

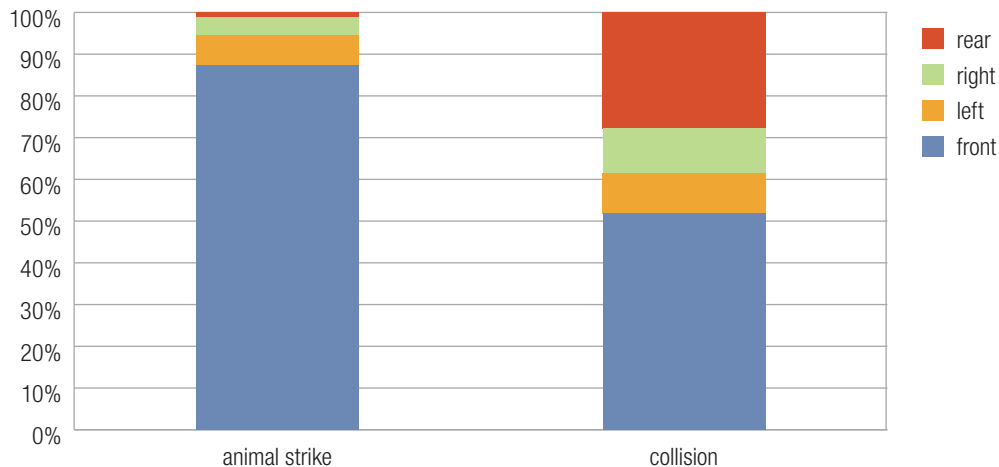


Point of impact distribution for animal strike claims

► Summary

The Highway Loss Data Institute (HLDI) has been reporting on animal strikes, covered under comprehensive coverage, since 2008. The most recent report from 2014 is consistent with previous findings and indicates that animal strikes typically rise in the fall, peak in November, and then drop off in December and January (HLDI, 2014). Claim frequencies for animal strikes average 6.6 claims per 1,000 insured vehicle years over the 8 calendar years studied. This bulletin examines the point-of-impact distribution of animal strike claims for 2001–14 model year vehicles during calendar years 2004–13 and compares the findings with collision claims. Analysis revealed 87 percent of animal strike claims are to the front of the vehicle, compared with 52 percent for collision claims. The cost of an animal strike claim is less costly than a collision claim, \$2,730 compared with \$3,510.

Claim distribution by point of impact, animal strike vs. collision



► Introduction

Damage caused to vehicles in collisions with animals is insured under comprehensive coverage. Animal strikes, while typically seasonal, are common and costly. The purpose of this Highway Loss Data Institute (HLDI) bulletin is to examine the distribution of claims and average damage amounts for animal strike losses under comprehensive coverage by point of impact. Collision claims were also examined as a comparison.

► Methods

Insurance data

Automobile insurance covers damage to vehicles and property as well as injuries to people involved in crashes. Different insurance coverages pay for vehicle damage versus injuries, and different coverages may apply depending on who is at fault. The current study is based on collision coverage and animal strikes covered under comprehensive coverage. Collision coverage insures against physical damage sustained in crashes to insured people's own vehicles. Damage caused to vehicles in collisions with animals is insured under comprehensive coverage.

Of the 36 companies that currently report comprehensive coverage to HLDI, only 23 provide information on animal strikes covered under comprehensive insurance. Vehicle exposure from the 23 companies represents 32 percent of the HLDI database.

Points of impact are provided to HLDI by AudaExplore, CCC Information Services, Inc., and Mitchell. These companies provide automated vehicle repair estimate software used by a large number of auto repair shops and automobile insurers. In addition to the type of claim (PDL, collision, or comprehensive), the estimation data include primary and secondary points of impact for damaged vehicles. Only primary points of impact were used in the present study due to the low number of claims with secondary points of impact. Rollover, undercarriage damage, and obvious totals were not included in this study.

Analysis method

Points of impact were classified into 12 locations on the vehicle. The difference between the proportion of impacts by clock point for animal strike and collision claims were examined. Analyses were based on approximately 1 million animal strike claims and nearly 11 million collision claims for 2001–14 model passenger vehicles during 2004-13.

► Results

Figure 1 shows the percent distribution of claims and average damage amounts by point of impact for animal strikes and collision coverage separately. For both animal strikes and collision, the highest percentage of claims occurred for front center impacts. Front center claims made up 56 percent of animal strike claims compared with 30 percent of collision claims. Average damage amounts were higher for collision claims (\$3,510) than for animal strikes (\$2,730). It is interesting to note that for animal strike claims, clock points 10 and 11 represent 21 percent of claims while for collision they are just 14 percent of claims.

