PORTLAND POLICE BUREAU
STRATEGIC SERVICES DIVISION

STOPS DATA COLLECTION

2019 ANNUAL REPORT

NOVEMBER 19, 2020

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EXECUTIVE SUMMARY

Stops and Searches of Drivers

- Portland Police Bureau officers performed 33,035 stops of drivers in 2019 – a 12 percent increase over the prior year with the most stops occurring in East Precinct (43.7%).

- Drivers of all racial/ethnic groups were stopped by Traffic Division officers at similar rates compared to the Injury Collision Benchmark and by Non-Traffic (patrol and investigative) officers at similar rates compared to the Crime Victimization Benchmark.

- The majority of 2019 driver stops (74.2%) were for Moving Violations on Portland roadways. Drivers perceived to be Black / African American were stopped significantly more for Non-Moving Violations and drivers perceived to be Asian stopped significantly more for Moving Violations.

- Personnel from Non-Traffic units were significantly more likely to stop a driver for Non-Moving Violations and Non-Traffic Offenses than Traffic personnel.

- Drivers perceived to be Black / African American were asked to consent to a search at almost twice the rate of all other perceived racial groups. White individuals were significantly more likely to refuse a consent search than drivers perceived to be Black / African American or Hispanic / Latino.

- In 2019, 1 in every 22 stops (4.6%) included a discretionary search – a decrease from 2018. Traffic division officer conducted searches in less than 1% of their stops. Non-Traffic division officers performed the majority (93.0%) of the searches, 1 in every 13 stops (7.7%). The majority of searches (70.4%) were consent searches.

- Black / African American drivers were searched at statistically significant rates that were more than expected when compared to the search rate of other racial/ethnic groups. Unlike prior years, in 2019 they were not searched at a rate considered to be disparate (over twice the rate of other drivers).

- Officers discovered contraband on 48 percent of all searches – an increase over prior years. Consent searches (43.5%) were less likely to result in found contraband than other search types (61.0%). Drugs are the most commonly found contraband.

- The outcome of a stop was significantly predicted by several factors, including the operation division of the officer, the perceived race / ethnicity of the individual, the reason for the stop, and whether contraband was discovered during a search.

Stops and Searches of Pedestrians

- Portland Police Bureau officers performed 1,131 stops of pedestrians in 2019 – a 95 percent increase over the prior year with the majority of stops occurring in Central Precinct (70.2%).

- Pedestrians stop rates were similar to prior years. Pedestrians perceived as White made up the majority (74.8%) of stops, followed by Black / African Americans (15.7%) and Hispanic or Latino (5.7%) pedestrians.

- Traffic Division officers are significantly more likely to stop a pedestrian for a Moving Violation while Non-Traffic Division officers are more likely to stop pedestrians for Non-Moving Violations and Non-Traffic Offenses.

- Black / African American pedestrians are significantly more likely to be stopped for Non-Traffic Offenses and significantly less likely to be stopped for Moving Violations when compared to Latino and White subjects.

- Pedestrians are significantly more likely to be searched (13.6%) than drivers (4.6%). Probable Cause was the primary search method utilized for pedestrians (55.8%). No racial / ethnic group was disparately searched in 2019.

- Officers discovered illegal contraband in 39% of pedestrian searches. Probable Cause was the most successful search type (43.0%). Drugs were the most commonly found contraband.

- Black / African American pedestrians were significantly more likely to receive no enforcement action or to be arrested than White pedestrians.

Strategies and Next Steps

- Updates are being made to Stops Data Collection Application to improve collection of data. The updates will be implemented in time to start the 2021 data collection on January 1st, 2020. The changes include:
    - Collection of additional data points regarding the stop reason to better understand how stops are used as a component of crime reduction and prevention.
    - Changes to the search data points to provide more detail on search criteria
    - Collection of additional data point to identify mandatory arrests

- New training to improve stops data collection and understating of search criteria that officers will be required to complete in the Learning Management System starting in November 2020.

- Leverage technical assistance offered as part of the State of Oregon's Statistical Transparency of Policing (STOPS) program to address disparities identified within this report and the State's report.

INTRODUCTION

The Portland Police Bureau produces an annual report to increase the transparency of the Bureau's use of stops in contacting members of the community. The data, and subsequent reports, highlight the demographics of people stopped by sworn PPB personnel and how those demographics have changed over time. Additionally, the report examines the discretionary decision making practices of police before, during, and after a stop to identify potential disparities across the bureau and within different operational divisions.

It should be noted that the data contained in this report are not necessarily an accurate proxy to aid in the determination of racial profiling. Instead, these data allow for an examination of disparities in stops between different demographic groups from an empirical standpoint. As such they allow for a more informed community-wide discussion about how best to keep the community safe and how to accomplish this in the most equitable manner possible. Through community and police partnerships, we can identify areas of potential concern, find solutions on ways to reduce racial bias and perceptions of racial bias, and develop new strategies for community policing and accountability.

Background

The Portland Police Bureau has been collecting data on traffic and pedestrian stops since 2001 based on recommendations from the Blue Ribbon Panel on Racial Profiling[1]. From the program's outset, officers were required to log their perceptions of driver/pedestrian race, gender, and general age (minor vs. adult); the reason for the stop; whether a search was conducted, the type of search conducted, and results of the search; and the overall outcome of the stop. The Bureau's stops application automatically connects to the Bureau's computer-aided-dispatch (CAD) and electronic citation (eCite) systems to aid in the accountability of Stops report completion. The newest version of the stops data collection system launched on June 27, 2018. An example of the current Stops application system is provided in Appendix B.

[1] https://www.portlandoregon.gov/police/article/32381

BENCHMARKING METHODS

A fundamental component of any analysis that seeks to determine the relationship between the perceived race and ethnicity of a driver and stopping and searching behavior by police is to understand how those stopped may or may not differ from those in the community. This comparison group, or "benchmark", should reasonably describe the population that could be contacted, assuming no bias. A benchmark's value depends on the extent to which it can help explain alternative reasons why stop rates might be different among different groups of people, including driving frequency, driving quality, and the location of driving[2]. Academic researchers have developed and utilized different types of benchmarks for use in various situations and jurisdictions, balancing the availability of data with the strengths and limitations of each method[3]. Subject matter experts emphasize that there is no perfect benchmark and recommend using a variety of methods to assess the role that bias may play in police-initiated stops[4].

Population counts and estimates from the United State Census Bureau are routinely used as benchmarks for police stops as the data is inexpensive, quick to obtain, and readily available[5]. However, Census data is not a research-supported best practice due to several known limitations that are difficult to overcome, including the age, accuracy, and relevancy of the data. These limitations are described in more detail below.

CENSUS LIMITATION #1: AGE AND ACCURACY OF DATA

Table 1. City of Portland Racial and Ethnic Demographics from the 2010 U.S. Census

Race/Ethnicity	Citywide		Central Precinct		East Precinct		North Precinct	
	N	%	N	%	N	%	N	%
American Indian/Alaskan	**4,381**	**0.8%**	1,062	0.6%	1,891	0.8%	1,428	0.8%
Asian	**41,335**	**7.1%**	9,435	5.2%	23,757	10.6%	8,140	4.6%
Black/African American	**35,462**	**6.1%**	3,995	2.2%	10,684	4.7%	20,777	11.7%
Hawaiian or Pacific Islander	**2,978**	**0.5%**	354	0.2%	1,409	0.6%	1,215	0.7%
Hispanic or Latino	**54,840**	**9.4%**	8,971	5.0%	26,613	11.8%	19,258	10.8%
White	**421,773**	**72.2%**	150,722	83.2%	151,980	67.5%	119,037	67.0%
Other	**23,007**	**3.9%**	6,616	3.5%	8,690	3.9%	7,699	4.4%
Total	**583,776**	**100.0%**	**181,155**	**100.0%**	**225,024**	**100.0%**	**177,554**	**100.0%**

The City of Portland has seen a dramatic increase in the number of residents since the last Census in 2010. Over the past 9 years, Portland's overall population has increased by 12.6% to 657,100

[2] Fridell, L.A. (2005). *Understanding race data from vehicle stops: A stakeholder's guide*. Washington, DC: Police Executive Research Forum.
[3] Renauer, B.C., Henning, K., & Covelli, E. (2009). *Benchmarking Portland Police Bureau traffic stop and search data: Technical assistance report.* Portland, Ore.: Criminal Justice Policy Research Institute.
[4] Engel, R.S. & Calnon, J.M. (2004). Comparing benchmark methodologies for police-citizen contacts: Traffic stop data collection for the Pennsylvania State Police. *Police Quarterly, 7,* 97 – 125.
[5] Ridgeway, G. & MacDonald, J. (2010). Methods for assessing racially biased policing. In S. Rice & M. White (Eds.), *2010, Race, ethnicity, and policing: New and essential readings* (pp. 180-204). New York: New York University Press.

individuals[6] – becoming the nation's 26th most populous city in the process (up from 28th in 2010)[7]. Most of Portland's population growth of about 300 new residents per month can be attributed to migration from outside of the region – primarily 20- and 30- somethings[8] – as the overall number of births decline across the State[9]. Migration trends are also increasing diversity within Multnomah County[10], with 2019 estimates indicating Asian (34.7%), Native Hawaiian and Other Pacific Islander (30.5%), Two or More Races (26.5%), Hispanics (21.9 %), and Black or African Americans (13.3%) all growing at a faster rate than White individuals (5.6%)[11].

Table 2. Multnomah County Population, 2010 - 2019

	2010 Census		2019 Estimate		Growth
Race / Ethnicity	Count	Percent	Count	Percent	Rate
American Indian and Alaska Native	5,576	0.8%	5,850	0.7%	+ 4.9%
Asian	47,844	6.5%	64,464	7.9%	+ 34.7%
Black or African American	40,167	5.5%	45,517	5.6%	+ 13.3%
Hispanic	80,138	10.9%	97,667	12.0%	+ 21.9%
Native Hawaiian and Other Pacific Islander	3,976	0.5%	5,188	0.6%	+ 30.5%
Two or More	25,711	3.5%	32,533	4.0%	+ 26.5%
White	531,922	72.3%	561,636	69.1%	+ 5.6%

Even though the U.S. Census Bureau produces annual estimates of the resident population, they should be taken with caution. Analyses indicate that the average error rate for the overall population for counties similar to Multnomah County (in size and growth) is ± 1.61% - the best performing estimate for the Census Bureau[12]. The American Community Survey – the only other Census product that produces race/ethnicity demographic estimates for local jurisdictions was rated as the least accurate, with overall margin of error ranging from ± 4.72% for five-year estimates to ± 5.21% for one-year estimates. A literature review did not yield any research on the estimation accuracy of county subpopulations, including race and ethnicity, for Census Bureau products; however, general statistical methodology dictates that higher margin of errors should exist for Hispanic, Black or African American, Asian or other non-White populations in the area due to their smaller frequency in the population. Additionally, those groups are also likely undercounted in all measures, as

[6] Population Research Center. (2019). Certified Populations Estimate 2019. Population Research Center, Portland State University. Retrieved from https://www.pdx.edu/prc/population-reports-estimates

[7] U.S. Census Bureau. (2019). Annual Estimates for Incorporated Places of 50,000 or More, Ranked by July 1, 2019 Populations: April 1, 2010 to July 1, 2019. U.S. Census Bureau, Population Division. Retrieved from https://www2.census.gov/programs-surveys/popest/tables/2010-2019/cities/totals/SUB-IP-EST2019-ANNRNK.xlsx

[8] Lehner, J. (2019, July 11). Migration to Oregon, an update. Retrieved from https://oregoneconomicanalysis.com/2019/07/11/migration-to-oregon-an-update/

[9] Lehner, J. (2019, May 21). Oregon births and deaths, part 1. Retrieved from https://oregoneconomicanalysis.com/2019/05/21/oregon-births-and-deaths-part-1/

[10] County is the smallest geographic area in which the U.S. Census Bureau produces annual population estimates and is a good proxy for general population trends. The City of Portland represents about 79 percent of the County's population and about 31 percent of the County's land area.

[11] U.S. Census Bureau. (2019). Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin for the United States, States, and Counties: April 1, 2010 to July 1, 2019. U.S. Census Bureau, Population Division. Retrieved from https://www2.census.gov/programs-surveys/popest/datasets/2010-2019/counties/asrh/cc-est2019-alldata-41.csv

[12] Yowell, T. & Devine, J. (2013). *Evaluating current and alternative methods to produce 2010 county population estimates*, (U.S. Census Bureau Working Paper No. 100). Washington, DC: U.S. Census Bureau Population Division.

Hispanics, Black or African Americans, and Asians have significantly worse response rates for the Census[13] and American Community Survey[14].

CENSUS LIMITATION #2: ONLY INCLUDES RESIDENT POPULATION

Census products, including the decennial census, population estimates, and the American Community Survey, are explicitly focused on the residential population in the observed jurisdictions. However, Portland residents are not the only population subjected to traffic stops, as the rules of the road apply equally to all road users, including visitors and commuters, regardless of their residency. As the economic center for the region, about 260,000 commuters enter Portland daily[15], swelling the daily commuter-adjusted population estimate[16] to about 908,000. Most commuters (62.6%) report operating a car or motorcycle to drive alone to work[17], adding 173,000 motor vehicles to the road per day (excluding carpoolers). In addition to commuters, the region is a vibrant tourist destination, as a total of 8.69 million people visited the area in 2018 and stayed an average of 3.1 nights[18], boosting the daily population by another 73,000 individuals. About 85 percent of visitors reported operating a motor vehicle – including a personal vehicle or rental car – during their visit, further increasing the number of individuals on Portland roadways[19].

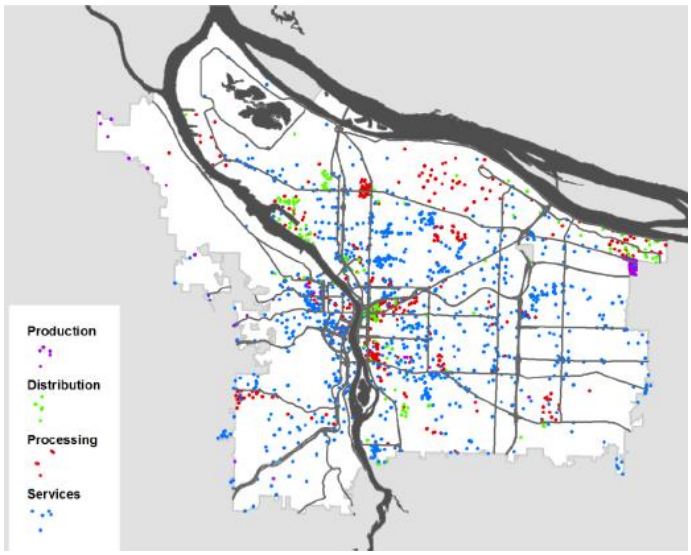
Table 3. Racial and Ethnic Demographics of Neighboring Jurisdictions from the 2010 U.S. Census

	Vancouver		Gresham		Beaverton		Tigard		Lake Oswego	
Race / Ethnicity	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
American Indian and Alaska Native	1,252	0.8%	808	0.8%	387	0.4%	251	0.5%	127	0.3%
Asian	8,039	5.0%	4,446	4.2%	9,368	10.4%	3,416	7.1%	2,039	5.6%
Black or African American	4,525	2.8%	3,530	3.3%	2,219	2.5%	772	1.6%	252	0.7%
Hispanic	16,756	10.4%	19,984	18.9%	14,628	16.3%	6,106	12.7%	1,356	3.7%
Native Hawaiian and Other Pacific Islander	1,527	0.9%	698	0.7%	395	0.4%	411	0.9%	64	0.2%
White	123,347	76.2%	72,549	68.7%	59,559	66.3%	35,460	73.8%	31,815	86.9%
Other / Two or More	6,345	3.9%	3,579	3.4%	3,247	3.6%	1,619	3.4%	966	2.6%

[13] Mule, T. (2012). *Census coverage measurement estimation report: Summary of estimates of coverage for persons in the United States,* (DSSD 2010 Census Coverage Measurement Memorandum Series #2010-G-01). Washington, DC: U.S. Census Bureau, Decennial Statistical Studies Division.
[14] Griffin, D.H. (2002). *Measuring survey nonresponse by race and ethnicity,* (Working Paper). Washington, DC: U.S. Census Bureau.
[15] U.S. Census Bureau. (2019). LEHD Origin-Destination Employment Statistics Data (2002 – 2017). U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program.
[16] Total Resident Population + Total Workers Working In Area – Total Workers Living in Area. Equation retrieved from https://www.census.gov/topics/employment/commuting/guidance/calculations.html
[17] U.S. Census Bureau. (2019). 2014 – 2018 American Community Survey 5-Year Estimates. Table B08601: Means of Transportation to Work for Workplace Geography. U.S. Census Bureau, American Community Survey.
[18] Dean Runyan Associates. (2019). *Oregon Travel Impacts: Statewide Estimates, 1992 – 2018p.* Portland, Ore: Oregon Tourism Commission. Retrieved from https://industry.traveloregon.com/resources/research/oregon-travel-impacts-1991-2011-dean-runyan-associates/
[19] Longwoods International (2018). *Oregon 2017 Regional Visitor Report: Portland Region.* http://industry.traveloregon.com/research/archive/portland-region-overnight-travel-study-2017-longwoods-international/

Commuters and tourists are not the only groups that add to Portland's population, as a vibrant entertainment scene invites temporary visitors from neighboring jurisdictions. The City of Portland has more food service employees per capita than any other city in the region with large numbers of restaurants in the Downtown core and along transportation routes[20]. These food services, along with nightlife venues, festivals, and other entertainment options, are destinations for locals and non-locals alike, increasing the number of road users on nights and weekends. The demographics of neighboring municipalities closely resemble Portland's demographics, with White as the largest group (above 66%) in every jurisdiction[21].

Figure 1. Food employment density in the City of Portland (Green, Schrock, & Liu, 2012)



Data from the 2010 U.S. Census indicates that most Portland suburbs have a higher Hispanic or Latino population and smaller Black or African-American population than Portland as a whole. Most transit usage occurs during the peak hours of 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m. on weekdays[22], indicating that most people temporarily visiting Portland for entertainment purposes are likely driving or carpooling to the locale.

The dramatic changes in the city's population each day makes it especially difficult to understand the demographics of who may be utilizing the City's public roadways. Portland ranks in the bottom half of all large cities nationwide in Black or African American employment – but in the upper half for White, Hispanic, and Asian employment[23] – highlighting the racial disparities that exist in the City. Black or African American individuals that live in Portland have the lowest labor force participation rate for any racial group, whereas Hispanic or Latinos (of any race) have the highest in the City[24]. Nationally, White individuals (17.5%) are more likely to be employed part-time than Black or African American individuals (15.1%)[25], which means that group may be more likely to commute

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[20] Green, J., Schrock, G., & Liu, J. (2015). *Portland's Food Economy: Trends and Contributions*. Portland, Ore: City of Portland Bureau of Planning and Sustainability. Retrieved from https://www.portlandoregon.gov/bps/article/548390

[21] U.S. Census Bureau. (2010). 2010 Census. Table DP-1: Profile of General Population and Housing Characteristics: 2010. U.S. Census Bureau, Census.

[22] TriMet Code 19.05(A)(D)

[23] Ross, M. & Holmes, N. (2017, Feb. 27). Employment by race and place: Snapshots of America. Retrieved from https://www.brookings.edu/blog/the-avenue/2017/02/27/employment-by-race-and-place-snapshots-of-america/

[24] U.S. Census Bureau. (2018). 2013 – 2017 American Community Survey 5-Year Estimates. Table S2301: Employment Status. U.S. Census Bureau, American Community Survey. Retrieved from https://factfinder.census.gov/bkmk/table/1.0/en/ACS/17_5YR/S2301/1600000US4159000

[25] Bureau of Labor Statistics, US Department of Labor (2019). Household data: Annual averages: 12. Employed persons by sex, occupation, class of worker, full- or part-time status, and race. Bureau of Labor Statistics, Current Population Survey. Retrieved from https://www.bls.gov/cps/cpsaat12.htm

outside of the traditional "rush hours", further complicating any benchmark of who may be using the public roadways at any particular hour.

The differential commute patterns for individuals that either live, work, or visit Portland further complicate efforts to benchmark Stops data. White individuals that live (58.1%)[26] or work (64.3%)[27] in Portland are more likely to drive alone to work than Black individuals that live (57.9%)[28] or work 58.2%)[29] in the City, with Black individuals more likely to utilize shared transportation methods such as mass transit (18.9%, 20.2%)[28,29] than White individuals (11.8%, 11.0%)[26,27]. These differences in commute methods, combined with the variation in employment levels, likely means there are more cars on the road operated by White individuals than Black individuals, especially during business hours. Racial and ethnic demographics also vary substantially for tourists and visitors – who primarily drive – to the area, as the majority of visitors identify themselves as White (83%) with only 3 percent self-identifying as African-American[30].

By only focusing on the resident population of Portland – which the U.S. Census does – it excludes a significant portion of people that could be using the City's roadways. Employment and commute pattern demographics indicate that is reasonable to expect an increase in the number of White individuals on Portland roadways. However, much of this growth is primarily during the standard work week. Black or African American individuals are more likely to be unemployed or work part-time, making their roadway usage unpredictable by traditional measures. Available statistics also don't highlight where certain demographics may be driving, as the purpose of your trip may influence where and when you use City roadways.

