop recruitment and advancement pathways that attract and retain a more diverse police force, drawing on the diversity of the local community. The department should also review its current policies and procedures to see what changes can be made to better support these efforts. The South Portland Police Department should consider a more decentralized approach to recruitment efforts that empowers local patrol officers to identify and mentor youth, new Mainers, and other local community members who may make excellent future police officers.

74 The Sentencing Project. (2008). Reducing Racial Disparity in the Criminal Justice System, A Manual for Practitioners and Policymakers. Washington, D.C. https://www.ojp.gov/ncjrs/virtual-library/abstracts/reducing-racial-disparity-criminal-justice-system-manual

75 Abdurraqib, S. (April 26, 2021). City of Portland Racial Equity Steering Committee, Full Report. https://content.civicplus.com/api/assets/41c75af1-d867-4dc0-b4af-39af4a6470d8

Recommendations for South Portland Police Department, City of South Portland, and Strategic Partners

National best practices recommend community-based models for crisis response and community policing models as a way to reduce racial disparities. In addition, providing supports and appropriate responses for individuals experiencing homelessness minimizes the homelessness-jail cycle. The city of South Portland and South Portland PD currently fund and implement a number of best practices in community-based policing and crisis response which should be expanded and leveraged to address disparities. Many of these same recommendations were also outlined in detail in the South Portland Police Services Review Working Group report; this study provides more data to support these needs in South Portland to help reduce disparities.

06. Expand capacity for community-based crisis response.

In 2020, the Vera Institute of Justice published a comprehensive overview of alternative models of crisis response which outlines the various options for internal police crisis response teams, co-response options, and community-based models.[76] All South Portland PD officers currently receive de-escalation training and Mental Health First Aid. South Portland should continue and expand crisis response training[77] to prepare police officers to make referrals and respond appropriately when they do encounter someone with mental health needs. **However, these approaches are police led responses and police co-response options as outlined by the Vera report but are not community-based models.** The city of South Portland should consider ways to enhance the community-based models available in Portland by expanding and prioritizing mobile crisis response teams that are external to the police, and free up police resources to focus on issues of public safety.

07. Promote efforts that support and decriminalize homelessness.

With one-tenth of arrests in South Portland involving individuals who were unhoused, this analysis echoes previously cited national research which demonstrates cycle of homelessness, police interactions, and justice system involvement. The city of South Portland has recently started contracting with the Homeless Outreach and Mobile Engagement Team (HOME Team) operated by Milestone Recovery Services. However, given the large number of arrests and the recent increase in people experiencing homelessness in South Portland, the city and the South Portland PD should continue to implement additional strategies that support these individuals and explicitly decriminalize common activities such as loitering,

76 Beck, J., Reuland, M., & Pope, L. (November 2020). Behavioral Health Crisis Alternatives, Shifting from Police to Community Responses. New York: Vera Institute of Justice. https://www.vera.org/behavioral-health-crisis-alternatives

77 For example the NAMI Crisis Intervention Team (CIT) Training Program which has been used by departments statewide.

sleeping in public places, and public urination. In addition, as outlined previously, community-based response teams and mental health and substance use programs can better support individuals experiencing homelessness in South Portland. The city should continue to expand resources with local community-based organizations and the HOME Team to support these efforts and provide more alternative responses to these issues, including a more permanent strategy to accommodate overflow from the Portland shelters and expanding access to public restrooms.

08. Pilot a community-based public safety model

Given the high concentration of BIPOC arrests found in some areas, a community-based public safety model should be considered in South Portland, particularly in those areas which are predominantly BIPOC.[78] In recent years, many advocacy groups and community leaders in Maine and nationally have criticized community policing programs because they do not recognize the historical trauma of over policing BIPOC communities and leave the power to arrest with the police officer. In contrast, community-based public safety programs empower local citizens and community-based organizations, which are external to police departments, with the authority to address minor public safety issues and partner with or refer to police departments as they see fit. In South Portland, a new community-based, citizen-led program could help to ameliorate the observed racial disparities while also maintaining a partnership for larger issues. Given the findings in this study, the city should focus on piloting these programs in areas where there is a high concentration of arrests and among Black or African American and Latinx individuals (Patrol Areas 6 and 7). The Urban Institute[79] published a guide on community-driven safety initiatives which outlines key considerations and funding models, as well as examples of similar initiatives in other cities.

