Vermont State Police:
An Examination of Traffic Stop Data
July 1, 2010-December 31, 2015

Institute on Race and Justice
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Background of the Study

The final report provides an extensive analysis of traffic enforcement practices by Vermont State Police for traffic stops that took place from July 1, 2010 to December 31, 2015. The report presents three separate analyses of racial and ethnic differences for each community:

1. A comparison of all stops by each VSP barrack with an estimated driving population for each community.

2. An analysis of the racial and ethnic differences in post stop outcome in issuing a citation versus a warning.

3. An analysis of racial and ethnic differences in searches conducted by VSP barracks.

During the study period, VSP reported **282,938** traffic stops.

Table 1. Driver's Race by VSP Barrack

Barrack	% Asian Drivers	% Black Drivers	% Hispanic/ Latino Drivers	% Native American Drivers	% White Drivers
All	1.3%	2.0%	0.9%	0.1%	94.0%
SPA1 - Williston	1.3%	2.3%	0.9%	0.1%	91.8%
SPA2 - St Albans	0.7%	1.5%	0.5%	0.2%	96.7%
SPA3 - Middlesex	1.7%	2.5%	1.1%	0.2%	92.7%
SPB1 – St. Johnsbury	0.7%	1.1%	0.6%	0.1%	94.8%
SPB2 - Derby	0.6%	0.7%	0.4%	0.0%	97.2%
SPB3 - Bradford	0.9%	1.1%	0.8%	0.1%	94.6%
SPC1 - Rutland	0.8%	1.7%	0.5%	0.0%	94.5%
SPC2 - New Haven	1.0%	1.4%	0.7%	0.1%	94.0%
SPC3 - Shaftsbury	0.9%	1.8%	0.9%	0.0%	96.0%
SPD1 - Rockingham	2.1%	2.6%	1.0%	0.1%	93.8%
SPD2 - Brattleboro	1.9%	3.0%	2.0%	0.0%	92.2%
SPD3 - Royalton	1.9%	2.8%	1.2%	0.1%	92.8%
HQ-Field Force	1.3%	2.5%	1.0%	0.1%	93.6%
HQ-BCI/SIU/NIU	0.7%	3.7%	1.5%	0.0%	91.9%

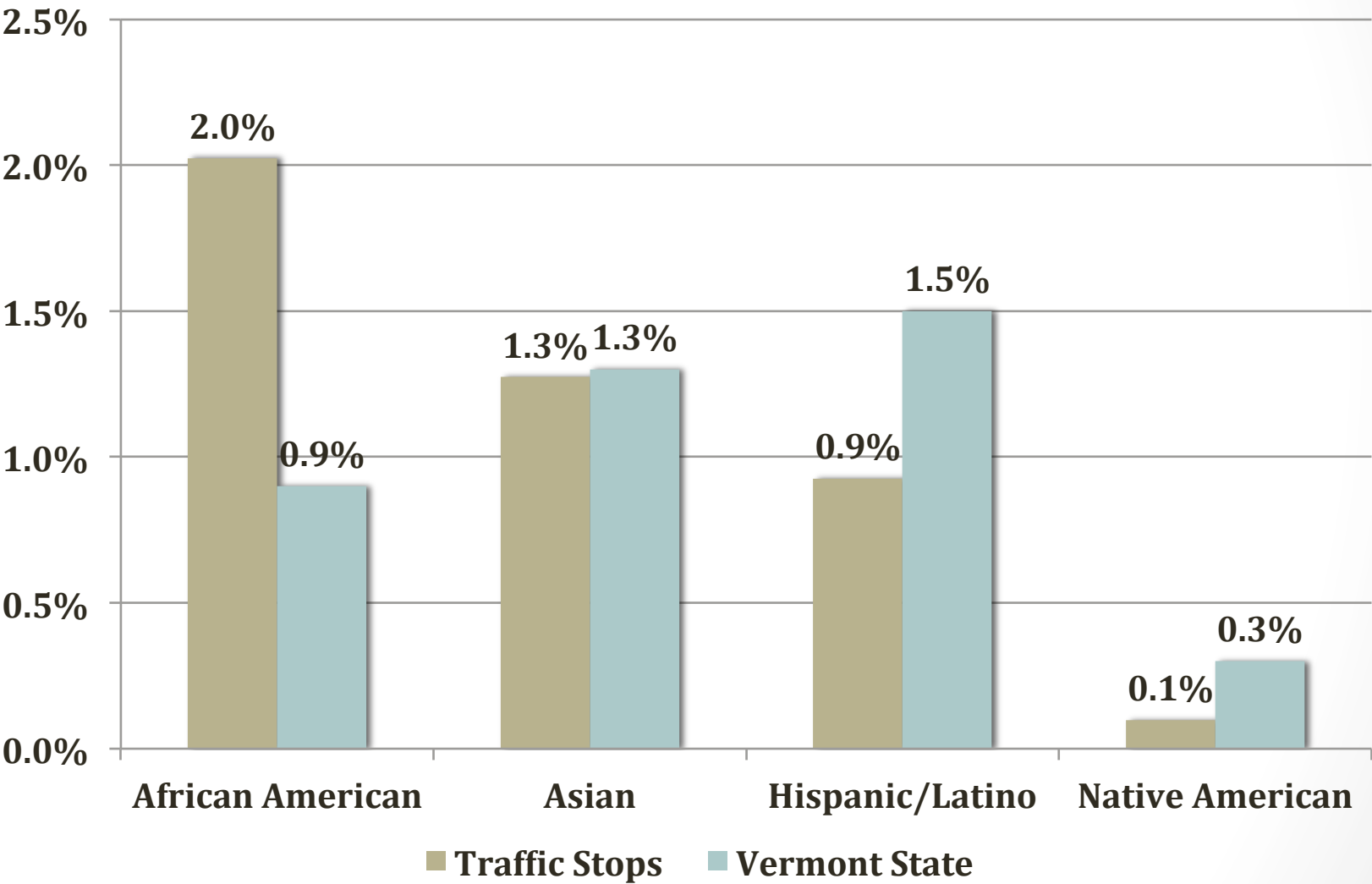# Figure 1. Comparison between Non-White Drivers in Traffic Stops and Non-White Residents

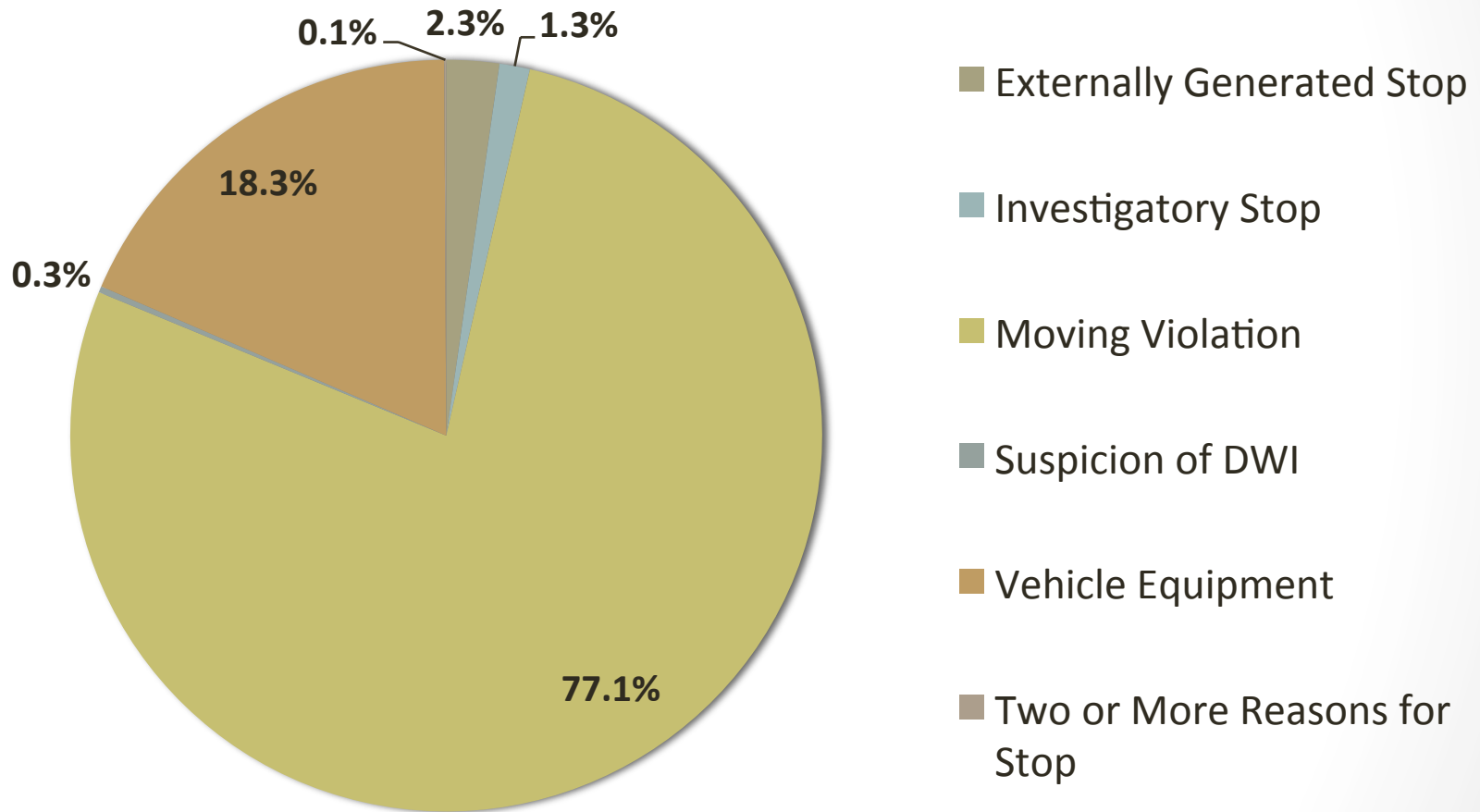Figure 2. Reasons for Traffic Stop, July 2010-December 2015