CENSUS LIMITATION #3: DOES NOT ACCOUNT FOR DIFFERENTIAL EXPOSURE

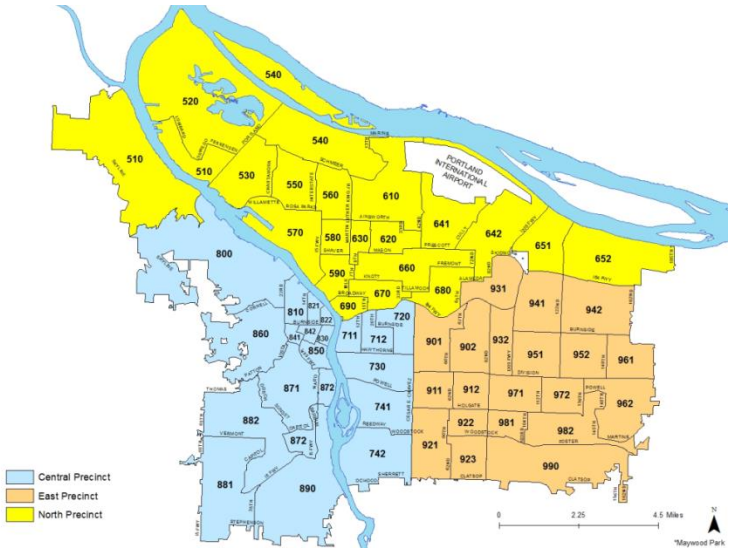
The readily available data from the U.S. Census fails to accurately identify the demographic breakdown of who might be using the City's public roadways in 2019. However, even if it sufficiently described the entire driving population, it would still fail to account for the reality that not all drivers are equally likely to be stopped by police. As described by Tillyer, Engel, and Cherkauskas (2009)[31], the best benchmarks "reflect the drivers' *risk* of being stopped, assuming no bias" on the part of police. There are numerous legitimate and legal reasons why an individual would

[26] U.S. Census Bureau. (2019). 2014 – 2018 American Community Survey 5-Year Estimates. Table B08105H: Means of Transportation to Work (White Alone, Not Hispanic or Latino). U.S. Census Bureau, American Community Survey.
[27] U.S. Census Bureau. (2019). 2014 – 2018 American Community Survey 5-Year Estimates. Table B08505H: Means of Transportation to Work for Workplace Geography (White Alone, Not Hispanic or Latino). U.S. Census Bureau, American Community Survey.
[28] U.S. Census Bureau. (2019). 2014 – 2018 American Community Survey 5-Year Estimates. Table B08105B: Means of Transportation to Work (Black or African American Alone). U.S. Census Bureau, American Community Survey.
[29] U.S. Census Bureau. (2019). 2014 – 2018 American Community Survey 5-Year Estimates. Table B08505B: Means of Transportation to Work for Workplace Geography (Black or African American Alone). U.S. Census Bureau, American Community Survey.
[30] Longwoods International (2018). *Oregon 2017 Regional Visitor Report: Portland Region*. http://industry.traveloregon.com/research/archive/portland-region-overnight-travel-study-2017-longwoods-international/
[31] Tillyer, R., Engel, R.S., & Cherkauskas, J.C. (2009). Best practices in vehicle stop data collection and analysis. *Policing: An International Journal of Police Strategies & Management, 33*, 69 – 92.

have the potential for differential exposure to law enforcement officers, and the best benchmarks attempt to account for those.

The area in which the subject is driving is a significant factor in how likely an individual is to be contacted by police. The City of Portland is divided into 3 different administrative areas, called precincts, which form the basis of police patrol activity. Each precinct is further divided into 20 subunits, called patrol districts, that were sized and balanced in 2009 to account for variations in 9-1-1 calls and other calls for police service. The relative size of the district impacts whether a person is more or less likely to encounter an officer on patrol – for instance, driving in District 822 in the Old Town / Chinatown area of Portland (with 7.9 miles of roadways) a subject is more likely to encounter an officer on patrol than in District 882 in Southwest Portland (with 89.4 miles of roadways).

Figure 2. Portland Precincts and Patrol Districts



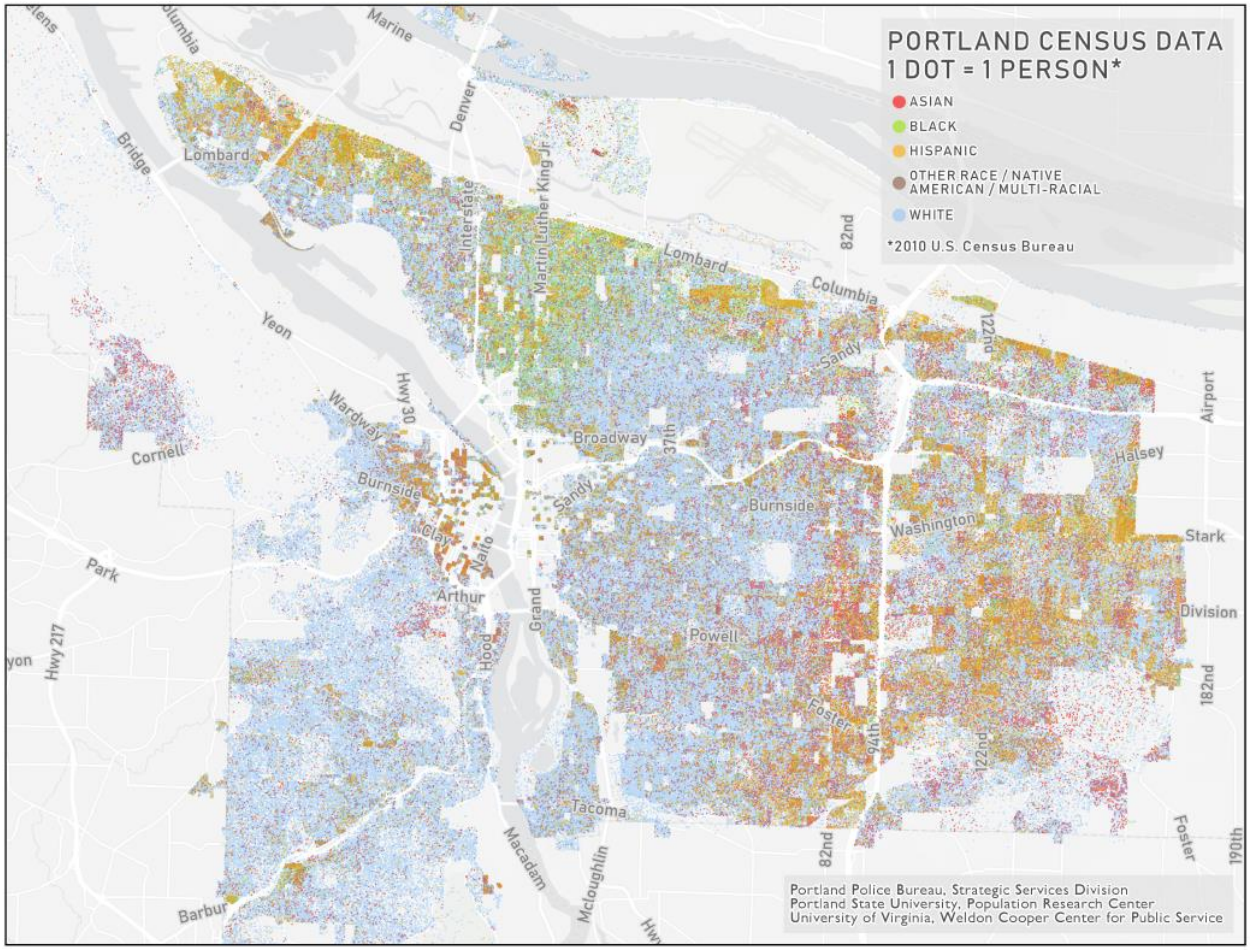
However, due to staffing shortages across the Bureau, not every precinct and district is staffed evenly; in 2019, not a single precinct had a staffing minimum of 20 officers for every shift[32] to ensure each patrol district had at least one officer assigned for all hours of the day. Multiple officers may also be assigned to the same unit, further reducing the overall coverage within a precinct. Without a full complement of officers available, staffing supervisors prioritize district assignment and special patrols based, in part, on reducing violent crime and responding to calls for service, including 9-1-1 calls, from community members. Where an officer patrols can also have significant impact on their policing strategy and discretionary activity, as officers are more likely to take reports and make arrests in areas that are perceived to be high crime, even for more minor offenses that may be handled less formally in other areas of the jurisdiction[33].

[32] Central and North Precincts had 3 shifts: A-Shift (Day) from 7 a.m. to 5 p.m.; C-Shift (Afternoon) from 4 p.m. to 2 a.m.; E-Shift (Night) from 10 p.m. to 8 a.m. East Precinct had an additional shift, B-Shift, scheduled from 10 a.m. to 8 p.m.

[33] Lum, C. (2009). *Does the "race of places" influence police officer decision making?,* Final report, W.E.B. DuBois Fellowship (Award #2007-IF-CX-0032), National Institute of Justice. Washington, DC: U.S. National Institute of Justice. Retrieved from https://www.ncjrs.gov/pdffiles1/nij/grants/231931.pdf

The intersection between the common patrol areas for Portland police officers and where a subject lives, works, visits, or transits through is a key component of understanding a subject's risk of being stopped when engaging in dangerous or illegal driving behavior. About 72 percent of Portland's population self-identified as "White" on the 2010 U.S. Census; however, this does not mean that ratio is true for every neighborhood in the City. Traditional measures of segregation show that Portland is relatively well-integrated, ranking in the top 25% for the largest metro areas[34] and cities[35]. However, this is partly due to methodological challenges, as the city's overall lack of racial diversity limits the usefulness of these measures for Portland. Graphical analyses of Portland racial demographics (see Figure 5) show that Black, Hispanic, and Asian populations cluster in distinct pockets around the City – but these are small enough that a Census tract-based analysis would have difficultly differentiating.

Figure 3. Spatial representation of Portland racial demographics, 2010 US Census



Comparing the residences of Portland's population with the top locations for 9-1-1 calls and violent crime helps explain the differential exposure to law enforcement in Portland across different racial

[34] Michigan Population Studies Center, Institute for Social Research, University of Michigan. (n.d.). New racial segregation measures for large metropolitan areas: Analysis of the 1990-2010 decennial censuses. Retrieved from https://www.psc.isr.umich.edu/dis/census/segregation2010.html

[35] Silver, N. (2015, May 1). The most diverse cities are often the most segregated. Retrieved from https://fivethirtyeight.com/features/the-most-diverse-cities-are-often-the-most-segregated/

groups. East Precinct – especially along NE/SE 82nd Avenue, NE/SE 122nd Avenue, and E. Stark Street – receive large proportions of the calls for service and violent crime in the City. These areas also coincide with some of the least-White portions of Portland, increasing the likelihood that Hispanic- and Asian-identifying Portlanders encounter a law enforcement officer in the area. Inner Northeast and North Portland also see elevated levels of crime and activity, increasing the likelihood that Black-identifying Portlanders may be contacted by Portland police officers doing patrol work. Conversely, the neighborhoods with the highest proportion of White residents – namely Southwest Portland, the Sellwood-Westmoreland/Eastmoreland neighborhoods in Southeast, and Alameda/Beaumont-Wilshire neighborhoods in Northeast have some of the lowest activity in the City, decreasing the likelihood that residents of those areas would encounter a Portland police officer in their neighborhood.

The analysis also highlights the drawback of using U.S. Census residential data to benchmark traffic stops and police activity. Portland's city center – namely Downtown, Old Town/Chinatown, the Pearl District, Central Eastside Industrial District, and the Lloyd District – are the most active spots in Portland for reported violent crimes and calls for service. However, large portions of these areas were reported to have no official residents as they are primarily places of commerce and business. These areas also have the largest population of houseless and unsheltered populations in the City, which are notoriously hard to locate and count for the decennial censuses[36]. This is especially relevant given that people that identified as American Indian or Alaskan Native, Native Hawaiian or Pacific Islander, and Black or African American are over-represented in City homelessness rates[37]. Unsheltered people of color disproportionately reported sleeping in the Downtown area compared to other areas in town, further increasing their risk of being contacted by law enforcement officials in the busiest part of town.

The rapid growth and change in Portland's neighborhoods is also likely increasing the risk certain communities face in encountering a police officer while driving. Portland has one of the highest rates of gentrification and displacement in the county[38] with the displacement most prominently affecting traditionally Black communities in North and Northeast Portland[39]. Even though residents are being displaced, it does not necessarily mean their whole community has moved – displaced residents are still traveling to their former communities to shop, worship, work, and visit friends/family. Displaced residents are forced to move further from public transportation hubs[40],

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[36] U.S. Government Accountability Office. (2018, July). *2020 Census: Actions Needed to Address Challenges to Enumerating Hard-to-Count Groups.* (Publication No. GAO-18-599). Retrieved from https://www.gao.gov/assets/700/693450.pdf

[37] Joint Office of Homeless Services. (2019). *2019 Point-in-Time Count of Homelessness in Portland/Gresham/Multnomah County, Oregon*. Portland, Ore: Multnomah County. Retrieved from https://multco.us/housing-and-homelessness/point-time-counts

[38] Richardson, J., Mitchell, B., & Franco, J. (2019). *Shifting neighborhoods: Gentrification and cultural displacement in American cities.* Washington, DC: National Community Reinvestment Coalition. Retrieved from https://ncrc.org/gentrification/

[39] Bureau of Planning and Sustainability, City of Portland. (2018). *2018 gentrification and displacement neighborhood typology assessment: Key findings and methodology report.* Retrieved from https://www.portlandoregon.gov/bps/62635

[40] Soursourian, M. (2012). *Community development research brief: Suburbanization of poverty in the Bay Area.* San Francisco: Federal Reserve Bank of San Francisco. Retrieved from https://www.frbsf.org/community-development/files/Suburbanization-of-Poverty-in-the-Bay-Area2.pdf

which can increase the total number of miles based on land use policies and the transportation network[41]. The increased travel time, and miles, that displaced residents of color face increases the likelihood they encounter a Portland police officer on patrol, especially as they commute through high police-activity areas on main arterials.

Portland Police Bureau Disparity Benchmarks

Most discussion on the relative merits of different type of benchmarking strategies, including U.S. Census data, focus on their ability to accurately describe the racial and ethnic characteristics of the population in areas where law enforcement personnel operate. There are other reasons stop patterns may differ in the absence of bias, including the operational mission of officers[42]. Where a unit operates, and who they may come in contact with, can be heavily influenced by their operational goals and objectives. To account for this differential, and how it may affect who is exposed to police activity, the Portland Police Bureau utilizes two different research-supported benchmarks for the different personnel divisions that initiate traffic stops.

TRAFFIC DIVISION BENCHMARK

Academic researchers have identified the demographics of drivers involved in injury collisions as a best-practice for benchmarking traffic stops[43]. Collision statistics are a reasonable proxy of road users because it describes the frequency that drivers are operating a vehicle, increasing their risk of being involved in a collision or being stopped by law enforcement personnel. Injury collision statistics also act as a proxy for driving location, as the most dangerous locations are over-represented in the statistics. The data can also describe the type of driving behavior that might warrant the attention of police – especially when at-fault drivers are included[44]. Finally, the data is an unbiased benchmark because police are required to respond to injury collisions, making it independent of any discretionary behavior that could intentionally, or unintentionally, alter the subject demographics.

Table 4. 2019 Injury Collision Statistics, by Race of Drivers

	2019	
Race/Ethnicity	**Count**	**Percent**
American Indian/Alaskan	4	0.3%
Asian	86	6.3%
Black/African American	153	11.1%
Hispanic	144	10.5%
Native Hawaiian	2	0.1%
White	987	71.7%
Total	**1,376**	**100.0%**

The Traffic Division is the primary traffic enforcement arm of the Portland Police Bureau. The number one priority of Traffic officers is to address behaviors of road users, including drivers, bicycle riders, and pedestrians, that might lead to a collision. Officers from the Traffic Division spend the majority of

[41] Chatman, D.G., Xu, R., Park, J. & Spevack, A. (2017). Chapter 4: The effects on auto use of household displacement from rail station areas. In K. Chapple, P. Waddell, D. Chatman, A. Loukaitou-Sideris, & P. Ong. *Developing a new methodology for analyzing potential displacement* (pp. 156 – 180). Berkeley, Calif.: University of California, Berkeley.

[42] Withrow, B.L., Dailey, J.D., & Jackson, H. (2009). The utility of an internal benchmark strategy in racial profiling surveillance. *Justice Research and Policy, 19,* 19 – 47.

[43] Alpert, G. P., Smith, M.R., Dunham, R.G. (2004). Toward a better benchmark: Assessing the utility of not-at-fault traffic crash data in racial profiling research. *Justice Research and Policy, 6,* 43 – 69.

[44] Withrow, B.L. & Williams, H. (2015). Proposing a benchmark based on vehicle collision data in racial profiling research. *Criminal Justice Review, 40,* 449 – 469.

their time patrolling[45] the City's High Crash Network where more than half of the City's deadly crashes occur[46]. Many miles of the High Crash Network overlap low-income neighborhoods and communities of color[47], increasing the likelihood that members of those groups could be involved in an injury collision or to be contacted by police. The 2019 Injury Collision Benchmark[48] summarizes the identified race / ethnicity of involved drivers[49] in injury collisions investigated by Portland Police Bureau officers[50]. Based on research-indentified best-practices, the Injury Collision Benchmark is used for all stop analyses involving traffic officers.

NON-TRAFFIC DIVISIONS BENCHMARK

The mission of officers from other Non-Traffic divisions in the Portland Police Bureau, including patrol officers, Neighborhood Response Teams, and other specialty units, primarily relates to the reduction and prevention of violent crime in the City. The average patrol officer does not initiate traffic stops solely based on risky or dangerous driving behavior; rather, they use discretionary traffic stops to contact potential subjects of interest and investigate crimes in addition to reducing injury collisions. As described above, Non-Traffic officers primarily operate in parts of Portland that generate a high volume of 9-1-1 calls (and other calls for service) and have higher levels of violent crime. Utilizing an injury collision benchmark is not appropriate for Non-Traffic officers as it does not adequately describe their mission and population they are serving.

Discerning a race-based benchmark, predicated on crime involvement, is a tricky proposition. Some jurisdictions and researchers[51] have utilized arrest demographics as an internal benchmark for comparison with stopped subject demographics. However, analyses of this sort often fall short as they fail to discern biased behavior when the agency or jurisdiction as a whole is acting in a biased way in all aspects of police work[52]. National[53] and local[54] statistics highlight long standing disparities in the criminal justice system for people of color, particularly African American individuals.

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[45] The Bureau produces an interactive dashboard to describe where traffic officers patrol and their enforcement actions. You can visit the dashboard at https://www.portlandoregon.gov/police/tableau/traffic/

[46] https://www.portlandoregon.gov/transportation/54892

[47] Portland Bureau of Transportation. (2016). *Vision Zero action plan.* Retrieved from https://www.portlandoregon.gov/transportation/71730

[48] The PPB's records management system, RegJIN, does not include "Middle Eastern" as possible racial / ethnic category so the group cannot be included in any benchmark analyses.

[49] RegJIN does not include an indicator if involved drivers were "at-fault", so all drivers are included in the analysis.

[50] An additional 29 drivers involved in injury collisions were classified as "Unknown" in RegJIN. These were excluded from all benchmark totals.

[51] Gelman, A., Kiss, A., & Fagan, J. (2005). *An analysis of the NYPD's stop-and-frisk policy in the context of claims of racial bias.* (Columbia Public Law Research Paper No. 05-95). New York: Columbia University. Retrieved from https://scholarship.law.columbia.edu/faculty_scholarship/1390

[52] Walker, S. (2001). Searching for the denominator: Problems with police traffic stop data and an early warning system solution. *Justice Research and Policy, 3,* 63 – 95.

[53] Puzzanchera, C. (2018). *Juvenile Arrests, 2016*. (Office of Juvenile Justice and Delinquency Prevention National Report Series Bulletin NCJ 251861). Washington, DC: U.S. Department of Justice.

[54] Ferguson, J. (2016). *Racial and ethnic disparities and the relative rate index (RRI): Summary of data in Multnomah County*. Retrieved from http://media.oregonlive.com/portland_impact/other/RRI%20Report%20Final-1.pdf.

Researchers have utilized reports from community members of individuals involved in suspicious activity to benchmark[55]; however, this can also be a biased measure because it incorporates biased behavior from community in regards to race[56].

Given suspect demographic reporting is unable to escape broader societal trends of bias, agencies and researchers have investigated using victims as a proxy to benchmark the population[57]. Victim demographics are a reasonable description of general area characteristics, including the personal characteristics of individuals in the area[58]. Not all crime is reported equally – the National Crime Victimization Survey[59] routinely shows that many crimes go unreported each year, however almost all serious violent crimes are reported to law enforcement. Reported victimization can also vary significantly by race (in combination with other factors)[60], however, the seriousness of the crime is consistently found as the strongest predictor of reporting[61]. The 2019 Crime Victimization Benchmark[62] summarizes the profiles of victims of FBI Indexed Crimes – Homicides, Forcible Sex Offenses, Robberies and Aggravated Assaults that occurred in the City of Portland[63] and is used for all stop analyses involving PPB Non-Traffic officers.

Table 5. 2019 Crime Victimization Benchmark, by Race of Victim

	2019	
Race/Ethnicity	**Count**	**Percent**
American Indian/Alaskan	45	1.2%
Asian	180	4.8%
Black/African American	701	18.5%
Hispanic	365	9.7%
Native Hawaiian	24	0.6%
White	2,466	65.2%
Total	**3,781**	**100.0%**

Benchmarking Conclusion

Determining the proper population benchmark is a complicated, but key, step to conduct an analysis of PPB's traffic stops. Using U.S. Census data is generally not advisable due to it being primarily focused on the residential population of an area. Additionally, the data does not account for differential exposure with police while being outdated in a city growing as rapidly as Portland. To account for the differing missions of the PPB, two different benchmarks are utilized: Injury Collision Statistics for Traffic Division officers and Crime Victimization Rates for Non-Traffic officers. Both measures provide a more accurate, less-biased measure of the individuals living, working, commuting, and visiting in areas that officers operate.

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[55] Ridgeway, G. (2007). *Analysis of racial disparities in the New York Police Department's stop, question, and frisk practices*. Technical Report TR-534-NYCPF, RAND Corporation.