Figure 1: Percent distribution of claims and average damage amounts by point of impact and coverage type, 2001–14 model passenger vehicles

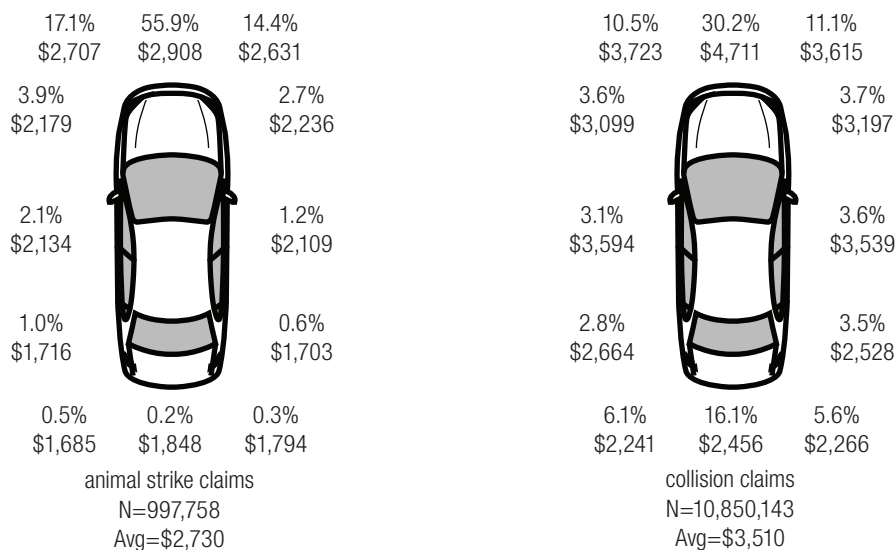


Figure 2 summarizes the data from **Figure 1** into four impact points: front, right, left and rear. Frontal impacts make up the majority of claims for both coverages but overwhelmingly so for animal strikes, 87 percent compared with 52 percent. Rear impacts only make up 1 percent of animal strike claims compared with 28 percent for collision claims. For animal strikes, the percent of claims to the left side (7 percent) were slightly higher than to the right side (5 percent). This is different from collision claims where the right side (11 percent) was higher than left (10 percent).

Figure 2: Claim distribution by point of impact, animal strike vs. collision

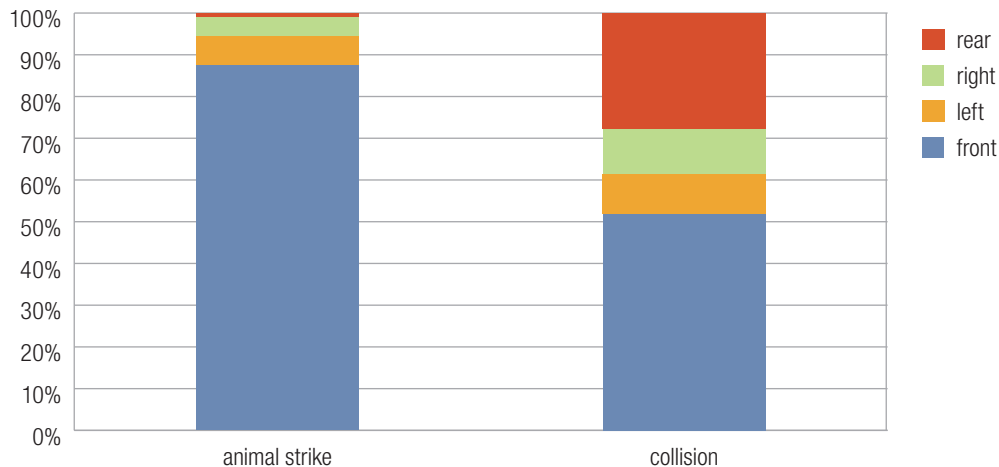


Figure 3 examines claim severity by point of impact for animal strikes and collision coverage. Average severity was higher for collision claims (\$3,510) than for animal strikes (\$2,730). For all four impact points, collision severities were higher than for animal strikes.