78 A community-based safety model was also recommended by the City of Portland's Racial Equity Steering Committee (Abdurraqib, 2021).

79 Sakala, L., Harvell, S., & Thomson, C. (November 2018). Public Investment in Community-Driven Safety Initiatives, Landscape Study and Key Considerations. Washington, D.C.: Urban Institute. https://www.urban.org/sites/default/files/publication/99262/public_investment_in_community-driven_safety_initiatives_1.pdf

Appendix A: Population Data Tables (Adults, Juveniles, Drivers)

Table 17

Adult (18+) Population Data and Weighted Average

	MAINE (U.S. CENSUS)	SOUTH PORTLAND (U.S. CENSUS)	SPPD ADJUSTED AVG.
Total 18+ Population (2020)	**1,089,858**	**21417**	
GENDER			
Men	48.4%	48.5%	48.4%
Women	51.6%	51.5%	51.6%
RACE/ETHNICITY			
BIPOC	6.3%	11.2%	10.1%
Black or African American	1.2%	4.3%	3.5%
Asian/Pacific Islander	1.1%	2.7%	2.3%
Native American/Indigenous	0.6%	0.6%	0.5%
Latinx/Hispanic	1.5%	2.6%	2.2%
Two or More Races	2.1%	2.0%	2.1%
Some Other Race	0.3%	0.6%	0.5%
White, Not Hispanic	93.7%	88.8%	89.9%
AGE			
18–24	9.9%	14.3%	12.0%
25–29	7.4%	9.4%	9.8%
30–39	14.5%	14.1%	15.6%
40–49	14.8%	13.8%	14.3%
50–59	18.5%	18.6%	17.7%
60 or older	34.9%	29.8%	30.7%

Race and ethnicity categories are not exclusive and may add to more than 100%.

TABLE 18

Juvenile (Under 18) Population Data and Weighted Averages

	MAINE (U.S. CENSUS)	SOUTH PORTLAND (U.S. CENSUS)	SPPD ADJUSTED AVG.
Total Population Under 18 (2020)	**250,967**	**4,248**	
GENDER			
Boys	51%	57%	53.8%
Girls	49%	43%	46.2%
RACE/ETHNICITY			
BIPOC	12%	20%	19.7%
Black or African American	2%	9%	8.7%
Asian/Pacific Islander	1%	1%	1.7%
Native American/Indigenous	1%	0%	0.5%
Latinx/Hispanic	3%	6%	4.2%
Two or More Races	5%	5%	5.5%
White, Not Hispanic	88%	80%	80.3%
AGE			
Under 5 years	25%	21%	24.6%
5–9 years	28%	22%	24.8%
10–14 years	29%	36%	31.7%
15–17 years	18%	21%	18.9%

Race and ethnicity categories are not exclusive and may add to more than 100%.