[56] Beckett, K. (2012). Race, drugs, and law enforcement: Toward equitable policing. *Criminology & Public Policy, 11,* 641 – 653.

[57] Gaines, L.K. (2006). An analysis of traffic stop data in Riverside, California. *Police Quarterly, 9,* 210 – 233.

[58] Tseloni, A. & Pease, K. (2014). Area and individual differences in personal crime victimization incidence: The role of individual, lifestyle/routine activities and contextual predictors. *International Review of Victimology, 21,* 3 – 29.

[59] Morgan, R. E. & Truman, J.L. (2018). *Criminal Victimization, 2017* (NCJ 252472). Washington, DC: Bureau of Justice Statistics. Retrieved from https://www.bjs.gov/index.cfm?ty=pbdetail&iid=6466

[60] Powers, R., Khachatryan, N., & Socia, K. (2018). Reporting victimization to the police: The role of racial dyad and bias motivation. *Policing & Society*, 1 – 17.

[61] Bosick, S.J., Rennison, C.M., Gover, A.R., & Dodge, M.

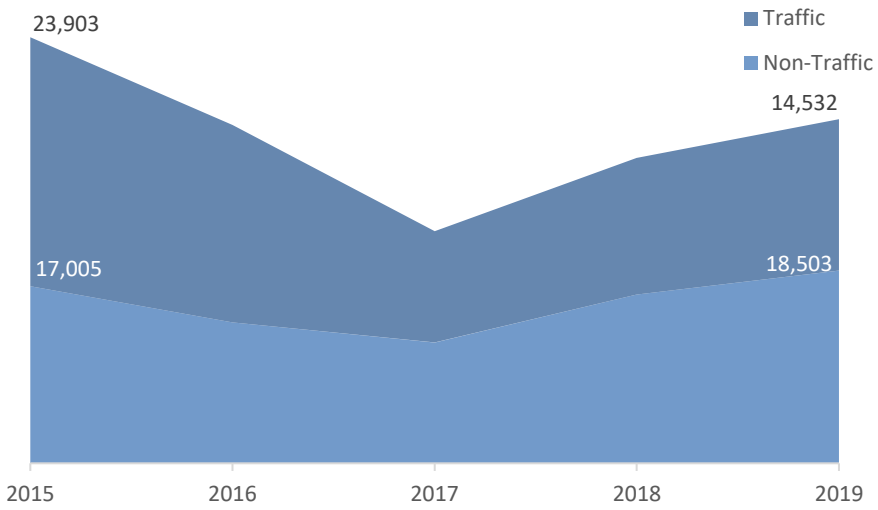
[62] The PPB's records management system, RegJIN, does not include "Middle Eastern" as possible racial / ethnic category so the group cannot be included in any benchmark analyses.

[63] An additional 95 victims were classified as "Unknown" in RegJIN. These were excluded from all benchmark totals.

BUREAU-WIDE STOPS OF DRIVERS

For the second year in a row, Portland Police Bureau officers reported performing more stops than the prior years. In 2019, officers performed 33,035 stops of drivers across the city – an 11 percent increase over the prior year. For the third consecutive year, Non-Traffic officers stopped more drivers than Traffic officers, increasing their number of stops by 14 percent and accounting for 56 percent of all stops in 2019. Traffic Division officers also reported an increase, albeit at a smaller rate (11%). After a multi-year downward trend in the number of stops Bureau-wide, driver stops have gradually increased over the past two years with the overall number of stops similar to levels in 2016.

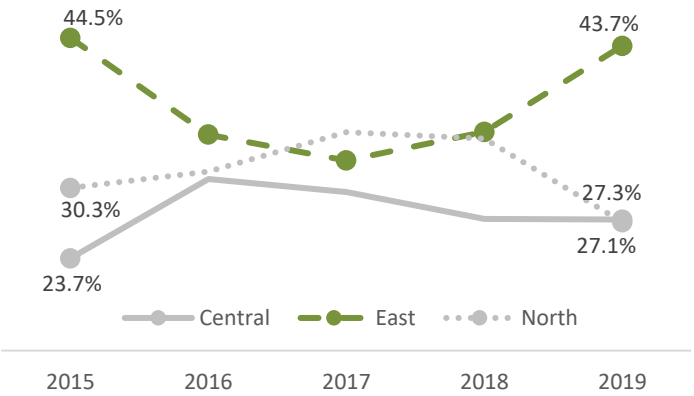
Figure 4. Non-Traffic officers stopped more drivers than Traffic Officers for the third consecutive year.



Stop Locations

Portland Police Bureau officers typically focus on a distinct geographic area during the shift (such as Patrol officers work a particular patrol district or Traffic officers monitoring a High Crash Corridor), but may respond to incidents and initiate stops anywhere in the state. Of the stops with a valid location[64], the largest plurality of driver and pedestrian stops in 2019 occurred in East Precinct, followed by North Precinct and Central Precinct. No precinct has seen a significant change[65] in stop rates over the last

Figure 5. East Precinct has seen the most driver stops over the past five years.



[64] About 20 percent of stops since 2015 cannot have their location verified by the system due to non-standard location entries, such as landmarks or highway ramps, or typographical errors. These stops are excluded from location analyses.

[65] Central: $p < .76$, $r^2 = .04$; East: $p < .96$, $r^2 < .01$; North: $p < .81$, $r^2 = .02$

five years. Officers have also remained steady[66] in the number of stops initiated outside of Portland (1.5% in 2015 vs. 1.8% in 2019).

Stopped Drivers Demographics

Traffic and Non-Traffic officers execute traffic stops of drivers in support of different missions in an overall effort to improve the safety and livability for residents and visitors in Portland. These diverse missions lead officers to concentrate their efforts in different areas of the City, often encountering diverse communities and people during their missions. The differences in missions and the populations encountered make using a single benchmark to discern any potential bias as a Bureau-wide measure difficult; rather different benchmark analyses are used for the broad operation groups of the Portland Police Bureau (Traffic vs. Non-Traffic).

On June 27, 2018, the PPB transitioned to a new data collection application for Stops data to meet new State reporting requirements outlined in ORS 131.935[67]. The State of Oregon Criminal Justice Commission (CJC) mandated several changes to PPB's collection of the perceived race and ethnicity of stopped subjects. Two new race/ethnicity categories were added in June 2018: "Middle Eastern" and "Native Hawaiian or Other Pacific Islander"[68]. The State also mandated that officers assign a named category for each stopped subject, eliminating the use of the "Other" and "Unknown" categories after June 2018. The PPB has not traditionally included this group in quantitative and benchmark comparisons due to low sample sizes and interpretation problems. Additionally, the removal of these groups, along with the addition of two other racial groups, complicate the analysis of long-term trends for all racial groups[69]. Without a systematic way to account for these changes, and acknowledging the utility of long-term trend analysis, the best method is to approach interpretation of results with caution until the new perceived classification system has been active for several years.

[66] $p < .11$, $r^2 = .63$

[67] https://www.oregonlegislature.gov/bills_laws/ors/ors131.html

[68] Shortened to "Native Hawaiian" in all tables and charts.

[69] As an example, did a particular perceived racial / ethnic group increase due to a greater number of stops of that population or because people previously categorized as "Unknown" or "Other" were predominantly reclassified as that group?

Table 6. Racial Demographics of Stopped Drivers, since 2014.

		2015		2016		2017		2018		2019	
	Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	American Indian/Alaskan	23	0.1%	22	0.1%	10	0.1%	16	0.1%	30	0.2%
	Asian	1,167	4.9%	999	5.3%	527	4.9%	701	5.3%	813	5.6%
	Black/African American	2,129	8.9%	1,664	8.8%	1,162	10.9%	1,384	10.6%	1,630	11.2%
	Hispanic or Latino	1,710	7.2%	1,378	7.3%	799	7.5%	1,125	8.6%	1,429	9.8%
	Middle Eastern*	--	--	--	--	--	--	101	0.8%	182	1.3%
	Native Hawaiian*	--	--	--	--	--	--	48	0.4%	89	0.6%
	White	18,005	75.3%	13,869	73.1%	7,666	71.8%	9,360	71.4%	10,359	71.3%
	Unknown/Other^	869	3.6%	1,038	5.5%	510	4.8%	380	2.9%	--	--
	Traffic Total	**23,903**	**100%**	**18,970**	**100%**	**10,674**	**100%**	**13,115**	**100%**	**14,532**	**100%**

		2015		2016		2017		2018		2019	
	Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	American Indian/Alaskan	86	0.5%	82	0.6%	67	0.6%	116	0.7%	125	0.7%
	Asian	758	4.5%	641	4.7%	474	4.1%	754	4.7%	842	4.6%
	Black/African American	3,269	19.2%	2,701	20.0%	2,527	21.8%	3,782	23.3%	4,058	21.9%
	Hispanic or Latino	1,415	8.3%	1,285	9.5%	1,046	9.0%	1,608	9.9%	1,855	10.0%
	Middle Eastern*	--	--	--	--	--	--	123	0.8%	297	1.6%
	Native Hawaiian*	--	--	--	--	--	--	63	0.4%	159	0.9%
	White	10,558	62.1%	8,266	61.1%	7,060	60.8%	9,463	58.4%	11,167	60.4%
	Unknown/Other^	919	5.4%	546	4.0%	433	3.7%	302	1.9%	--	--
	Non-Traffic Total	**17,005**	**100%**	**13,521**	**100%**	**11,607**	**100%**	**16,211**	**100%**	**18,503**	**100%**

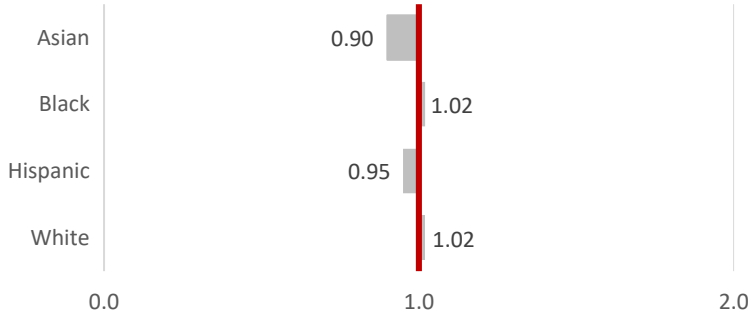
* Middle Eastern and Native Hawaiian options were added as an available option on June 27, 2018.

^ Unknown / Other options were removed as an available option on June 27, 2018.

TRAFFIC DIVISION

Officers from the Traffic Division are the primary traffic enforcement arm of the Portland Police Bureau. Officers routinely patrol the High Crash Network[70], Portland's most dangerous streets and intersections for road and sidewalk users, to help prevent road injuries and change user behavior. Traffic officers, in conjunction with the Portland Bureau of Transportation, also perform enforcement missions to support the City's Vision Zero Action Plan, whose goal is to eliminate deaths and serious injuries on Portland streets by 2025. Given the intense focus by Traffic officers on driving behavior, the Injury Collision Benchmark (see Table 2) is the best indicator to assess potential biases of officers enforcing traffic laws.

Figure 6. No racial group was significantly over-represented in stops by Traffic officers in 2019.



The racial demographics of drivers stopped by PPB Traffic officers has significantly changed over the past five years, with officers stopping significantly more Hispanic (7.2% vs. 9.8%)[71] and Black / African American (8.9% vs. 11.2%)[72] drivers while stopping significantly fewer White drivers

[70] https://www.portlandoregon.gov/transportation/54892

[71] $p < .03$, $r^2 = .86$

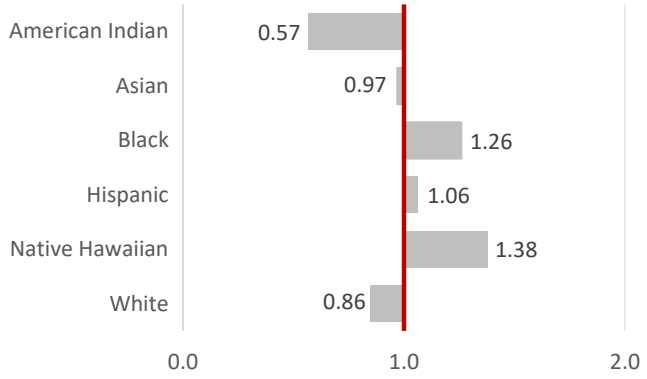
[72] $p < .05$, $r^2 = .77$

(75.3% vs. 71.3%)[73]. This trend mirrors the overall demographic patterns in the area, with communities of color growing at a faster rate than White residents. Even with the changes in stop rates since 2015, Traffic officers essentially stopped drivers at rates similar to their expected values when compared to the 2019 Injury Collision Benchmark[74], with no group over- or under-represented in the dataset.

NON-TRAFFIC DIVISIONS

Officers from Non-Traffic divisions – namely, Patrol, investigations, and other support divisions – focus on preventing and responding to criminal activity in the city. By focusing on crime interdiction, officers are likely to spend more time in communities with a high preponderance of violent crime. The Crime Victimization Benchmark[75] (see Table 5) is used as a proxy measure for drivers in these areas, regardless if they are residents, commuters, or visitors to the community.

Figure 7. Non-Traffic officers stopped drivers in-line with the Crime Victimization Benchmark in 2019.



Non-Traffic divisions have seen no significant changes in demographic stop rates over the past five years. Officers stopped fewer White drivers[76] (62.1% vs. 60.4%) and more Black / African American[77] (19.2% vs. 21.9%) and Hispanic[78] (8.3% vs. 10.0%) drivers – but all at non-significant rates. No perceived racial or ethnic group was meaningfully over- or under-represented in stops when compared to 2019 Crime Victimization Rates.

Driver Stop Reasons

Differential stop patterns based on the intersection between the driver's perceived race and the severity of the alleged infraction can highlight biased police behavior; specifically, non-White drivers being stopped at a higher rate for more minor infractions can be an indicator of biased policing. A key action of Vision Zero centers on curbing dangerous behaviors that contribute to fatal and serious injury crashes (including speed, impairment, and other dangerous behaviors) through traffic

[73] $p < .03$, $r^2 = .84$
[74] The Disparity Index compares the proportion of stopped drivers to a benchmark for each racial group. Races with a disparity index greater than 2.0 would indicate a meaningful overrepresentation, while a value below 0.5 would indicate a meaningful underrepresentation of the stopped group.
[75] The benchmark includes all Portland victims of the FBI Indexed Crimes of Homicide, Forcible Sex Offenses, Robbery, and Aggravated Assault.
[76] $p < .18$, $r^2 = .51$
[77] $p < .08$, $r^2 = .71$
[78] $p < .07$, $r^2 = .74$

enforcement. Since driving behaviors associated with Major and Minor Moving Violations[79] can contribute to fatal and serious injury crashes, Non-Moving Violations represent a greater portion of an officer's discretionary judgement on whether to initiate a traffic stop[80].

Table 7. Personnel from Non-Traffic units are significantly more likely to stop a driver for Non-Moving Violations and Non-Traffic Offenses – especially if the driver is Black / African American.

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	American Indian/Alaskan	5	16.7%	22	73.3%	3	10.0%	0	0.0%	0	0.0%
	Asian	236	29.0%	524	64.5%	48	5.9%	5	0.6%	0	0.0%
	Black/African American	419	25.7%	980	60.1%	196	12.0%	29	1.8%	6	0.4%
	Hispanic or Latino	360	25.2%	928	64.9%	119	8.3%	22	1.5%	0	0.0%
	Middle Eastern	38	20.9%	130	71.4%	12	6.6%	2	1.1%	0	0.0%
	Native Hawaiian	21	23.6%	60	67.4%	8	9.0%	0	0.0%	0	0.0%
	White	2,932	28.3%	6,521	63.0%	798	7.7%	96	0.9%	12	0.1%
	Total	**4,011**	**27.6%**	**9,165**	**63.1%**	**1,184**	**8.1%**	**154**	**1.1%**	**18**	**0.1%**

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	American Indian/Alaskan	22	17.6%	51	40.8%	41	32.8%	9	7.2%	2	1.6%
	Asian	216	25.7%	419	49.8%	188	22.3%	17	2.0%	2	0.2%
	Black/African American	1,065	26.2%	1,282	31.6%	1,468	36.2%	165	4.1%	78	1.9%
	Hispanic or Latino	451	24.3%	692	37.3%	603	32.5%	80	4.3%	29	1.6%
	Middle Eastern	84	28.3%	132	44.4%	73	24.6%	6	2.0%	2	0.7%
	Native Hawaiian	43	27.0%	57	35.8%	49	30.8%	9	5.7%	1	0.6%
	White	3,092	27.7%	3,723	33.3%	3,810	34.1%	359	3.2%	183	1.6%
	Total	**4,973**	**26.9%**	**6,356**	**34.4%**	**6,232**	**33.7%**	**645**	**3.5%**	**297**	**1.6%**

The overwhelming majority of 2019 driver stops (74.2%) initiated by Portland Police Bureau officers are for Moving Violations on Portland roadways. Personnel from Non-Traffic units were significantly more likely[81] to stop a driver for Non-Moving Violations and Non-Traffic Offenses than Traffic personnel; however, they still stopped a majority of drivers for Moving Violations. Non-Traffic officers have also increased the number of stops for Non-Moving Violations; however, at a non-significant rate[82]. Both organization groups displayed differential stop patterns based on the perceived race of the driver[83], with drivers perceived to be Black / African American stopped significantly more[84] for Non-Moving Violations and drivers perceived to be Asian stopped significantly more[85] for Moving Violations. Non-Traffic officers also stopped Middle Eastern drivers significantly more for Moving Violations.[86] There were also significant differences[87] based on the

[79] Minor Moving Violations involve all Class C or D violations. Major Moving Violations include all traffic-related crimes (felony or misdemeanor) and Class A or B violations. Most moving violations are outlined in ORS 811.005 – 811.812.

[80] Since June 27, 2018, officers are required to cite the exact statutory reason for the stop, by ORS, Portland City Code, Federal Statue, or other ordinance. Future analyses may include more detailed analyses for stop reasons.

[81] $x^2 = 3697.106, p < .001, df = 2$

[82] $p < .06, r^2 = .76$

[83] Traffic: $x^2 = 54.163, p < .001, df = 5$; Non-Traffic: $x^2 = 113.987, p < .001, df = 12$

[84] Traffic: $x^2 = 41.722, p < .001, df = 1$; Non-Traffic: $x^2 = 20.503, p < .001, df = 2$

[85] Traffic: $x^2 = 7.053, p < .009, df = 1$; Non-Traffic: $x^2 = 74.697, p < .001, df = 2$

[86] $x^2 = 15.192, p < .001, df = 1$

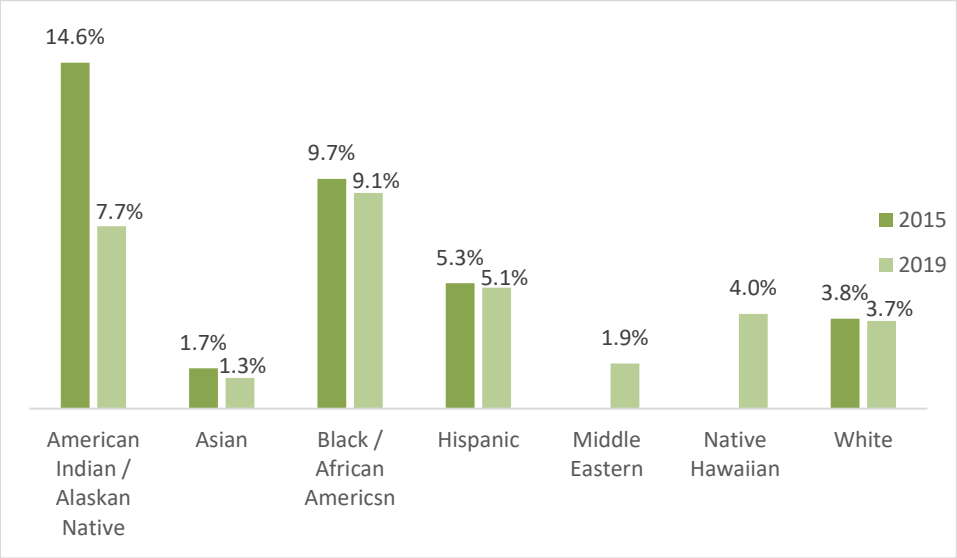
[87] $x^2 = 105.544, p < .001, df = 6$

severity of the observed traffic offense, with Non-Traffic officers stopping Black / African Americans[88] and White[89] drivers significantly more for minor offenses. Traffic officers did not report stopping any perceived racial / ethnic group for minor traffic offenses at a significantly higher rate, although overall stop patterns were significantly different[90] between the different groups.

Search Rates

A common measure for examining bias policing is to examine racial disparities in searches. Police can exercise their discretion in one of two ways during a search—low discretion or high discretion search. In low discretion searches, policy or training dictates the likelihood of a search occurring. For example, if police stop an individual and take custody of them to administer a breathalyzer test, policy would require that the subject be searched for weapons prior to being transported. In high discretion searches, such as consent searches, police officers exercise more judgment in their decision to search. Racial profiling experts maintain that if police overuse high discretion searches on people of color, especially when combined with a lower rate of recovering contraband it could suggest that police are engaged in bias policing.

