



VIRGINIA TECH
**TRANSPORTATION
INSTITUTE**

2024 Analysis of Driving Under the Influence (DUI) Data for the Virginia DMV

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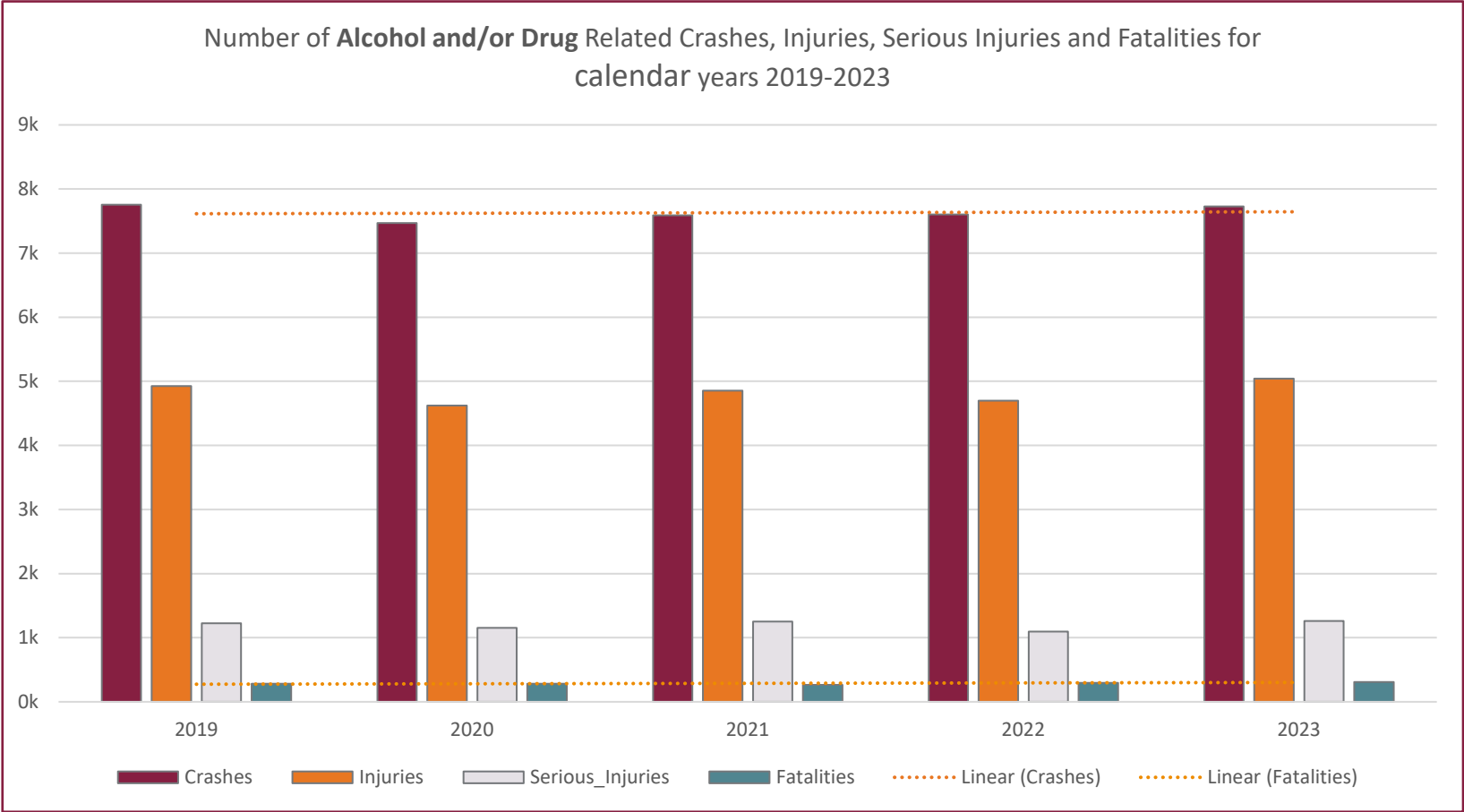
Virginia State Crime Commission

August 19, 2025

Objective 1: The number of motor vehicle and commercial motor vehicle crashes, injuries, serious injuries, and fatalities that involved alcohol, drugs, or a combination of as maintained by the Department.

