

MSP SPIDRE TEAM



YEARLY ANALYSIS JANUARY - JUNE 2021



Product sent to:

Maryland State Police

Maryland Highway Safety Office

WASHINGTON
COLLEGE
GIS PROGRAM

210 South Cross St. Suite 101
Chestertown, MD 21620

(410) 810-5034

wc_mhso@washcoll.edu



Maryland
Highway
Safety
Office



**ZERO DEATHS
MARYLAND**

LIST OF PRODUCTS

PAGE	PRODUCT TITLE
3-4	Statistical Infographics
5	DUI Analysis Layout
6	Road Density Analysis
7	Monthly Changes in DUI Stops, January- June
8	Temporal Topology
9	Team Statistical Summary
10-11	Appendix

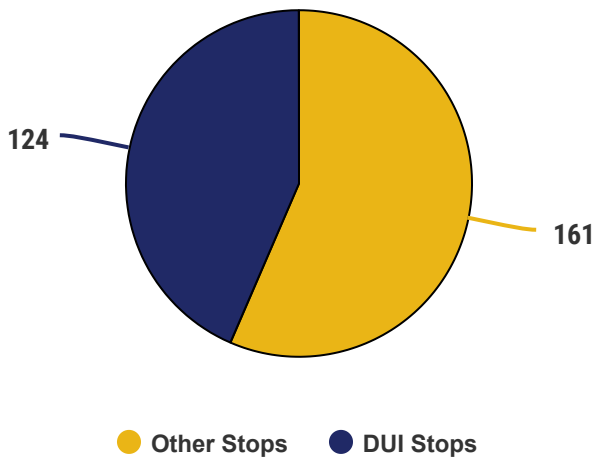
SPIDRE Statistics

Yearly Analysis January - June 2022*

285 Total Stops
Includes All Behaviors

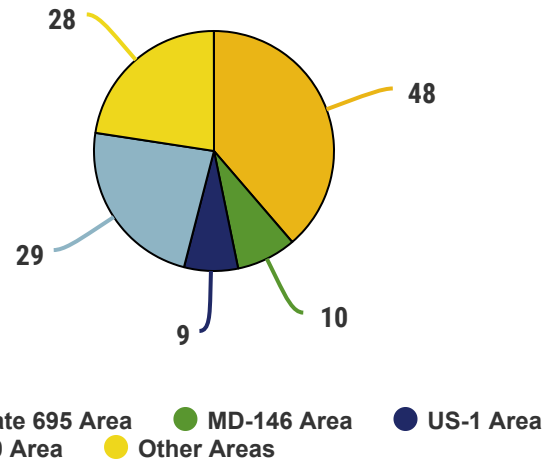
124 DUI Arrests*