Figure 8. Search rates have remained stable for most racial groups since 2015

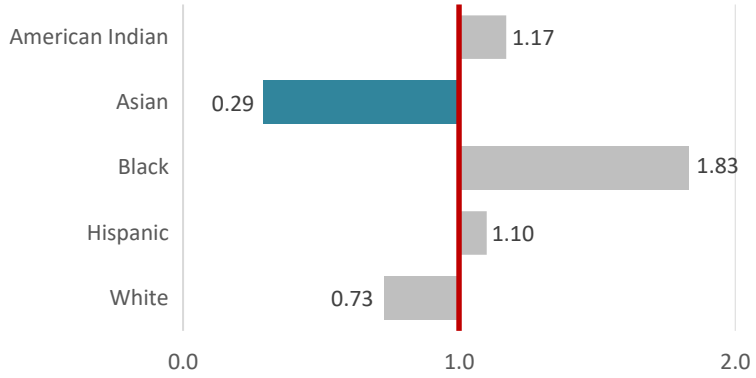


In 2019, approximately 1 out of every 22 stops (4.6% of all stops) performed by Portland Police Bureau on drivers included a discretionary search. Non-Traffic officers perform the bulk of searches associated with driver stops in the Bureau, accounting for about 90 percent of all searches for every year since data collection began in 2012. Bureau members are searching roughly the same percentage of drivers they did five years ago, with no significant change for either Traffic[91] or Non-Traffic[92] divisions. Drivers stopped in East Precinct are significantly more likely[93] to be searched by officers from either operational division than drivers stopped in other precincts.

[88] $x^2 = 7.402, p < .008, df = 1$
[89] $x^2 = 7.735, p < .006, df = 1$
[90] $x^2 = 13.785, p < .04, df = 6$
[91] $p < .33, r^2 = .31$
[92] $p < .88, r^2 = .01$
[93] Traffic: $x^2 = 13.262, p < .002, df = 2$; Non-Traffic: $x^2 = 91.586, p < .001, df = 2$

For the first time in four years, no perceived racial / ethnic group was searched at a disparate rate when compared to overall stop patterns. From 2016 through 2018, drivers perceived to be Black / African American drivers were searched at a disparate rate; however the pattern was not repeated in 2019. Black / African American drivers were still searched significantly[94] more than expected when compared to overall stop rates and the disparity level is just below the threshold, indicating that Black drivers were still searched comparatively more than their counterparts from different perceived racial / ethnic groups. Asian drivers were searched significantly less than expected[95] last year. No other perceived racial / ethnic group from either operational division was searched at significantly disparate rates.

Figure 9. No perceived racial / ethnic group was searched at a disparate rate in 2019.



In 2019, four percent of drivers were asked to consent to a voluntary search; however, not all racial / ethnic groups were asked at the same frequency[96]. Drivers perceived to be either Black / African American were the only group to be asked to consent to a search significantly more[97] – at almost twice the rate of all other perceived racial groups. Different perceived racial / ethnic groups also displayed significantly different patterns[98] of refusing to consent to a search, with White individuals significantly more likely to refuse a search[99] than drivers perceived to be Black / African American[100] or Hispanic / Latino[101]. The lower consent search denial rate from people of color, especially when compared to the denial rate from White drivers, can be indicative of an equity imbalance that can be traced back to systemic issues of race and power in the criminal justice system and law enforcement.

Table 8. Black / African American drivers receive more search requests than other groups.

	Consent Search			
Race/Ethnicity	**Requests**	**Rate**	**Refusal**	**Rate**
American Indian/Alaskan	9	5.8%	0	0.0%
Asian	19	1.1%	1	5.3%
Black/African American	468	8.2%	58	12.4%
Hispanic or Latino	125	3.8%	14	11.2%
Middle Eastern	8	1.7%	3	37.5%
Native Hawaiian	6	2.4%	1	16.7%
White	675	3.1%	151	22.4%
Total	**1,310**	**4.2%**	**228**	**17.4%**

[94] $x^2 = 252.800, p < .001, df = 1$
[95] $x^2 = 42.715, p < .001, df = 6$
[96] $x^2 = 354.458, p < .001, df = 6$
[97] $x^2 = 271.690, p < .001, df = 1$
[98] $x^2 = 22.885, p < .001, df = 2$
[99] $x^2 = 10.665, p < .001, df = 1$
[100] $x^2 = 12.117, p < .001, df = 1$
[101] $x^2 = 3.530, p < .06, df = 1$

Search type[102] trends have been consistent over the past five years of data collection practices[103]. Consent search has been the most commonly utilized search type across the Bureau for the last five years (70.4% of all searches and 3.2% of all driver stops in 2019) and has seen a non-significant[104] increase since 2015 (58.6% of all searches). Probable Cause searches (29.4% in 2019) have also increased at a non-significant[105] rate over the past five years (22.9% in 2015).

Table 9. Probable Cause is the most commonly cited search reason behind Consent Searches.

		Total Subjects Searched		Consent		Probable Cause		Reasonable Suspicion		Weapon Patdown	
	Race/Ethnicity	Searches	Rate	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	American Indian/Alaskan	0	0.0%	--	--	--	--	--	--	--	--
	Asian	0	0.0%	--	--	--	--	--	--	--	--
	Black/African American	28	1.7%	7	25.0%	21	75.0%	0	0.0%	2	7.1%
	Hispanic or Latino	14	1.0%	3	21.4%	10	71.4%	0	0.0%	3	21.4%
	Middle Eastern	1	0.5%	0	0.0%	1	100.0%	0	0.0%	0	0.0%
	Native Hawaiian	1	1.1%	0	0.0%	1	100.0%	0	0.0%	0	0.0%
	White	64	0.6%	11	17.2%	46	71.9%	1	1.6%	10	15.6%
	Total	**108**	**0.7%**	**21**	**19.4%**	**79**	**73.1%**	**1**	**0.9%**	**15**	**13.9%**

		Total Subjects Searched		Consent		Probable Cause		Reasonable Suspicion		Weapon Patdown	
	Race/Ethnicity	Searches	Rate	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	American Indian/Alaskan	12	9.6%	9	75.0%	3	25.0%	0	0.0%	0	0.0%
	Asian	21	2.5%	18	85.7%	3	14.3%	0	0.0%	0	0.0%
	Black/African American	489	12.1%	403	82.4%	79	16.2%	11	3.1%	12	2.5%
	Hispanic or Latino	152	8.2%	108	71.1%	42	27.6%	9	4.7%	10	6.6%
	Middle Eastern	8	2.7%	5	62.5%	3	37.5%	1	12.5%	1	12.5%
	Native Hawaiian	9	5.7%	5	55.6%	5	55.6%	0	0.0%	0	0.0%
	White	737	6.6%	513	69.6%	238	32.3%	25	3.1%	24	3.3%
	Total	**1,428**	**7.7%**	**1,061**	**74.3%**	**373**	**26.1%**	**46**	**3.1%**	**47**	**3.3%**

Searches conducted by Traffic Officers are significantly more likely[106] to utilize Probable Cause (73.1%) criteria whereas Non-Traffic Officers almost exclusively rely on Consent Searches (74.3%)[107]. In line with their consent request rates, Non-Traffic Officers are significantly more likely to execute a consent search[108] on Black / African American subjects while being significantly less likely to utilize a probable cause search[109] with the inverse true for White drivers[110]. Traffic officers did not display any differential search patterns by perceived race[111].

[102] For a description of search types utilized by Portland Police Bureau officers, refer to Appendix B.
[103] Beginning on June 27, 2018, officers could select more than one search type per search. Over the long term, this is likely to increase frequencies for all search types as officers often have multiple criteria present for legally conducting a search.
[104] $p < .37$, $r^2 = .28$
[105] $p < .16$, $r^2 = .54$
[106] $x^2 = 106.926, p < .001, df = 1$
[107] $x^2 = 145.110, p < .001, df = 1$
[108] $x^2 = 16.877, p < .001, df = 1$
[109] $x^2 = 25.137, p < .001, df = 1$
[110] Consent: $x^2 = 8.507, p < .005, df = 1$; Probable Cause: $x^2 = 14.557, p < .001, df = 1$
[111] Consent: $x^2 = 0.755, p < .39, df = 1$; Probable Cause: $x^2 = 0.096, p < .78, df = 1$

Contraband Hit Rates

Over the past five years, Portland Police Bureau personnel have become slightly more-effective[112] at uncovering contraband during searches. In 2019, 47.8 percent of all searches ended with a PPB officer detecting prohibited material, including alcohol, drugs, stolen property, weapons, and other illegal contraband – up from 41.3 percent in 2015. There are no significant differences in the hit rate between the two operation divisions[113], with both operational groups maintaining similar hit rates over the past five years[114]. Reasonable Suspicion, Probable Cause, and Weapon Pat Down searches are the most likely to discover contraband, while Consent searches are the least likely to be successful[115].

Table 10. Consent Searches are the least likely search type to uncover contraband.

	Total Searches	Found Contraband	
Search Type	Count	Count	Percent
Consent	1,082	471	43.5%
Reasonable Suspicion	47	29	61.7%
Probable Cause	452	282	62.4%
Weapon Pat	62	31	50.0%

Table 11. Illicit drugs are the most commonly uncovered item during driver searches.

	Total Searches	Found Contraband		Alcohol		Drugs		Weapons		Stolen Property		Other	
Race/Ethnicity	Count	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
American Indian/Alaskan	12	4	33.3%	1	8.3%	1	8.3%	0	0.0%	0	0.0%	2	16.7%
Asian	21	7	33.3%	2	9.5%	2	9.5%	2	9.5%	0	0.0%	2	9.5%
Black/African American	517	234	45.3%	56	10.8%	133	25.7%	51	9.9%	14	2.7%	36	7.0%
Hispanic or Latino	166	77	46.4%	20	12.0%	47	28.3%	20	12.0%	5	3.0%	11	6.6%
Middle Eastern	9	3	33.3%	0	0.0%	2	22.2%	1	11.1%	0	0.0%	0	0.0%
Native Hawaiian	10	5	50.0%	1	10.0%	2	20.0%	2	20.0%	2	20.0%	1	10.0%
White	801	404	50.4%	35	4.4%	283	35.3%	65	8.1%	41	5.1%	70	8.7%
Total	**1,536**	**734**	**47.8%**	**115**	**7.5%**	**470**	**30.6%**	**141**	**9.2%**	**62**	**4.0%**	**122**	**7.9%**

The overall hit rates for each perceived racial group has been stable over the last five years, with no individual group showing a statistical increase or decrease in hit rates. The perceived race of the driver is not a significant predictor whether or not contraband will be found as there were no significant differences between the different groups for contraband hit rates[116]. There is also no correlation between a group's overall search rate and hit rate within any given year[117].

Stop Outcomes

Stop disposition, or the outcome of the stop, is a common method to assess disparities among stops made by law enforcement personnel on different groups of people in a community. More locally, Portland community members have cited equitable stop outcomes as an important goal. In the 2009 plan to address racial profiling, community members raised concerns that traffic stops that result in no enforcement action – meaning drivers received no warning, citation, or were not arrested – can

[112] $p < .57$, $r^2 = .12$

[113] $x^2 = 0.848$, $p < .36$, $df = 1$

[114] Non-Traffic: $p < .47$, $r^2 = .19$; Traffic: $p < .52$, $r^2 = .15$

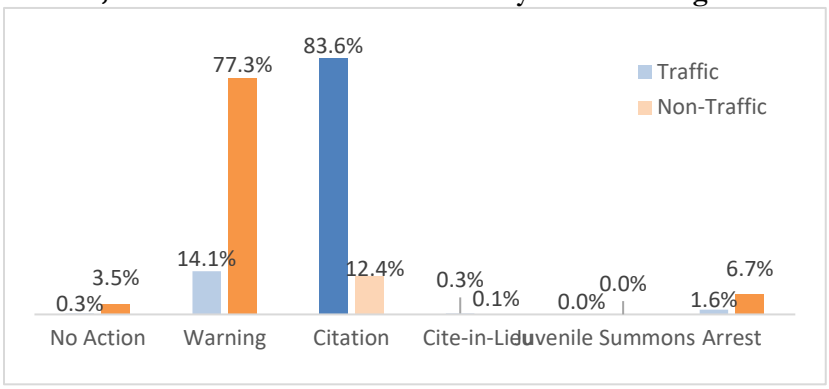
[115] In prior years, statistical analyses were conducted to determine which search types were statistically significant in uncovering contraband. However, the search type field is now a multiple response variable, making it unsuitable for any statistical analysis between the different categories.

[116] $x^2 = 6.466$, $p < .17$, $df = 4$

[117] $p < .15$, $r^2 = .09$

feel like harassment, especially to people of color. Large differences between racial and ethnic groups may imply an unequal impact on a particular race.

Figure 10. Traffic officers end most of their interactions with a citation, while Non-Traffic officers mainly issue warnings.



The largest number of driver stops performed by PPB sworn personnel in 2019 (49.5%) resulted in a written or verbal warning issued to the vehicle operator. Prior to 2018, citations were the most common enforcement action; however, there has been a steady decline in the citation rate as Traffic officers, who are significantly more likely to issue a citation[118], have executed a decreasing share of stops each year. Officers from patrol, investigations, and other support divisions are also issuing significantly fewer[119] citations, contributing to the decline. Non-Traffic officers are significantly more likely to end the stop with No Enforcement Action[120], a Warning[121], or an Arrest[122]. Traffic officers were also significantly more likely to issue a Citation-in-Lieu of An Arrest[123] along with traditional citations.

Table 12. Non-Traffic officers showed higher arrest and no enforcement rates for nearly all driver racial groups in the last year when compared to Traffic officers.

		Total Stops		Enforcement Action											
				None		Warning		Citation		Cite-in-Lieu		Juvenile Summons		Arrested	
	Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	American Indian/Alaskan	30	0.2%	0	0.0%	4	13.3%	25	83.3%	0	0.0%	0	0.0%	1	3.3%
	Asian	813	5.6%	2	0.2%	136	16.7%	667	82.0%	1	0.1%	0	0.0%	7	0.9%
	Black/African American	1,630	11.2%	12	0.7%	222	13.6%	1,331	81.7%	5	0.3%	0	0.0%	60	3.7%
	Hispanic or Latino	1,429	9.8%	4	0.3%	156	10.9%	1,233	86.3%	10	0.7%	0	0.0%	26	1.8%
	Middle Eastern	182	1.3%	0	0.0%	31	17.0%	149	81.9%	1	0.5%	0	0.0%	1	0.5%
	Native Hawaiian	89	0.6%	0	0.0%	15	16.9%	72	80.9%	1	1.1%	0	0.0%	1	1.1%
	White	10,359	71.3%	31	0.3%	1,483	14.3%	8,674	83.7%	32	0.3%	1	0.0%	138	1.3%
	Total	**14,532**	**100.0%**	**49**	**0.3%**	**2,047**	**14.1%**	**12,151**	**83.6%**	**50**	**0.3%**	**1**	**0.0%**	**234**	**1.6%**

		Total Stops		Enforcement Action											
				None		Warning		Citation		Cite-in-Lieu		Juvenile Summons		Arrested	
	Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	American Indian/Alaskan	125	0.7%	4	3.2%	95	76.0%	19	15.2%	0	0.0%	0	0.0%	7	5.6%
	Asian	842	4.6%	21	2.5%	673	79.9%	122	14.5%	0	0.0%	0	0.0%	26	3.1%
	Black/African American	4,058	21.9%	125	3.1%	3,184	78.5%	442	10.9%	6	0.1%	0	0.0%	301	7.4%
	Hispanic or Latino	1,855	10.0%	45	2.4%	1,423	76.7%	243	13.1%	3	0.2%	0	0.0%	141	7.6%
	Middle Eastern	297	1.6%	4	1.3%	240	80.8%	46	15.5%	0	0.0%	0	0.0%	7	2.4%
	Native Hawaiian	159	0.9%	2	1.3%	130	81.8%	16	10.1%	1	0.6%	0	0.0%	10	6.3%
	White	11,167	60.4%	447	4.0%	8,555	76.6%	1,411	12.6%	15	0.1%	0	0.0%	739	6.6%
	Total	**18,503**	**100.0%**	**648**	**3.5%**	**14,300**	**77.3%**	**2,299**	**12.4%**	**25**	**0.1%**	**0**	**0.0%**	**1,231**	**6.7%**

The progressive nature of a stop, and the multiple decision points within the interaction, make it difficult to discern what role, if any, implicit or explicit racial bias plays in stop disposition. Multiple

[118] $x^2 = 9431.446, p < .001, df = 1$
[119] $p < .02, r^2 = .91$
[120] $x^2 = 386.405, p < .001, df = 1$
[121] $x^2 = 6568.903, p < .001, df = 1$
[122] $x^2 = 466.622, p < .001, df = 1$
[123] $x^2 = 15.639, p < .001, df = 1$

logistic regressions were conducted to statistically determine which predictors were statistically significant to the stop outcome and their relative importance to other factors.

For subjects that were stopped and searched by Non-Traffic Officers, the perceived race / ethnicity of the individual, the discovery of contraband, and the reason for stop were significant predictors if the officer decided to issue a warning[124] or arrest[125] the driver. The reason for stop and the discovery of contraband were the most significant differentiator variables – drivers stopped for Non-Traffic Offenses[126] were about five times as likely to be arrested and those found with contraband[127] were about three times as likely to be arrested at the end of the encounter. Drivers perceived to be Black / African American were significantly more likely to receive a warning[128] than any other enforcement action whereas drivers of other perceived ethnicities, specifically White[129], were more likely to be arrested. Subsequent analysis showed no significant interactions between perceived race, reason for stop, and confirmed contraband hits.

For subjects that were stopped but not searched by Non-Traffic Officers and ultimately arrested, a simple effects model[130] reveals that the perceived race / ethnicity of the individual and the alleged offense are the only predictors. Asian[131] and Middle Eastern[132] are significantly less likely to be arrested for their offenses. The strongest predictor, however, is stop reason with drivers stopped for non-traffic offenses are significantly more likely[133] to be arrested and with those stopped for moving violations significantly less likely[134]. A more complex model with interactions[135] is required to explain why drivers are solely given warnings by Non-Traffic Officers – however, a similar pattern emerges. Drivers stopped for non-traffic offenses are the least likely to be warned for their behavior[136] whereas major moving violations are most likely to receive a warning[137]. Black / African American drivers are significantly more likely to be warned[138], unless they are stopped for a major violation[139] or non-traffic offense[140]. Overall, both models not incorporating searches are comparatively weaker than the model with searches, indicating the found contraband – along with the stop reason of a non-traffic offense – is the most predictive of disposition severity by Non-Traffic Officers.

In 2019, Traffic Officers only performed searches on less than 1 percent of their stops, precluding the ability to include found contraband as a predictor in any disposition model. The reason for stop,

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[124] Omnibus Test: $x^2 = 174.158, p < .001, df = 6$
[125] Omnibus Test: $x^2 = 157.103, p < .001, df = 6$
[126] *Wald = 45.179, B = 1.597, p < .001*
[127] *Wald = 71.897, B = 0.991, p < .001*
[128] *Wald = 26.020, B = 0.641, p < .001*
[129] *Wald = 15.185, B = -0.501, p < .001*
[130] Omnibus Test: $x^2 = 104.856, p < .001, df = 7$
[131] *Wald = 5.324, B = -0.579, p < .03*
[132] *Wald = 5.722, B = -1.703, p < .02*
[133] *Wald = 89.183, B = 1.834, p < .001*
[134] *Wald = 7.138, B = -0.259, p < .009*
[135] Omnibus Test: $x^2 = 76.687, p < .001, df = 13$
[136] *Wald = 43.726, B = -1.277, p < .001*
[137] *Wald = 35.382, B = 0.653, p < .001*
[138] *Wald = 6.505, B = 0.198, p < .02*
[139] *Wald = 5.737, B = -0.279, p < .02*
[140] *Wald = 6.289, B = -0.960, p < .02*

including the overall severity of the offense, is the most significant predictor for whether a person issued a citation[141]. A driver stopped for a moving violations[142] and/or major offense[143] is more likely to be cited for their behavior. Drivers perceived to be Hispanic or Latino were also significantly more likely to be cited[144] than other perceived racial groups. For drivers arrested by Traffic Officers[145], drivers stopped for a non-moving violation[146] and/or major offense[147] were the most likely to be arrested. Black / African American[148] drivers were also significantly more likely to be arrested. However, both models explain a small percentage of the overall variation in the dataset, indicating that another factor – such as found contraband – could be a strong contributor in how a Traffic Officer ends the stop.

[141] Omnibus Test: $x^2 = 356.590, p < .001, df = 6$
[142] $Wald = 79.080, B = 0.629, p < .001$
[143] $Wald = 148.089, B = 0.612, p < .001$
[144] $Wald = 6.969, B = 0.223, p < .009$
[145] Omnibus Test: $x^2 = 40.672, p < .001, df = 6$
[146] $Wald = 3.391, B = 0.577, p < .05$
[147] $Wald = 13.815, B = 0.787, p < .001$
[148] $Wald = 26.983, B = 0.991, p < .001$

In 2019, Portland Police Bureau officers reported stopping[149] 1,131 pedestrians[150] - an increase of 95 percent over the prior year. After several years with declining pedestrian stops, Bureau personnel have reported an increase for the last two years – although at a non-significant rate[151]. The increase in 2019 is solely attributed to the officers from patrol, investigative, and support division, with Traffic officers stopping approximately the same number of pedestrians over the past five years. In the latter half of 2018, the Bureau increased the number of community policing foot patrols in high-traffic areas, increasing the number of stops conducted by involved personnel. Additionally, the Bureau also debuted additional training materials in June 2018 to coincide with the launch of the new Stops application that emphasized the importance of correctly classifying calls for service to ensure pedestrian stops were being adequately tracked. These two trends continued throughout 2019 and likely led to an increase in the number of reported pedestrian stops across the Bureau. In total, pedestrians accounted for about 3 percent of all stops in 2019.

Figure 11. Pedestrian stops increased by 95 percent in 2019.