Table 2. Reason for Traffic Stop by VSP Barrack

VSP Barrack	Externally Generated Stop	Investigatory Stop	Moving Violation	Suspicion of DWI	Vehicle Equipment	Two or More Reasons
All	2.2%	1.3%	77.1%	0.3%	18.3%	0.1%
SPA1 - Williston	5.2%	1.6%	68.9%	0.1%	22.5%	0.1%
SPA2 - St Albans	2.9%	2.8%	62.3%	1.0%	29.9%	0.0%
SPA3 - Middlesex	3.9%	2.6%	71.6%	0.2%	19.8%	0.2%
SPB1 – St. Johnsbury	3.6%	2.6%	74.9%	1.1%	17.2%	0.0%
SPB2 - Derby	0.7%	0.4%	95.0%	0.0%	3.7%	0.0%
SPB3 - Bradford	1.0%	0.9%	86.5%	0.4%	11.1%	0.0%
SPC1 - Rutland	3.9%	0.9%	71.9%	0.1%	21.2%	0.3%
SPC2 - New Haven	1.7%	0.9%	76.7%	0.2%	19.7%	0.0%
SPC3 - Shaftsbury	1.9%	1.0%	68.2%	0.1%	28.4%	0.2%
SPD1 - Rockingham	1.4%	0.3%	83.7%	0.0%	14.5%	0.0%
SPD2 - Brattleboro	0.5%	0.7%	80.6%	0.2%	17.6%	0.0%
SPD3 - Royalton	1.0%	1.3%	84.1%	0.1%	13.2%	0.0%
HQ-Field Force	0.3%	0.6%	87.1%	0.0%	11.4%	0.0%
HQ-BCI/SIU/NIU	0.0%	0.7%	89.6%	0.7%	7.4%	0.0%

Measuring Racial Disparities Using Driving Population Estimates

Driving Population Estimates (DPE)

- Limitations in Commonly Used DPEs
  - Census Data and Licensed Drivers Data
    - Do not account for differences in driving patterns among racial groups
    - Do not account for in- and out-migration of residents
  - Traffic and Violator Observations
    - Labor intensive and expensive
    - Ideal for local-level data analysis vs. state-level data analysis
- Using a Better DPE: Crash Data
  - A reliable measure of people who drive more, drive poorly, and drive to locations where stopping behavior by the police is high
  - Scholars show support for using not-at-fault drivers in two car crashes to represent driving population

Table 3. Demographic Characteristics of Residents and Drivers in Vermont

Race/Ethnicity	Vermont Residents	DPE	Traffic Stops
African American	0.9%	1.0%	2.0%
Asian	1.3%	1.0%	1.3%
Hispanic/Latino	1.5%	0.5%	0.9%
Native American	0.3%	0.1%	0.1%
White	94.3%	85.2%	94.0%

[1]The categories do not add up to 100% due to missing data.
[2] The 2010 U.S. Census data also reports that less than 2% of the residential population in Vermont is Native Hawaiian, some other race, and two or more races.

Table 4. Race/Ethnicity of Driving Population

VSP Barrack	% Asian Drivers	% Black Drivers	% Hispanic/ Latino Drivers	% Native American Drivers	% White Drivers
All	1.0%	1.0%	0.5%	0.1%	85.2%
SPA1 - Williston	1.0%	1.3%	0.4%	0.1%	79.8%
SPA2 - St Albans	0.3%	0.5%	1.0%	0.0%	83.1%
SPA3 - Middlesex	2.6%	0.9%	0.9%	0.0%	86.5%
SPB1 – St. Johnsbury	1.0%	0.2%	0.2%	0.0%	88.1%
SPB2 - Derby	0.5%	0.9%	0.2%	0.7%	87.8%
SPB3 - Bradford	0.0%	0.9%	0.4%	0.0%	83.5%
SPC1 - Rutland	1.2%	1.2%	0.7%	0.2%	86.4%
SPC2 - New Haven	1.1%	0.7%	0.4%	0.0%	86.9%
SPC3 - Shaftsbury	1.0%	2.1%	0.5%	0.0%	87.6%
SPD1 - Rockingham	0.9%	0.6%	0.9%	0.3%	89.1%
SPD2 - Brattleboro	0.3%	2.7%	0.5%	0.0%	84.2%
SPD3 - Royalton	1.8%	0.9%	0.2%	0.0%	85.3%