DUI Stop Percentage



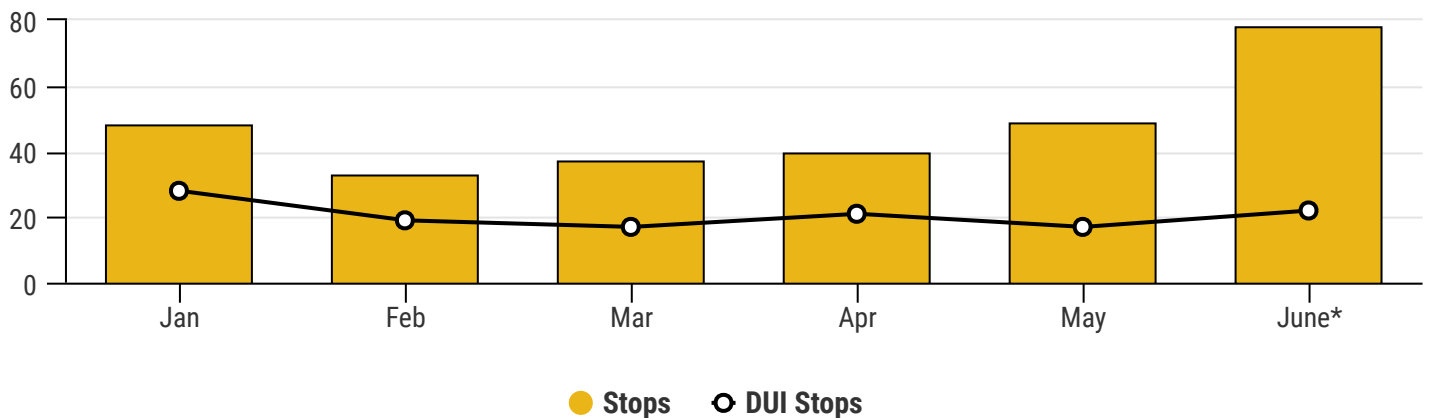
43.5% of stops resulted in DUI Stops

Top DUI Stop Area



Approximately 33% of DUI Stops occurred on or within a half-mile proximity of US-1

Overall Stops & DUI Stops by Month



January had the highest number of DUI stops (28) while June had the most total stops (78).

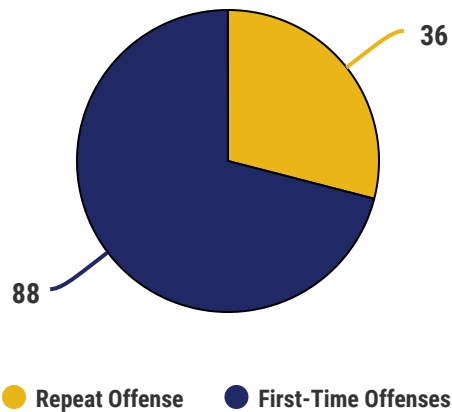
SPIDRE Statistics

January - June 2022 Analysis*

285 Total Stops

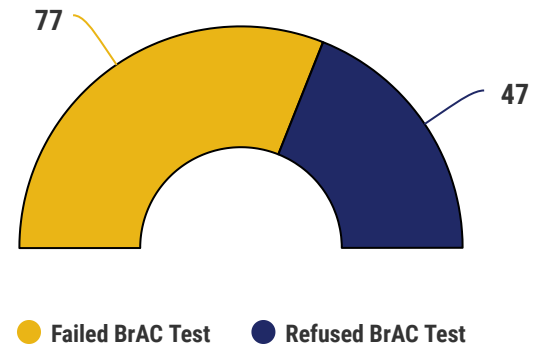
Includes All Behaviors

Offense History

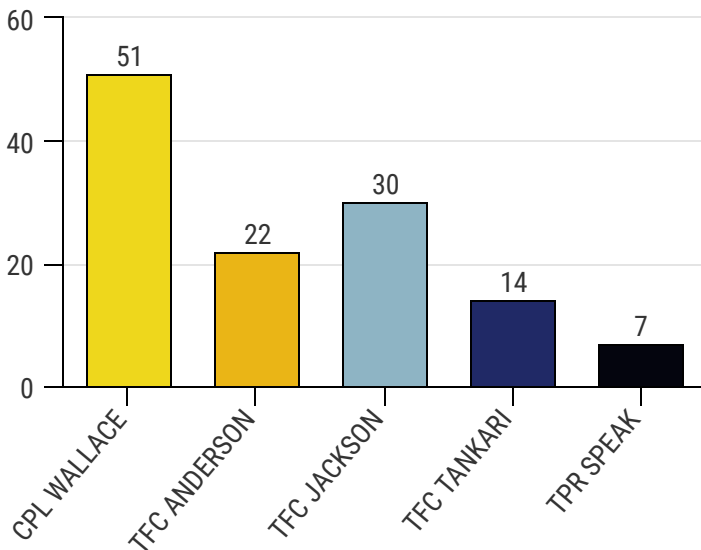


124 DUI Arrests*

BrAC Test Information



DUI Arrests by Officer



CPL Wallace had the most arrests with 51, with TFC Jackson having the second most with 30