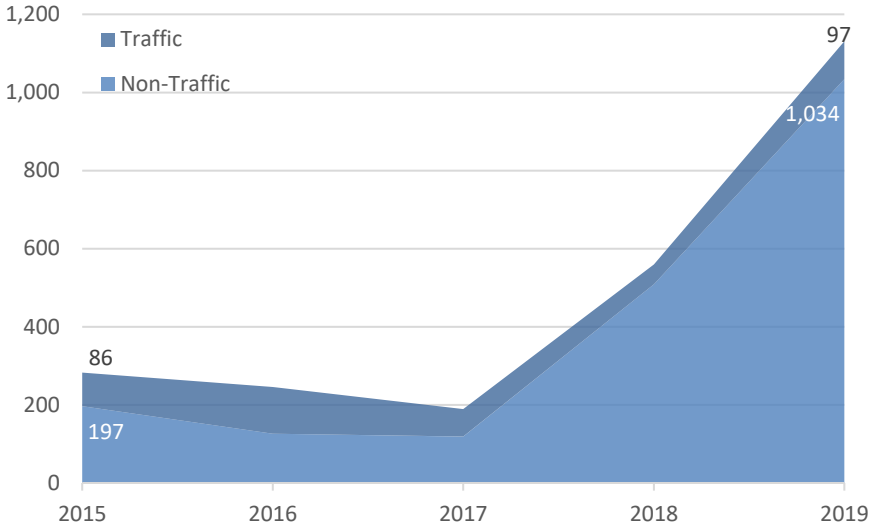
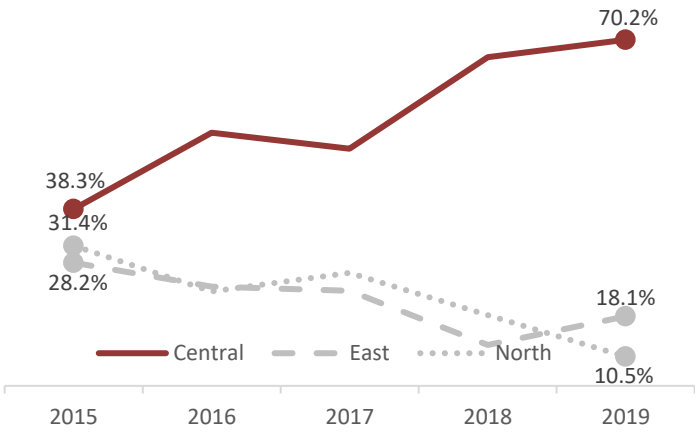


Figure 12. Central Precinct has been the primary location for pedestrian stops over the past five years



Stop Locations

Central Precinct is the primary location for pedestrian stops completed by PPB officers in the City of Portland. For the past five years, the largest number of pedestrian stops occurred in the Precinct and it has accounted for a majority of the

[149] From June 2018 through June 2019, the Portland Police Bureau had a more expansive definition of a "pedestrian stop" than State law, so Bureau numbers are likely larger than State numbers in 2018 and 2019.
[150] Starting on June 27, 2018, officers had the ability to indicate if they were stopping at "Bicycle" in addition to a pedestrian or driver. For the current analysis year, Bicycle stop numbers are included in pedestrian totals. Separate analyses for bicycle operators may be conducted in subsequent years.
[151] $p < .09$, $r^2 = .67$

stops over the past three years. The precinct encompasses a number of highly-trafficked pedestrian-friendly areas, including Downtown, SE Hawthorne Blvd., and NW 23rd St., where sworn personnel are more likely to encounter people walking in the area. Additionally, Central Precinct is the primary operating location of two units, the Entertainment Detail and the Portland Patrol detail, that contact a high number of pedestrians in the district.

Stopped Pedestrian Demographics

Portland Police Bureau officers contact pedestrians in support of the broad operational mission for their divisions, namely road safety for Traffic officers and crime response and prevention for Non-Traffic officers. However, it is more difficult to determine the appropriate benchmark for comparison to stop demographic statistics as there is no commonly utilized measure in academic literature. Population demographics from the decennial Census and associated products (such as the American Community Survey) do not account for visitors, commuters, and houseless individuals in the area, which can be especially problematic since people of color are more likely to utilize public transportation or walk to commute to work. The Crime Victimization Benchmark, which was used in prior Stops Data Collection reports, also proves problematic as Traffic officers stop a high percentage of pedestrians, meaning officers were often likely to focus on traffic safety as opposed to crime prevention. The small number of pedestrian stops also proves problematic as the stopped individuals are not likely to be a random sampling across a city or precinct and be heavily weighted by officers that patrol more pedestrian-friendly districts. Due to these methodological challenges, no disparity analysis was conducted on pedestrian stops.

Table 13. Pedestrian stop rates for perceived racial / ethnic groups has remained steady over the last five years.

		2015		2016		2017		2018		2019	
	Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	American Indian/Alaskan	1	1.2%	0	0.0%	0	0.0%	2	2.8%	1	1.0%
	Asian	1	1.2%	2	1.7%	3	4.3%	4	5.6%	3	3.1%
	Black/African American	11	12.8%	9	7.5%	6	8.6%	7	9.9%	7	7.2%
	Hispanic or Latino	3	3.5%	6	5.0%	3	4.3%	1	1.4%	2	2.1%
	Middle Eastern*	--	--	--	--	--	--	0	0.0%	2	2.1%
	Native Hawaiian*	--	--	--	--	--	--	0	0.0%	0	0.0%
	White	67	77.9%	99	82.5%	55	78.6%	56	78.9%	82	84.5%
	Unknown/Other^	3	3.5%	4	3.3%	3	4.3%	1	1.4%	--	--
	Traffic Total	**86**	**100%**	**120**	**100%**	**70**	**100%**	**71**	**100%**	**97**	**100%**

		2015		2016		2017		2018		2019	
	Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	American Indian/Alaskan	6	3.0%	0	0.0%	1	0.8%	13	2.6%	23	2.2%
	Asian	1	0.5%	4	3.2%	2	1.7%	8	1.6%	10	1.0%
	Black/African American	32	16.2%	25	19.8%	28	23.5%	89	17.5%	171	16.5%
	Hispanic or Latino	13	6.6%	9	7.1%	6	5.0%	29	5.7%	62	6.0%
	Middle Eastern*	--	--	--	--	--	--	3	0.6%	0	0.0%
	Native Hawaiian*	--	--	--	--	--	--	3	0.6%	4	0.4%
	White	136	69.0%	85	67.5%	80	67.2%	363	71.3%	764	73.9%
	Unknown/Other^	9	4.6%	3	2.4%	2	1.7%	1	0.2%	--	--
	Non-Traffic Total	**197**	**100%**	**126**	**100%**	**119**	**100%**	**509**	**100%**	**1,034**	**100%**

* Middle Eastern and Native Hawaiian options were added as an available option on June 27, 2018.

^ Unknown / Other options were removed as an available option on June 27, 2018.

Across all divisions, there have been virtually no changes in the stop demographics of pedestrians over the last five years. No perceived racial / ethnic group significantly increased, or decreased, over

the time period. Pedestrians perceived to be White (74.8% in 2019) have consistently been the most stopped group, followed by Black / African Americans (15.7%) and Hispanic or Latino (5.7%) pedestrians. No other perceived group has represented more than 5 percent of all pedestrian stops over the past five years.

Pedestrian Stop Reasons

The identified reason for stopping a pedestrian is highly dependent on the stopping officers' assigned division and mission. Traffic officers are significantly more likely[152] to stop a pedestrian for a Moving Violation, highlighting the division's commitment to Vision Zero enforcement missions. The inverse is true for officers from patrol, investigations, and other support divisions, who are primarily concerned with crime reduction, and mainly stop pedestrians for Non-Moving Violations and Non-Traffic Offenses. There have been no significant changes for either division over the past five years, even with the overall increase in total pedestrian stops. Black / African American pedestrians are significantly more likely to be stopped for Non-Traffic Offenses and significantly less likely to be stopped for Moving Violations when compared to Latino and White subjects[153].

Table 14. Non-Traffic Officers are significantly more likely to stop pedestrians for Non-Moving Violations and Non-Traffic Offenses – especially if the subject is Black / African American.

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	American Indian/Alaskan	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Asian	2	66.7%	1	33.3%	0	0.0%	0	0.0%	0	0.0%
	Black/African American	5	71.4%	1	14.3%	0	0.0%	0	0.0%	1	14.3%
	Hispanic or Latino	1	50.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%
	Middle Eastern	1	50.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%
	Native Hawaiian	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	White	37	45.1%	41	50.0%	4	4.9%	0	0.0%	0	0.0%
	Total	**47**	**48.5%**	**45**	**46.4%**	**4**	**4.1%**	**0**	**0.0%**	**1**	**1.0%**

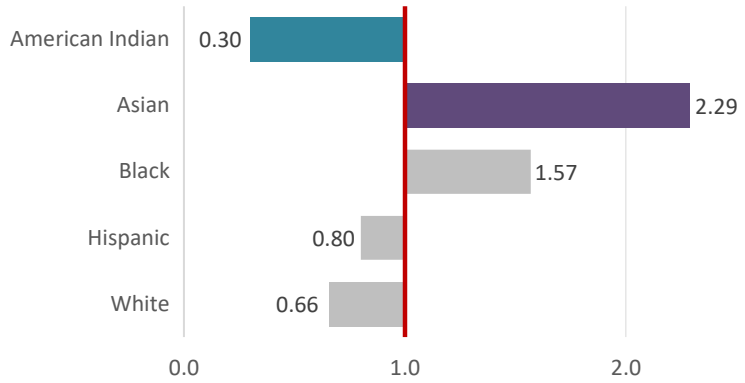
		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	American Indian/Alaskan	8	34.8%	1	4.3%	2	8.7%	0	0.0%	12	52.2%
	Asian	6	60.0%	1	10.0%	0	0.0%	0	0.0%	3	30.0%
	Black/African American	47	27.5%	10	5.8%	17	9.9%	0	0.0%	97	56.7%
	Hispanic or Latino	25	40.3%	7	11.3%	8	12.9%	0	0.0%	22	35.5%
	Middle Eastern	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Native Hawaiian	2	50.0%	0	0.0%	0	0.0%	0	0.0%	2	50.0%
	White	261	34.2%	67	8.8%	87	11.4%	1	0.1%	348	45.5%
	Total	**349**	**33.8%**	**86**	**8.3%**	**114**	**11.0%**	**1**	**0.1%**	**484**	**46.8%**

[152] $x^2 = 100.474$, $p < .001$, $df = 2$
[153] $x^2 = 13.985$, $p < .008$, $df = 4$

Search Rates

Pedestrians stopped by PPB officers are significantly more likely[154] to be searched than their driver counterparts, as 13.6 percent of all pedestrian stops ended in a search in 2019. Total pedestrian searches have decreased, but non-significantly, since 2015[155] when 21 percent of all stops ended in a search. Non-Traffic officers are significantly more likely[156] to conduct a search on pedestrians as Traffic only searched two pedestrians in 2019 while officers from other divisions searched 152 pedestrians. Pedestrians perceived to be Asian were the only group to be searched more than expected when compared to stop rates; however, with a small sample size of 13 in 2019, the results should be taken with caution. Similarly, pedestrians perceived to be American Indian or Alaskan Native were searched less than expected, but there were only 24 reported stops during the year. No other group was searched significantly more, or less, than expected and search rates for all groups have all declined at similar rates since 2015.

Figure 13. Pedestrians were searched similar to 2019 stop rates



When contrasted against driver stops, pedestrians are searched significantly differently. Pedestrians are significantly more likely[157] to be searched with Probable Cause – the dominant search type over the past five years – and Other search types[158] (including Reasonable suspicion and Weapon Patdowns) when compared to drivers. Conversely, pedestrians are significantly less likely[159] to be searched with Consent as only 4 percent of all stopped pedestrians were even asked to consent to a voluntary search, with 83 percent assenting. There were no significant differences in the consent request rate[160] between different perceived race / ethnicity groups nor what search types were ultimately conducted[161].

Table 15. No significant differences exist in 2019 for consent search request rates.

	Consent Search			
Race/Ethnicity	**Requests**	**Rate**	**Refusal**	**Rate**
American Indian/Alaskan	2	8.3%	1	50.0%
Asian	1	7.7%	0	0.0%
Black/African American	13	7.3%	4	30.8%
Hispanic or Latino	5	7.8%	0	0.0%
Middle Eastern	0	0.0%	--	--
Native Hawaiian	0	0.0%	--	--
White	49	5.8%	7	14.3%
Total	**70**	**4.2%**	**12**	**17.1%**

[154] $x^2 = 187.000, p < .001, df = 1$
[155] $p < .26, r^2 = .40$
[156] $x^2 = 12.043, p < .002, df = 1$
[157] $x^2 = 45.013, p < .001, df = 1$
[158] $x^2 = 9.407, p < .003, df = 1$
[159] $x^2 = 68.511, p < .003, df = 1$
[160] $x^2 = 0.591, p < .45, df = 1$
[161] Consent: $x^2 = 2.749, p < .26, df = 2$; Probable Cause: $x^2 = 2.034, p < .37, df = 2$

Table 16. Probable Cause searches are the most likely search to be conducted on pedestrians.

		Total Subjects Searched		Consent		Probable Cause		Reasonable Suspicion		Weapon Patdown	
	Race/Ethnicity	Searches	Rate	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	American Indian/Alaskan	0	0.0%	--	--	--	--	--	--	--	--
	Asian	0	0.4%	--	--	--	--	--	--	--	--
	Black/African American	2	28.6%	1	50.0%	0	0.0%	0	0.0%	1	50.0%
	Hispanic or Latino	0	0.0%	--	--	--	--	--	--	--	--
	Middle Eastern	0	0.0%	--	--	--	--	--	--	--	--
	Native Hawaiian	0	0.0%	--	--	--	--	--	--	--	--
	White	0	0.0%	--	--	--	--	--	--	--	--
	Total	**2**	**2.1%**	**1**	**50.0%**	**0**	**0.0%**	**0**	**0.0%**	**1**	**50.0%**

		Total Subjects Searched		Consent		Probable Cause		Reasonable Suspicion		Weapon Patdown	
	Race/Ethnicity	Searches	Rate	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	American Indian/Alaskan	1	4.3%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
	Asian	4	40.0%	1	25.0%	3	75.0%	0	0.0%	0	0.0%
	Black/African American	33	19.3%	8	24.2%	23	69.7%	0	0.0%	3	9.1%
	Hispanic or Latino	12	19.4%	5	41.7%	7	58.3%	0	0.0%	0	0.0%
	Middle Eastern	0	0.0%	--	--	--	--	--	--	--	--
	Native Hawaiian	0	0.0%	--	--	--	--	--	--	--	--
	White	102	13.4%	42	41.2%	53	52.0%	1	3.8%	15	14.7%
	Total	**152**	**14.7%**	**57**	**37.5%**	**86**	**56.6%**	**1**	**2.6%**	**18**	**11.8%**

Contraband Hit Rates

Illegal contraband was not found on a majority of pedestrians searched by PPB personnel in 2019. Successful search rates have declined since 2014 (61.1%), but at a non-significant[162] rate.

Probable Cause searches were the most successful, followed by Consent, Weapon Pat, and Reasonable Suspicion. There were no significant differences[163] in 2019 between the perceived race / ethnicity of the pedestrians in the likelihood that contraband would be found.

Table 17. Probable Cause searches are the most successful at uncovering contraband.

	Total Searches	Found Contraband	
Search Type	Count	Count	Percent
Consent	58	23	39.7%
Probable Cause	86	37	43.0%
Reasonable Suspicion	1	0	0.0%
Weapon Pat	19	5	26.3%

Table 18. Drugs are the most commonly recovered contraband in pedestrian searches.

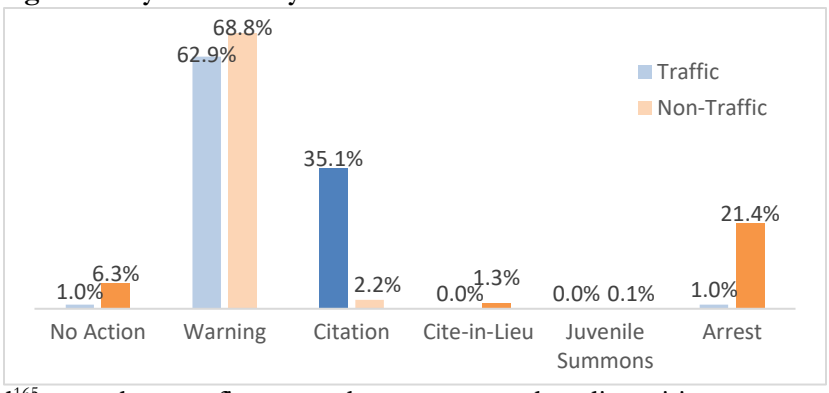
	Total Searches	Found Contraband		Alcohol		Drugs		Weapons		Stolen Property		Other	
Race/Ethnicity	Count	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
American Indian/Alaskan	1	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Asian	4	1	25.0%	0	0.0%	1	25.0%	1	25.0%	1	25.0%	0	0.0%
Black/African American	35	15	42.9%	2	5.7%	12	34.3%	1	2.9%	0	0.0%	3	8.6%
Hispanic or Latino	12	1	8.3%	0	0.0%	1	8.3%	0	0.0%	0	0.0%	0	0.0%
Middle Eastern	0	--	--	--	--	--	--	--	--	--	--	--	--
Native Hawaiian	0	--	--	--	--	--	--	--	--	--	--	--	--
White	102	43	42.2%	0	0.0%	28	27.5%	13	12.7%	2	2.0%	5	4.9%
Total	**154**	**60**	**39.0%**	**2**	**1.3%**	**42**	**27.3%**	**15**	**9.7%**	**3**	**1.9%**	**8**	**5.2%**

[162] $p < .13$, $r^2 = .59$

[163] $x^2 = 5.339$, $p < .07$, $df = 2$

Stop Outcomes

Figure 14. Pedestrians stopped by Non-Traffic officers are significantly more likely to be arrested or warned than cited.



Portland Police Bureau officers end pedestrian stops with significantly different outcomes[164] than driver stops. Pedestrians are significantly less likely to receive a citation for their offenses while being significantly more likely to receive a warning, be cited-in-lieu of an arrest, arrested, or receive no enforcement action. Arrests have significantly increased[165] over the past five years, however, no other disposition type has significantly increased or decreased over the time period. The two organization groups display significant differences in their disposition outcomes[166], with Traffic officers more likely to issue citations with officers from patrol, investigations, and other support divisions more likely to arrest pedestrians and end the interaction with no enforcement action.

Table 19. Bureau personnel are more likely to issue no enforcement action or arrest Black / African American pedestrians when compared to their White counterparts.

	Total Stops		Enforcement Action											
			None		Warning		Citation		Cite-in-Lieu		Juvenile Summons		Arrested	
Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
American Indian/Alaskan	1	1.0%	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
Asian	3	3.1%	0	0.0%	3	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Black/African American	7	7.2%	1	14.3%	2	28.6%	3	42.9%	0	0.0%	0	0.0%	1	14.3%
Hispanic or Latino	2	2.1%	0	0.0%	1	50.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%
Middle Eastern	2	2.1%	0	0.0%	1	50.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%
Native Hawaiian	0	0.0%	--	--	--	--	--	--	--	--	--	--	--	--
White	82	84.5%	0	0.0%	54	65.9%	28	34.1%	0	0.0%	0	0.0%	0	0.0%
Total	**97**	**100.0%**	**1**	**1.0%**	**61**	**62.9%**	**34**	**35.1%**	**0**	**0.0%**	**0**	**0.0%**	**1**	**1.0%**

	Total Stops		Enforcement Action											
			None		Warning		Citation		Cite-in-Lieu		Juvenile Summons		Arrested	
Race/Ethnicity	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
American Indian/Alaskan	23	2.2%	0	0.0%	18	78.3%	1	4.3%	0	0.0%	0	0.0%	4	17.4%
Asian	10	1.0%	0	0.0%	5	50.0%	0	0.0%	0	0.0%	0	0.0%	5	50.0%
Black/African American	171	16.5%	17	9.9%	103	60.2%	3	1.8%	1	0.6%	0	0.0%	47	27.5%
Hispanic or Latino	62	6.0%	1	1.6%	42	67.7%	1	1.6%	3	4.8%	0	0.0%	15	24.2%
Middle Eastern	0	0.0%	--	--	--	--	--	--	--	--	--	--	--	--
Native Hawaiian	4	0.4%	0	0.0%	1	25.0%	0	0.0%	0	0.0%	0	0.0%	3	75.0%
White	764	73.9%	47	6.2%	542	70.9%	18	2.4%	9	1.2%	1	0.1%	147	19.2%
Total	**1,034**	**100.0%**	**65**	**6.4%**	**711**	**69.7%**	**23**	**2.3%**	**13**	**1.3%**	**1**	**0.1%**	**221**	**21.7%**

No analyses could be conducted on difference between the different operational groups and the perceived race of the stopped pedestrian due to small stop rates. However, across all Bureau personnel, pedestrians perceived to be Black / African American are significantly more likely to receive no enforcement action[167] and arrested[168] while being significantly less likely to receive a warning[169] than their White counterparts. A full logistic regression revealed no significant predictors,

[164] $x^2 = 1078.929, p < .001, df = 4$
[165] $p < .02, r^2 = .91$
[166] $x^2 = 210.557, p < .001, df = 3$
[167] $x^2 = 5.030, p < .03, df = 1$
[168] $x^2 = 9.486, p < .01, df = 2$
[169] $x^2 = 10.263, p < .02, df = 3$

including race, reason for stop, and search outcomes, for whether an arrest[170] is made when searches are conducted; however, when a search is not conducted, Black / African American pedestrians are significantly more likely to be arrested[171]. No other variables were identified as significant predictors.

[170] Searched Omnibus: $x^2 = 10.067, p < .08, df = 5$; Not Searched Omnibus: $x^2 = 18.191, p < .002, df = 4$
[171] $Wald = 6.188, B = 0.617, p < .02$

APPENDIX A: DATA AND METHODOLOGY

Data Collection History

During the 69th Legislative Assembly in 1997, the Oregon State Legislature passed HB 2433 which required all law enforcement agencies to adopt specific policies prohibiting stops and searches "motivated by the officer's perception of race, color, sex, or national origin" and to collect data on the topic. The Traffic Stop Data Collection committee, of the Governor's Public Safety Planning and Policy Council, formed the minimum standards for a voluntary data collection program for stopped subject demographics. The work of that committee, with input from community partners and law enforcement agencies around the state, lead to the development and passage of SB 415 in 2001 which encouraged law enforcement to voluntarily create and launch a standardized stops data collection program and provide public reports on demographics and stop outcomes. Concurrently in the year 2000, a panel of community leaders and PPB representatives was convened to help reduce concerns regarding racial profiling in the City of Portland. The Blue Ribbon Panel recommended the Bureau create a data collection documenting the perceived demographics of the stopped subject and police actions during the stop, including search and outcome information.