Figure 3. Racial Disparities between DPE and Traffic Stops for Asian Drivers
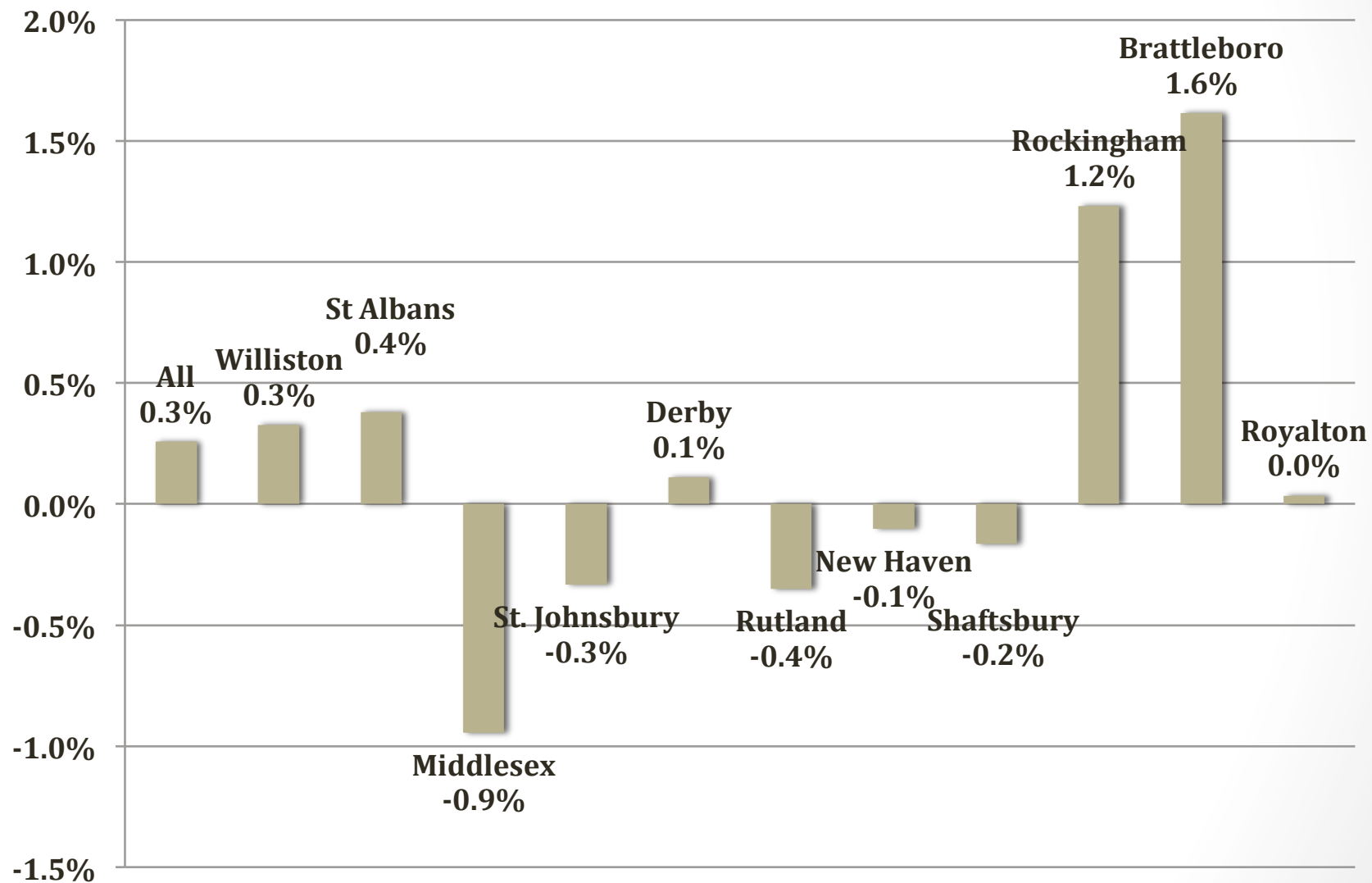
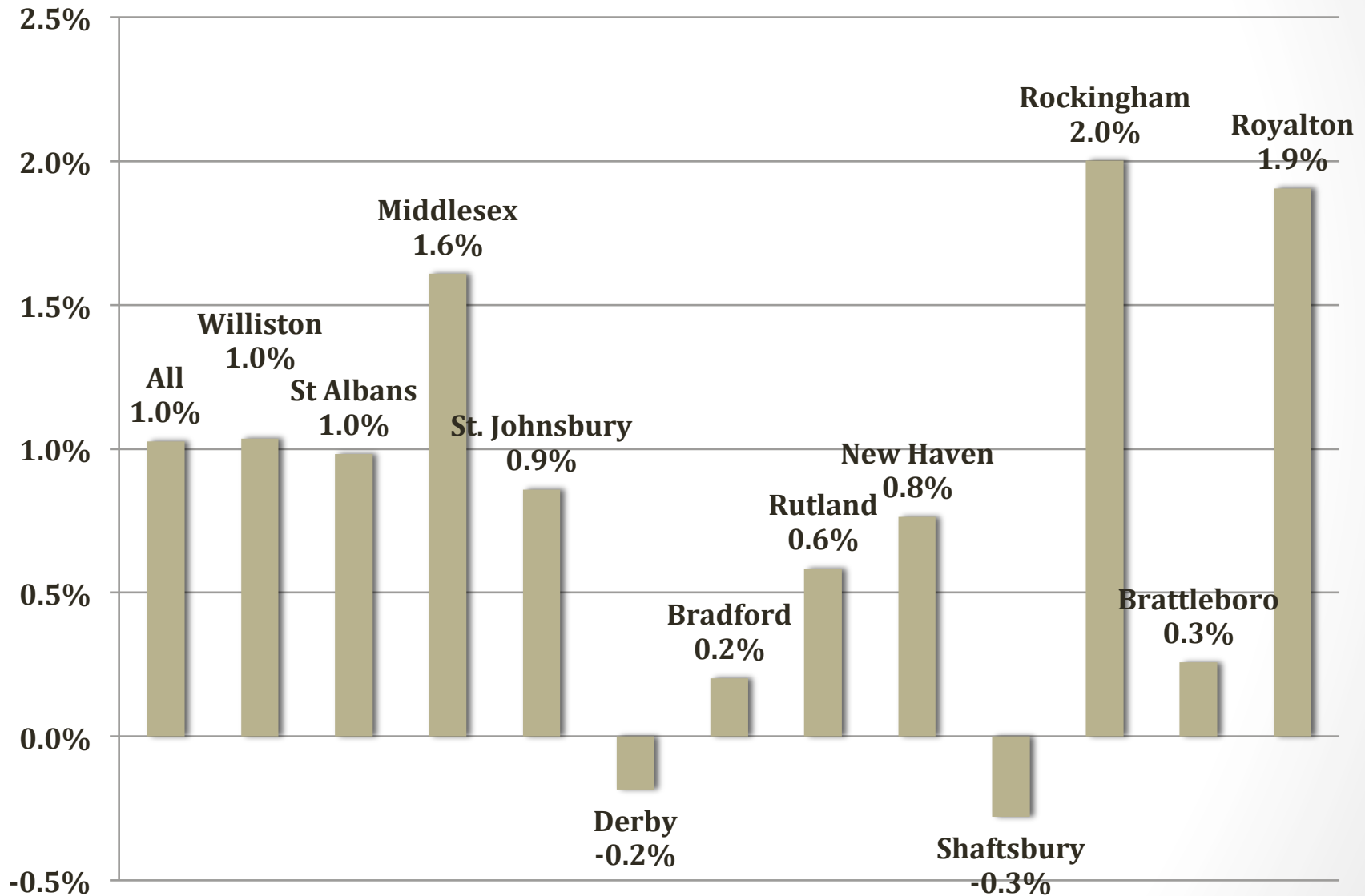# Figure 4. Racial Disparities between DPE and Traffic Stops for Black Drivers

