

BALTIMORE COUNTY

NEW YEAR'S 2020-2021 IMPAIRED CRASH AND STOP ANALYSIS

SENT TO:

MARYLAND HIGHWAY
SAFETY OFFICE

WASHINGTON
COLLEGE
GIS PROGRAM

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LIST OF PRODUCTS

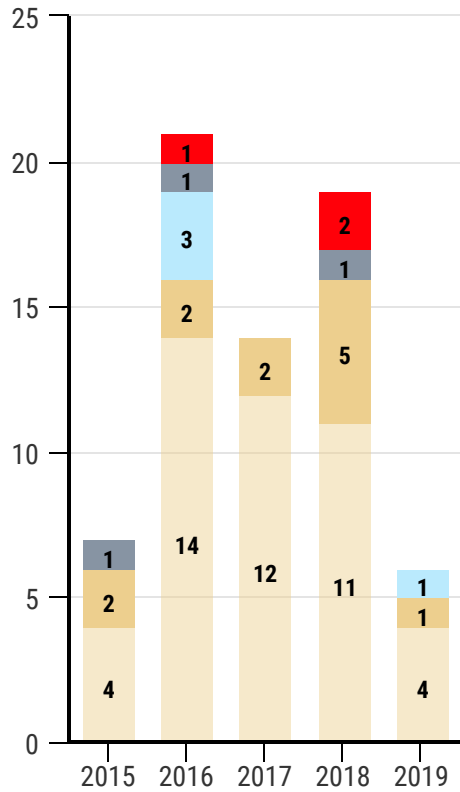
- PG. 3** **NEW YEAR'S SUMMARY FOR
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Baltimore County New Year's Analysis

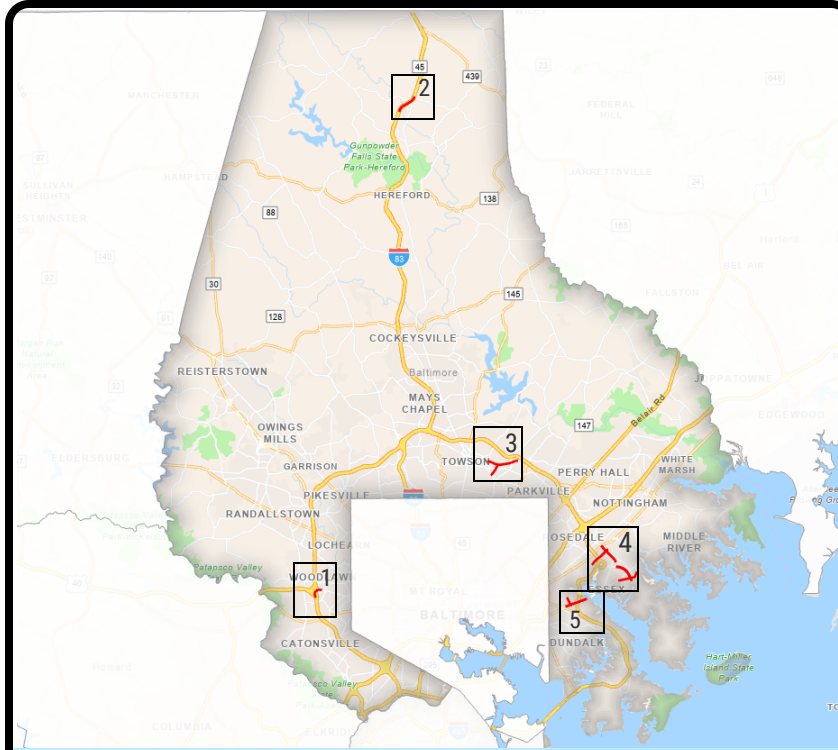
December 28th to January 3rd |

Crash Analysis: 2015 - 2019
Stop Analysis: 2015 - 2020

Crash Severity



- Fatal Injury (K)
- Suspected Serious Injury (A)
- Suspected Minor Injury (B)
- Possible Injury (C)
- Property Damage (O)



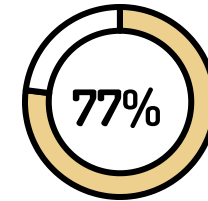
Roads where Fatal & Suspected Serious Injury Crashes Occurred

1. I-70 Westbound Ramp to I-695 Outer Loop in Windsor Mill
2. I-83 between Dairy Rd and MD-45 in Parkton
3. E Joppa Rd between Goucher Rd and I-695 in Towson
4. MD-150 between MD-151 and Willis Ave in Dundalk
5. MD-702 between Mace Ave and E Homberg Ave in Essex