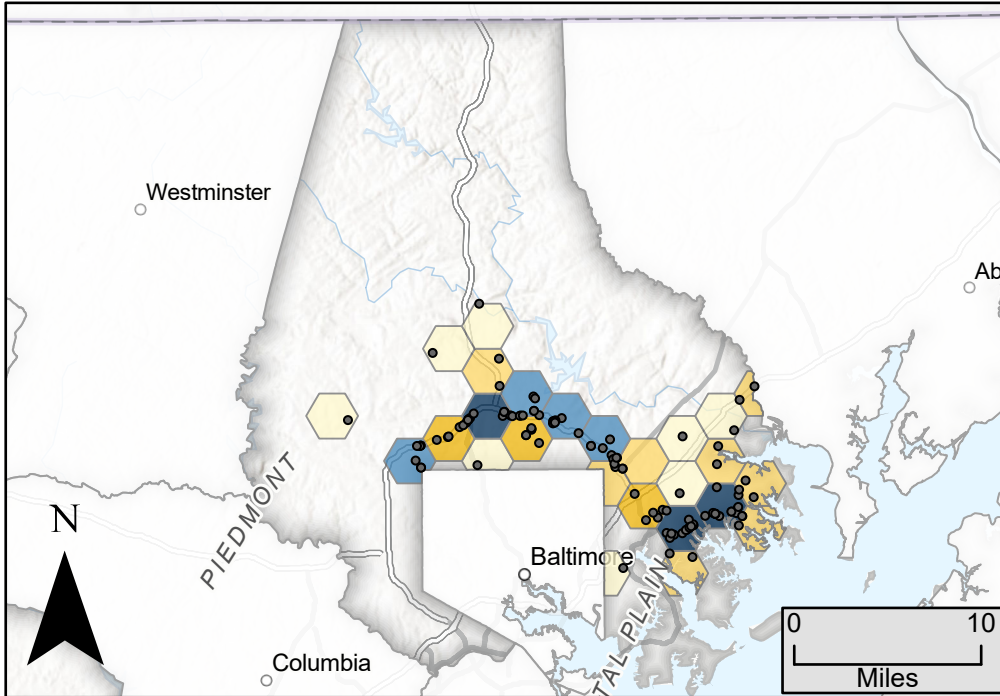
BrAC Information by Month

Month	Highest BrAC	Lowest BrAC
January	0.23	0.08
February	0.17	0.08
March	0.19	0.14
April	0.28	0.09
May	0.19	0.09
June*	0.18	0.08

Overall, for the 6 months, the highest BrAC was 0.28 in April, and the lowest BrAC was 0.08 in January, February, and June.

SPIDRE Bi-Yearly DUI Analysis

January - June 2022



Baltimore County

Top Areas

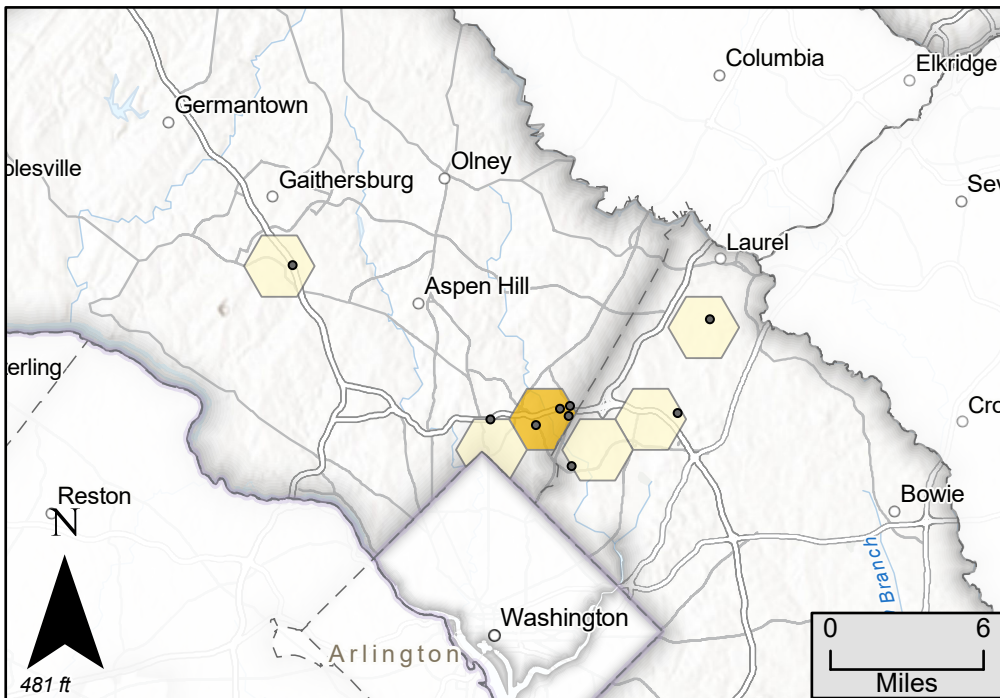
Eastern Blvd and Southeast Blvd in Essex