Figure 5. Racial Disparities between DPE and Traffic Stops for Hispanic/Latino Drivers
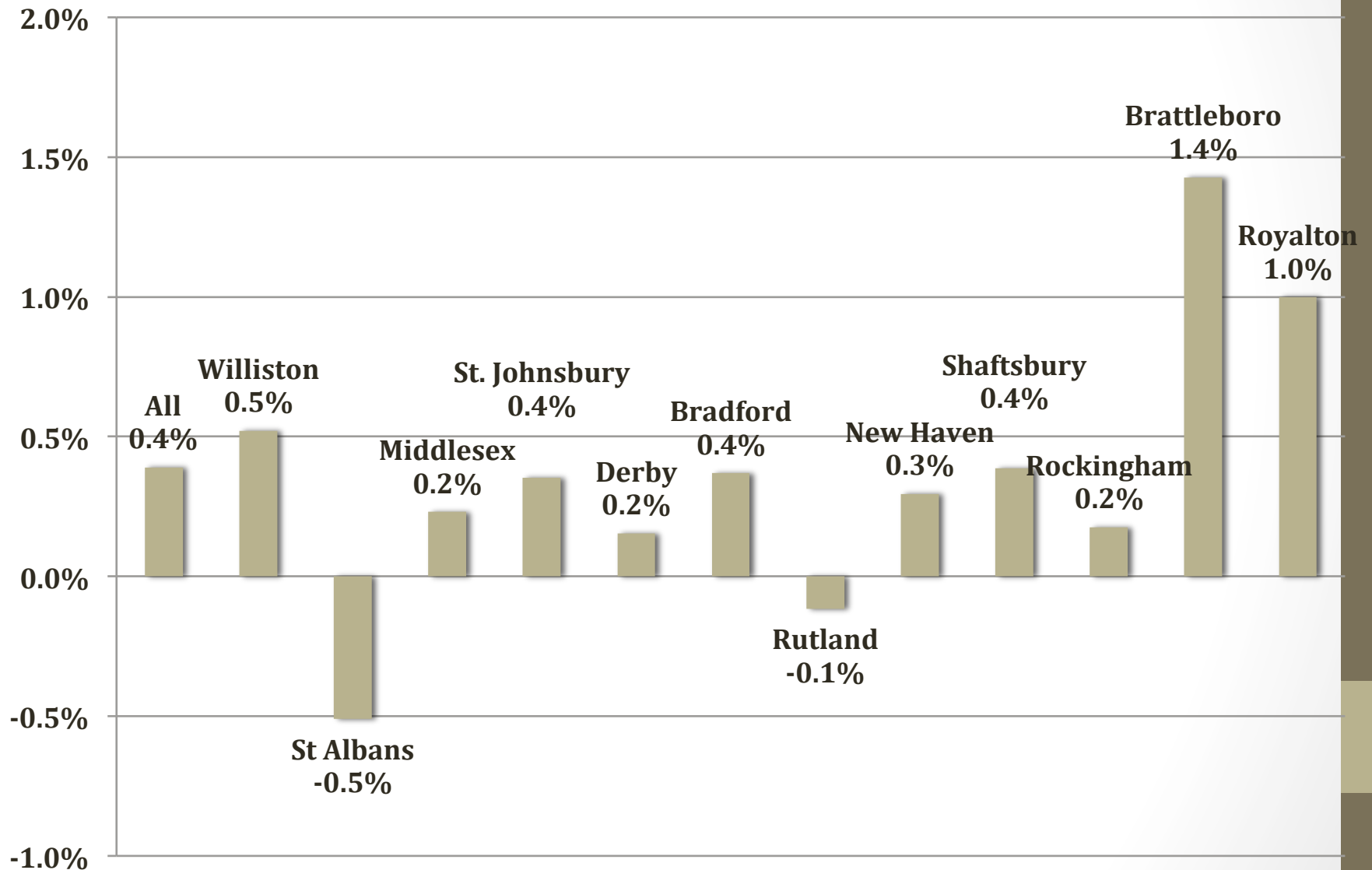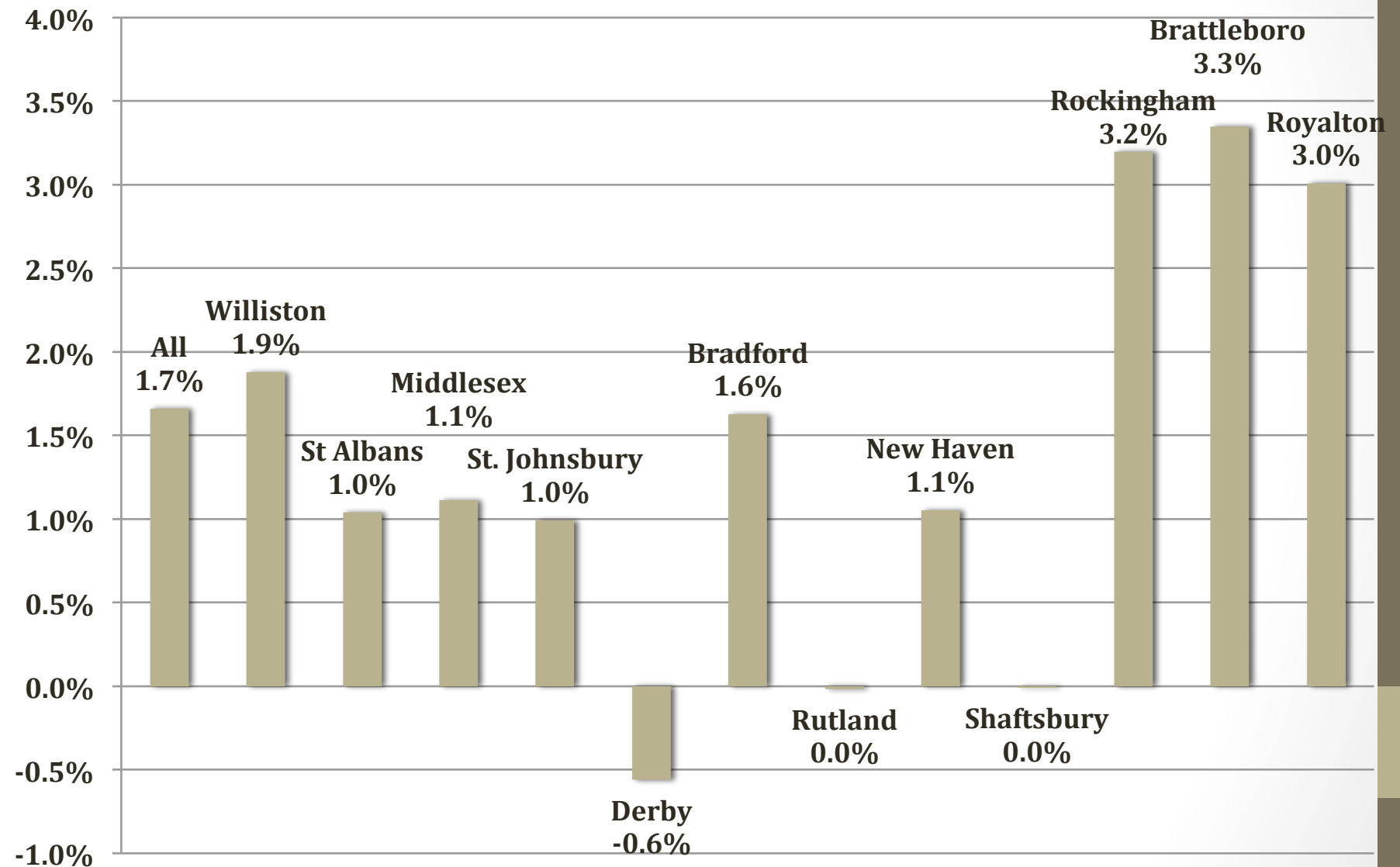
Figure 6. Racial Disparities between DPE and Traffic Stops for All Non-White Drivers

Examining Racial Differences in M/V Citations

Table 5. Outcome of Traffic Stop by VSP Barrack

Barrack	Total	% Arrested	% Warning	% Issued Citation	% Missing
All	282,938	1.2%	60.3%	37.6%	0.8%
SPA1 - Williston	25,679	1.7%	61.2%	35.4%	1.6%
SPA2 – St. Albans	21,350	2.2%	63.1%	33.7%	1.1%
SPA3 - Middlesex	28,750	1.3%	51.3%	45.5%	1.7%
SPB1 – St. Johnsbury	15,406	1.0%	63.2%	35.0%	0.8%
SPB2 - Derby	10,156	0.2%	62.9%	36.7%	0.2%
SPB3 - Bradford	21,163	0.7%	53.0%	46.1%	0.2%
SPC1 - Rutland	22,896	1.2%	59.6%	37.3%	1.6%
SPC2 - New Haven	24,047	1.1%	59.6%	38.4%	0.9%
SPC3 - Shaftsbury	20,789	0.7%	70.0%	29.0%	0.2%
SPD1 - Rockingham	22,804	1.3%	68.1%	30.5%	0.1%
SPD2 - Brattleboro	20,072	1.1%	57.8%	40.7%	0.4%
SPD3 - Royalton	26,035	0.7%	72.4%	26.6%	0.3%
HQ-Field Force	23,656	1.1%	45.8%	52.4%	0.6%
HQ-BCI/SIU/NIU	135	1.5%	66.7%	30.4%	1.5%