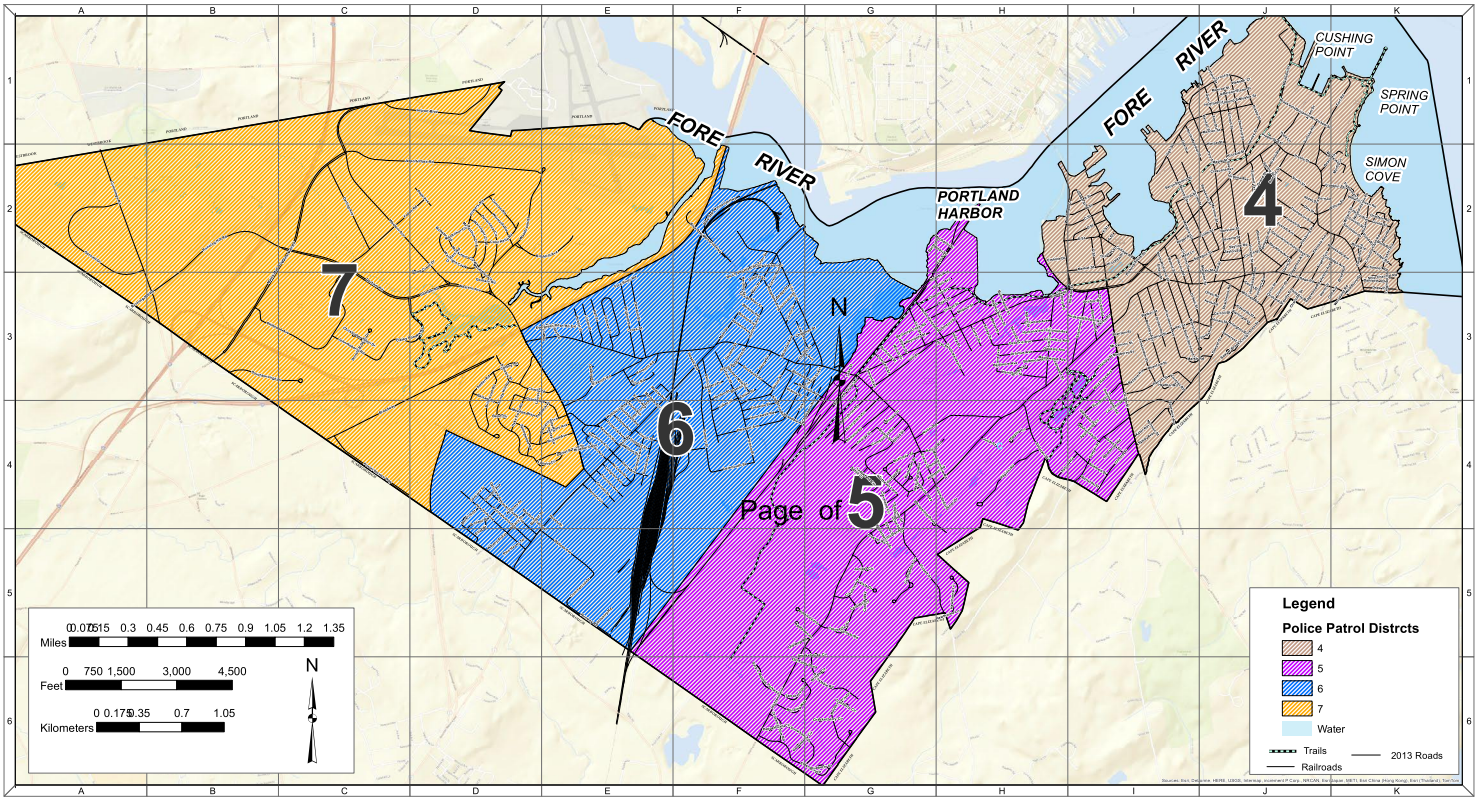
TABLE 19

Driver (Age 15+) Population Data and Weighted Averages

	MAINE (U.S. CENSUS)	SOUTH PORTLAND (U.S. CENSUS)	SPPD ADJUSTED AVG.
Total 15+ Population (2020)	**1,135,578**	**22,311**	
GENDER			
Men/Boys	48.5%	47.5%	48.2%
Women/Girls	51.5%	52.5%	51.8%
RACE/ETHNICITY			
BIPOC	6.4%	12.1%	10.2%
Black or African American	1.2%	5.2%	3.6%
Asian/Pacific Islander	1.2%	2.6%	2.2%
Native American/Indigenous	0.6%	0.6%	0.5%
Latinx/Hispanic	1.5%	2.7%	2.1%
Two or More Races	2.2%	1.9%	2.2%
White, Not Hispanic	93.6%	87.9%	89.8%
AGE			
15–17	4.0%	4.0%	3.8%
18–24	9.5%	13.7%	11.4%
25–29	7.1%	9.0%	9.2%
30–39	13.9%	13.6%	14.9%
40–49	14.2%	13.2%	13.8%
50–59	17.7%	17.8%	17.1%
60 or older	33.5%	28.6%	29.9%

Race and ethnicity categories are not exclusive and may add to more than 100%.