I-695 in Lutherville Timonium

Eastern Ave and Carroll Island Rd in Middle River

County Of Impaired Offender

Baltimore - 82	Prince George's - 2
Baltimore City - 9	Cecil - 1
Harford - 5	Dorchester - 1
Anne Arundel - 4	Frederick - 1
Howard - 3	Out of State - 4



Prince George's & Montgomery County

Top Areas

I-495 and MD-650 in Silver Spring

I-495 in Silver Spring

MD-212 in Langley Park

County Of Impaired Offender

Prince George's - 4
Montgomery - 4
Carroll - 1

Total: 124 DUI Arrests*

Five Mile Hexagon Analysis



This map features five mile hexagon bins which divide Maryland into equally sized bins and count the number of stops that occurred within each hexagon. The hexagons are then color coded based on the tally of stops in each one.

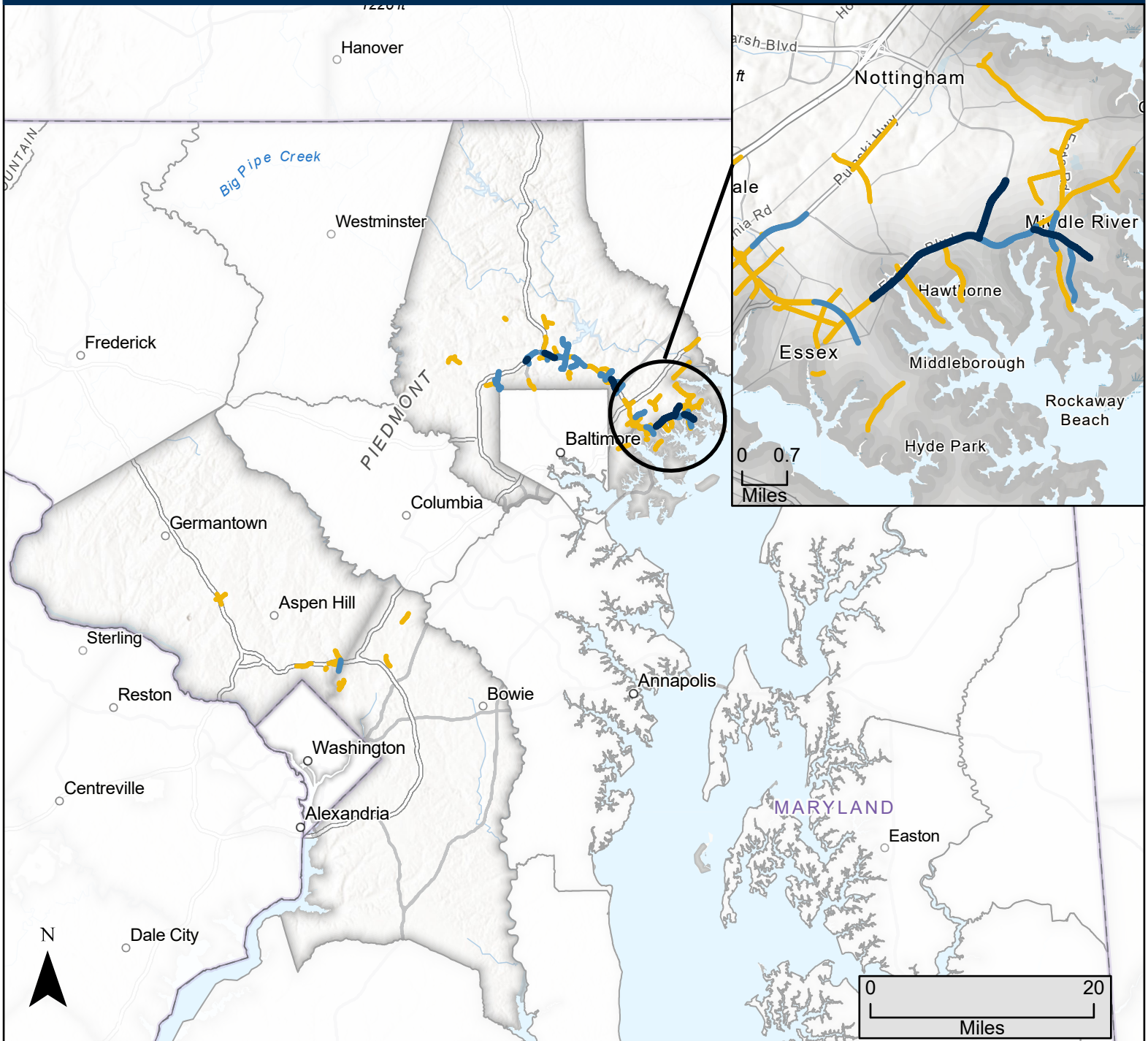
* Three stops unable to be mapped

Sources: Maryland District and Judiciary Courts, Washington College GIS Program


SPIDRE DUI Road Density Analysis

Baltimore, Prince George's, and Montgomery County

January - June 2022



Density of DUI Stops on Roadways

	Low (1)
	Medium (2-3)
	High (4-7)

This map features one mile road segments which divide roads in Prince George's County into equally sized segments and count the number of stops that occurred within each segment. The segments are then color coded based on the tally of stops in each one.

Sources: Maryland District and Judiciary Courts, Washington College GIS Program



Restriction of Liability: Although every effort was made to provide useful and accurate information, Washington College and the Maryland Highway Safety Office make no claims, promises, or guarantees about the accuracy, completeness, or adequacy of the contents of these maps and expressly disclaim liability for any errors or omissions in the contents of these documents.