Figure 7. Outcome of Stops for Drivers by Race/Ethnicity
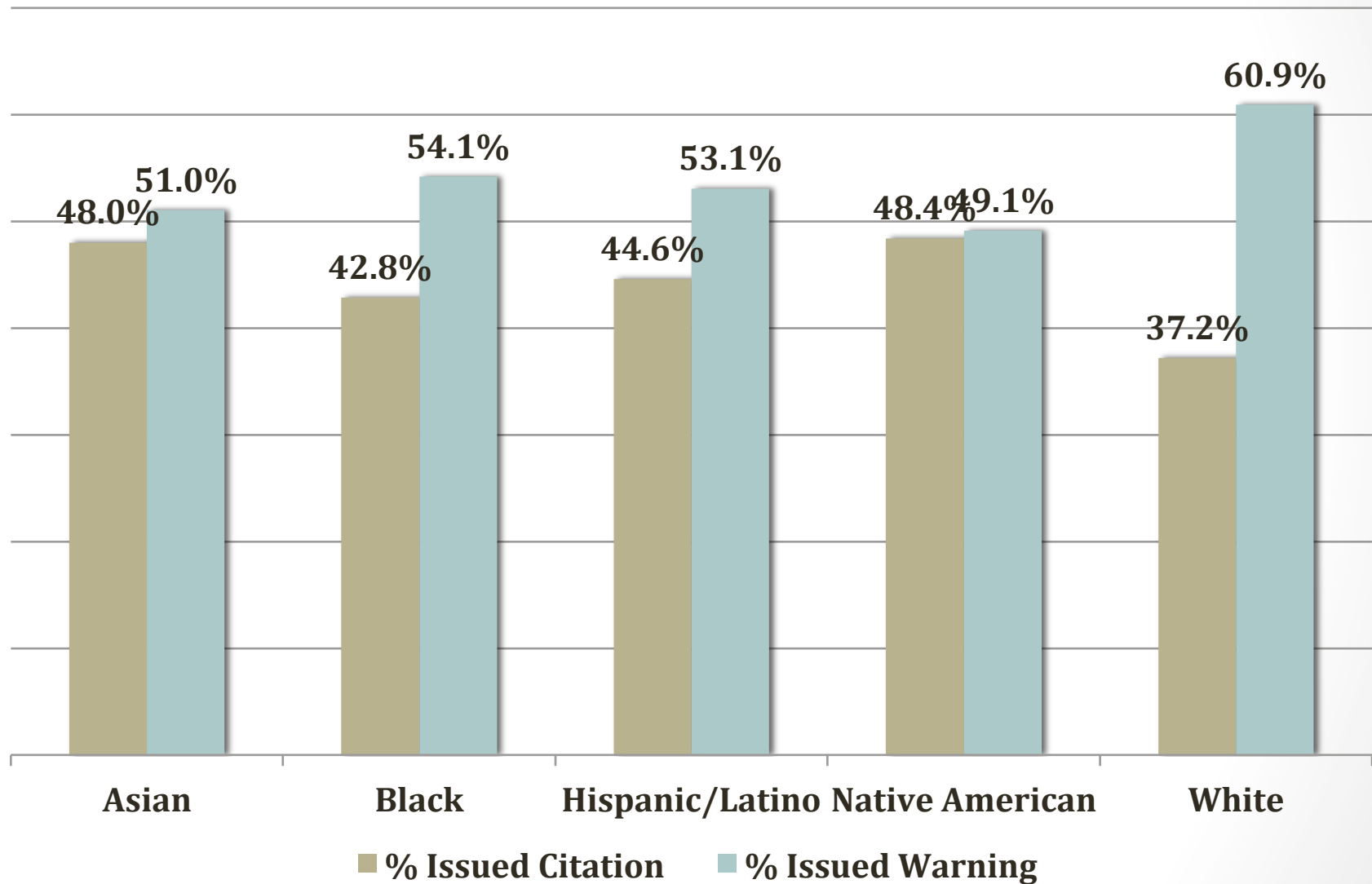
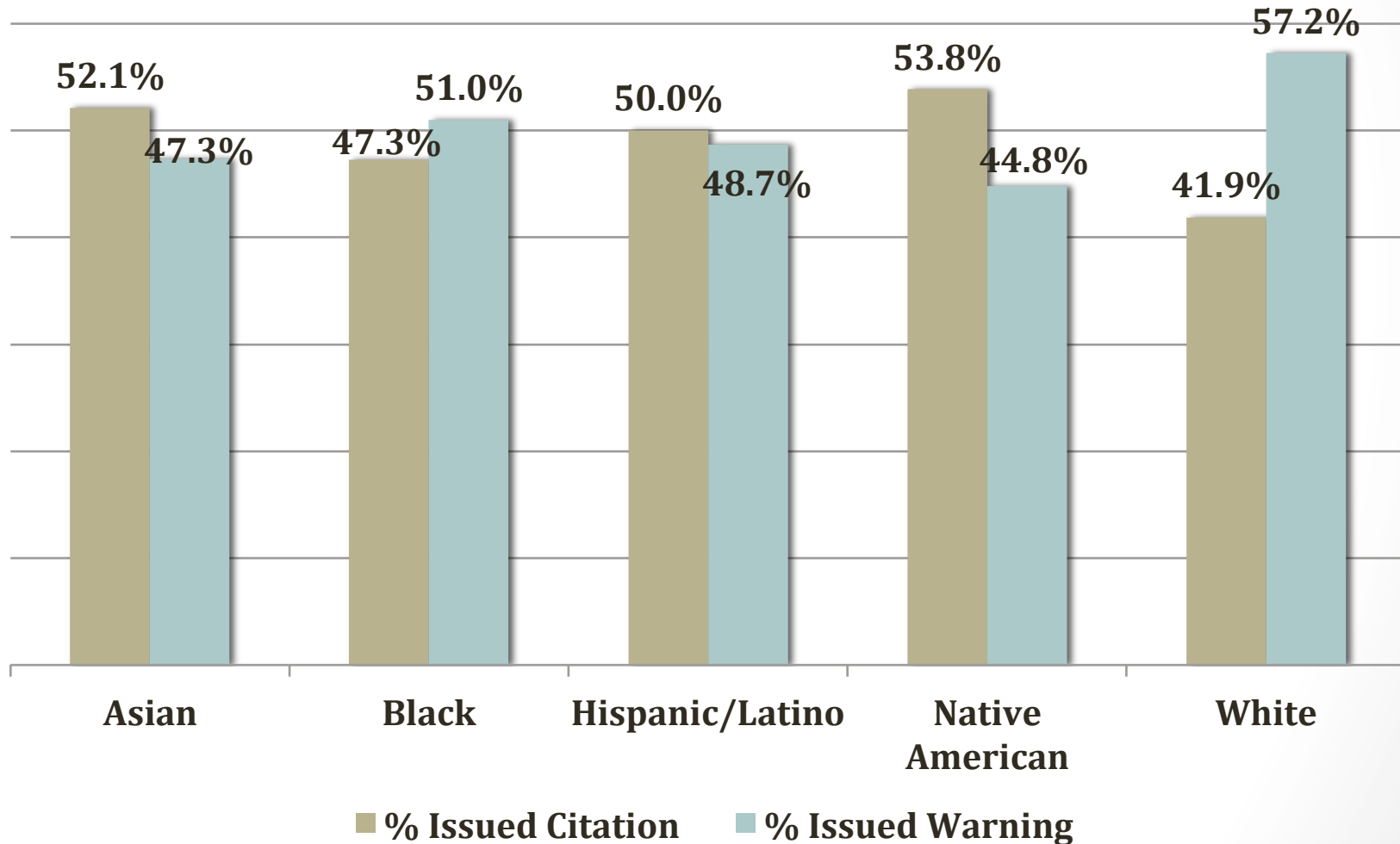# Figure 8. Outcome of Moving Violations for Drivers by Race/Ethnicity

	Asian	Black	Hispanic/Latino	Native American	White
% Issued Citation	52.1%	47.3%	50.0%	53.8%	41.9%
% Issued Warning	47.3%	51.0%	48.7%	44.8%	57.2%

■ % Issued Citation   ■ % Issued Warning

Table 6. Proportion of White and Non-White Drivers Issued Citations

VSP Barrack	White Traffic Stops		Non-White Traffic Stops	
	Total Stops	% Issued Citation	Total Stops	% Issued Citation
All	265,899	37.2%	13,061	44.4%
SPA1 - Williston	23,568	34.3%	1,331	44.7%
SPA2 - St Albans	20,643	33.5%	628	40.3%
SPA3 - Middlesex	26,642	44.8%	1,647	55.9%
SPB1 – St. Johnsbury	14,611	35.1%	424	40.1%
SPB2 - Derby	9,876	36.6%	180	44.4%
SPB3 - Bradford	20,013	45.7%	753	61.8%
SPC1 - Rutland	21,644	37.0%	829	42.0%
SPC2 - New Haven	22,614	37.8%	925	46.1%
SPC3 - Shaftsbury	19,962	28.7%	773	34.8%
SPD1 - Rockingham	21,401	30.0%	1,319	37.8%
SPD2 - Brattleboro	18,503	40.7%	1,460	41.7%
SPD3 - Royalton	24,159	25.9%	1,596	36.7%
HQ - Field Force	22,139	52.5%	1,188	49.0%