Sworn personnel from the Portland Police Bureau first began reporting subject demographics, search patterns, and stop outcomes on all officer-initiated driver, pedestrian, and bicycle stops (initially termed "contacts') in 2001. The data collection process went through minor revisions until February 2003 with the launch of the Stops Data Collection (SDC) system – the first Bureau-wide standardized system that was integrated and accessible with issued Mobile Digital Computers (MDCs). The Stops Data Collection operated untouched for the next 8 years until Late 2011 when the system was updated with an automated auditing and tracking tool to increase accountability and compliance with Bureau data collection policies. The new SDC (see Appendix B) also increased the number of data collection points to better reflect national best-practices.

In 2017, the 79th Legislative Assembly of the Oregon State Legislature passed HB 2355 (codified as ORS 131.930 through 131.945) which instituted the first mandatory data collection policy for all law enforcement agencies in the State beginning on June 1, 2018 for large agencies such as the Portland Police Bureau. The law mandated minor changes[172] to PPB's data collection to become compliant with the new State standards. The Bureau also took the opportunity to refine, modernize, and enhance the existing Stops Data Collection (SDC) system before launching the new Stops application (see Appendix C) on June 27, 2018. The application also submits a copy of all Stops records quarterly to the State of Oregon Criminal Justice Commission (CJC) for mandatory reporting and analysis.

Data Source

The Stops application, like the SDC before it, is an automated auditing and tracking tool that flags interactions that require a completed "mask", or survey. Interactions are flagged for completion when (1) Traffic officers issue an electronic Warning or Citation through their handheld devices or (2) Non-Traffic officers notify dispatch they are making a formal stop of a driver or pedestrian (using the call codes of "TRASTP" or "77", respectively) when probable cause has been established

[172] About 85 percent of required data points were already being collected by the Bureau prior to HB 2355.

for a violation or criminal act. The flagged records appear on a list of to-do items for the officer to complete on their Bureau-issued computer and remain there until the officer completes the mask, ideally immediately following the conclusion of the stop or at the end of their shift for motorcycle- or bicycle-based officers. Supervisors throughout the Bureau receive a weekly email highlighting stops reports that are outstanding to ensure complete data collection.

Through the lifespan of the Stops Data Collection system from January 1, 2012 through June 26, 2018, law enforcement personnel completed 351,595 masks related to the contact of a community member. The majority of masks (85.7%) represented completed driver or pedestrian stops, with a smaller number of interactions that were flagged by the system as a formal stop when it was actually another type of interaction (13.6%), including a flag down, mere conversation, or welfare check. Completed stops flagged as passenger stops or stops initiated by officers from other law enforcement agencies were also excluded from all analyses.

Table 20. About 85 percent of flagged interactions are verified as legitimate stops in the SDC system.

	2012		2013		2014		2015		2016		2017		2018	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Completed Stops	68,968	89.4%	68,053	89.1%	53,190	83.7%	31,474	78.8%	32,737	82.3%	22,470	82.6%	14,729	82.8%
Passenger Stops	447	0.6%	361	0.5%	309	0.5%	242	0.6%	291	0.7%	195	0.7%	142	0.8%
Non-PPB Initiated Stops	23	0.0%	49	0.1%	63	0.1%	122	0.3%	18	0.0%	7	0.0%	0	0.0%
Canceled Stops	7,671	9.9%	7,946	10.4%	10,024	15.8%	8,123	20.3%	6,714	16.9%	4,518	16.6%	2,928	16.5%
Total	**77,109**	**100%**	**76,409**	**100%**	**63,586**	**100%**	**39,961**	**100%**	**39,760**	**100%**	**27,190**	**100%**	**17,799**	**100%**

In June 2015, PPB made upgrades to the SDC which inadvertently impacted the use of a desktop computer to complete the form. This created an incomplete set of stop records, mainly from Traffic Division officers, between July and December 2015. Therefore, two separate databases were used to extract data from 2015. The SDC system was used to retrieve data conducted by all Non-Traffic units for January 2015 through December 2015 and stops conducted by Traffic Officers from January 2015 through June 2015. The eCite system was used to retrieve missing data on stop location and stop demographics for the second-half of 2015; however, the eCite system does not capture data on stop reasons, searches, search outcomes, and stop disposition at all or in a way that can be translated to the SDC format. These stops were excluded from post-stop statistical analyses, including stop reasons, search rates, hit rates, and stop outcomes.

From the launch of the new Stops application on June 27, 2018, PPB personnel completed 16,687 masks related to the contact of a community member. Prior to launch of the new Stops application, additional training was delivered to officers to reduce the number of interactions incorrectly classified as Stops. Additionally, the application was reconfigured to only trigger stops initiated by PPB personnel. To date, the number of masks representing a completed driver or pedestrian stop (90.7%) is higher than the SDC system, with fewer interactions classified as a canceled stop (8.9%).

Table 21. About 90 percent of interactions in the new Stops app were analyzed as completed stops.

	2018		2019	
	Count	Percent	Count	Percent
Completed Stops	15,177	90.2%	34,166	90.8%
Passenger Stops	81	0.5%	184	0.5%
Non-PPB Initiated Stops	0	0.0%	0	0.0%
Canceled Stops	1,561	9.3%	3,260	8.7%
Total	**16,819**	**100%**	**37,610**	**100%**

Data Considerations

The race / ethnicity questions on the Stops mask are based on officer perceptions of the stopped individual. As with any perception-based field, there is an inherent amount of variance that is expected and creates a nominal degree of error among racial counts and proportions. Community members have also identified the potential for misclassification based on officer experience and

perceptions, such as Native Americans / Alaskan Natives being misclassified as Hispanic or Asian. Finally, there is no uniformity of racial classification options between different PPB systems and databases, leading to potential confusion on the part of PPB officers on how to classify community members. These potential data inconsistencies may artificially inflate the proportion of some racial groups while underestimating for others. To date, the PPB has been unable to identify a way to confirm the race of the stopped individual without asking potentially invasive questions at the time of the stop.

State-mandated changes to stops data collection variables complicate comparisons to prior years. For perceived gender questions, Non-Binary (X) was added as an option while the Unknown category was removed. Two new race/ethnicity categories were also added: Middle Eastern and Native Hawaiian or Other Pacific Islander while the Other and Unknown categories were removed. The changes to the perceived race category add additional analysis complications as the Middle Eastern category does not align with existing U.S. Census definitions and the State provided no guidance on how officers should meaningfully distinguish between the different perceived categories. It is impossible to know how the addition and removal of categories affected the classification of subjects into the racial / ethnic groups and gender categories that didn't change. Due to these modifications, any analysis of year-to-year trends should be approached with caution until the new stops application has been in place for at least three full years.

Analysis Methodology

A variety of descriptive and inferential statistical analysis methodologies were used to investigate the changes of stops over time and potential racial and ethnic disparities throughout stop interactions. All omnibus or overall statistical analyses utilized a standard significance level of .05 to describe trends. The large number of stops initiated by PPB officers in the last five years, even though the overall trend is downward, makes any statistical analysis highly sensitive to even small differences or trends, potentially overinflating the meaningfulness of the change. The converse problem happens with pedestrian stops, as the small number of overall stops can obscure even meaningful trends. When appropriate, effect size measures are included for all analysis to aid in the interpretation of analyses. All coefficients and effect sizes are included in the footnotes of each page to enhance the transparency of conclusions and aid additional interpretations or analyses.

Simple linear regressions were utilized to describe overall changes over time in stop behaviors. In instances where there were no identified stops of a specified race / ethnicity or subcategory, the overall trend was not described.

Several different analyses were conducted to investigate differences in operational division behavior and to identify potential racial and ethnic disparities in stops. Initial differences were investigated with Chi-Square Tests for Independence. On tests utilizing race / ethnicity as a category, Unknown / Other individuals were excluded due to methodological, data collection, and interpretation concerns about the category. In cases where the expected count of most cells in a particular subcategory of classification was less than 5, the entire classification was removed to preserve the power of the analysis. This lead to Native American / Alaskan Native, Native Hawaiian, and Middle Eastern entries to be excluded from most driver analyses and Asian, Hispanic, Native American / Alaskan Native, Native Hawaiian, and Middle Eastern entries to be excluded from most pedestrian analyses. In cases the omnibus test met overall significance, pairwise comparisons were examined

with a Bonferroni correction to tease out specific differences. If the omnibus level was non-significant, additional analyses were not conducted.

The second analysis conducted to examine potential racial and ethnic disparities in stops and searches is an odds ratio, or Disparity Index. Stop rates for each racial / ethnic group were compared to their population benchmark (see Tables 2 and 3) to determine relative over- or under-representation in stop demographics. For search rates, stop rates for each racial group were used as the comparison benchmark. A Disparity Index value of greater than 1.0 indicates general over-representation while a value of less than 1.0 indicates general under-representation in the group; however, values between 0.75 and 1.5 are considered "benign" due to general error rates in data collection and analysis. Based on prior Bureau practices and research best practices, we focused on values above 2.0 as significant over-representation and values below 0.5 as significant under-representation. Disparity analyses were only conducted when the corresponding Chi-Square Test and pairwise comparisons revealed significant differences.

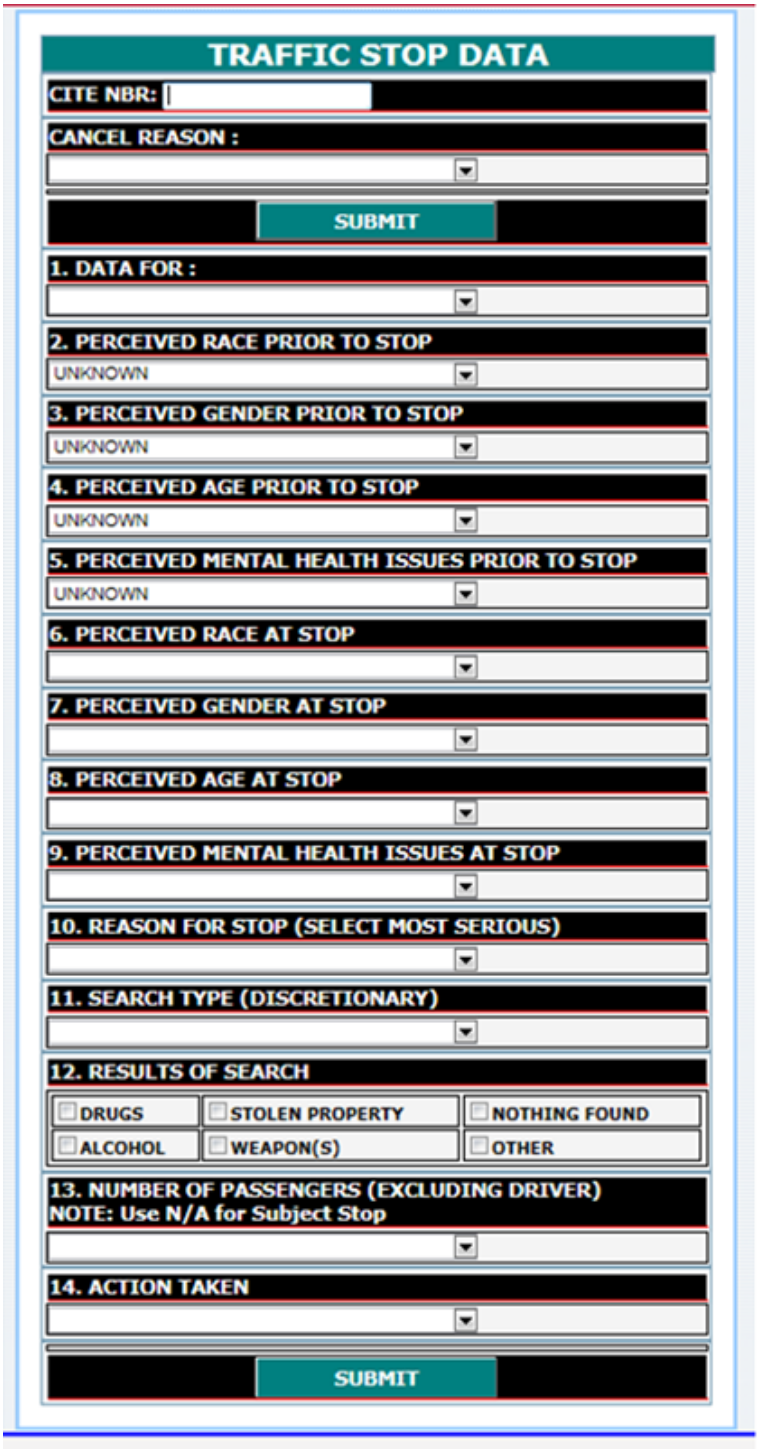
A series of binary logistic regressions were also performed to determine what factors, including perceived race / ethnicity, may significantly contribute to stop outcomes. Three separate simplified outcomes were analyzed: enforcement action (defined as receiving a warning, citation, or arrest) vs. no enforcement action, citation vs. warning, and arrest vs. non-arrest (warning or citation). The main effects of race, stop reason, and search results were the primary hypothesized predictors, however all possible two-way and three-way interaction effects were also included in the model as co-variates to increase the overall power of the analysis. Individual predictors for stop outcome were only considered when the overall model was statistically significant.

Results Limitations

All analyses and statistical tests were selected to help identify differences and disparities between racial and ethnic groups in driver and pedestrian stops; however, they should not be used as definitive proof of police bias, or lack thereof. The analyses do not account for all legitimate factors that may influence the reason for a stop, search, or disposition of the event, including the circumstances that led to the stop, the location of the stop, and severity of the offense. Additionally, data collection challenges could obscure the reality of interactions with community members and is not capturing all actions associated with a stop. The Portland Police Bureau is committed to improving our analysis and data collection methodologies to accurately assess and understand how bias may or may not affect stops.

APPENDIX B: STOPS DATA COLLECTION MASK

The Stops Data Collection (SDC) system was in place from late 2011 through June 27, 2018.



APPENDIX C: STOPS APPLICATION

Event ID: * Required

Stop Date: 8/1/2018 12:00:00 AM
Location: 1111 SW 2ND AVE

Cancel Reason:

Duplicate
Not a stop

Nature of Stop: * Required

- ○ Driver
- ○ Bicycle
- ○ Pedestrian
- ○ Passenger

Perceived Race/Ethnicity: * Required

- ○ American Indian or Alaskan Native
- ○ Asian
- ○ Black or African American
- ○ Hispanic or Latino
- ○ Middle Eastern
- ○ Native Hawaiian or Other Pacific Islander
- ○ White

Perceived Age: * Required

Perceived Sex: * Required

- ○ F (Female)
- ○ M (Male)
- ○ X (Non-Binary)

Reason for Stop: * Required

Consent search: * Required

- ○ No consent search requested
- ○ Consent search requested but denied
- ○ Consent search completed

Non-Consent Search Conducted: * Required

- ○ Yes
- ○ No

Search Type (completed): * Required

- ☐ Probable Cause
- ☐ Reasonable Suspicion
- ☐ Weapon Patdown / Frisk

Search Findings: * Required

- ☐ Nothing Found
- ☐ Alcohol
- ☐ Drugs
- ☐ Stolen Property
- ☐ Weapon(s)
- ☐ Other Evidence

Stop Disposition: * Required

- ○ No Action Taken
- ○ Warning (Verbal or Written)
- ○ Citation
- ○ Cite-in-Lieu
- ○ Juvenile Summons
- ○ Arrest

Did the subject of the stop have a perceived mental health issue?: * Required

- ○ Yes
- ○ No
- ○ Unknown

✔ Submit Cancel

APPENDIX D: TYPES OF SEARCHES

Police officers may initiate one of four types of discretionary searches on drivers or pedestrians. Beginning on June 27, 2018, officers can select more than one search type per stop.

Examples include:

- Consent. Subject to certain limitations, officers request consent from an individual before searching them as part of an investigation or contact. Although officers have probable cause or other legal reasons to search an individual in many cases, officers often ask for consent because it protects the search from being excluded in court.

- Plain View. A plain view search occurs when an officer observes contraband or other evidence prior to or during a stop without conducting an actual search. An example of this may include an officer who observes, from outside of the vehicle, a driver or passenger tucking a weapon underneath a seat in a car. *(Note: This search type was discontinued on June 27, 2018).*

- Probable Cause. A search conducted when there is substantial objective basis to believe that more likely than not 1) a criminal offense is being, or has been committed and 2) items of evidence pertaining to that criminal offense are in a specific place to be searched. An example of this might include searching a subject's pockets for narcotics after an officer observed them selling drugs.

- Reasonable Suspicion. A search that is conducted based on an officer's belief that it is reasonable under the totality of the circumstances that exist at the time and place the officer conducts the search, that the officer will find contraband or evidence of a crime.

- Weapons Pat or Frisk. The external patting of a person's outer clothing justified by an officer's objectively reasonable suspicion, under the totality of the circumstances and based on specific and articulable facts, that the defendant poses an immediate threat of serious physical injury to the officer or others. Generally this search consists of "patting" the pockets, waistband, and sleeves and legs of a subject, but prohibits reaching into pockets or searching for small items.

APPENDIX E: BIBLIOGRAPHY

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APPENDIX F: PERCEIVED GENDER ANALYSIS

The Portland Police Bureau collects data on the officer's perception of the race, gender[173], and age of all stopped drivers and pedestrians. Non-Traffic[174] officers stopped a significantly higher percentage of male drivers (68.3% in 2015 vs. 72.6% in 2019) over the past five years while Traffic[175] officers have shown little change over the time period. Neither division stopped pedestrians at a significantly higher, or lower, rate over the past five years[176]. Non-Traffic personnel were significantly more likely a stop a male driver[177] than Traffic personnel in 2019, with no significant difference for pedestrian stop rates by perceived gender between the two divisions[178].

Table 22. Both operational divisions of the Bureau stop male drivers at similar rates.

		2015		2016		2017		2018		2019	
	Gender	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Traffic	Female	8,631	36.1%	6,361	33.5%	3,491	32.7%	4,231	32.3%	5,061	34.8%
	Male	15,225	63.7%	12,473	65.8%	7,177	67.2%	8,875	67.7%	9,461	65.1%
	Non-Binary*	--	--	--	--	--	--	2	0.0%	10	0.1%
	Unknown^	47	0.2%	136	0.7%	6	0.1%	7	0.1%	--	--
	Traffic Total	**23,903**	**100%**	**18,970**	**100%**	**10,674**	**100%**	**13,115**	**100%**	**14,532**	**100%**
		2015		**2016**		**2017**		**2018**		**2019**	
	Gender	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Non-Traffic	Female	4,908	28.9%	3,874	28.7%	3,187	27.5%	4,552	28.1%	5,031	27.2%
	Male	11,607	68.3%	9,486	70.2%	8,283	71.4%	11,564	71.3%	13,426	72.6%
	Non-Binary*	--	--	--	--	--	--	25	0.2%	46	0.2%
	Unknown^	490	2.9%	161	1.2%	137	1.2%	70	0.4%	--	--
	Non-Traffic Total	**17,005**	**100%**	**13,521**	**100%**	**11,607**	**100%**	**16,211**	**100%**	**18,503**	**100%**

* Non-Binary was added as an available option on June 27, 2018.

^ Unknown was removed as an available option on June 27, 2018.

Table 23. Traffic and Non-Traffic officers stopped male pedestrians at a 3-to-1 ratio over females.

		2015		2016		2017		2018		2019	
	Gender	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Traffic	Female	20	23.3%	31	25.8%	18	25.7%	16	22.5%	23	23.7%
	Male	66	76.7%	88	73.3%	52	74.3%	54	76.1%	74	76.3%
	Non-Binary*	--	--	--	--	--	--	1	1.4%	0	0.0%
	Unknown^	0	0.0%	1	0.8%	0	0.0%	0	0.0%	--	--
	Traffic Total	**86**	**100%**	**120**	**100%**	**70**	**100%**	**71**	**100%**	**97**	**100%**
		2015		**2016**		**2017**		**2018**		**2019**	
	Gender	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Non-Traffic	Female	40	20.3%	29	23.0%	29	24.4%	65	12.8%	166	16.1%
	Male	150	76.1%	93	73.8%	88	73.9%	441	86.6%	867	83.8%
	Non-Binary*	--	--	--	--	--	--	2	0.4%	1	0.1%
	Unknown^	7	3.6%	4	3.2%	2	1.7%	1	0.2%	--	--
	Non-Traffic Total	**197**	**100%**	**126**	**100%**	**119**	**100%**	**509**	**100%**	**1,034**	**100%**

* Non-Binary was added as an available option on June 27, 2018.

^ Unknown was removed as an available option on June 27, 2018.

[173] On June 27, 2018, the PPB added "Non-Binary" as a data collection option and removed "Unknown."

[174] $p < .02$, $r^2 = .91$

[175] $p < .44$, $r^2 = .22$

[176] Traffic: $p < .76$, $r^2 = .04$; Non-Traffic: $p < .15$, $r^2 = .56$

[177] $x^2 = 220.619, p < .001, df = 1$

[178] $x^2 = 3.718, p < .06, df = 1$

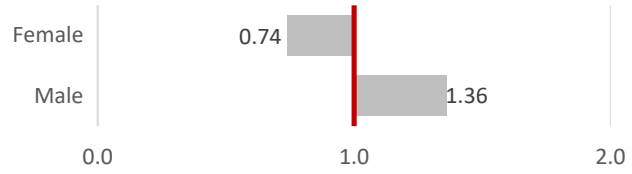
When analyzing stops data for disparities by race, PPB utilizes two different benchmarks that are tailored to the differing mission of Traffic Division and the Non-Traffic divisions. The use of the Crime Victimization benchmark as a proxy for subjects that may be working, living, recreating, or transiting in an area is supported by the literature. However, the literature shows that no single measure explains potential gender differences by geographic location, with age and physical activity[179], economic factors[180], and sexual preference[181] all contributing to locale-based gender differences. Furthermore, women are also more likely to report being victims of violent crimes[182]. Without comprehensive research on how these known and unknown factors contribute to geographic place-making in Portland, it is improper to use crime victimization as a proxy for potential police contact by gender.

