



MORE IS LESS

How Increasing Damage Thresholds for
Reporting Collisions Erodes Sample Sizes
and Produces Misleading Analytical Results

OVERVIEW



Background



Methodology



Outcomes



Impact



Recommendations



BACKGROUND

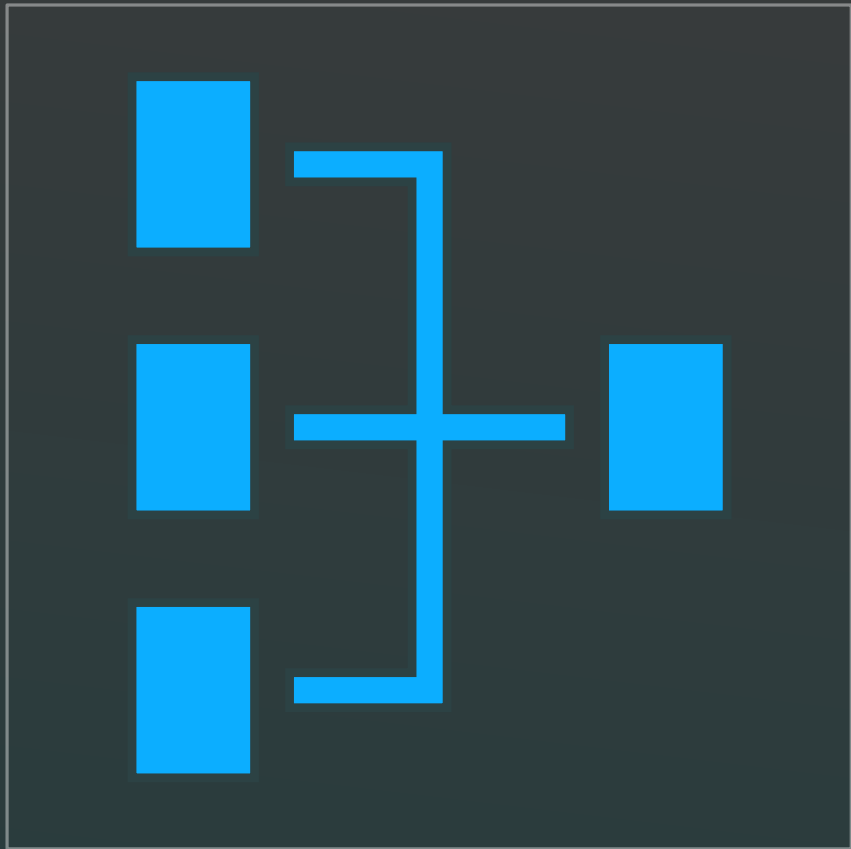


COLLISION REPORTING LIMITS DOUBLE

- ▶ 2010: Alberta increases collision reporting limit from \$1000 to \$2000 combined damage.
- ▶ 2015: Ontario follows suit to increase from the same \$1000 to \$2000.

COLLISION REPORTING FURTHER CHANGES

- ▶ 2011: Manitoba removed a reporting limit for property damage only collisions; where no criminality was involved, no report was required.
- ▶ 2019: BC decides all vehicles involved in collisions under \$10,000 can leave scene and whether a report is required will be at the discretion of the police.



METHODOLOGY



HOW DATA WAS GATHERED AT COLLISION REPORTING CENTRES

- ▶ ASSI Ltd has 43 Collision Reporting Centres across Ontario, Alberta, Virginia, Arizona and California.
- ▶ On reportable collisions, at ASSI Ltd Collisions Reporting Centres, all fields on state or provincially mandated reports entered into CROMS, our propriety computer system.

HOW DATA WAS GATHERED AT COLLISION REPORTING CENTRES

- ▶ Statistical data then available for analysis; it was reviewed and restrained based on damage estimates of +\$2000 and +\$5000 respectively.
- ▶ Resulting information allows us the ability see what would be lost if the reporting limits were changed.