Appendix B: South Portland Police Department Patrol Areas (Beat Map)



THE CITY OF SOUTH PORTLAND
Cumberland County, Maine

Police Patrol Districts

PROVIDED BY:
SOUTH PORTLAND
PLANNING & DEVELOPMENT DEPARTMENT

DATE	REVISION
04/2014	UPDATED GIS LAYER WITH ROUTE INFO
11/2007	UPDATE SHEET LIST

Appendix C: South Portland PD Arrests Chi-Square Results Tables

TABLE 20

South Portland PD Adult Population Estimate Compared to the South Portland PD Arrest Records Sample, All Years, Maine Residents Only

CHI-SQUARE RESULTS	N	X2	DF	P-VALUE
BIPOC	2244	223.412	1	<.001
Black or African American	2244	901.97	1	<.001
Latinx or Hispanic	2244	18.186	1	<.001
Asian/Pacific Islander	2244	12.013	1	<.001
Native American/Indigenous	2244	6.052	1	0.014
Men	2244	361.104	1	<.001
18–24	2244	248.613	1	<.001
25–29	2244	195.824	1	<.001
30–39	2244	214.828	1	<.001
UNDER 40	2244	910.798	1	<.001
40–49	2244	4.482	1	0.034
50–59	2244	80.471	1	<.001
60 or older	2244	673.179	1	<.001

TABLE 21

South Portland PD Juvenile Arrest Records Compared to the Juvenile Population, All Years, Maine Residents Only

CHI-SQUARE RESULTS	N	X2	DF	P-VALUE
Boys	278	0.086	1	0.769
BIPOC	278	42.503	1	<.001
Black or African American	278	121.579	1	<.001
Asian/Pacific Islander	278	0.016	1	0.899
Latinx/Hispanic	278	2.534	1	0.111
10–14 years	278	2.057	1	0.152
15–17 years	278	503.383	1	<.001

Table Notes: A p-value of .05 or less indicates a statistically significant result. A statistically significant result indicates that the observed differences between the population estimate and the arrest dataset are greater than we might expect by chance alone.

Appendix D: South Portland Residents Adult Arrest Rates

Average annual arrest rates represent the average number of individuals in each group arrested in the city of South Portland each year out of 100 people in that group. Rates were calculated by dividing the total number of arrests by 3, then dividing by the total population for each group and multiplying by 100 ((total arrests subgroup/3)/total population subgroup*100).

TABLE 22

South Portland Annual Average Adult Arrest Rates by Gender, Race, and Age (18+ Population)

	South Portland Population		SPPD Adult Arrests Sample		Average Annual Rate
	N	%	N	%	(per 100)
Total 18+ Population (2020)	**21,417**		**879**		**1.4**
GENDER					
Male	9,955	46%	612	70%	2
Female	11,462	54%	267	30%	0.8
RACE/ETHNICITY					
BIPOC	2,396	11%	187	21%	2.6
Black or African American	921	4%	146	17%	5.3
Asian/Pacific Islander	568	3%	14	2%	0.8
Native American/Indigenous	125	1%	2	0%	0.5
Latinx/Hispanic	562	3%	30	3%	1.8
White, Not Hispanic	19,021	89%	692	79%	1.2
AGE					
18–24	3,059	14%	172	20%	1.9
25–29	2,018	9%	148	17%	2.4
30–39	3,025	14%	230	26%	2.5
40–49	2,953	14%	152	17%	1.7
50–59	3,981	19%	116	13%	1
60 or older	6,381	30%	61	7%	0.3