Figure 9. Racial Disparities between % White and % Non-White Drivers Receiving Citations
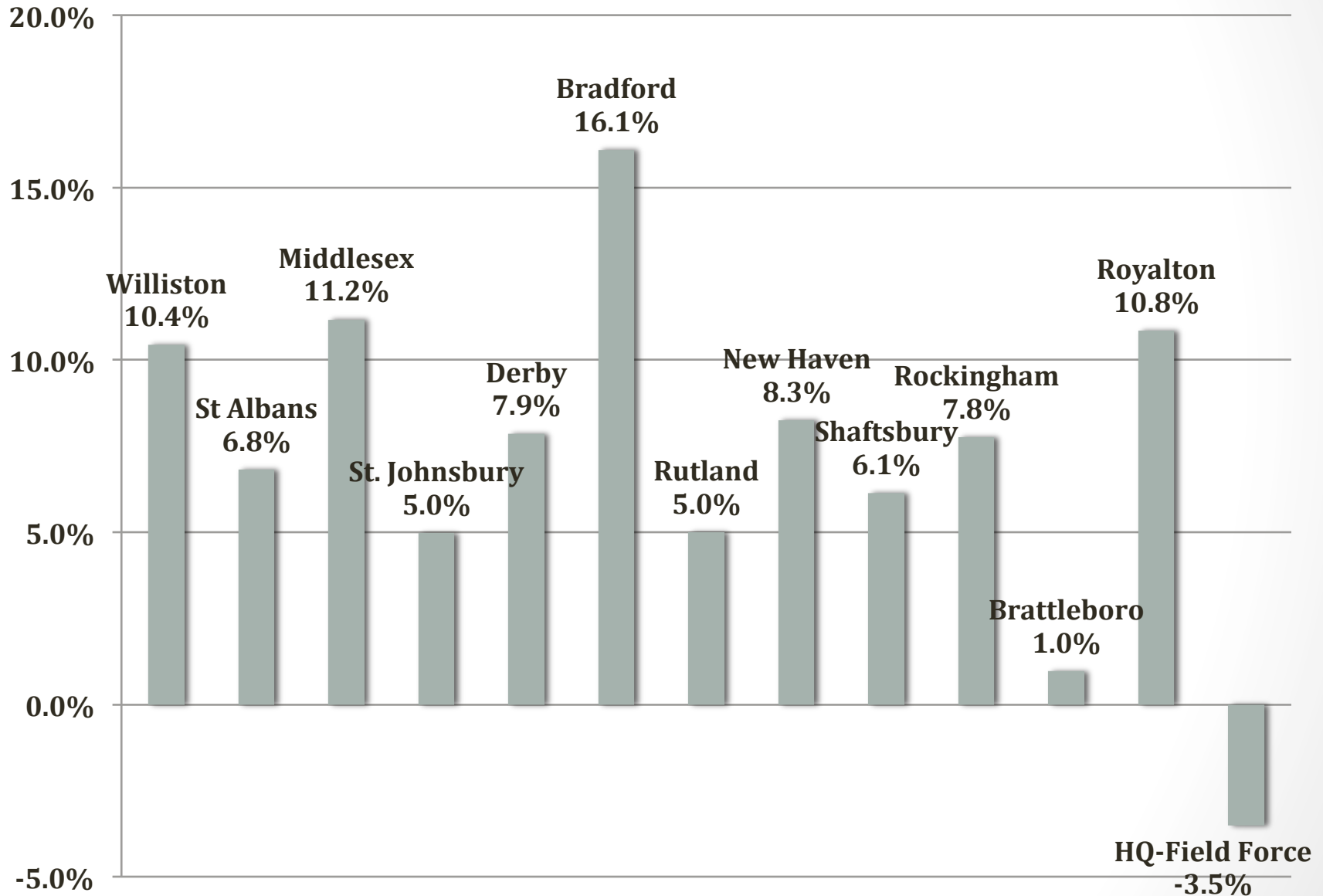
Table 7. Proportion of White and Non-White Drivers Issued Citations by VSP Trooper

Trooper ID	% Non-White Citations	% White Citations	Disparities
1	91.3%	44.9%	46.4%
301	66.7%	26.6%	40.1%
402	76.2%	43.9%	32.3%
353	71.4%	39.3%	32.1%
60	76.5%	45.0%	31.5%
235	72.2%	40.8%	31.4%
85	60.0%	28.7%	31.3%
8	85.7%	54.8%	30.9%
250	72.5%	42.7%	29.8%
186	68.2%	38.9%	29.3%

Examining Racial Disparities in Searches

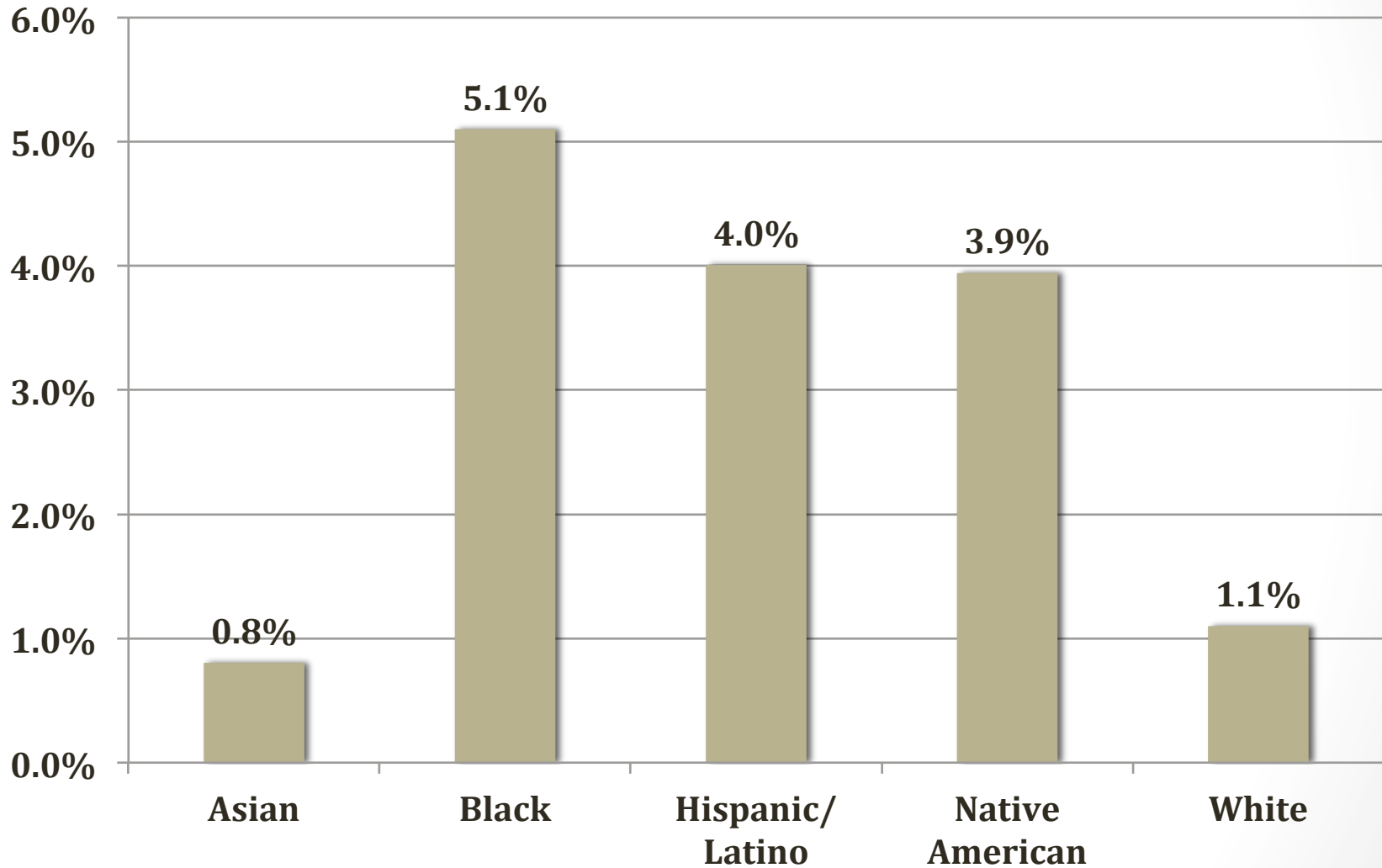Figure 10. Percentage of Drivers Searched by Race/Ethnicity