Year	Crashes	Injuries	Serious_Injuries	Fatalities
2019	7,757	4,926	1,225	284
2020	7,470	4,622	1,152	283
2021	7,588	4,855	1,253	266
2022	7,604	4,698	1,095	297
2023	7,728	5,044	1,260	311
	38,147	24,145	5,985	1,441

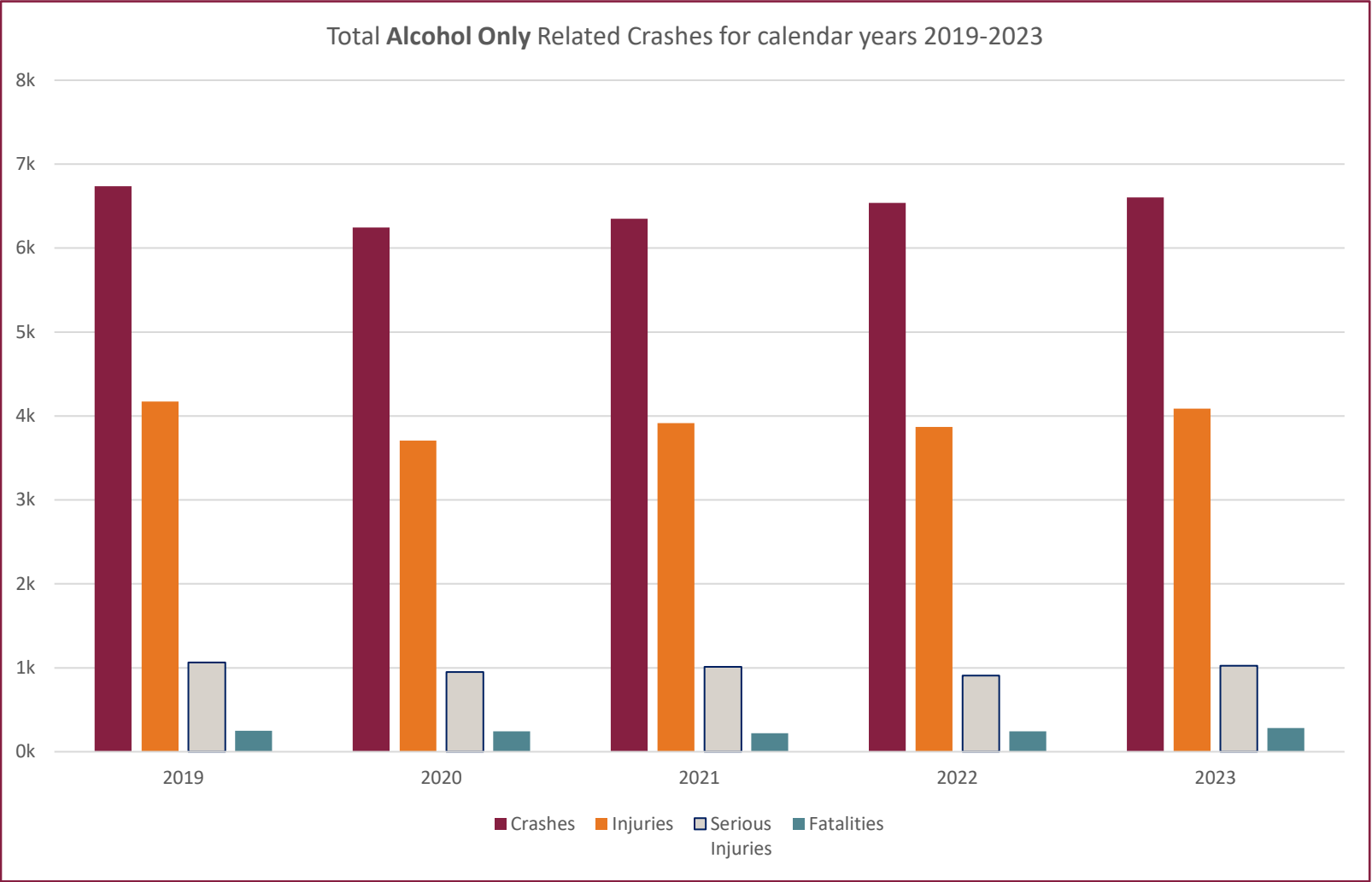
The trend for 2019-2023 is flat for all categories.



Serious Injuries are a subset of Injuries (total injuries).