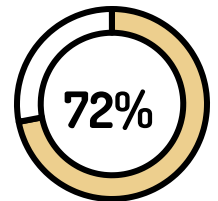
Holiday Summary

- 8 out of 67 Impaired Crashes** occurred on New Year's Day
- 1 Possible Injury Crash** occurred on New Year's Day
- 108 out of 234 Impaired Stops** were issued on New Year's Eve and New Year's Day
- 0 out of 18 Impaired Crashes** on New Year's Eve and New Year's Day involved an **Impaired Driver under the Age of 21**

Liquor License Summary



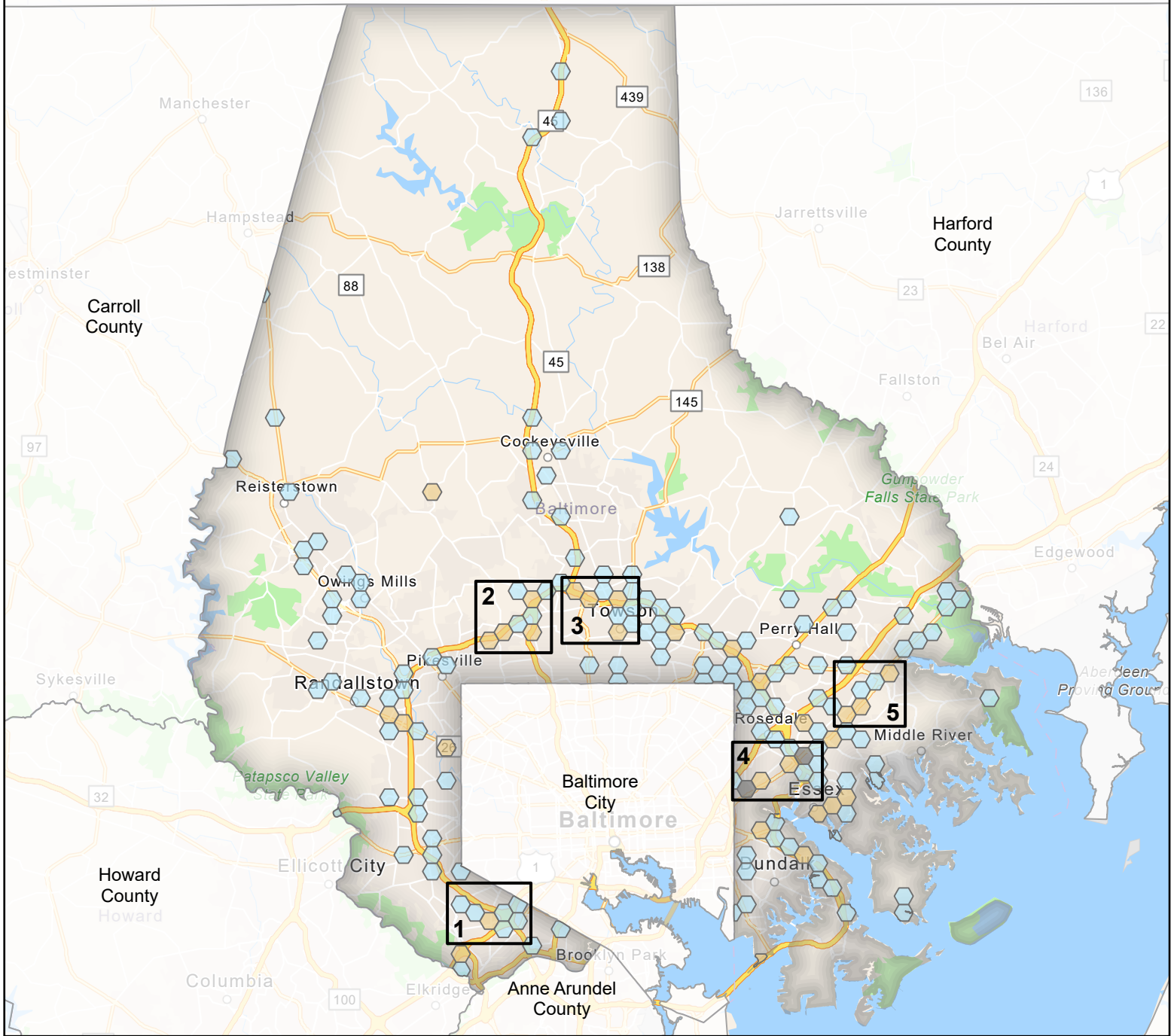
77% of **Impaired Stops** occurred within a half mile from onsite liquor license locations.