Table 8. Proportion of White and Non-White Drivers Subject to a Search

VSP Barrack	White Traffic Stops		Non-White Traffic Stops	
	Total Stops	% Searched	Total Stops	% Searched
All	265,899	1.1%	12,230	3.6%
SPA1 - Williston	23,568	1.7%	1,188	2.5%
SPA2 - St Albans	20,643	1.1%	612	1.6%
SPA3 - Middlesex	26,642	0.9%	1,589	1.8%
SPB1 – St. Johnsbury	14,611	0.6%	374	0.3%
SPB2 - Derby	9,876	0.1%	177	0.6%
SPB3 - Bradford	20,013	0.7%	620	1.5%
SPC1 - Rutland	21,644	0.9%	716	3.8%
SPC2 - New Haven	22,614	1.6%	778	3.0%
SPC3 - Shaftsbury	19,962	1.4%	752	4.4%
SPD1 - Rockingham	21,401	1.4%	1,317	5.4%
SPD2 - Brattleboro	18,503	1.5%	1,385	6.3%
SPD3 - Royalton	24,159	0.8%	1,563	2.8%
HQ - Field Force	22,139	1.1%	1,151	6.3%
HQ- BCI/SIU/NIU	124	3.2%	8	0.0%

Figure 11. Racial Disparities in Searches Conducted between % White Drivers Stopped and % Non-White Drivers Stopped
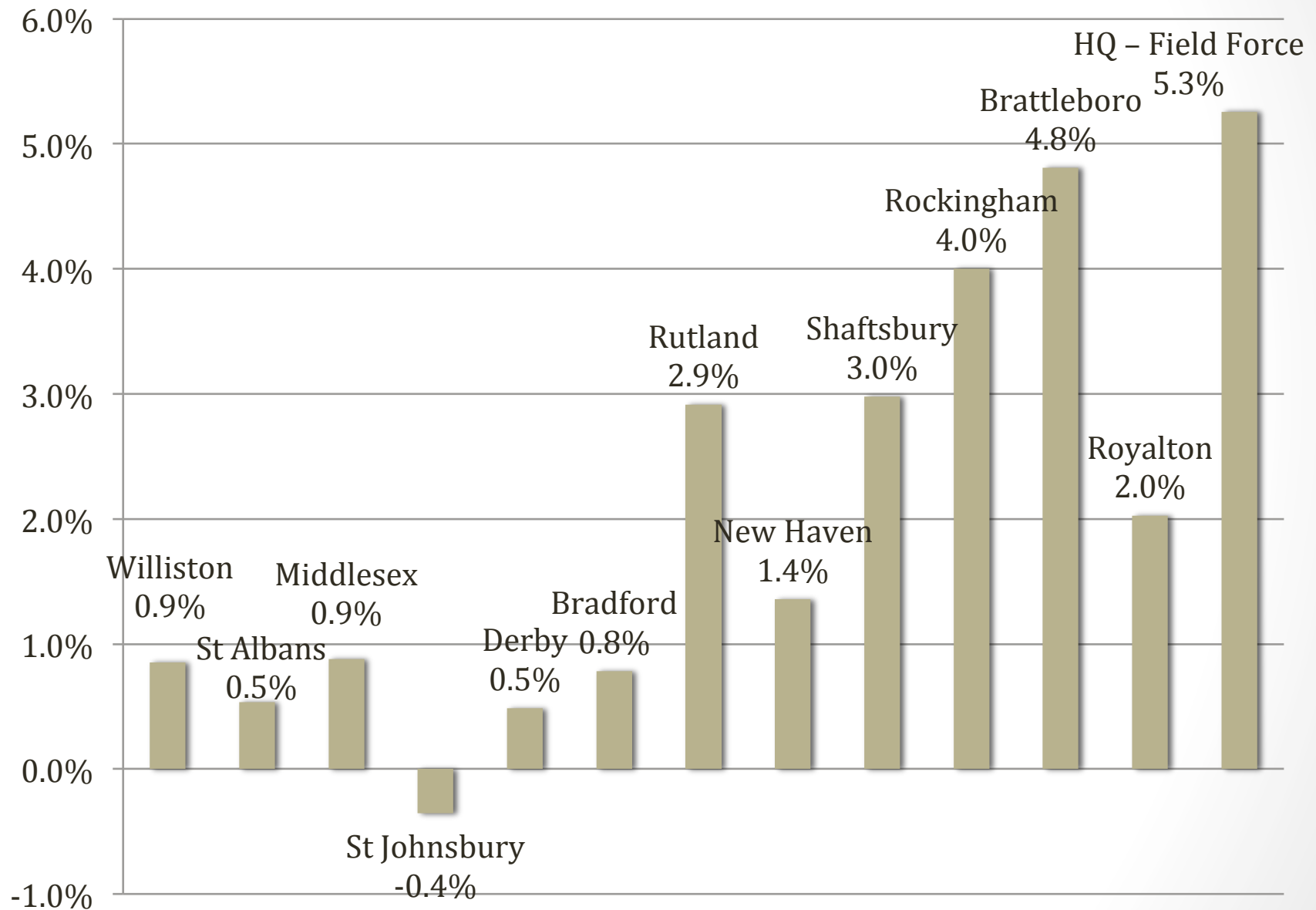
Table 9. Proportion of White and Non-White Drivers Searched by VSP Trooper

Trooper ID	% Non-White Drivers Searched	% White Drivers Searched	Disparities
61	20.5%	5.7%	14.8%
139	18.3%	4.5%	13.8%
186	18.2%	6.5%	11.7%
427	15.2%	6.5%	8.8%
107	11.9%	3.5%	8.4%
385	14.3%	6.2%	8.1%
237	15.9%	8.2%	7.7%
293	11.0%	4.7%	6.3%
308	8.8%	3.0%	5.8%
142	9.0%	3.9%	5.1%

Examining Racial Disparities in Productivity of Searches

Figure 12. Productivity of Searches by Race/Ethnicity

	Asian	Black	Hispanic/Latino	Native American	White
No Contraband Found	20.7%	31.5%	35.2%	36.4%	20.0%
Contraband Found	79.3%	68.5%	64.8%	63.6%	80.0%