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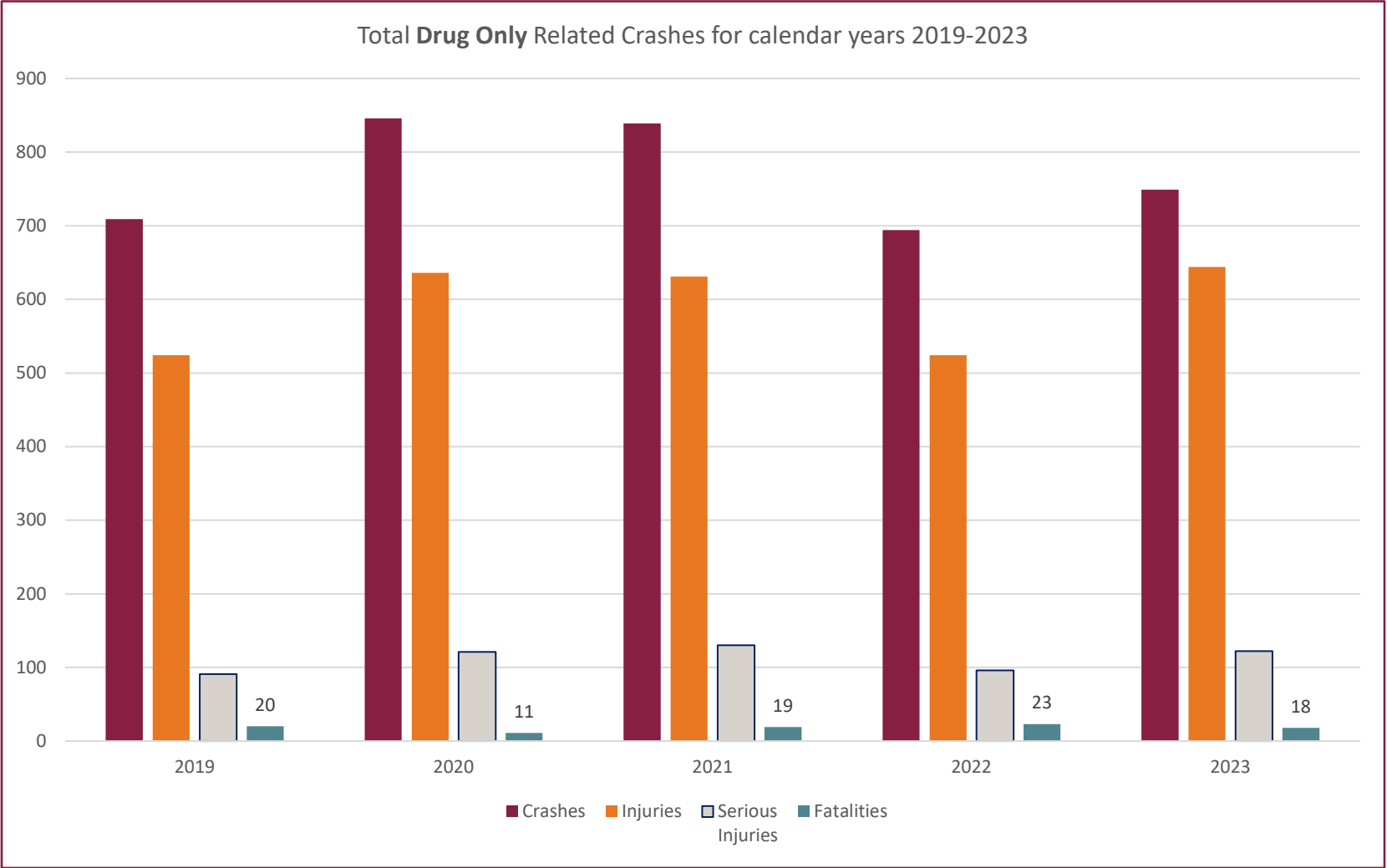
Year	Crashes	Injuries	Serious	Fatalities
2019	6,736	4,172	1,064	251
2020	6,244	3,707	949	242
2021	6,350	3,914	1,012	222
2022	6,537	3,870	908	244
2023	6,604	4,087	1,024	281
	32,471	19,750	4,957	1,240