TABLE 23

South Portland Annual Average Adult Arrest Rates Black or African American Individuals Compared to White (18+ Population)

	Black or African American Individuals			White Individuals		
	So. Portland Population	Arrests	Annual Rate Per 100	So. Portland Population	Arrests	Annual Rate Per 100
MEN	**480**	**110**	**7.6**	**8,798**	**464**	**1.8**
18–24	128	24	6.3	1,125	82	2.4
25–29	79	21	8.9	868	70	2.7
30–34	70	22	10.5	754	63	2.8
35–44	74	19	8.6	1,134	100	2.9
45–64	129	23	5.9	2,947	123	1.4
65+	0	1		1,970	26	0.4
WOMEN	**441**	**36**	**2.7**	**10,223**	**228**	**0.7**
18–24	156	3	0.6	1,381	52	1.3
25–29	129	7	1.8	743	41	1.8
30–34	0	2		555	31	1.9
35–44	0	19		1,189	51	1.4
45–64	156	5	1.1	3,648	42	0.4
65+	0			2,707	11	0.1

Appendix E: South Portland PD Traffic Data Chi-Square Results Tables

TABLE 24

South Portland PD Traffic Citations Compared to the South Portland PD Population Estimate of Drivers, Maine Residents Only, All Years

CHI-SQUARE RESULTS	N	X2	DF	P-VALUE
Men	3722	235.685	1	<.001
BIPOC	3652	9.544	1	0.002
Black or African American	3652	208.423	1	<.001
Asian/Pacific Islander	3652	44.819	1	<.001
Latinx/Hispanic	3652	76.307	1	<.001
15–17	3820	15.927	1	<.001
18–24	3820	238.766	1	<.001
25–29	3820	121.467	1	<.001
30–39	3820	293.149	1	<.001
40–49	3820	18.968	1	<.001
50–59	3820	92.014	1	<.001
60 or older	3820	787.744	1	<.001

Note: A p-value of .05 or less indicates a statistically significant result. A statistically significant result indicates that the observed differences observed differences between the population estimate and the traffic stops dataset are greater than we might expect by chance alone.

Appendix F: South Portland PD Logistic Models for Multiple Regression Analysis

TABLE 25

Logistic Regression Final Model Results for the Arrested Individual Being Black/Latinx

ARRESTED INDIVIDUAL BEING BLACK/LATINX	B	S.E.	WALD	DF	SIG.	EXP(B)
Male	0.785	0.128	37.538	1	0	2.193
Age	-0.032	0.005	43.59	1	0	0.968
Unhoused	-0.572	0.208	7.545	1	0.006	0.564
Officer's Age	0.016	0.007	4.894	1	0.027	1.016
Patrol Area 4	-0.586	0.156	14.061	1	0	0.557
Patrol Area 7	0.575	0.119	23.401	1	0	1.776
Daylight	-0.372	0.114	10.595	1	0.001	0.69
Constant	-1.432	0.315	20.702	1	0	0.239

Table Notes:

This logistic regression model was the final model testing Black/Latinx as the dependent variable. Many variables were tested (such as gender, race, age, location, time of day) but only the variables which were found to be significant are included in the table above.

This logistic regression model showed that the above variables were all significantly associated with the arrested individual being Black or Latinx ($X^2(7)=179.780$, $p<.001$). These variables explained 11.2%(R^W) of the variance in the race/ethnicity and correctly predicted 81.6% of the cases.

The odds of the arrestee being Black or Latinx increased when the individual was male, and the incident occurred in Patrol Area 7. The odds also increased with the officer's age, meaning the older the officer the greater the odds of the individual being Black or Latinx. The odds of an individual being Black or Latinx decreased when the individual was unhoused, with their age, and when the incident occurred in Patrol Area 4 or during the day.