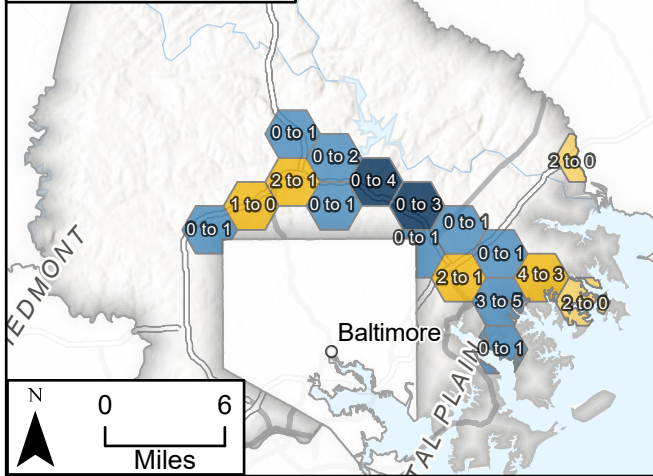
SPIDRE Monthly Changes in DUI Stops

Baltimore County
January - June 2022

JANUARY TO FEBRUARY

TOP LOCATION OF INCREASE

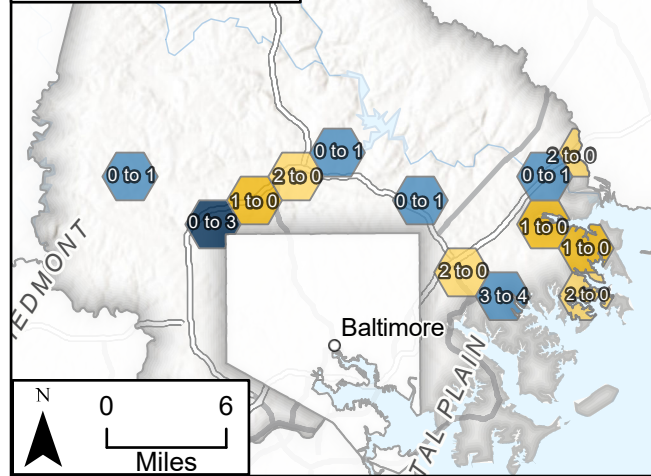
HAMPTON



FEBRUARY TO MARCH

TOP LOCATION OF INCREASE

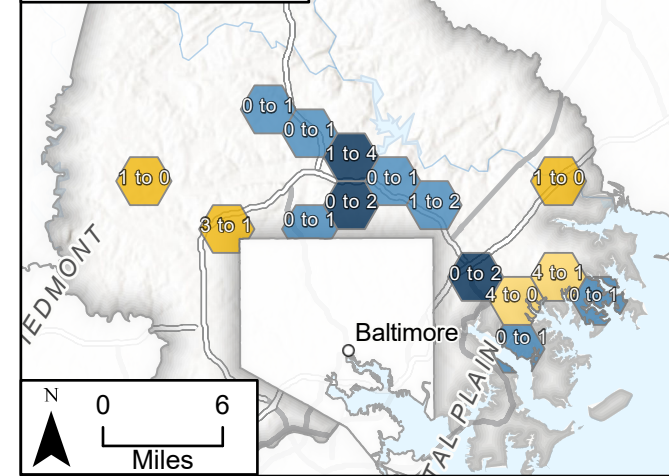
PIKESVILLE



MARCH TO APRIL

TOP LOCATION OF INCREASE

COCKEYSVILLE



CHANGE IN DUI STOPS FROM PREVIOUS MONTH



Large Decrease Small Decrease Small Increase Large Increase

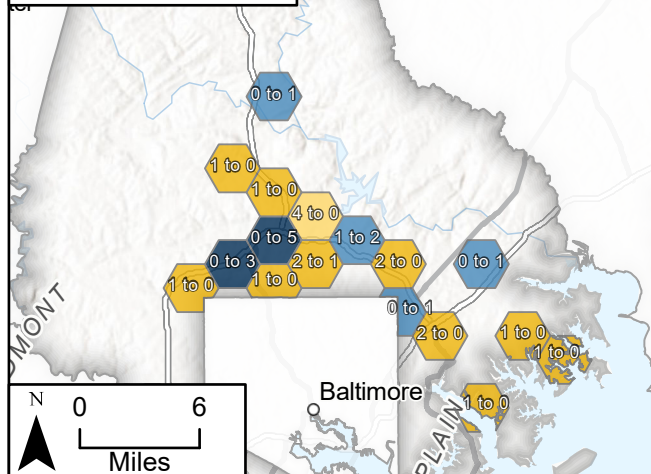
Sources: Maryland District and Judiciary Courts, Washington College GIS Program

Restriction of Liability: Although every effort was made to provide useful and accurate information, Washington College and the Maryland Highway Safety Office make no claims, promises, or guarantees about the accuracy, completeness, or adequacy of the contents of these maps and expressly disclaim liability for any errors or omissions in the contents of these documents.