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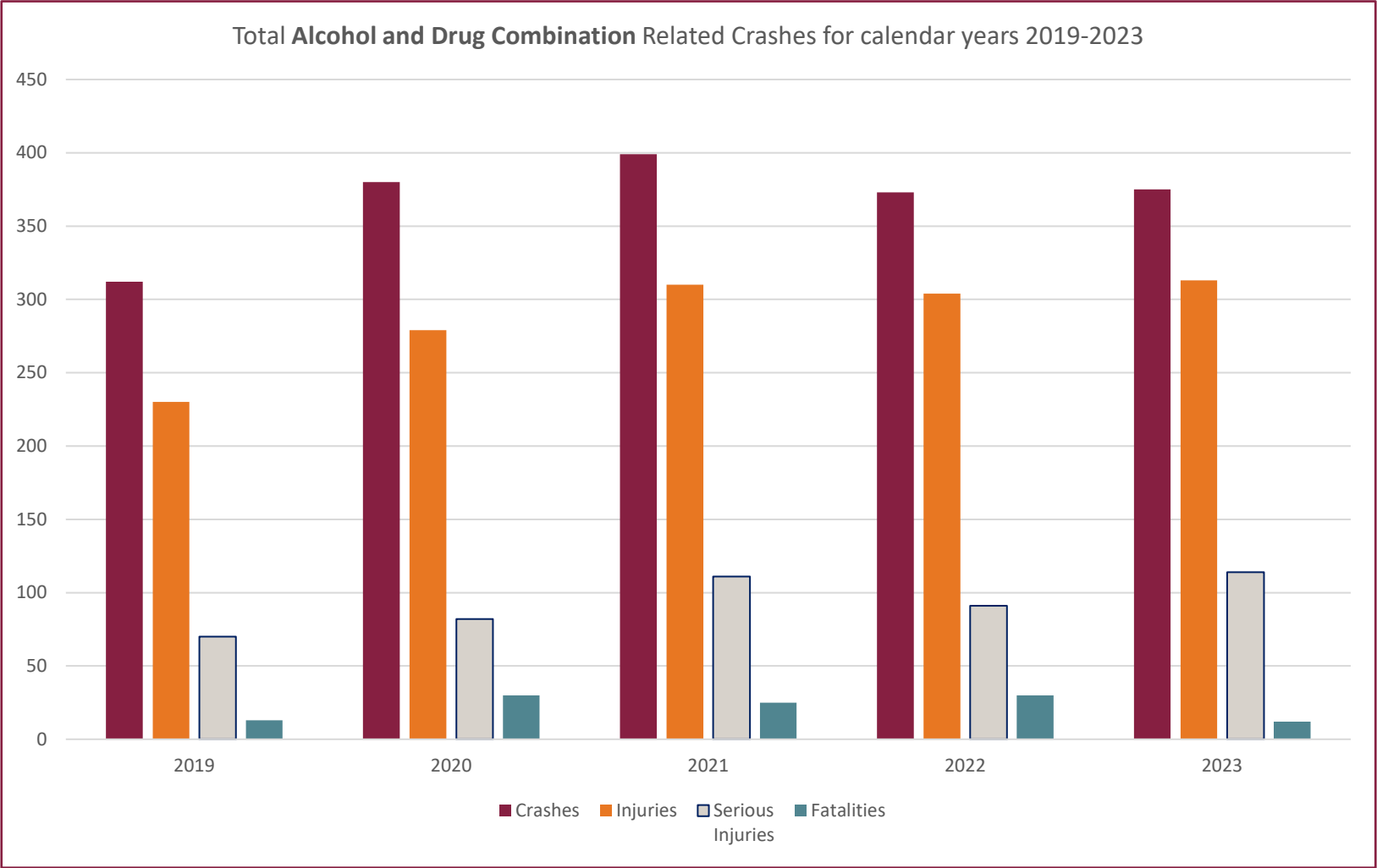
Year	Crashes	Injuries	Serious	Fatalities
2019	709	524	91	20
2020	846	636	121	11
2021	839	631	130	19
2022	694	524	96	23
2023	749	644	122	18
	3,837	2,959	560	91



Serious Injuries are a subset of Injuries (total injuries).