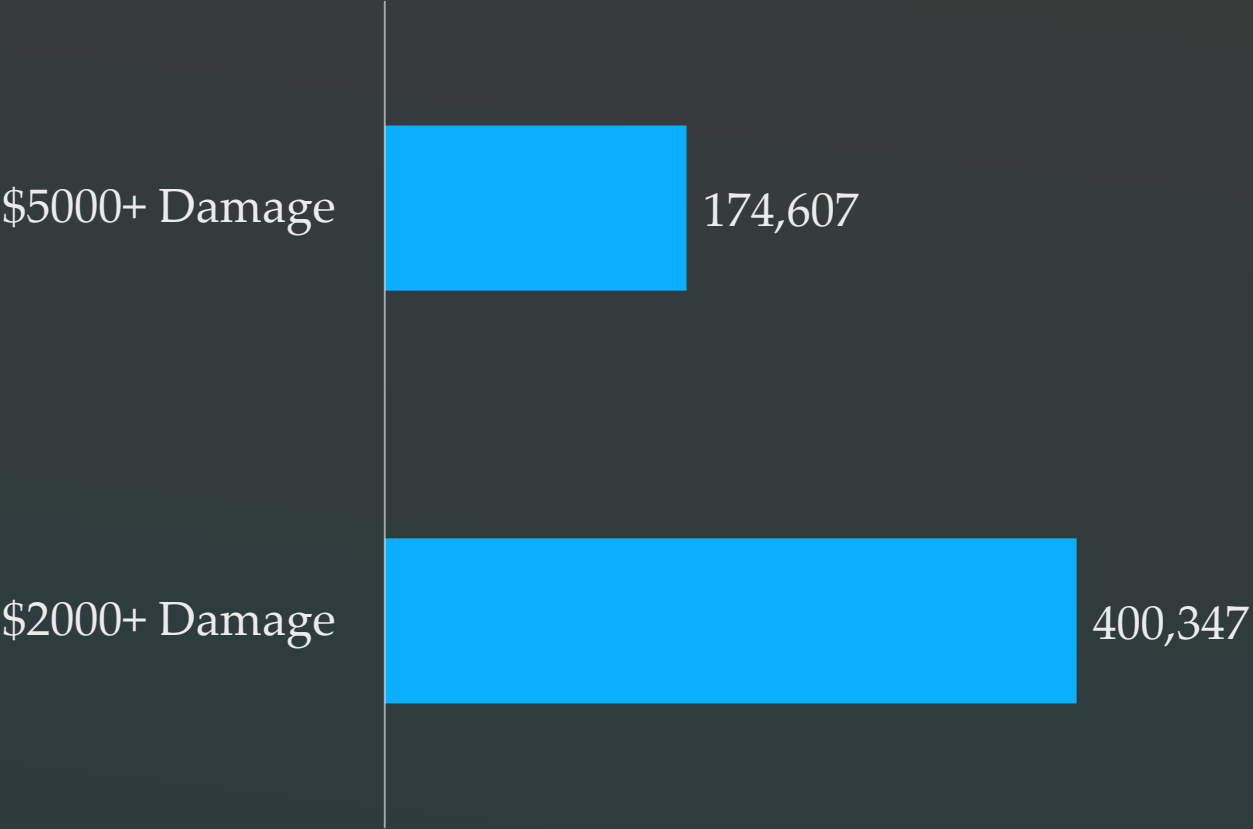


OUTCOMES



COMPARISON OF
TOTAL DRIVERS
INVOLVED IN
COLLISIONS FROM
2016 TO PRESENT