Figure 3: Claim severity by point of impact, animal strike vs. collision

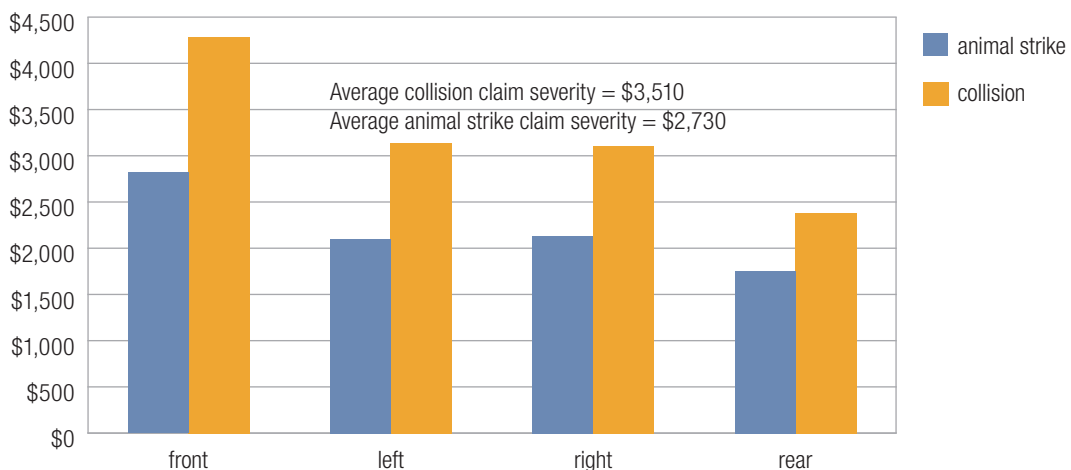
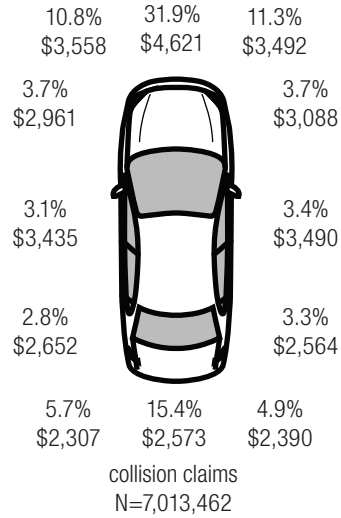
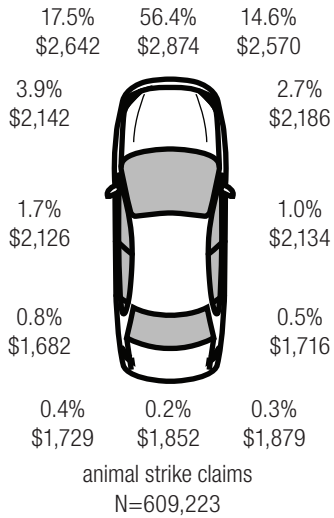


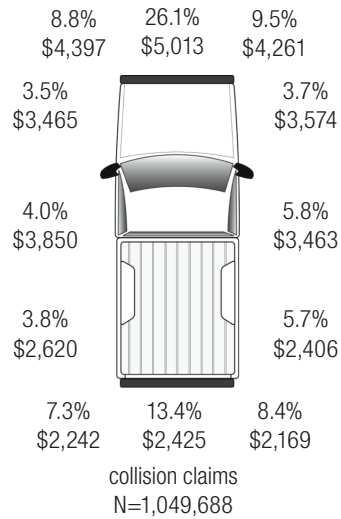
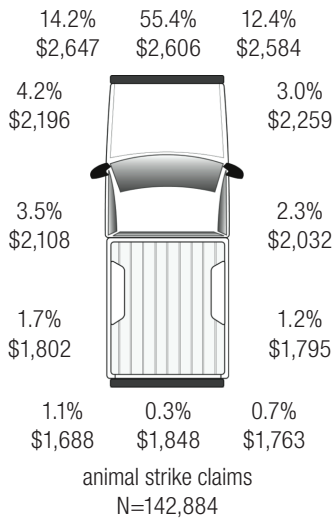
Figure 4 shows the percent distribution of animal strike and collision claims and average damage amounts by point of impact for cars (including minivans), pickups, and SUVs. The percentage of front center claims for animal strikes was consistent among vehicle types, ranging from 55 percent for SUVs to 56.4 percent for passenger cars. The distribution of claims exhibited more variation for collision than animal strike by vehicle type. Center rear claims exhibited the most variability, ranging from 13.4 percent for pickups to 19 percent for SUVs.

Figure 4: Percent distribution of claims and average damage amounts by point of impact, vehicle type, and coverage type, 2001–14 model passenger vehicles