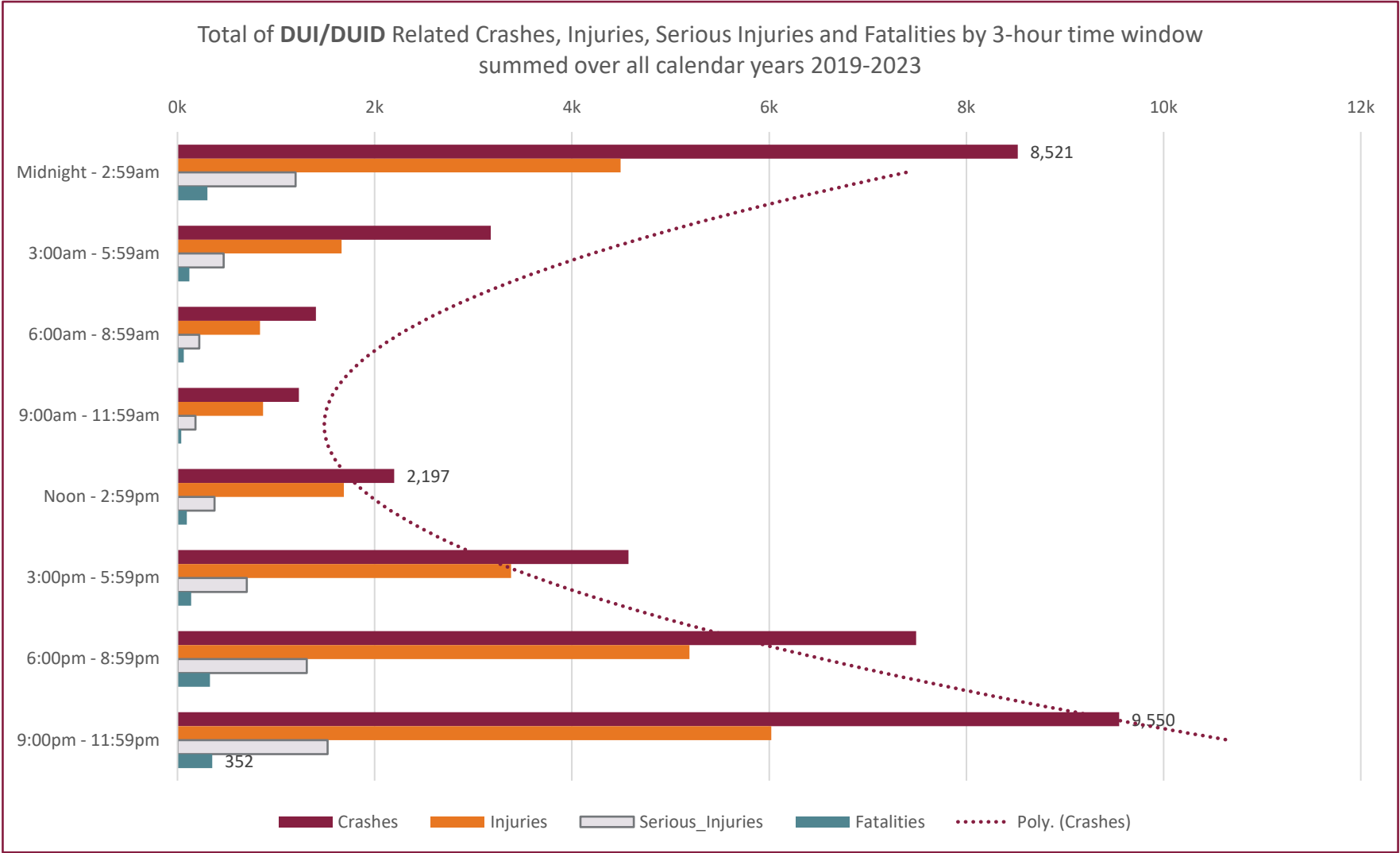
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Year	Crashes	Injuries	Serious	Fatalities
2019	312	230	70	13
2020	380	279	82	30
2021	399	310	111	25
2022	373	304	91	30
2023	375	313	114	12
	1,839	1,436	468	110