ACROSS ONTARIO

Total Entities Involved In Collisions



COMPARISON OF TOTAL COLLISIONS INVOLVING INJURIES FROM 2016 TO PRESENT ACROSS ONTARIO

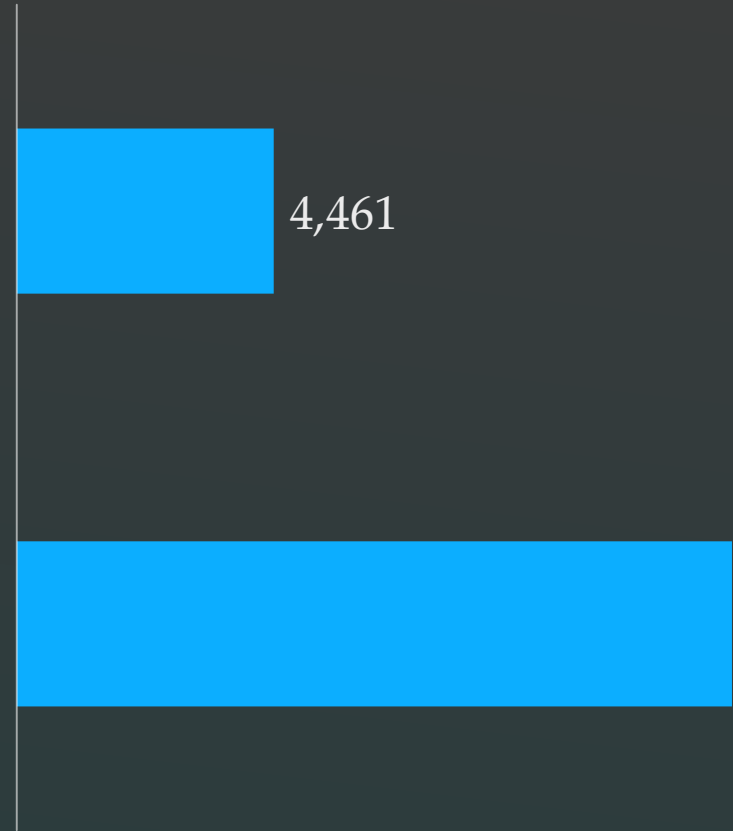
Total Collisions Involving Injuries

\$5000+ Damage