TABLE 26

Multiple Logistic Regression Model Results for Multiple Charges Requested

MULTIPLE CHARGES REQUESTED	B	S.E.	WALD	DF	SIG.	EXP(B)
Male	0.212	0.1	4.486	1	0.034	1.236
Unhoused	0.525	0.14	14.112	1	0	1.691
Time 9:00 PM to 11:59 PM	0.438	0.133	10.908	1	0.001	1.55
Time 3:00 AM to 5:59 AM	0.463	0.211	4.798	1	0.028	1.589
Constant	-1.289	0.087	220.19	1	0	0.276

Table Notes:

This logistic regression model was the final model testing Multiple Charges as the dependent variable. Many variables were tested (such as gender, race, age, location, time of day) but only the variables which were found to be significant are included in the table above.

This logistic regression model showed that the variables above were all significantly associated with multiple charges being requested ($X^2(4)=35.755$, p=.000). These variables explained 2.0%(R^2) of the variance and correctly predicted 73.2% of the cases.

The odds of an individual receiving more than one charge increased when the individual was male, unhoused, and when the incident occurred between the hours of 9 pm and 11:59 pm, or between 3:am and 5:59 am. Note race was not found to be significant in the models.

TABLE 27

Logistic Regression Results, South Portland PD Traffic Stops, Results for Driver Being Black or African American

DRIVER IS BLACK OR AFRICAN AMERICAN	B	S.E.	WALD	DF	SIG.	EXP(B)
Male	0.619	0.141	19.396	1	0	1.857
Driver's Age	-0.022	0.005	19.424	1	0	0.978
Officer's Age	-0.023	0.009	5.87	1	0.015	0.978
Patrol Area 6	0.524	0.159	10.835	1	0.001	1.69
Patrol Area 7	0.954	0.145	43.428	1	0	2.597
Time 9:00 PM to 11:59 PM	0.792	0.233	11.577	1	0.001	2.208
Time 12:00 AM to 2:59 AM	1.093	0.184	35.141	1	0	2.984
Time 3:00 AM to 5:59 AM	0.836	0.347	5.797	1	0.016	2.306
Constant	-1.931	0.392	24.275	1	0	0.145
Time 12AM to 3AM	0.192	0.084	5.172	1	0.023	1.211
Constant	-2.551	0.109	551.939	1	0	0.078

Table Notes:

This logistic regression model showed that the above variables were all significantly associated with the driver being Black or African American ($X^2(8)=168.190$, p=.000). These variables explained 10.2%(R^2) of the variance in the race/ethnicity and correctly predicted 91.9% of the cases.

The odds of the driver being Black or African American increased when the driver was male, when the incident occurred in Patrol Areas 6 or 7, and when it occurred at night between the hours of 9:00 pm and 5:59 am. The odds decreased slightly with the drivers age and the officer's age, meaning the younger the driver and the younger the officer the less likely the driver was to be Black or African American.

About The Project & Partners

This project was developed by the cities of Portland and South Portland and their Police Departments in collaboration with the University of Southern Maine, Catherine Cutler Institute and the Northeastern University, Institute on Race and Justice. The project was funded by the cities of Portland and South Portland and the Roux Institute at Northeastern University. The goal of this project was to examine and analyze available data to determine if there was evidence of disproportionate police activities in either city.

The Catherine Cutler Institute is the research arm of the Muskie School of Public Service at the University of Southern Maine. The Catherine Cutler Institute has a long history of collaborating with local, state, and national partners to examine and find solutions to critical societal issues. For more information about the Catherine Cutler Institute visit usm.maine.edu/cutler.

The Institute on Race and Justice (IRJ) is based at Northeastern University's School of Criminology and Criminal Justice. The IRJ utilizes social science research methods to support partners in the development of policy changes which advance the cause of social justice. For more information about the IRJ visit cssh.northeastern.edu/irj.