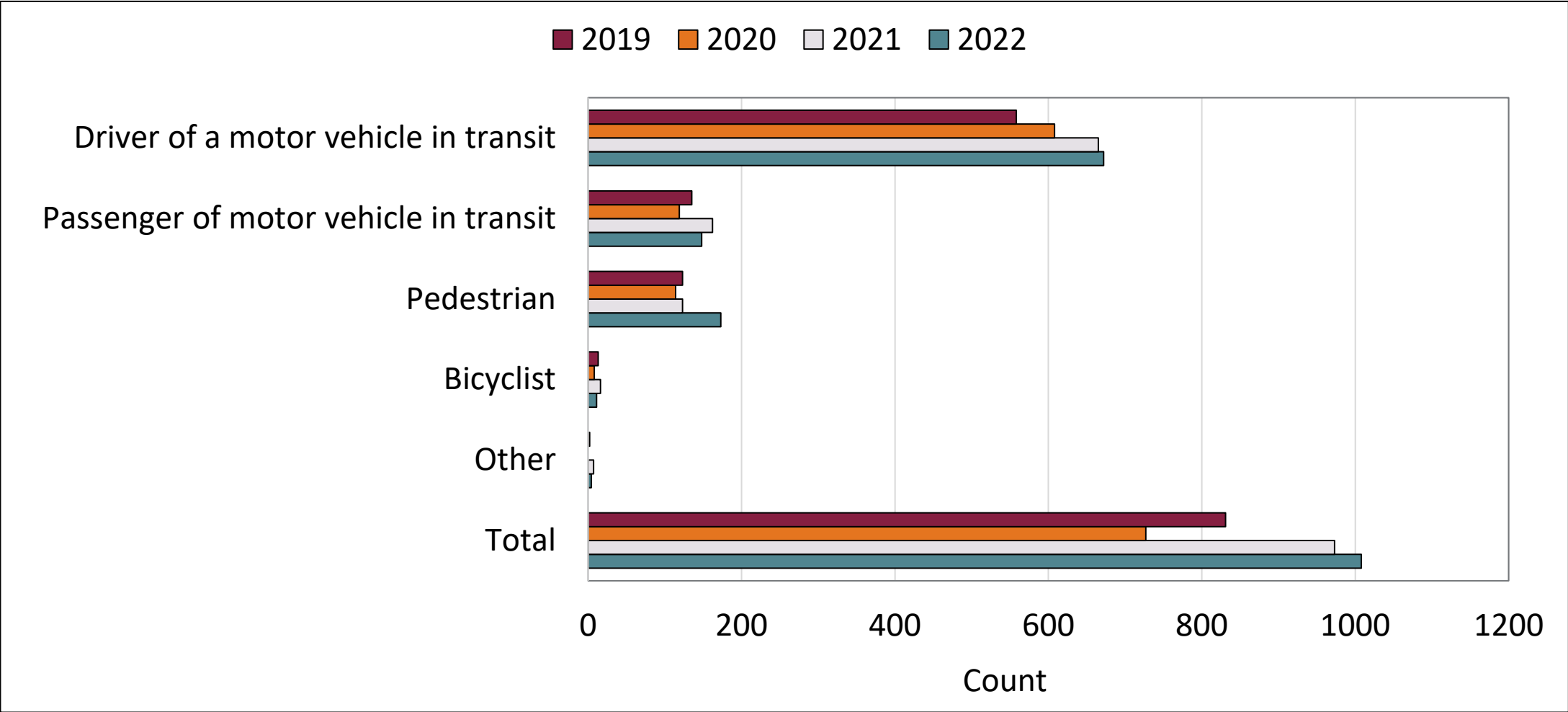


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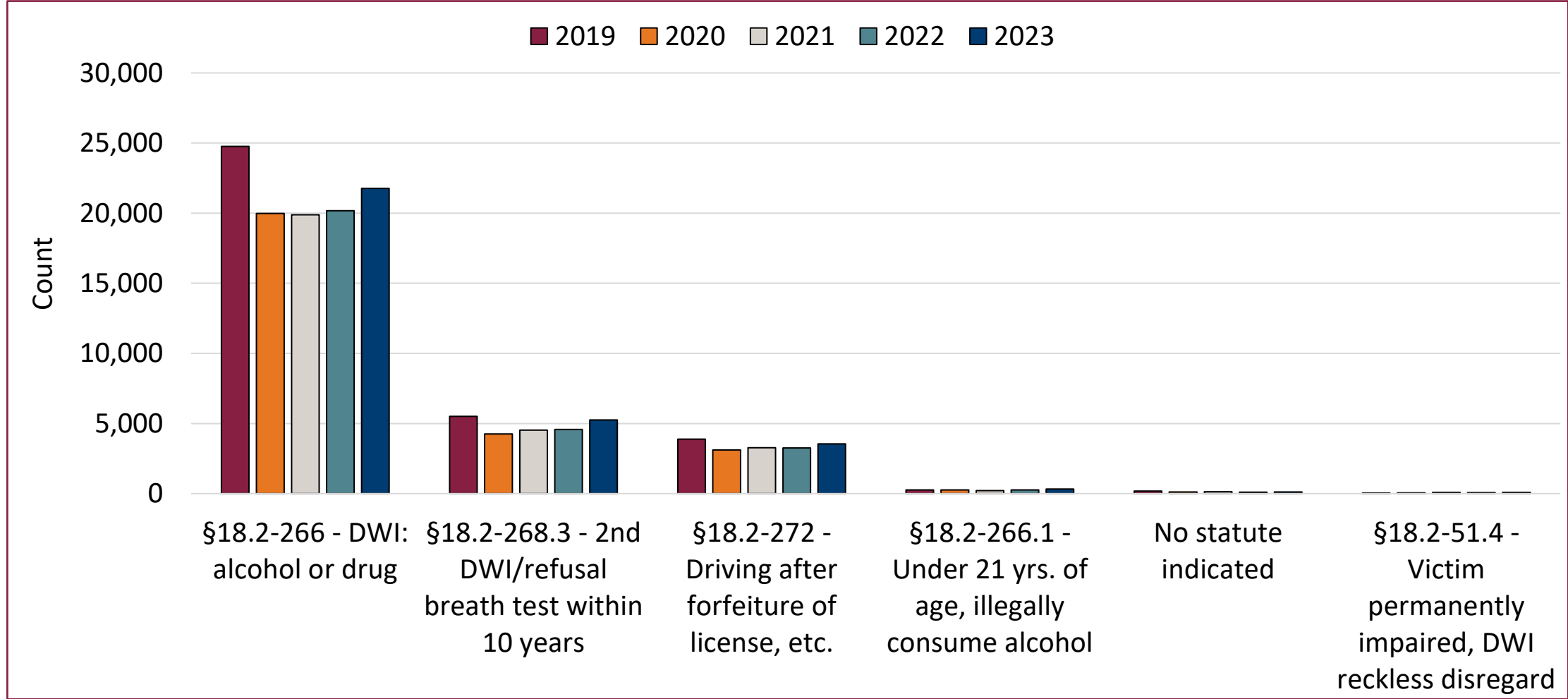
Objective 2: The number of drivers, passengers, bicyclists, and pedestrians killed in motor vehicle and commercial motor vehicle crashes, including the blood alcohol content and any drugs identified in the blood of each decedent driver, as maintained by the DMV in FARS.