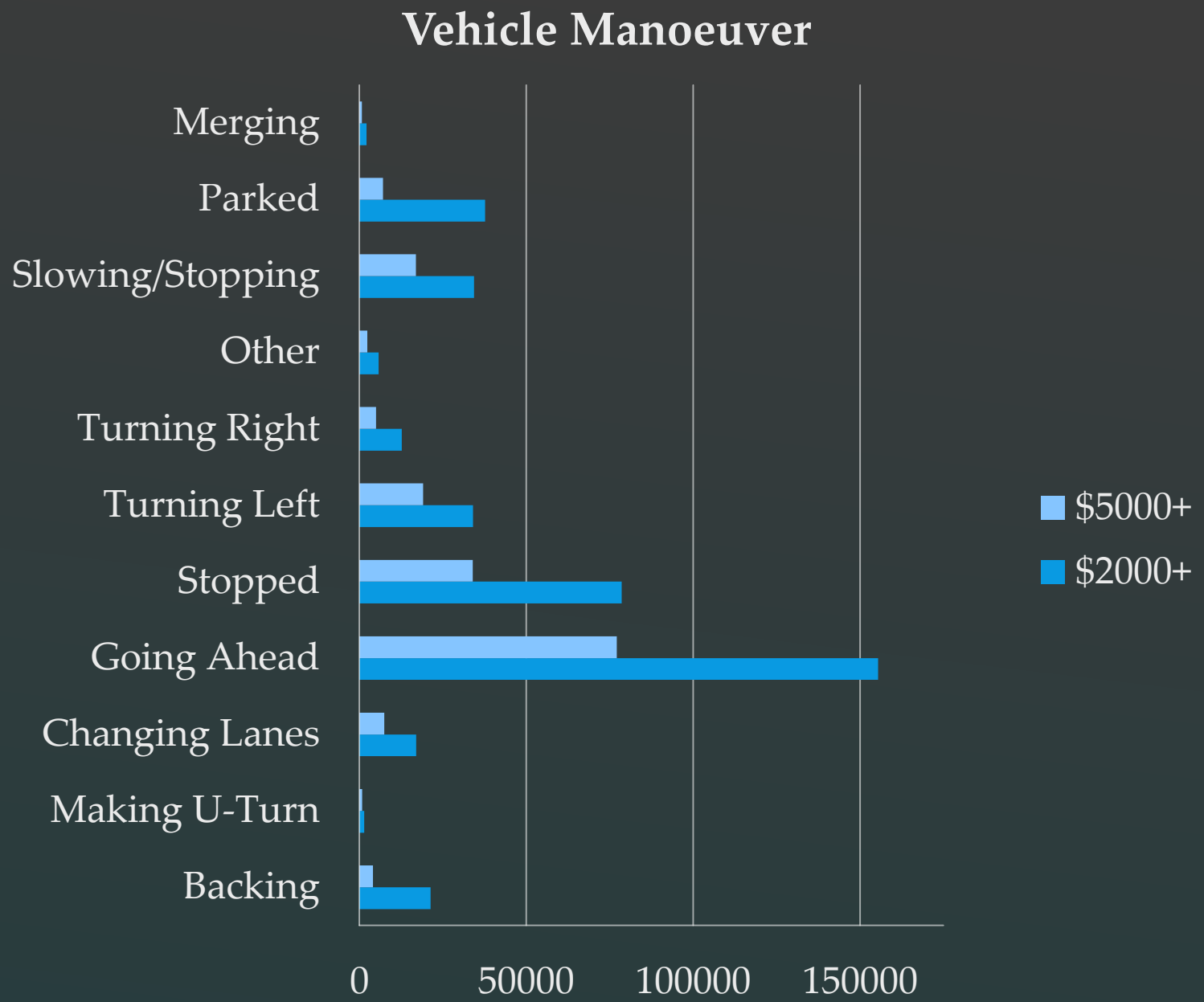
4,461

\$2000+ Damage

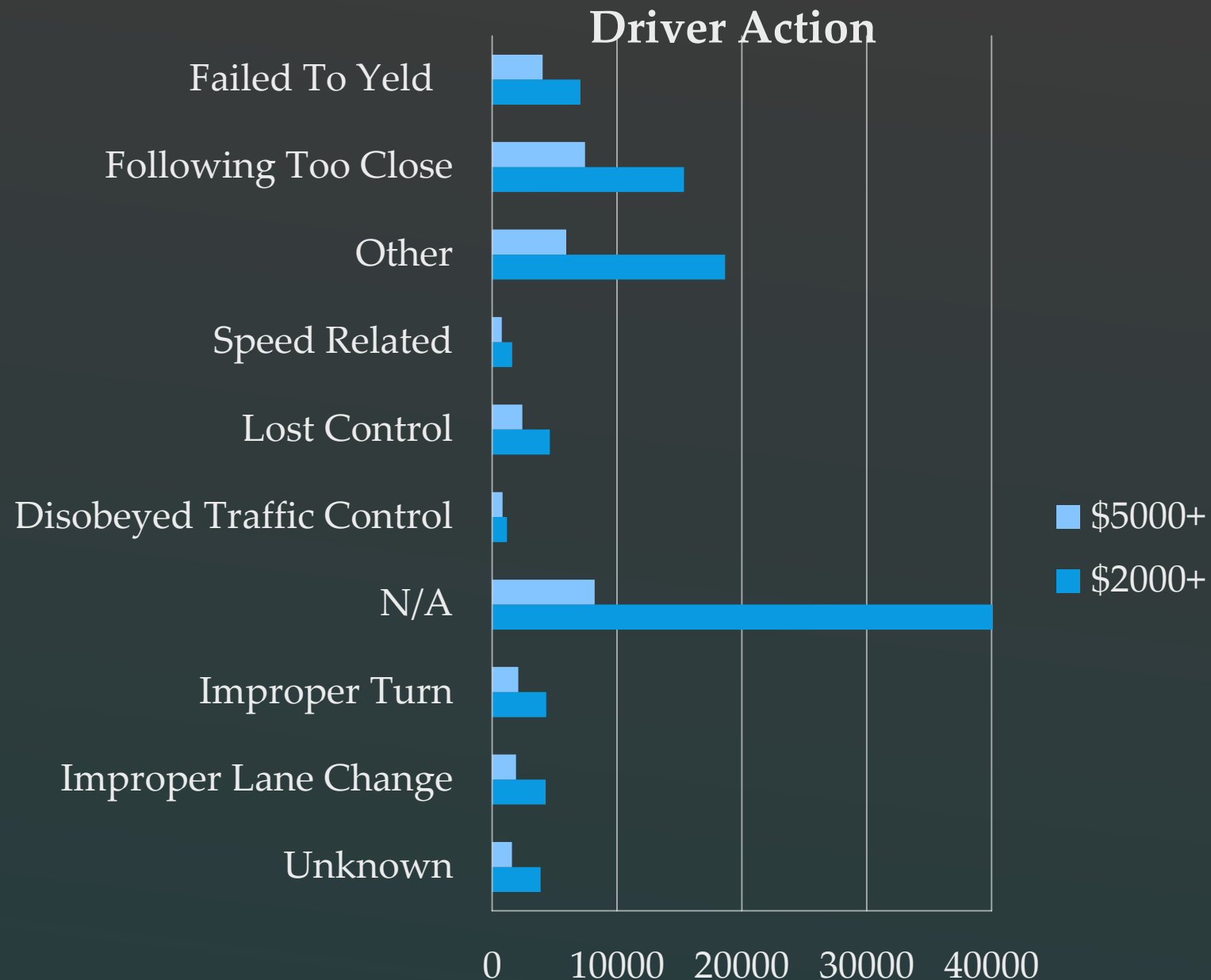
12,416