72% of **Impaired Crashes** occurred within a half mile from onsite liquor license locations.

Baltimore County New Year's High Occurrence Areas

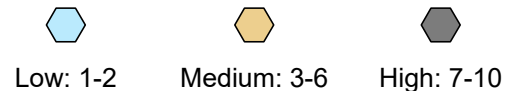
Combined Impaired Crashes and Stops



High Occurrence Routes

1. I-695 and I-95 Interchange in Arbutus
2. I-695 between Greenspring Ave and W Joppa Rd in Lutherville-Timonium
3. I-695 between I-83 and MD-146 in Lutherville-Timonium
4. US-40 between 68th St and Rossville Blvd in Rosedale
5. US-40 between Middle River Rd and Ebenezer Rd in Middle River

Impaired Stops and Crashes by Half Mile Hexagon Bins



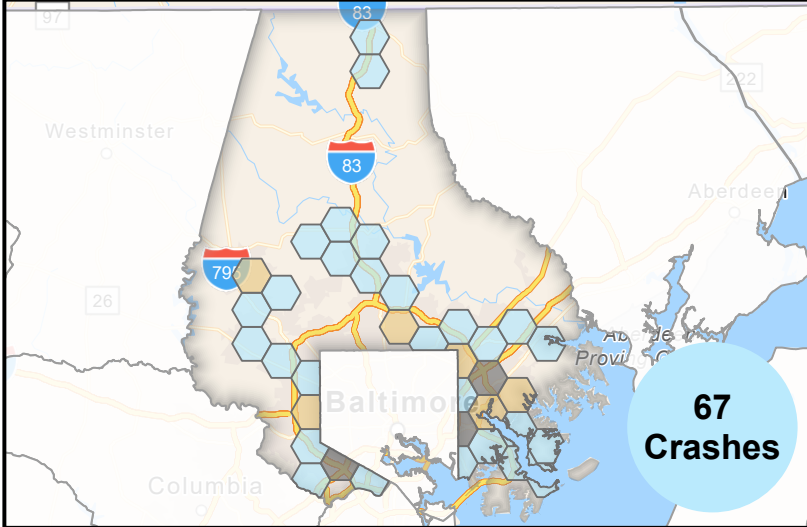
Disclaimer: The crashes displayed on the maps as well as any other information is limited in its scope and purpose. It was compiled and collected for the purpose of identifying, evaluating, and planning safety enhancements, utilizing Federal-aid highway funds pursuant to sections 130, 144 and/or 148 of Title 23 of the United States Code. Some points not displayed on map.
*Please refer to page 3 for specific dates.

Source: State Highway Administration, Maryland District and Judiciary Courts, Washington College GIS Program

Baltimore County Impaired Analysis

New Year's 2020 - 2021

Impaired Crashes 2015 - 2019



TOP AREAS:

- I-695 and US-1 Interchange in Nottingham
- MD-26 between I-695 and Patterson Ave in Locheam
- MD-150 between MD-151 and I-695 in Dundalk

Top Hour:

0000

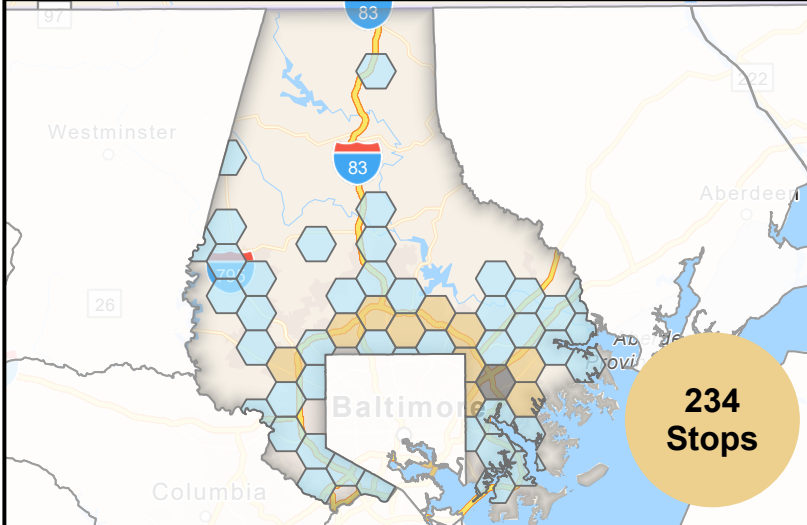
Top Day:

Sunday

Top Reporting Agency:

Baltimore County - 53 crashes

Impaired Stops 2015 - 2020



TOP AREAS:

- US-40 between Contractors Rd and Rossville Blvd in Rosedale
- I-695 between I-83 and MD-139 in Towson
- US-40 between 68th St and Batavia Farm Rd in Rosedale

Top Hour:

0100

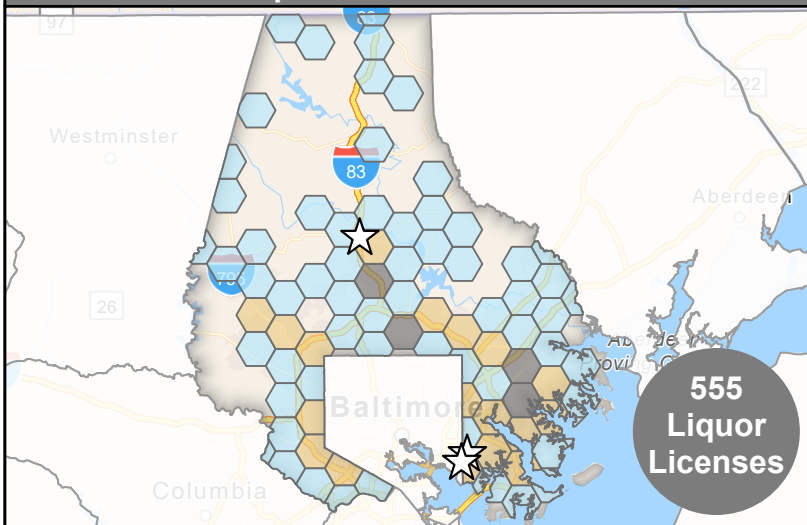
Top Day:

Sunday

Top Reporting Agency:

Baltimore County - 150 stops

On-site Liquor License Establishments



TOP AREAS:

- Downtown Towson around MD-45
- Area surrounding The Avenue at White Marsh
- MD-45 between Scott Adam Rd and Ridgely Rd in Lutherville-Timonium

Baltimore County New Year's 2020-2021 Events

NYE 2021
Delta Hotel
December 31
2100 - 0300

Sara and the Igniters
New Year's Eve Party
The New Phillips Inn
December 31
2100 - 0100

New Year's Eve Bash
Crossland Style
Donna's Tavern
December 31
1800 - 2200

Source: State Highway Administration, Maryland District and Judiciary Courts, Washington College GIS Program

Events were identified and scheduled as of 12/07/2020 and are subject to change based on restrictions for public gatherings and indoor dining and activities.

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Five Mile Hexagon Bin - Count Density



Low



Medium



High



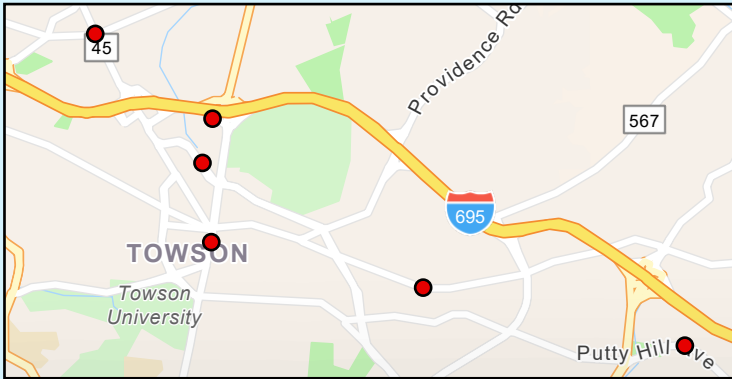
Event Locations

ZERO DEATHS MARYLAND

Notable Locations

Baltimore County Impaired Analysis New Year's 2020 - 2021

Notable Impaired Crash Location



Total Impaired Crashes: 6

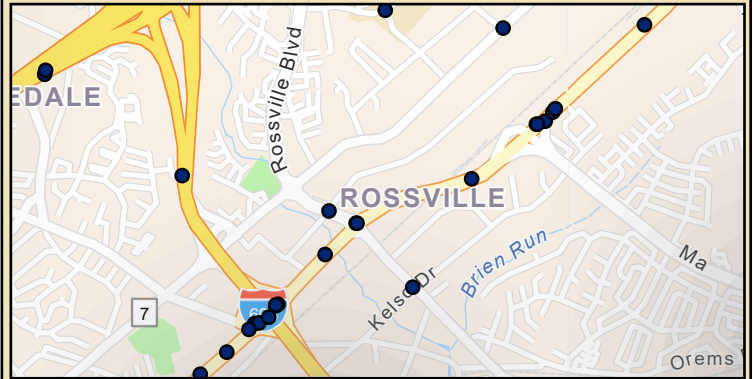
Top Collision Types:

- 2 - Single Vehicle
- 2 - Same Movement Angle

Crash Severity:

- 4 - Property Damage (O)
- 1 - Possible Injury (C)
- 1 - Fatal Injury (K)

Notable Impaired Stop Location



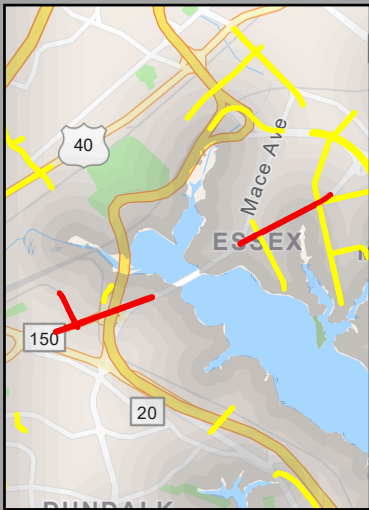
Total Impaired Stops: 26

Home County/State of Impaired Offender:

- Baltimore: 16
- Anne Arundel: 2
- Baltimore City: 7
- Harford: 1

Contributed to Crash: 3

Notable Crash Segment Location



MD-150 between MD-151 and Willis Ave in Dundalk

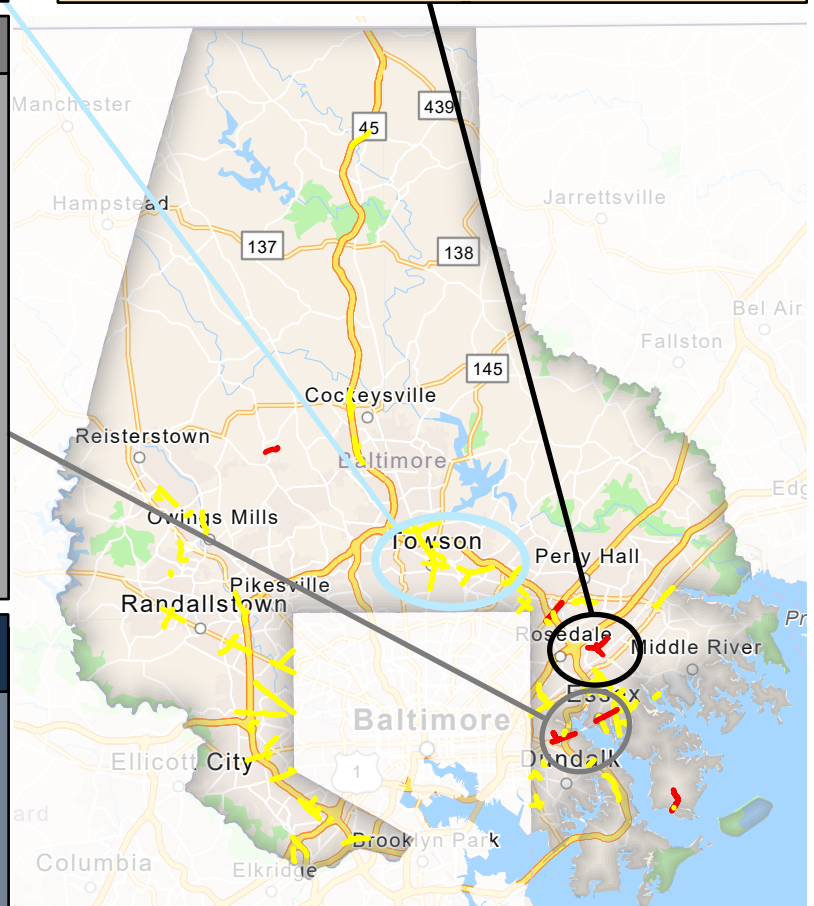
MD-150 between Mace Ave and Selig Ave in Essex

High Risk Crash Segments

- Medium Risk
- High Risk

State Highway Administration routes and crashes were all used to create unique one-mile road segment counts of points. Crash points were joined to one-mile county road segments to create a crash count for each one-mile segment.