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Testing Result	2019	2020	2021	2022	Total
BAC = 0%; No drugs detected	139	138	145	126	548
BAC = 0%; Positive drug test	112	111	134	149	506
BAC < 0.08%; No drugs detected	8	10	14	8	40
BAC < 0.08%; Positive drug test	18	16	20	19	73
BAC ≥ 0.08%; No drugs detected	93	101	96	99	389
BAC ≥ 0.08%; Positive drug test	53	68	68	52	241
Not Reported/Unknown/Not Tested	55	83	102	131	371
<i>Both BAC & drugs either not reported or reported as unknown if tested</i>	26	47	59	67	199
<i>Both BAC and drugs not tested</i>	25	30	37	41	133
<i>Incomplete (1 not reported/unknown/not tested)</i>	4	6	6	23	39

Objective 5: The number of charges and convictions for violations of §§18.2-36.1, 18.2-51.4, 18.2-266, 18.2-266.1, 18.2-268.3, 18.2-270.1, 18.2-272, 46.2-341.24, 46.2-341.26:3, 46.2-341.29, and 46.2-341.31 across all district and circuit courts.



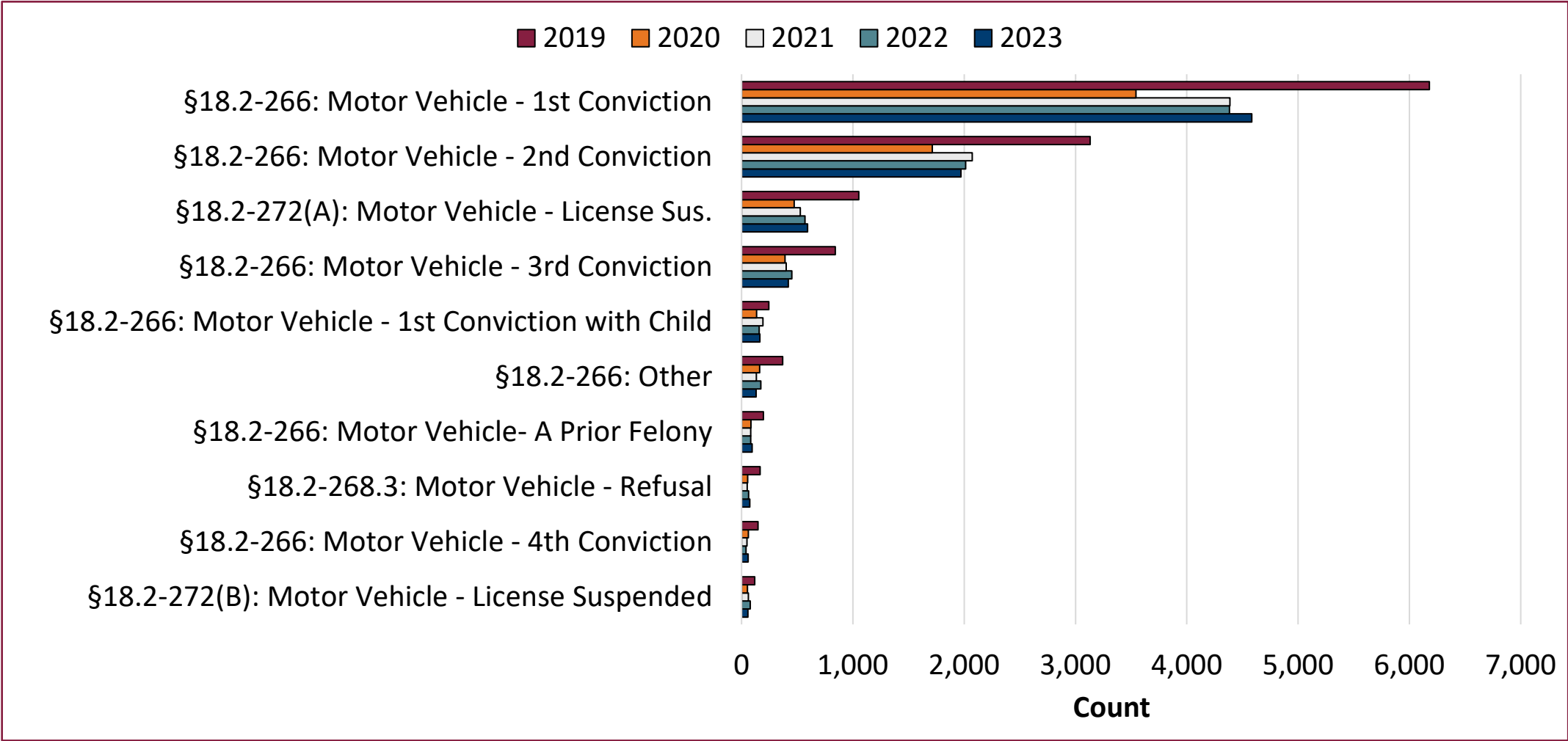
Charges by statute by year

Objective 5: The number of charges and convictions for violations of §§18.2-36.1, 18.2-51.4, 18.2-266, 18.2-266.1, 18.2-268.3, 18.2-270.1, 18.2-272, 46.2-341.24, 46.2-341.26:3, 46.2-341.29, and 46.2-341.31 across all district and circuit courts.

Disposition	2019	2020	2021	2022	2023	Total
Guilty	23,883	18,348	18,266	18,648	15,522	94,667
Not Yet Dispositioned	58	54	69	317	6,936	7,434
Nolle Prosequi	6,478	5,392	5,750	5,495	4,933	28,048
Certified Misdemeanor	1,131	1,234	1,277	1,286	1,224	6,152
Certified To Grand Jury	1,138	953	980	927	838	4,836
Fugitive File	418	452	427	499	692	2,488
Dismissed	1,111	1,029	998	895	659	4,692
Not Guilty	444	340	327	364	305	1,780
Guilty In Absentia	119	149	137	89	87	581
Transferred To Another Juris/Court	45	37	43	45	27	197
Complied With Law	2	1	0	0	3	6
Prepaid	1	0	0	5	2	8
Dismissed For Other Reasons	3	9	4	1	1	18
Not Guilty - Insanity	1	0	0	0	0	1
Other	13	4	4	1	0	22
Recalled	1	1	0	0	0	2
Total	34,846	28,003	28,282	28,572	31,229	150,932

Distribution of dispositions by year

Objective 6: The number of adults sentenced to a term of incarceration for violations of §§18.2-36.1, 18.2-51.4, 18.2-266, 18.2-266.1, 18.2-268.3, 18.2-270.1, 18.2-272, 46.2-341.24, 46.2-341.26:3, 46.2-341.29, and 46.2-341.31, including the active period of incarceration imposed and the length of time that the person was incarcerated.



Adults sentenced by statute/sub-heading and year

Overall Trends in DUI/DUID: 2019 - 2023

- Peak year in 2019