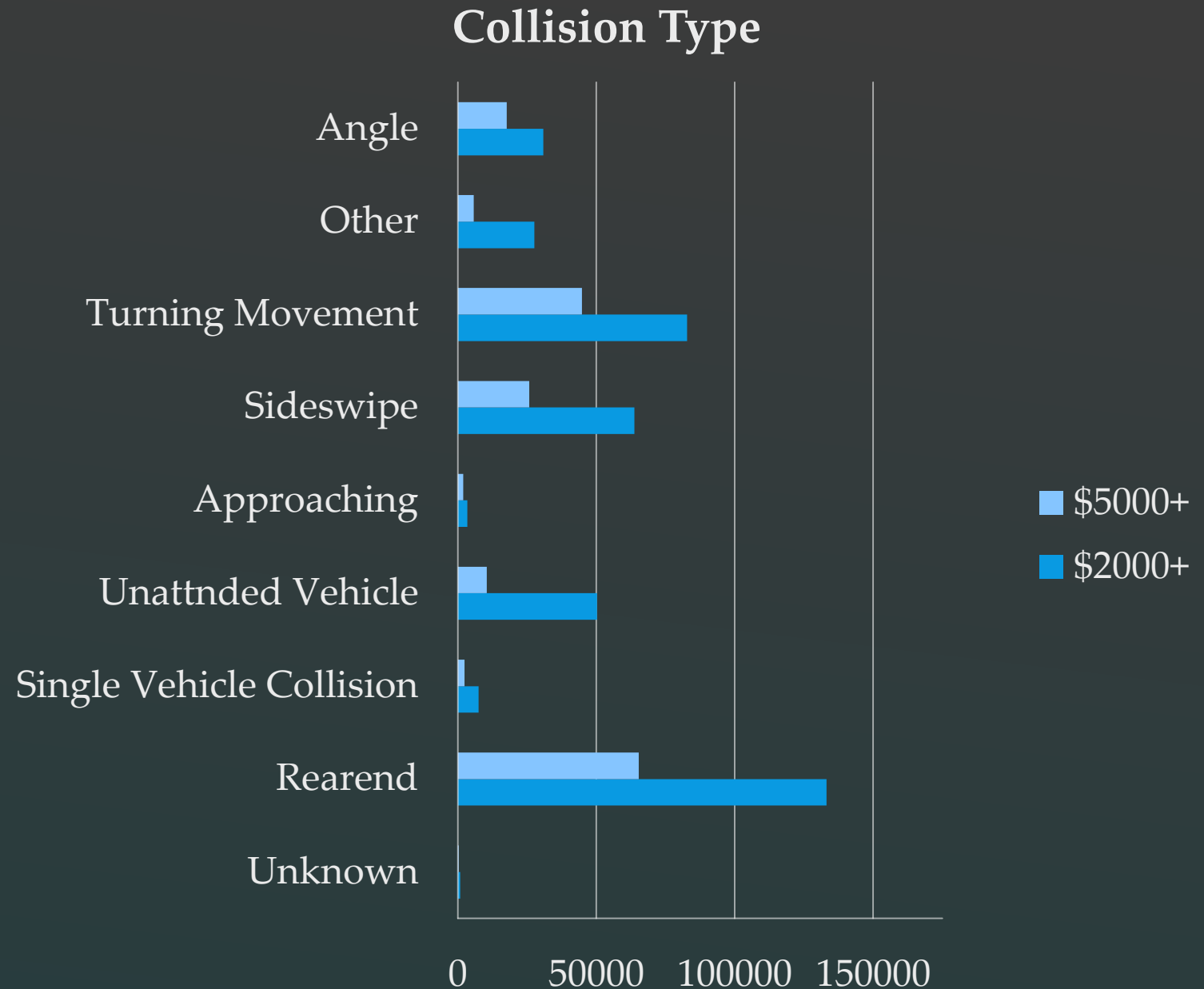
COMPARISON OF
TOTAL ENTITIES BY
VEHICLE
MANOEUVER FROM
2016 TO PRESENT
ACROSS ONTARIO