- Crash Locations
- Stop Locations



Day and Time Comparison

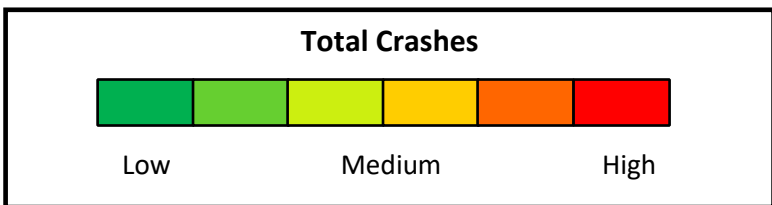
Baltimore County New Year's 2020 - 2021 Impaired Crash and Stop Analysis

| Time of Day | | Day of Week | |
|-------------|---|-------------|----|
| 0000 | 9 | Sunday | 15 |
| 0100 | 2 | Monday | 8 |
| 0200 | 3 | Tuesday | 8 |
| 0300 | 3 | Wednesday | 10 |
| 0400 | 0 | Thursday | 5 |
| 0500 | 3 | Friday | 9 |
| 0600 | 2 | Saturday | 12 |
| 0700 | 1 | | |
| 0800 | 1 | | |
| 0900 | 1 | | |
| 1000 | 0 | | |
| 1100 | 2 | | |
| 1200 | 0 | | |
| 1300 | 3 | | |
| 1400 | 3 | | |
| 1500 | 6 | | |
| 1600 | 4 | | |
| 1700 | 5 | | |
| 1800 | 1 | | |
| 1900 | 1 | | |
| 2000 | 6 | | |
| 2100 | 5 | | |
| 2200 | 3 | | |
| 2300 | 3 | | |

| Top Three Times of Day | |
|------------------------|--|
| 0000 | |
| 1500 | |
| 2000 | |

| Top Three Days of Week | |
|------------------------|--|
| Sunday | |
| Saturday | |
| Wednesday | |

| Top Three Times and Days | |
|---------------------------|--|
| Sunday from 0000 to 0200 | |
| Monday from 2300 to 0100 | |
| Tuesday from 1300 to 1500 | |



| Day/Time | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Grand Total |
|--------------------|-----------|----------|----------|-----------|----------|----------|-----------|-------------|
| 0000 | 3 | 1 | 0 | 0 | 0 | 2 | 3 | 9 |
| 0100 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 0200 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 0300 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 3 |
| 0400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0500 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| 0600 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| 0700 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 0800 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 0900 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 1000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1100 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| 1200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1300 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 3 |
| 1400 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3 |
| 1500 | 2 | 0 | 2 | 0 | 0 | 1 | 1 | 6 |
| 1600 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 4 |
| 1700 | 0 | 0 | 1 | 1 | 1 | 2 | 0 | 5 |
| 1800 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 1900 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2000 | 1 | 0 | 1 | 1 | 3 | 0 | 0 | 6 |
| 2100 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 5 |
| 2200 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| 2300 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 3 |
| Grand Total | 15 | 8 | 8 | 10 | 5 | 9 | 12 | 67 |

APPENDIX

Crashes

Crash data was obtained from Maryland State Highway Administration. Crash data dates range from December 28th to January 3rd, 2015 to 2019.

- Street segments were obtained from MD iMAP
- Crashes were joined to the centerline segments based on the closest segment to the crash location
- The counts of the joined crashes were symbolized based on the counts per segment.

Impaired Crash Query

Accident_Condition IN ('A', 'B', 'D') Or Substance_Use_Code IN ('11', '12', '13', '14', '21', '23', '22', '24') Or Contributing_Factor_1 IN ('01', '02', '03', '04') Or Contributing_Factor_2 IN ('01', '02', '03', '04') Or Contributing_Factor_3 IN ('01', '02', '03', '04') Or Contributing_Factor_4 IN ('01', '02', '03', '04')

Stops

Citation data was obtained from Maryland District and Judiciary Courts. Citation data dates range from December 28th to January 3rd, 2015 to 2020.

- 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)')

APPENDIX

Events

A list of events located at establishments with on-site or hybrid liquor licenses was compiled through a comprehensive online search using Google, Eventbrite and the "Events Near Me" function on Facebook on December 7, 2020. Please note that this list is subject to change based on restrictions for public gatherings and indoor dining and activities.

Additional Notes

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

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