Table 24. 2019 Injury Collision Statistics, by Gender of Drivers

	2019	
Gender	**Count**	**Percent**
Female	533	37.5%
Male	890	62.5%
Total	**1,423**	**100.0%**

Instead, the reported gender[183] of drivers involved in injury collisions in 2019 was used as a benchmark for driver stops by all divisions. In the analysis of driver's race, this benchmark is used for stops by Traffic officers only. Based on the reported gender of individuals involved in injury collisions, drivers are stopped similar to expected rates. No comparable benchmark exists for pedestrian stops, so no analysis was conducted.

Figure 15. Drivers are stopped at rates similar to the 2019 Injury Collision Benchmark



Stop Reasons

Non-Traffic officers – but not Traffic officers[184] – display significantly different stop patterns based on the perceived gender of the driver[185] or pedestrian[186]. Male drivers and female pedestrians are significantly more likely to be stopped for Non-Traffic Offenses than their counterparts. There were no significant differences between Moving and Non-Moving Violations for either perceived gender stopped by Non-Traffic officers.

[179] Pollard, T.M. & Wagnild, J.M. (2017). Gender differences in walking (for leisure, transport, and in total) across adult life: a systematic review. *BMC Public Health, 17*.
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[181] Diehm, J. (2018, June). Men are from Chelsea, Women are from Park Slope: How "gayborhoods" in 15 major American cities are divided by gender. Retrieved from https://pudding.cool/2018/06/gayborhoods/.
[182] Morgan, R.E., & Truman, J.L. (2018). *Criminal Victimization, 2017* (NCJ 252472). Washington, D.C.: Bureau of Justice Statistics, U.S. Department of Justice.
[183] The PPB's records management system, RegJIN, does not include "Non-Binary" as possible gender category so the group cannot be included in any benchmark analyses.
[184] $x^2 = 5.029, p < .09, df = 2$
[185] $x^2 = 6.796, p < .04, df = 2$
[186] $x^2 = 19.705, p < .001, df = 2$

Table 25. Male drivers stopped by Non-Traffic Officers were significantly more likely to be stopped for a Non-Traffic Offense than Females.

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Gender	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	Female	1,308	25.8%	3,298	65.2%	402	7.9%	43	0.8%	10	0.2%
	Male	2,703	28.6%	5,859	61.9%	782	8.3%	110	1.2%	7	0.1%
	Non-Binary	0	0.0%	8	80.0%	0	0.0%	1	10.0%	1	10.0%
	Total	**4,011**	**27.6%**	**9,165**	**63.1%**	**1,184**	**8.1%**	**154**	**1.1%**	**18**	**0.1%**

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Gender	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	Female	1,144	22.7%	1,921	38.2%	1,736	34.5%	168	3.3%	62	1.2%
	Male	3,817	28.4%	4,422	32.9%	4,479	33.4%	475	3.5%	233	1.7%
	Non-Binary	12	26.1%	13	28.3%	17	37.0%	2	4.3%	2	4.3%
	Total	**4,973**	**26.9%**	**6,356**	**34.4%**	**6,232**	**33.7%**	**645**	**3.5%**	**297**	**1.6%**

Table 26. Female pedestrians stopped by Non-Traffic Officers were significantly more likely to be stopped for a Non-Traffic Offense than Males.

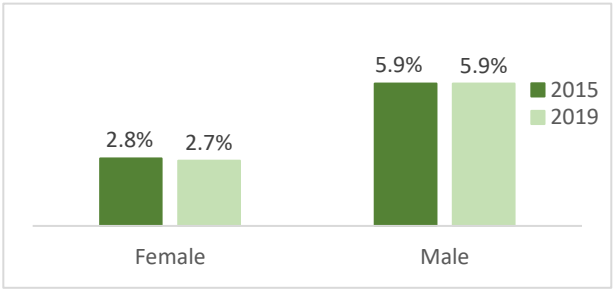
		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Gender	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	Female	18	78.3%	5	21.7%	0	0.0%	0	0.0%	0	0.0%
	Male	29	39.2%	40	54.1%	4	5.4%	0	0.0%	1	1.4%
	Non-Binary	--	--	--	--	--	--	--	--	--	--
	Total	**47**	**48.5%**	**45**	**46.4%**	**4**	**4.1%**	**0**	**0.0%**	**1**	**1.0%**

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Gender	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	Female	48	28.9%	6	3.6%	9	5.4%	0	0.0%	103	62.0%
	Male	301	34.7%	80	9.2%	104	12.0%	1	0.1%	381	43.9%
	Non-Binary	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%
	Total	**349**	**33.8%**	**86**	**8.3%**	**114**	**11.0%**	**1**	**0.1%**	**484**	**46.8%**

Search Rates by Gender

Search rates, based on perceived gender, have changed little over the last five years. Males and females were both searched at almost the exact same rate as they were five years ago[187]. Stopped male subjects were significantly more likely to be searched with probable cause[188] in 2019, with no significant differences in consent[189] search rates. All search types for each perceived gender have been statistically stable over the past five years.

Figure 16. Search rates have remained statistically stable for gender groups since 2015.



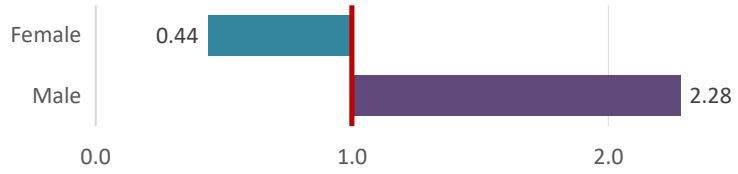
[187] Female: $p < .68$, $r^2 = .07$; Male: $p < .51$, $r^2 = .16$
[188] $x^2 = 7.388$, $p < .008$, $df = 1$
[189] $x^2 = 1.689$, $p < .20$, $df = 2$

Table 27. Male subjects are significantly more likely to be searched with probable cause.

	Total Subjects Searched		Consent		Probable Cause		Reasonable Suspicion		Weapon Patdown	
Gender	Searches	Rate	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Female	273	2.7%	175	64.1%	106	38.8%	7	2.6%	8	2.9%
Male	1,415	5.9%	964	68.1%	431	30.5%	41	2.9%	73	5.2%
Non-Binary	2	3.5%	1	50.0%	1	50.0%	0	0.0%	0	0.0%
Total	**1,690**	**4.9%**	**1,140**	**67.5%**	**538**	**31.8%**	**48**	**2.8%**	**81**	**4.8%**

Portland Police officers displayed differential search patterns for stopped drivers based on the subject's perceived gender at a disparate rate in 2019. Male drivers were searched significantly more than their female counterparts[190] when compared to overall stop rates. Officers from Traffic[191] and Non-Traffic[192] divisions were significantly more likely to search a male subject than a female subject.

Figure 17. Subjects of different perceived genders were searched at disparate rates when compared to stop rates



Contraband Hit Rates

Despite being searched more by PPB officers, males were statistically just as likely[193] to be found with contraband as their female counterparts. In 2019, Males were found with contraband in 47.2% of searches, while Females were found with contraband in 45.8% of searches. Drugs were the most commonly found items for both groups, followed by Weapons, Other Contraband, Alcohol, and Stolen Property for Males and Weapons, Other Contraband, Stolen Property, and Alcohol for Females.

Table 28. Illicit drugs are the most commonly uncovered item during subject searches.

	Total Searches	Found Contraband		Alcohol		Drugs		Weapons		Stolen Property		Other	
Gender	Count	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Female	273	125	45.8%	14	5.1%	80	29.3%	26	9.5%	17	6.2%	20	7.3%
Male	1,415	668	47.2%	103	7.3%	431	30.5%	130	9.2%	48	3.4%	110	7.8%
Non-Binary	2	1	50.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%
Total	**1,690**	**794**	**47.0%**	**117**	**6.9%**	**512**	**30.3%**	**156**	**9.2%**	**65**	**3.8%**	**130**	**7.7%**

Stop Outcomes

Male and Female subjects had significantly different stop dispositions[194] when stopped by a Portland Police Bureau officer from either division[195]. Male subjects were significantly more likely to be arrested than Female subjects from either division, while Male subjects stopped by Non-Traffic officers were significantly more likely to receive no enforcement action and significantly less likely to be cited or receive a citation. The progressive nature of a stop, and the multiple decision points

[190] $x^2 = 164.565, p < .001, df = 1$
[191] $x^2 = 12.022, p < .002, df = 1$
[192] $x^2 = 100.442, p < .001, df = 1$
[193] $x^2 = 0.185, p < .67, df = 1$
[194] $x^2 = 223.387, p < .001, df = 4$
[195] Traffic: $x^2 = 10.198, p < .04, df = 4$; Non-Traffic: $x^2 = 63.483, p < .001, df = 4$

within the interaction, make it difficult to discern what role, if any, gender bias plays in stop disposition.

Table 29. Male subjects were significantly more likely to be arrested – regardless of PPB division.

		Total Stops		Enforcement Action											
				None		Warning		Citation		Cite-in-Lieu		Juvenile Summons		Arrested	
	Gender	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	Female	5,084	34.8%	19	0.4%	760	14.9%	4,229	83.2%	13	0.3%	0	0.0%	63	1.2%
	Male	9,535	65.2%	31	0.3%	1,344	14.1%	7,950	83.4%	37	0.4%	1	0.0%	172	1.8%
	Non-Binary	10	0.1%	0	0.0%	4	40.0%	6	60.0%	0	0.0%	0	0.0%	0	0.0%
	Total	**14,629**	**100.0%**	**50**	**0.3%**	**2,108**	**14.5%**	**12,185**	**83.6%**	**50**	**0.3%**	**1**	**0.0%**	**235**	**1.6%**

		Total Stops		Enforcement Action											
				None		Warning		Citation		Cite-in-Lieu		Juvenile Summons		Arrested	
	Gender	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	Female	5,197	26.6%	152	2.9%	4,075	78.4%	683	13.1%	6	0.1%	1	0.0%	280	5.4%
	Male	14,293	73.2%	554	3.9%	10,898	76.2%	1,638	11.5%	32	0.2%	0	0.0%	1,171	8.2%
	Non-Binary	47	0.2%	7	14.9%	38	80.9%	1	2.1%	0	0.0%	0	0.0%	1	2.1%
	Total	**19,537**	**100.0%**	**713**	**3.7%**	**15,011**	**77.0%**	**2,322**	**11.9%**	**38**	**0.2%**	**1**	**0.0%**	**1,452**	**7.4%**

APPENDIX G: PERCEIVED AGE ANALYSIS

Table 30. Adults aged 25 or Older are the most commonly stopped group of drivers.

		2015		2016		2017		2018		2019	
	Age	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Traffic	Under 16	11	0.0%	6	0.0%	6	0.1%	4	0.0%	13	0.1%
	16 to 24	4,566	19.1%	3,510	18.5%	1,970	18.5%	2,397	18.3%	2,519	17.3%
	25 or Over	19,274	80.6%	15,234	80.3%	8,654	81.1%	10,701	81.6%	12,000	82.6%
	Unknown^	52	0.2%	220	1.2%	44	0.4%	13	0.1%	--	--
	Traffic Total	**23,903**	**100%**	**18,970**	**100%**	**10,674**	**100%**	**13,115**	**100%**	**14,532**	**100%**
		2015		**2016**		**2017**		**2018**		**2019**	
	Age	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Non-Traffic	Under 16	45	0.3%	38	0.3%	16	0.1%	23	0.1%	28	0.2%
	16 to 24	3,714	21.8%	2,910	21.5%	2,495	21.5%	2,980	18.4%	2,810	15.2%
	25 or Over	12,682	74.6%	10,356	76.6%	8,928	76.9%	13,117	80.9%	15,665	84.7%
	Unknown^	564	3.3%	217	1.6%	168	1.4%	91	0.6%	--	--
	Non-Traffic Total	**17,005**	**100%**	**13,521**	**100%**	**11,607**	**100%**	**16,211**	**100%**	**18,503**	**100%**

^ Unknown was removed as an available option on June 27, 2018.

Table 31. Traffic and Non-Traffic officers stopped different ages of pedestrians at similar rates.

		2015		2016		2017		2018		2019	
	Age	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Traffic	Under 16	0	0.0%	1	0.8%	0	0.0%	0	0.0%	0	0.0%
	16 to 24	17	19.8%	23	19.2%	10	14.3%	9	12.7%	11	11.3%
	25 or Over	69	80.2%	95	79.2%	60	85.7%	62	87.3%	86	88.7%
	Unknown^	0	0.0%	1	0.8%	0	0.0%	0	0.0%	0	0.0%
	Traffic Total	**86**	**100%**	**120**	**100%**	**70**	**100%**	**71**	**100%**	**97**	**100%**
		2015		**2016**		**2017**		**2018**		**2019**	
	Age	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Non-Traffic	Under 16	2	1.0%	1	0.8%	1	0.8%	4	0.8%	3	0.3%
	16 to 24	47	23.9%	25	19.8%	15	12.6%	48	9.4%	66	6.4%
	25 or Over	142	72.1%	96	76.2%	101	84.9%	457	89.8%	965	93.3%
	Unknown^	6	3.0%	4	3.2%	2	1.7%	0	0.0%	--	--
	Non-Traffic Total	**197**	**100%**	**126**	**100%**	**119**	**100%**	**509**	**100%**	**1,034**	**100%**

^ Unknown was removed as an available option on June 27, 2018.

After the completion of the stop, Portland Police Bureau officers indicate their perception of the stopped subject's perceived age[196]. Like the last five years, the 25 or Over group was the most stopped group in 2019 – representing 84.2 percent of all stops – followed by 16 to 24 (15.8%), and Under 16 (0.1%). Drivers[197] and pedestrians[198] perceived to be over the age of 25 have significantly increased since 2015 with stop rates of 16 to 24 years olds significantly decreasing[199] over the same time frame.

[196] Prior to June 27, 2018, officers indicated the subject's perceived age in four broad categories: Under 16, 16 to 24, 25 or Over, and Unknown. After June 27, the officer enters an integer (i.e., 35) based on their perception or the subject's actual age from their state-issued identification. All integers were converted to categories to ease interpretation and comparison over time.

[197] $p < .03$, $r^2 = .87$

[198] $p < .002$, $r^2 = .98$

[199] Drivers: $p < .05$, $r^2 = .79$; Pedestrians: $p < .001$, $r^2 = .98$

The use of reporting by integer provides the opportunity to analyze stop patterns for additional age categories than originally collected. Research indicates that drivers aged 65 or Over – when controlling for miles driven – are about as likely to crash as drivers under the age of 25[200]. Age also generally increases a person's risk for injury in a collision[201], with some of the highest fatality rates for subjects over the age of 65[202]. For all 2019 analyses, a new category was generated from the existing data to better understand how the perceived age of subjects over 65 affects stop rates along with other age groupings. The operational divisions display differential stop patterns for drivers[203], with Traffic officers stopping significantly more 65 or Older and 16 to 24 Drivers, and significantly less 25 to 64 year older drivers than Non-Traffic units. There were no significant differences between the two divisions for pedestrian[204] stop rates.

Table 32. Traffic Officers stopped significantly more 16 to 24 and 65 or Older drivers.

		Drivers		Pedestrians	
		2019		2019	
	Age	Count	Percent	Count	Percent
Traffic	Under 16	13	0.1%	0	0.0%
	16 to 24	2,519	17.3%	11	11.3%
	25 to 64	11,373	78.3%	84	86.6%
	65 or Older	627	4.3%	2	2.1%
	Traffic Total	**14,532**	**100%**	**97**	**100%**
		2019		2019	
	Age	Count	Percent	Count	Percent
Non-Traffic	Under 16	28	0.2%	3	0.3%
	16 to 24	2,810	15.2%	66	6.4%
	25 to 64	15,156	81.9%	950	91.9%
	65 or Older	509	2.8%	15	1.5%
	Non-Traffic Total	**18,503**	**100%**	**1,034**	**100%**

Similar to gender analyses, there are no research-supported benchmarks assessing whether officers potentially display bias when choosing to stop a driver based on their perceived age. It's further complicated by the fact that age is not a protected class when it comes to insurance risk analyses[205], with the State explicitly allowing differential rates[206] for drivers under 25 and over 55 (without an authorized prevention course) due to their risk of being involved in a motor vehicle collision. If officers are making stops based on dangerous driving behaviors, there is a likelihood that a greater number of young drivers (and those 55 or over) would be stopped when compared to their population rate. Nationally, there are also significant differences when it comes to crime victimization based on the victim's age, making any victimization benchmark problematic[207].

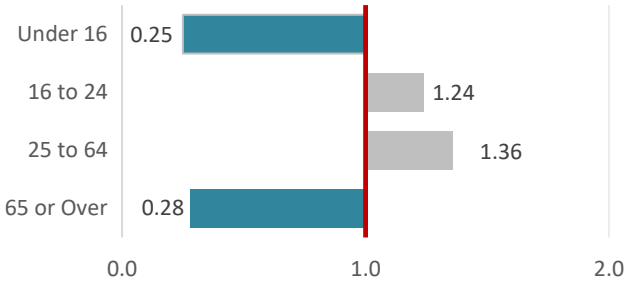
Table 33. 2019 Injury Collision Statistics, by Age of Drivers

	2019	
Age	Count	Percent
Under 16	7	0.5%
16 to 24	191	13.5%
25 to 64	1,064	74.9%
65 or Over	158	11.1%
Total	**1,420**	**100.0%**

[200] National Highway Traffic Safety Administration. (1993). *Addressing the Safety Issues Related to Younger and Older Drivers: A Report to Congress January 19, 1993 on the Research Agenda of the National Highway Traffic Safety Administration.* Washington, DC: Department of Transportation.
[201] Kahane, C. J. (2013). *Injury vulnerability and effectiveness of occupant protection technologies for older occupants and women.* (Report No. DOT HS 811 766). Washington, DC: National Highway Traffic Safety Administration.
[202] Chang., D. (2008). *Comparison of Crash Fatalities by Sex and Age Group.* (Report No. DOT HS 810 853). Washington DC: National Highway Traffic Safety Administration.
[203] $x^2 = 97.153, p < .001, df = 3$
[204] $x^2 = 3.973, p < .27, df = 3$
[205] OAR 836-080-0055
[206] ORS 742.490
[207] Morgan, R.E., & Truman, J.L. (2018). *Criminal Victimization, 2017* (NCJ 252472). Washington, D.C.: Bureau of Justice Statistics, U.S. Department of Justice.

Accounting for the factors discussed above, the Injury Collision Benchmark (based on the age of involved drivers) was used for all operational groups of the Bureau. Based on the reported perceived age of stopped drivers involved in injury collisions, the younger drivers (Under 16) and older drivers (65 or Over) are stopped less than expected when compared to injury collision rates. All other age groups were stopped at expected rates. No comparable benchmark exists for pedestrian stops, so no analysis was conducted.

Figure 18. Officers stopped fewer drivers aged 16 or Under or 65 or Over than expected compared to injury collision rates.



Stop Reasons

Table 34. Non-Traffic officers displayed differential stop patterns based on the age of the driver.

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Age	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	Less then 16	2	15.4%	8	61.5%	2	15.4%	1	7.7%	0	0.0%
	16 to 24	611	24.3%	1,674	66.5%	210	8.3%	20	0.8%	4	0.2%
	25 to 64	3,166	27.8%	7,135	62.7%	934	8.2%	126	1.1%	12	0.1%
	65 or Older	232	37.0%	348	55.5%	38	6.1%	7	1.1%	2	0.3%
	Total	**4,011**	**27.6%**	**9,165**	**63.1%**	**1,184**	**8.1%**	**154**	**1.1%**	**18**	**0.1%**

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Age	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	Less then 16	2	7.1%	10	35.7%	13	46.4%	3	10.7%	0	0.0%
	16 to 24	738	26.3%	1,045	37.2%	900	32.0%	84	3.0%	43	1.5%
	25 to 64	4,121	27.2%	5,046	33.3%	5,194	34.3%	546	3.6%	249	1.6%
	65 or Older	112	22.0%	255	50.1%	125	24.6%	12	2.4%	5	1.0%
	Total	**4,973**	**26.9%**	**6,356**	**34.4%**	**6,232**	**33.7%**	**645**	**3.5%**	**297**	**1.6%**

Table 35. Neither Traffic nor Non-Traffic Officers stopped pedestrians significantly different based on the perceived age of the subject.