COMPARISON OF TOTAL ENTITIES BY DRIVER ACTION FROM 2016 TO PRESENT ACROSS ONTARIO



COMPARISON OF TOTAL ENTITIES BY COLLISION TYPE FROM 2016 TO PRESENT ACROSS ONTARIO





IMPACT

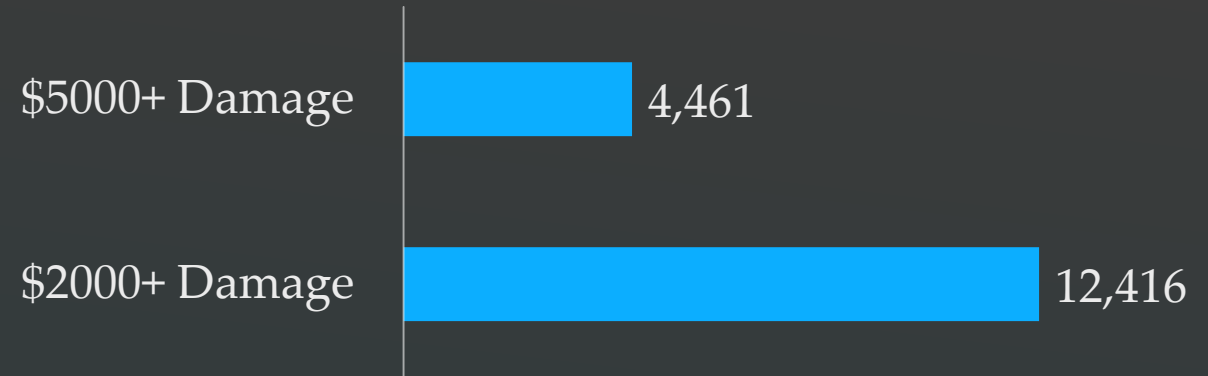


MORE THAN HALF OF THE RICH ANALYTICAL DATA IS LOST

- ▶ Upon reviewing statistics in the outcomes, we see that on average 50% of data is lost when we increase reporting limits from \$2000 to \$5000. This is significant when attempting to understand how and why collisions are occurring.
- ▶ Further, when we review low value collisions, those under \$500, there is little to no impact on the data sample; the bulk of the key data is between \$2000-\$5000.

SIGNIFICANT LOSS OF IMPACTFUL AND EXPENSIVE MINOR INJURY DATA

Total Collisions Involving Injuries



- Approximately 8,000 injury collisions are excluded from the data sample when the damage estimate is increased. That accounts for primarily minor injury collisions and potentially those most impacted by city engineering and planning as well as directed enforcement.

HIGH RISK, FREQUENT COLLISION LOCATIONS SKEWED

- ▶ Increases in reportable limits skewed high risk, improvable intersections. This alteration in data robs city engineers, police and insurers from the ability to understand how to best improve safety and reduce property loss.

HIGH RISK, FREQUENT COLLISION LOCATIONS SKEWED

► HWY 3 & Bridge Dr

:15 collisions

:\$92,500

:78% weather related

► Mayor Magrath Dr S & Scenic Dr

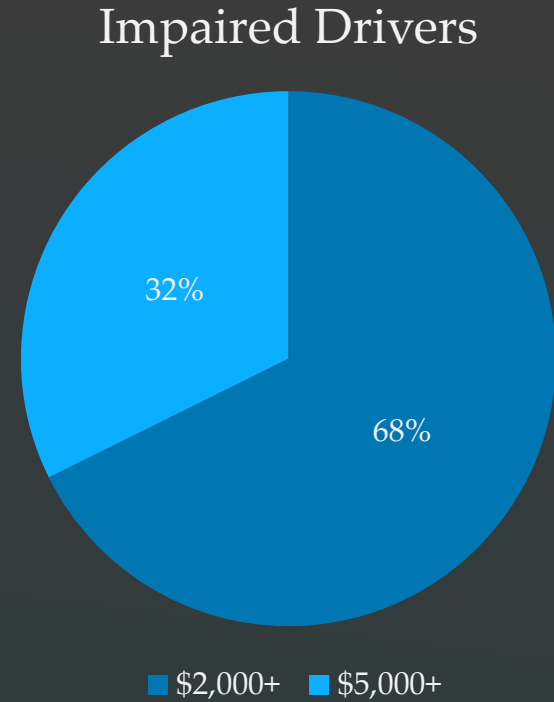
:43 collisions

:\$86,000

:81% driver error related



LOSS OF ENFORCEMENT IN CRIMINAL CODE INFRACTIONS



- A surprising finding was the increase in 'had been drinking' & impaired driving cases found in the \$2000 reporting limit vs the \$5000 limit. This was the one area where the effect was greater than 50% and potentially lost with a limit increase.



RECOMMENDATIONS

POTENTIAL SOLUTIONS TO LOSING SIGNIFICANT SAFETY DATA

- ▶ No further increases to reporting limits for collisions nationwide.
- ▶ Online solutions for below 'reportable limit' collisions. While these are not dealt with by police, there is no reason to completely write off the rich data available.

POTENTIAL SOLUTIONS TO LOSING SIGNIFICANT SAFETY DATA

- ▶ Get very clear that though police may not be able to attend every collision there is potential prevention for fraud, criminality and personal harm when collisions are investigated at a lower reporting limit.
- ▶ Consider partnership opportunities, such as ASSI Ltd Collision Reporting Centres, to gather data on behalf of police without investment of taxpayer resources ensuring optimal data and public safety are our first priority.

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