APRIL TO MAY

TOP LOCATION OF INCREASE

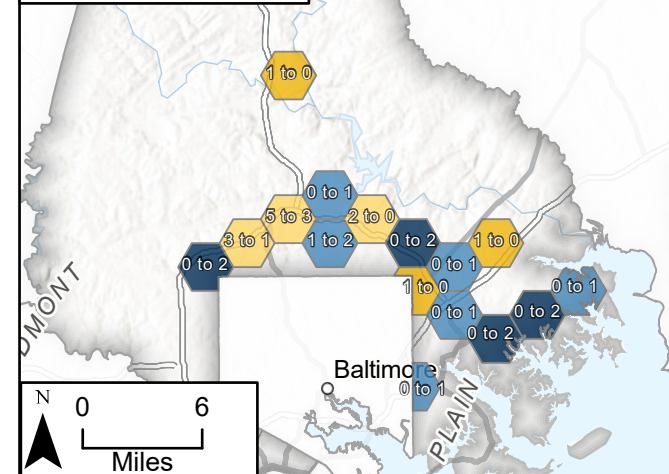
TOWSON



MAY TO JUNE

TOP LOCATION OF INCREASE

MIDDLE RIVER



Day and Time Comparison

SPIDRE January through June 2022 Impaired Stops

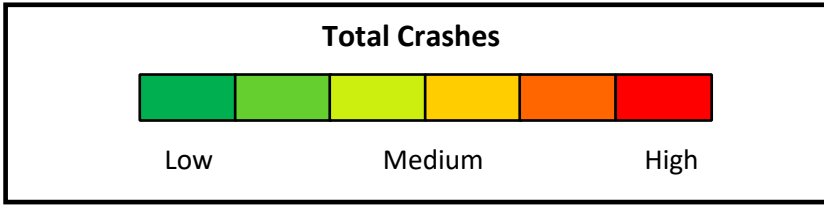
Time of Day		Day of Week	
0000	18	Sunday	39
0100	38	Monday	1
0200	38	Tuesday	0
0300	17	Wednesday	1
0400	3	Thursday	5
0500	0	Friday	23
0600	0	Saturday	52
0700	0		
0800	0		
0900	0		
1000	0		
1100	0		
1200	0		
1300	0		
1400	0		
1500	0		
1600	0		
1700	0		
1800	0		
1900	0		
2000	0		
2100	0		
2200	0		
2300	7		

Top Three Times of Day	
0100	
0200	
0000	

Top Three Days of Week	
Saturday	
Sunday	
Friday	

Top Three Times and Days	
Saturday from 0100 to 0300	
Saturday from 2300 to 0100	
Sunday from 2300 to 0100	

Day/Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
0000	9	1	0	0	0	5	3	18
0100	7	0	0	0	2	8	21	38
0200	13	0	0	0	0	9	16	38
0300	7	0	0	0	0	1	9	17
0400	2	0	0	0	0	0	1	3
0500	0	0	0	0	0	0	0	0
0600	0	0	0	0	0	0	0	0
0700	0	0	0	0	0	0	0	0
0800	0	0	0	0	0	0	0	0
0900	0	0	0	0	0	0	0	0
1000	0	0	0	0	0	0	0	0
1100	0	0	0	0	0	0	0	0
1200	0	0	0	0	0	0	0	0
1300	0	0	0	0	0	0	0	0
1400	0	0	0	0	0	0	0	0
1500	0	0	0	0	0	0	0	0
1600	0	0	0	0	0	0	0	0
1700	0	0	0	0	0	0	0	0
1800	0	0	0	0	0	0	0	0
1900	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0
2300	1	0	0	1	3	0	2	7
Grand Total	39	1	0	1	5	23	52	121*



Maryland Highway Safety Office



MSP SPIDRE Team Statistical Summaries

January - June* DUI Arrests
(Collected by the SPIDRE Team)

Dates of Patrol	Counties Patrolled	Number of DUI Arrests
January 5 - January 8	Baltimore	9
January 12 - January 15	Baltimore	4
January 19 - January 22	Baltimore	6
January 26 - January 29	Baltimore	9
February 2 - February 5	Baltimore	5
February 9 - February 12	Baltimore	3
February 16 - February 19	Baltimore	9
February 23 - February 26	Baltimore	2
March 3 - March 5*	Prince George's and Baltimore	8
March 9 - March 12	Baltimore	2
March 16 - March 19	Baltimore	1
March 23 - March 26	Baltimore	6
March 30 - April 2	Baltimore	7
April 6 - April 9	Baltimore	2
April 13 - April 16	Baltimore	2
April 20 - April 23	Baltimore	4
April 27 - April 30	Baltimore	6
May 4 - May 7	Baltimore	3
May 11 - May 14	Baltimore	6
May 18- May 21	Montgomery	2
May 25 - May 30	Baltimore	6
June 1 - June 4	Baltimore	2
June 8 - June 11	Baltimore	7
June 16 - June 18	Baltimore	5
June 22 - June 25	Montgomery	2
June 29 - July 3*	Baltimore and Montgomery	6

APPENDIX

Stops:

Citation data was obtained from Maryland District and Judiciary Courts.

- The term "stops" refers to individual stops made, not how many citations were issued at the stop. To gather this data, the "Delete Identical" tool was run based on the following fields: vehicleTagNumber, streetAddress, violationDate, and violationTime.
- Stops were joined to the centerline segments based on the closest segment to the stop location.
- The counts of the joined stops were symbolized based on the counts per segment.