■ No Contraband Found ■ Contraband Found

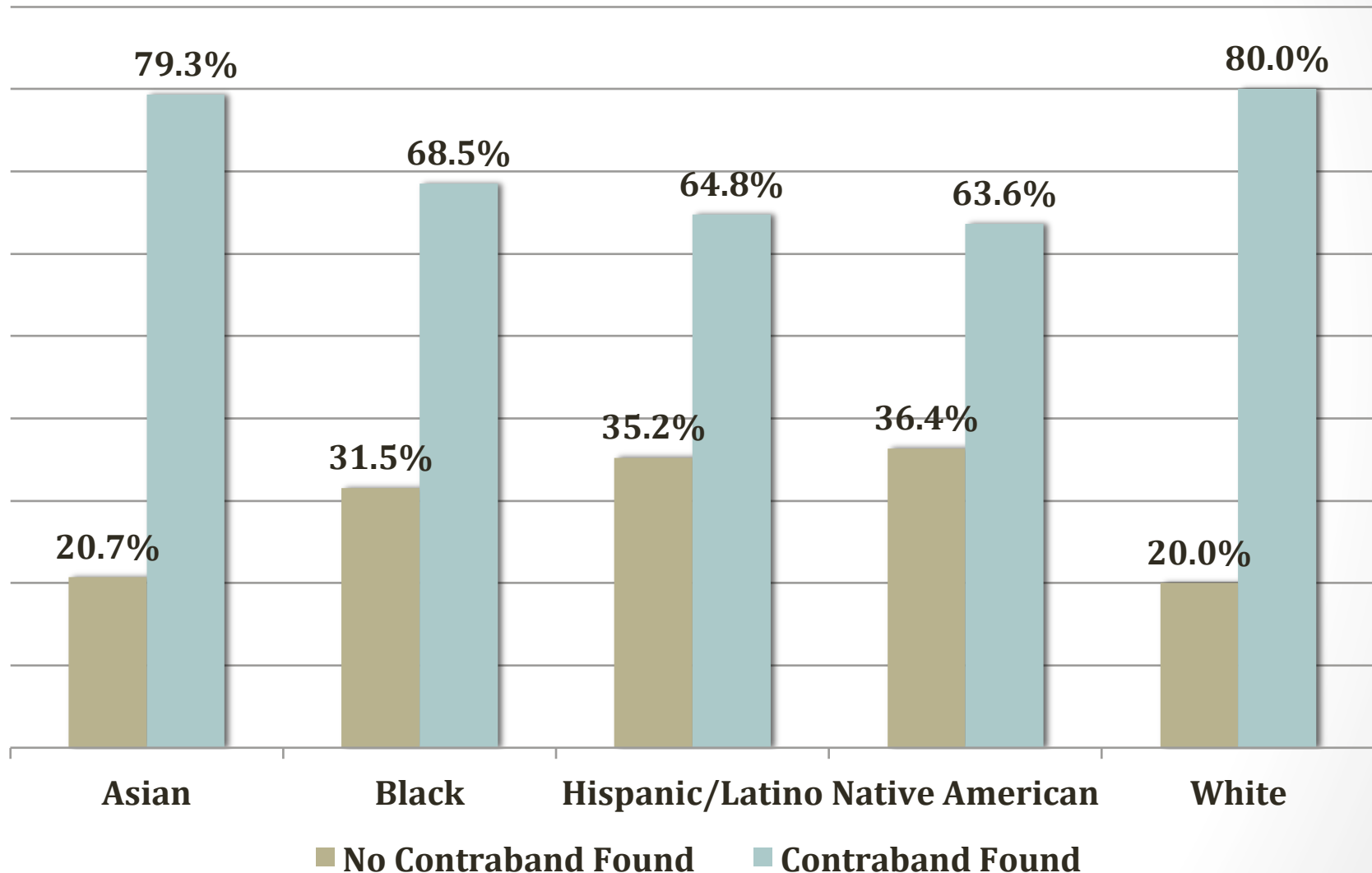# Table 10. Productivity of White and Non-White Drivers Subject to a Search

VSP Barrack	White Drivers Searched		Non-White Drivers Searched	
	Total Searches	% Contraband Found	Total Searches	% Contraband Found
All	2,926	80.0%	437	68.2%
SPA1 - Williston	394	76.4%	30	60.0%
SPA2 - St Albans	227	77.1%	10	70.0%
SPA3 - Middlesex	235	77.0%	28	60.7%
SPC1 - Rutland	186	79.0%	27	74.1%
SPC2 - New Haven	362	80.1%	23	65.2%
SPC3 - Shaftsbury	282	83.7%	33	75.8%
SPD1 - Rockingham	298	82.6%	71	63.4%
SPD2 - Brattleboro	273	86.4%	87	75.9%
SPD3 - Royalton	191	82.2%	44	68.2%
HQ-Field Force	241	75.5%	73	63.0%

Figure 13. Racial Disparities in Contraband Found between % White Drivers Searched and % Non-White Drivers Searched
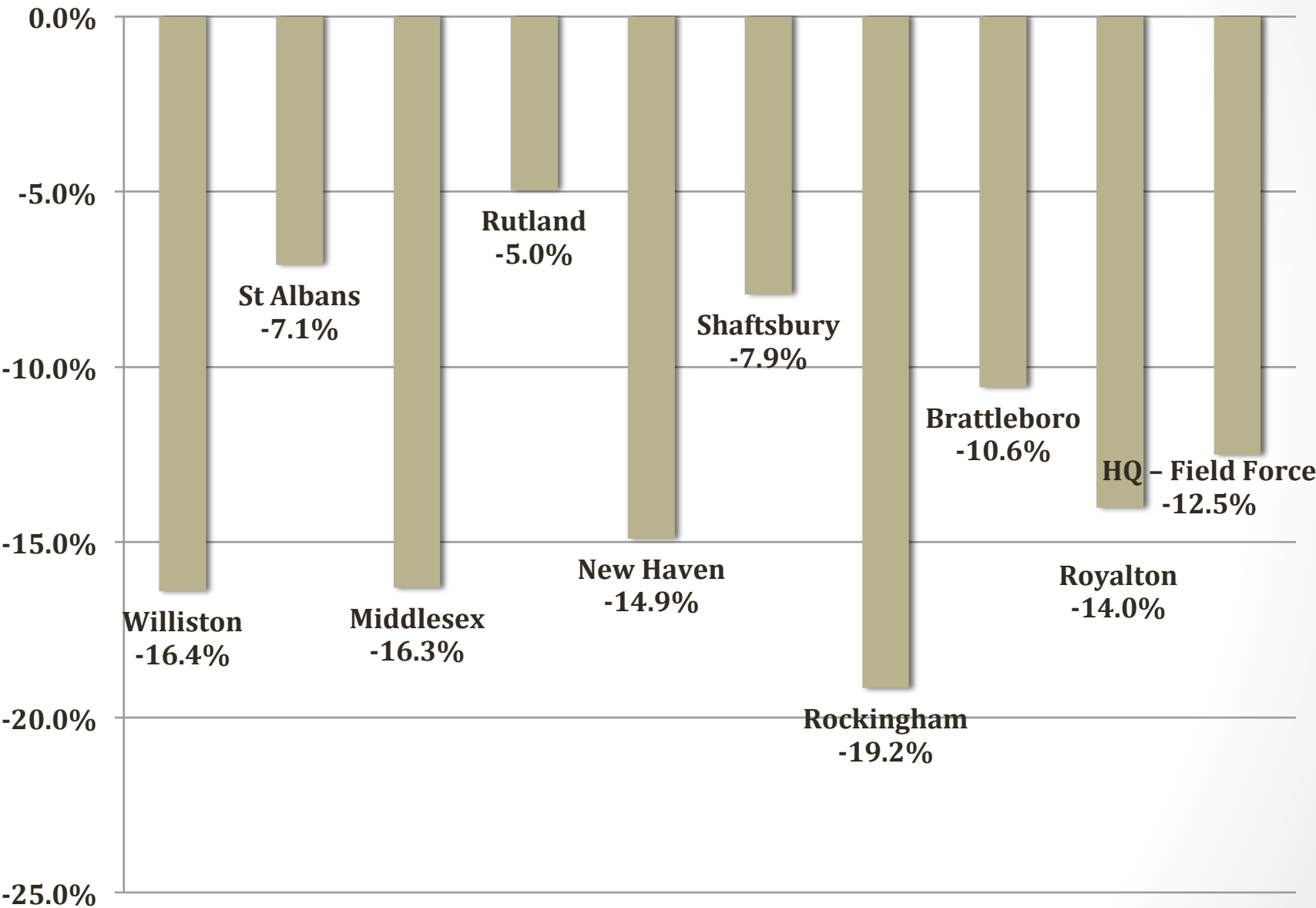
Next Steps: Recent Efforts

- **<u>Community Relations</u>** – development and continued efforts towards maintaining communication in an open forum (Fair and Impartial Committee)
- **<u>Data Collection</u>** – initiated in 2010 and consistent effort at collecting information on traffic stops
- **<u>Leadership</u>** – new role ensures that efforts towards communication and data collection continue (Director of **Fair and Impartial** Policing and Community Affairs

Next Steps: Recommendations

- **<u>Community-Level</u>**
  - Investigation of disparities should begin with those barracks with the largest disparities, those over 2%, and with individual troopers who have been identified as outliers in terms of their enforcement practices when compared to their peers

- **<u>Individual-Level</u>**
  - Investigation of disparities should involve a detailed review of the enforcement practices based on a review of individual incident reports of those barracks and troopers with the greatest disparities

Next Steps: Recommendations

- **<u>Training</u>**
  - VSP should consider a developing an in-service training program to address any enforcement practices that were found to result in unexplained disparities
- **<u>Monitoring</u>**
  - VSP should continue to monitor enforcement practices to determine if racial and ethnic disparities have been reduced or eliminated

Questions/Comments

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