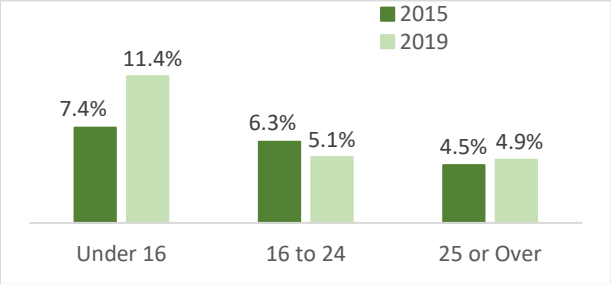
		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Age	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	Less then 16	--	--	--	--	--	--	--	--	--	--
	16 to 24	6	54.5%	4	36.4%	0	0.0%	0	0.0%	1	9.1%
	25 to 64	40	47.6%	40	47.6%	4	4.8%	0	0.0%	0	0.0%
	65 or Older	1	50.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%
	Total	**47**	**48.5%**	**45**	**46.4%**	**4**	**4.1%**	**0**	**0.0%**	**1**	**1.0%**

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Age	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	Less then 16	1	33.3%	2	66.7%	0	0.0%	0	0.0%	0	0.0%
	16 to 24	25	37.9%	7	10.6%	6	9.1%	0	0.0%	28	42.4%
	25 to 64	321	33.8%	77	8.1%	106	11.2%	1	0.1%	445	46.8%
	65 or Older	2	13.3%	0	0.0%	2	13.3%	0	0.0%	11	73.3%
	Total	**349**	**33.8%**	**86**	**8.3%**	**114**	**11.0%**	**1**	**0.1%**	**484**	**46.8%**

Non-Traffic officers – but not Traffic officers[208] – display significantly different stop patterns based on the perceived age of the driver[209]. Drivers perceived to be 65 or Older are significantly more likely to be stopped for a Moving Violation that any other age group and significantly less for Non-Moving Violations. Drivers aged 25 to 64 are significantly more likely to be stopped for Non-Moving Violations than 16 to 24 drivers while 16 to 24 drivers are significantly more likely to be stopped for Moving Violations. There were no significant differences identified for pedestrians stopped by either division[210].

Search Rates by Age Group

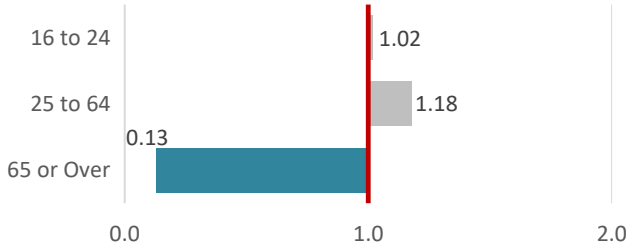
Figure 23. Search rates have remained statistically stable for all age groups since 2015.



PPB officers have not significantly[211] changed their search patterns for stopped subjects over the past five years. Non-Traffic officers are significantly less likely[212] to search 65 or Older drivers compared to their younger counterparts. Traffic Officers displayed no significant differences[213] in search rates by perceived age. All groups were searched most often by consent in 2019, followed by Probable Cause, Weapons Pat Down, and Reasonable Suspicion. There were no significant differences[214] in search type by perceived age.

Portland Police officers displayed disparate search patterns based on the perceived age of the subject. Stopped subjects aged 65 or Over were searched substantially less than expected compared to overall search rates. Subjects aged 16 to 64 were searched in line with overall stop rates. Drivers and pedestrians under the age of 16 could not be compared in the disparity analysis due to small stop rates.

Figure 19. Subjects perceived to be 65 or Over were searched substantially less than expected compared to overall stop rates.



[208] $x^2 = 8.713, p < .20, df = 6$
[209] $x^2 = 39.847, p < .001, df = 6$
[210] Traffic: $x^2 = 8.462, p < .08, df = 4$; Non-Traffic: $x^2 = 10.582, p < .11, df = 6$
[211] Under 16: $p < .93, r^2 = .00$; 16 to 24: $p < .82, r^2 = .02$; 25 or Over: $p < .39, r^2 = .26$
[212] $x^2 = 38.797, p < .001, df = 2$
[213] $x^2 = 0.686, p < .72, df = 2$
[214] Consent: $x^2 = 3.087, p < .22, df = 2$; Probable Cause: $x^2 = 5.142, p < .08, df = 2$

Table 36. All groups were searched predominately with Consent, followed by Probable Cause.

	Total Subjects Searched		Consent		Probable Cause		Reasonable Suspicion		Weapon Patdown	
Age	Searches	Rate	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Under 16	5	11.4%	4	80.0%	1	20.0%	0	0.0%	0	0.0%
16 to 24	277	5.1%	197	71.1%	74	26.7%	7	2.5%	17	6.1%
25 to 64	1,400	5.1%	935	66.8%	459	32.8%	41	2.9%	64	4.6%
65 or Over	8	0.7%	4	50.0%	4	50.0%	0	0.0%	0	0.0%
Total	**1,690**	**4.9%**	**1,140**	**67.5%**	**538**	**31.8%**	**48**	**2.8%**	**81**	**4.8%**

Contraband Hit Rates

Subjects across multiple age groups that were stopped and searched by Portland Police Bureau officers were nearly statistically equal[215] in their found contraband hit rates. The Under 16 were most likely to have been discovered with Contraband (60.0% in 2019); however, very few searches were conducted of this group. Drugs were the most found contraband for most groups, followed by Weapons and Alcohol.

Table 37. Contraband hit rates are similar for all perceived age groups.

	Total Searches	Found Contraband		Alcohol		Drugs		Weapons		Stolen Property		Other	
Age	Count	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Under 16	5	3	60.0%	0	0.0%	1	20.0%	2	40.0%	0	0.0%	0	0.0%
16 to 24	277	128	46.2%	21	7.6%	72	26.0%	38	13.7%	10	3.6%	19	6.9%
25 to 64	1,400	659	47.1%	96	6.9%	435	31.1%	116	8.3%	55	3.9%	111	7.9%
65 or Over	8	4	50.0%	0	0.0%	4	50.0%	0	0.0%	0	0.0%	0	0.0%
Total	**1,690**	**794**	**47.0%**	**117**	**6.9%**	**512**	**30.3%**	**156**	**9.2%**	**65**	**3.8%**	**130**	**7.7%**

Stop Outcomes

Stop dispositions reported by PPB Traffic[216] and Non-Traffic[217] officers varied significantly by the perceived age of the stopped subject. Subjects 65 or Over were significantly more likely to just receive a Warning from Traffic and Non-Traffic Officers while subjects aged 25 to 64 were significantly more likely to be arrested than all other groups. Subjects perceived to be aged 16 to 24 were significantly more likely to receive a citation than other groups. The progressive nature of a stop, and the multiple decision points within the interaction, make it difficult to discern what role, if any, age plays in stop disposition.

Table 38. The 16 to 24 group were significantly more likely to receive a citation than older drivers.

		Total Stops		Enforcement Action									
				None		Warning		Citation		Cite-in-Lieu		Juvenile Summons		Arrested	
	Age	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	Under 16	13	0.1%	0	0.0%	4	30.8%	9	69.2%	0	0.0%	0	0.0%	0	0.0%
	16 to 24	2,530	17.3%	9	0.4%	248	9.8%	2,236	88.4%	6	0.2%	1	0.0%	30	1.2%
	25 to 64	11,457	78.3%	37	0.3%	1,715	15.0%	9,463	82.6%	41	0.4%	0	0.0%	201	1.8%
	65 or Over	629	4.3%	4	0.6%	141	22.4%	477	75.8%	3	0.5%	0	0.0%	4	0.6%
	Traffic Total	**14,629**	**100.0%**	**50**	**0.3%**	**2,108**	**14.5%**	**12,185**	**83.6%**	**50**	**0.3%**	**1**	**0.0%**	**235**	**1.6%**

		Total Stops		Enforcement Action									
				None		Warning		Citation		Cite-in-Lieu		Juvenile Summons		Arrested	
	Age	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	Under 16	31	0.2%	5	16.1%	18	58.1%	5	16.1%	1	3.2%	0	0.0%	2	6.5%
	16 to 24	2,876	14.7%	87	3.0%	2,222	77.3%	406	14.1%	3	0.1%	1	0.0%	157	5.5%
	25 to 64	16,106	82.4%	606	3.8%	12,319	76.5%	1,865	11.6%	33	0.2%	0	0.0%	1,283	8.0%
	65 or Over	524	2.7%	15	2.9%	452	86.3%	46	8.8%	1	0.2%	0	0.0%	10	1.9%
	Non-Traffic Total	**19,537**	**100.0%**	**713**	**3.7%**	**15,011**	**77.0%**	**2,322**	**11.9%**	**38**	**0.2%**	**1**	**0.0%**	**1,452**	**7.4%**

[215] $x^2 = 0.069, p < .80, df = 1$
[216] $x^2 = 90.299, p < .001, df = 6$
[217] $x^2 = 71.213, p < .001, df = 6$

APPENDIX H: PERCEIVED MENTAL HEALTH STATUS ANALYSIS

The Portland Police Bureau began collecting officers' perceptions on the stopped subject's mental health status on October 1, 2014[218] as a component of the City's settlement with the United States Department of Justice[219]. Officers are mandated to indicate whether they perceive if the subject has a mental health issue by using one of three options: Yes, No, or Unknown. Since 2015, significantly[220] fewer subjects are being classified as Unknown (19.6% in 2015 vs. 1.0% in 2019) with a significant increase[221] in the percentage of subjects that were perceived to not have a mental health issue (79.7% in 2015 vs. 98.3% in 2019). Subjects with a perceived mental health issued has remained stable[222] over the last five years (0.7% in 2015 vs 0.4% in 2019).

Table 39. Non-Traffic Officers were significantly more likely to identify subjects as experiencing a mental health issue.

		2015		2016		2017		2018		2019	
	Mental Health Status	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Traffic	No Perceived Mental Health Issue	10,333	72.7%	16,385	86.5%	9,411	88.2%	12,515	95.4%	14,408	99.1%
	Perceived Mental Health Issue	37	0.3%	48	0.3%	19	0.2%	34	0.3%	45	0.3%
	Unknown Mental Health Issue	3,843	27.0%	2,504	13.2%	1,244	11.7%	566	4.3%	79	0.5%
	Traffic Total	**14,213**	**100%**	**18,937**	**100%**	**10,674**	**100%**	**13,115**	**100%**	**14,532**	**100%**
		2015		**2016**		**2017**		**2018**		**2019**	
Non-Traffic	**Mental Health Status**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
	No Perceived Mental Health Issue	14,549	85.6%	12,220	90.4%	10,594	91.3%	15,477	95.5%	18,151	98.1%
	Perceived Mental Health Issue	152	0.9%	84	0.6%	57	0.5%	64	0.4%	41	0.2%
	Unknown Mental Health Issue	2,304	13.5%	1,217	9.0%	956	8.2%	670	4.1%	311	1.7%
	Non-Traffic Total	**17,005**	**100%**	**13,521**	**100%**	**11,607**	**100%**	**16,211**	**100%**	**18,503**	**100%**

Table 40. Pedestrians were more likely to be perceived to be having a mental health issue.

		2015		2016		2017		2018		2019	
	Mental Health Status	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
Traffic	No Perceived Mental Health Issue	47	79.7%	107	89.2%	64	91.4%	62	87.3%	92	94.8%
	Perceived Mental Health Issue	3	5.1%	2	1.7%	2	2.9%	3	4.2%	5	5.2%
	Unknown Mental Health Issue	9	15.3%	11	9.2%	4	5.7%	6	8.5%	0	0.0%
	Traffic Total	**59**	**100%**	**120**	**100%**	**70**	**100%**	**71**	**100%**	**97**	**100%**
		2015		**2016**		**2017**		**2018**		**2019**	
Non-Traffic	**Mental Health Status**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**	**Count**	**Percent**
	No Perceived Mental Health Issue	155	78.7%	104	82.5%	108	90.8%	460	90.4%	941	91.0%
	Perceived Mental Health Issue	14	7.1%	5	4.0%	4	3.4%	23	4.5%	56	5.4%
	Unknown Mental Health Issue	28	14.2%	17	13.5%	7	5.9%	26	5.1%	37	3.6%
	Non-Traffic Total	**197**	**100%**	**126**	**100%**	**119**	**100%**	**509**	**100%**	**1,034**	**100%**

[218] The reports of the perceived mental health status of stopped subjects is lower than the reported number of stops due to two separate technical errors. The first, from June 2015 through December 2015, prevented officers from the Traffic Division from accessing the Stops Data Collection system, and led to under-reporting on several demographic categories, including mental health status for 9,750 driver and pedestrian stops (for more information, see Appendix A.) An additional 188 records from 2014 through 2017 were missing the mental health status due to old computer hardware.

[219] United States of America v. City of Portland, No. 3:12-cv-02265-SI (D. Ore. 2012).

[220] $p < .004$, $r^2 = .96$

[221] $p < .005$, $r^2 = .95$

[222] $p < .25$, $r^2 = .41$

In 2019, Non-Traffic Officers were significantly more likely[223] to indicate that the subject was experiencing a mental health issue or that the subject's status was unknown. Pedestrians are also significantly more likely[224] to be identified as experiencing a mental health issue or having an unknown mental health status. The PPB does not collect the perceived mental health status for individuals involved in injury collision accidents, so there is no research-supported benchmark to compare to for disparity analyses.

Stop Reasons by Perceived Mental Health Status

The small expected counts of subjects perceived to have a mental health issue prohibit utilizing multiple differences to determine what differences exist, if any, within and between the different operation divisions of the Portland Police Bureau or drivers vs. pedestrians. Only a single statistical omnibus test was run to discern overall differences in stop reasons between the different perceived mental health status categories[225]. Subjects with a perceived mental health issue or unknown mental health issue were stopped significantly more for Non-Traffic Offenses than their peers without a mental health issue.

Table 41. Subjects with a perceived mental health issue or unknown mental health issue were significantly more likely to be stopped for Non-Traffic Offenses.

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Mental Health Status	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	No Perceived Mental Health Issue	3,968	27.5%	9,091	63.1%	1,181	8.2%	151	1.0%	17	0.1%
	Perceived Mental Health Issue	611	24.3%	1,674	66.6%	210	8.3%	20	0.8%	0	0.0%
	Unknown Mental Health Issue	3,166	27.9%	7,135	62.8%	934	8.2%	126	1.1%	1	0.0%
	Total	**7,745**	**27.4%**	**17,900**	**63.3%**	**2,325**	**8.2%**	**297**	**1.1%**	**18**	**0.1%**

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Mental Health Status	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	No Perceived Mental Health Issue	4,879	26.9%	6,240	34.4%	6,131	33.8%	625	3.4%	276	1.5%
	Perceived Mental Health Issue	14	34.1%	14	34.1%	13	31.7%	0	0.0%	0	0.0%
	Unknown Mental Health Issue	80	25.7%	102	32.8%	88	28.3%	20	6.4%	21	6.8%
	Total	**4,973**	**26.9%**	**6,356**	**34.4%**	**6,232**	**33.7%**	**645**	**3.5%**	**297**	**1.6%**

Table 42. The majority of pedestrians stopped with a perceived mental health issue or unknown mental health issue were stopped for a Non-Traffic Offense.

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Mental Health Status	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	No Perceived Mental Health Issue	43	46.7%	44	47.8%	4	4.3%	0	0.0%	1	1.1%
	Perceived Mental Health Issue	4	80.0%	1	20.0%	0	0.0%	0	0.0%	0	0.0%
	Unknown Mental Health Issue	--	--	--	--	--	--	--	--	--	--
	Total	**47**	**48.5%**	**45**	**46.4%**	**4**	**4.1%**	**0**	**0.0%**	**1**	**1.0%**

		Moving Violations				Non-Moving Violations				Non-Traffic Offenses	
		Minor		Major		Minor		Major			
	Mental Health Status	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	No Perceived Mental Health Issue	320	34.0%	79	8.4%	112	11.9%	1	0.1%	429	45.6%
	Perceived Mental Health Issue	18	32.1%	6	10.7%	1	1.8%	0	0.0%	31	55.4%
	Unknown Mental Health Issue	11	28.9%	1	2.6%	1	2.6%	1	2.6%	24	63.2%
	Total	**349**	**33.7%**	**86**	**8.3%**	**114**	**11.0%**	**2**	**0.2%**	**484**	**46.8%**

[223] $x^2 = 109.430, p < .001, df = 2$
[224] $x^2 = 713.763, p < .001, df = 2$
[225] $x^2 = 369.379, p < .001, df = 4$

Search Rates by Perceived Mental Health Status

Individuals with a perceived mental health issue are significantly more likely[226] to be searched than those with no known or unknown perceived mental health issues. Subjects with a perceived mental health issue have always been searched at a higher rate than other groups, however this is the first significant difference even though the search rate has only slightly changed[227] over the past five years. Subjects with an unknown mental health issue are the only group to have seen significant change[228] since 2015. Small overall search rates of people perceived to be experiencing a mental health issue preclude any in-depth analyses on search types used.

Figure 20. Search rates for subjects perceived to be experiencing a mental health issue increased in 2019.

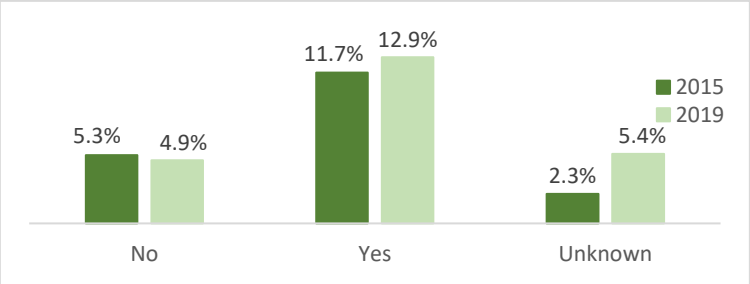


Table 43. Subjects were a perceived mental health issue were not searched significantly more.

	Total Subjects Searched		Consent		Probable Cause		Reasonable Suspicion		Weapon Patdown	
Mental Health Status	Searches	Rate	Count	Percent	Count	Percent	Count	Percent	Count	Percent
No Perceived Mental Health Issue	1,648	4.9%	1,119	67.9%	520	31.6%	47	2.9%	76	4.6%
Perceived Mental Health Issue	19	12.9%	5	26.3%	13	68.4%	1	5.3%	1	5.3%
Unknown Mental Health Issue	23	5.4%	16	69.6%	5	21.7%	0	0.0%	4	17.4%
Total	**1,690**	**4.9%**	**1,140**	**67.5%**	**538**	**31.8%**	**48**	**2.8%**	**81**	**4.8%**

Contraband Hit Rates

Despite subjects with an unknown or perceived mental health issue being searched at a higher rate than the general population, there were no significant differences[229] in the successful search rate between the different groups. Subjects with an unknown or perceived mental health issue actually had lower hit rates than the group without any perceived mental health issues, despite garnering a higher search rate from PPB. Drugs (15.8%) and Weapons (15.8%) were the most commonly found contraband for people with a perceived mental health issue, whereas Drugs (17.4%) and Other Contraband (13.0%) were the most commonly found items for individuals with an unknown mental health issue.

Table 44. Subjects with a perceived or unknown mental health issue were discovered with contraband less often than others despite having a higher overall search rate.

	Total Searches	Found Contraband		Alcohol		Drugs		Weapons		Stolen Property		Other	
Mental Health Status	Count	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
No Perceived Mental Health Issue	1,648	779	47.3%	116	7.0%	505	30.6%	153	9.3%	64	3.9%	125	7.6%
Perceived Mental Health Issue	19	7	36.8%	0	0.0%	3	15.8%	3	15.8%	1	5.3%	2	10.5%
Unknown Mental Health Issue	23	8	34.8%	1	4.3%	4	17.4%	0	0.0%	0	0.0%	3	13.0%
Total	**1,690**	**794**	**47.0%**	**117**	**6.9%**	**512**	**30.3%**	**156**	**9.2%**	**65**	**3.8%**	**130**	**7.7%**

[226] $x^2 = 20.196, p < .001, df = 2$
[227] $p < .68, r^2 = .07$
[228] $p < .04, r^2 = .82$
[229] $x^2 = 2.213, p < .34, df = 2$

Stop Outcomes

The stop outcomes for stopped subjects based on the officer's perception of their mental health status are significantly different among the three groups[230]. Subjects with a perceived mental health issue were about three times as likely to be arrested as other individuals, whereas subjects with an unknown mental health issue were about five times as likely to end the encounter with no enforcement action. Much of the variation could be explained by the overall disposition patterns of the two operation groups of PPB, with Non-Traffic officers more likely to end an encounter with an arrest or no enforcement action when compared to Traffic units; however, overall sample size variation prohibits any comprehensive analysis of the two as it relates to perceived mental health. The progressive nature of a stop, and the multiple decision points within the interaction, make it difficult to discern what role, if any, mental health status plays in stop disposition.

Table 45. Subjects perceived to have a mental health issue were arrested about three times as much as individuals from other perceived mental health groups.

		Total Stops		Enforcement Action											
				None		Warning		Citation		Cite-in-Lieu		Juvenile Summons		Arrested	
	Mental Health Status	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Traffic	No Perceived Mental Health Issue	14,500	99.1%	47	0.3%	2,084	14.4%	12,091	83.4%	47	0.3%	1	0.0%	230	1.6%
	Perceived Mental Health Issue	50	0.3%	1	2.0%	6	12.0%	38	76.0%	1	2.0%	0	0.0%	4	8.0%
	Unknown Mental Health Issue	77	0.5%	18	23.4%	56	72.7%	2	2.6%	0	0.0%	0	0.0%	1	1.3%
	Traffic Total	**14,627**	**100.0%**	**66**	**0.5%**	**2,146**	**14.7%**	**12,131**	**83.2%**	**48**	**0.3%**	**1**	**0.0%**	**235**	**1.6%**

		Total Stops		Enforcement Action											
				None		Warning		Citation		Cite-in-Lieu		Juvenile Summons		Arrested	
	Mental Health Status	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Non-Traffic	No Perceived Mental Health Issue	19,092	97.7%	661	3.5%	14,695	77.0%	2,294	12.0%	36	0.2%	1	0.0%	1,405	7.4%
	Perceived Mental Health Issue	97	0.5%	2	2.1%	70	72.2%	3	3.1%	1	1.0%	0	0.0%	21	21.6%
	Unknown Mental Health Issue	348	1.8%	50	14.4%	246	70.7%	25	7.2%	1	0.3%	0	0.0%	26	7.5%
	Non-Traffic Total	**19,537**	**100.0%**	**713**	**3.7%**	**15,011**	**77.0%**	**2,322**	**11.9%**	**38**	**0.2%**	**1**	**0.0%**	**1,452**	**7.4%**

[230] $x^2 = 97.994, p < .001, df = 6$