Impaired Stop Query:

chargeCode IN ('TA 21-902(A1)', 'TA 21-902 (A1)', 'TA 21-902(A1I)', 'TA 21-902 (A1I)', 'TA 21-902A(A1I)', 'TA 21-902A (A1I)', 'TA 21-902(A1II)', 'TA 21-902 (A1II)', 'TA 21-902(A2)', 'TA 21-902 (A2)', 'TA 21-902(A2I)', 'TA 21-902 (A2I)', 'TA 21-902(B1)', 'TA 21-902 (B1)', 'TA 21-902(B1I)', 'TA 21-902 (B1I)', 'TA 21-902(B2)', 'TA 21-902 (B2)', 'TA 21-902(B2I)', 'TA 21-902 (B2I)', 'TA 21-902(C1)', 'TA 21-902 (C1)', 'TA 21-902(C1I)', 'TA 21-902 (C1I)', 'TA 21-902(C2)', 'TA 21-902 (C2)', 'TA 21-902(C2I)', 'TA 21-902 (C2I)', 'TA 21-902(D1)', 'TA 21-902 (D1)', 'TA 21-902(D1I)', 'TA 21-902 (D1I)', 'TA 21-902(D2)', 'TA 21-902 (D2)', 'TA 21-902(D2I)', 'TA 21-902 (D2I)')

Charge Codes with Descriptions:

TA 21-902(A1) or TA 21-902 (A1) or TA 21-902(A1I) or TA 21-902 (A1I) - (Driving, Attempting to drive) veh. while under the influence of alcohol

TA 21-902A(A1I) or TA 21-902A (A1I) or TA 21-902(A1II) or TA 21-902 (A1II) - (Driving, Attempting to drive) veh. while under the influence of alcohol per se

TA 21-902(A2) or TA 21-902 (A2) or TA 21-902(A2I) or TA 21-902 (A2I) - (Driving,

Attempting to drive) veh. while under the influence of (alcohol, alcohol per se) while transporting a minor

TA 21-902(B1) or TA 21-902 (B1) or TA 21-902(B1I) or TA 21-902 (B1I) - (Driving, Attempting to drive) veh. while impaired by alcohol

TA 21-902(B2) or TA 21-902 (B2) or TA 21-902(B2I) or TA 21-902 (B2I) - (Driving, Attempting to drive) veh. while impaired by alcohol while transporting a minor

TA 21-902(C1) or TA 21-902 (C1) or TA 21-902(C1I) or TA 21-902 (C1I) - (Driving,

Attempting to drive) veh. while so far impaired by (drug(s), drug(s) and alcohol) cannot drive safely

TA 21-902(C2) or TA 21-902 (C2) or TA 21-902(C2I) or TA 21-902 (C2I) - (Driving,

Attempting to drive) veh. while impaired by drug(s) or drug(s) and alcohol while transporting a minor

TA 21-902(D1) or TA 21-902 (D1) or TA 21-902(D1I) or TA 21-902 (D1I) - (Driving,

Attempting to drive) veh. while impaired by controlled dangerous substance

TA 21-902(D2) or TA 21-902 (D2) or TA 21-902(D2I) or TA 21-902 (D2I) - (Driving, Attempting to drive) veh. while impaired by controlled dangerous substance while transporting a minor

APPENDIX

Officer Query:

Impaired Stops were queried by SPIDRE Officer name using the 'officerPrintedName' field

SPIDRE Team Members:

CPL Anthony Wallace

TFC Brian Anderson

TFC Samuel Jackson

TFC Idrissa Riba Tankari

TRP Logan Speak

Data Notes*:

- The timeframe for this analysis was January - June 2022. SPIDRE Weekly Reports citation numbers were used, which started on January 7th, and ended July 3rd.
- Three stop locations were unable to be mapped.
- Infographics were able to be completed based on the SPIDRE Weekly Report data.

Additional Notes:

Sources: Maryland District and Judiciary Courts, Washington College GIS Program

Restriction of Liability: Although every effort was made to provide useful and accurate information, Washington College and the Maryland Highway Safety Office make no claims, promises, or guarantees about the accuracy, completeness, or adequacy of the contents of these maps and expressly disclaim liability for any errors or omissions in the contents of these documents.

Disclaimer: The crashes and stops displayed on the maps as well as any other information is limited in its scope and purpose. It was compiled and collected for the purpose of identifying, evaluating, and planning safety enhancements, utilizing Federal-aid highway funds pursuant to sections 130, 144 and/or 148 of Title 23 of the United States Code.