 - Notable peaks in charges, convictions, VASAP referrals
 - Coincided with increased law enforcement efforts
 - E.g., saturation patrols, SFSTs, sobriety checkpoints, etc.
- Impact of COVID
 - Reduced law enforcement measures
 - Increased number of impaired driving crashes (drugs, drugs + alcohol)
- DUI charges and recidivism
 - Over 90% of initial DUI charges were reduced to a lesser charge
 - Unable to identify offenders who received leniency to determine if they were more or less likely to reoffend
- Polydrug use
 - Alcohol and cannabis most common combination
 - Drivers over .08 were more likely to have concurrent cannabis use than those who had a BAC below .08

VTTI's Cannabis Impairment NDS

- Over 20 years ago, VTTI pioneered a research methodology known as “naturalistic driving studies”
- Involved equipping vehicles with multiple unobtrusive cameras and other sensors to collect a huge amount of data from key on to key off
 - Camera angles include forward roadway, driver's face, over the shoulder, etc.
- Data is then “mined” after the fact in various ways to identify segments of driving that are of interest to the research being conducted
 - E.g., crashes, near-crashes, eyes off road/distracted driving, automation use, etc.
 - Also able to compare to segments of baseline driving to see what differs
- Gives us direct insight into circumstances surrounding driving events
 - Does not rely on driver recollection about what happened
 - Does not rely on driver's being truthful about what happened
- Why not use this methodology to investigate the impact of cannabis on driving?

VTTI's Cannabis Impairment NDS

- 41 participants total (35 from VA, 6 from WA)
- Regular cannabis users who self-reported driving while high
- For each participant we have:
 - Vehicle data (e.g., speed, braking, acceleration, etc)
 - Video data (e.g., face, forward, OTS)
 - Self-reported drug and alcohol use, including cannabis
 - Can be used to identify polydrug use
 - Monthly oral fluid tests
- Next step is to link self-reported drug/alcohol use to specific driving trips
 - Identify using timestamps and journal entries
 - E.g., Participant #5 smoked cannabis at 2pm on December 12, 2024. Look for a trip file that occurred between 2pm and 4pm that day
 - Analyze driving behavior and performance during that specific trip
 - Compare to a “sober” drive







Thank You!

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