passenger cars



pickups



SUVs

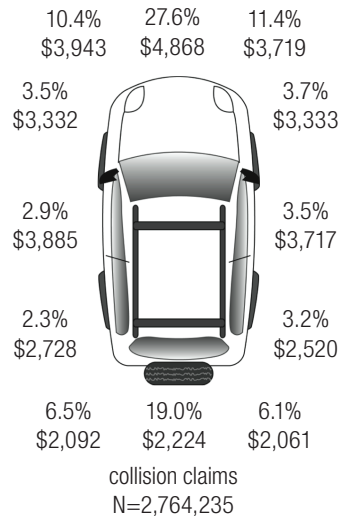
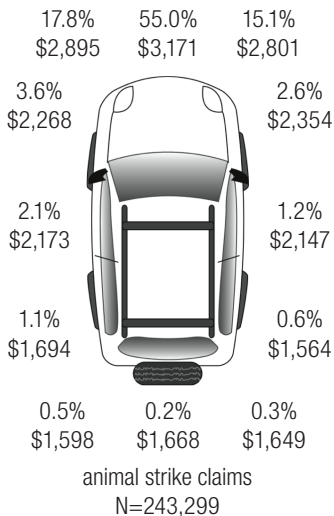
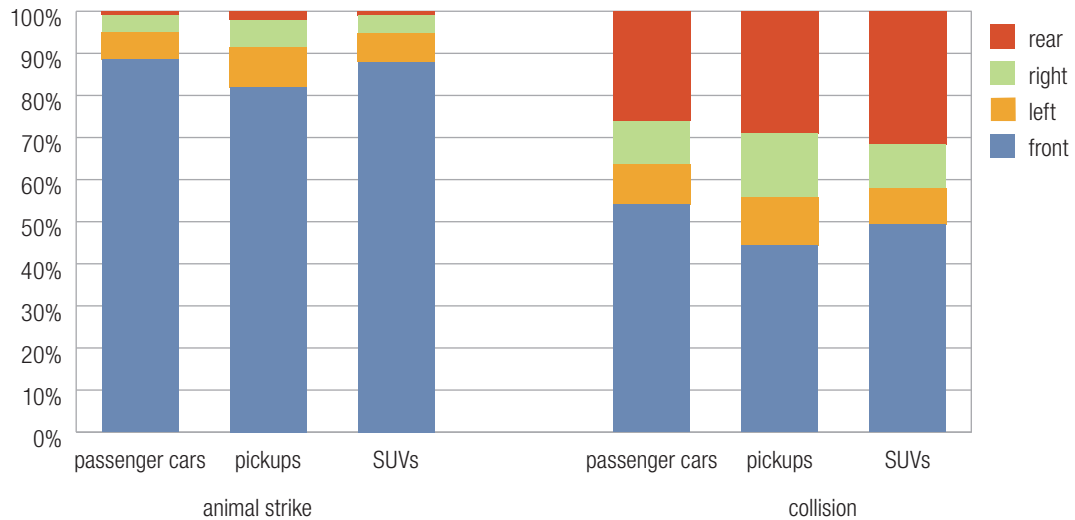


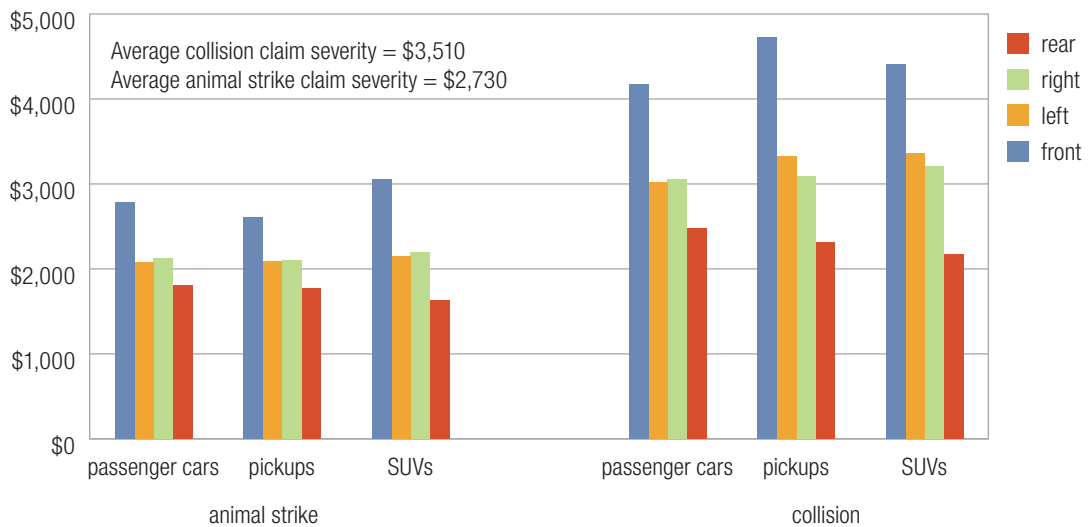
Figure 5 summarizes the data from **Figure 4** into four impact points: front, right, left, and rear. Among animal strike claims, passenger cars had the highest percentage of frontal impacts (88.5 percent) followed by SUVs (87.9 percent) and pickups (82 percent). Collision claims were also frequently concentrated in the front of the vehicle but typically made up only about half of claims. Rear claims for animal strikes were rare, ranging from about 1 percent for passenger cars and SUVs to 2 percent for pickups. For collision claims, more than 30 percent of claims for SUVs were to the rear of the vehicle, the highest of the vehicle types.

Figure 5: Claim distribution by point of impact and vehicle type, animal strike vs. collision



Claim severity by point of impact and vehicle type is shown in **Figure 6**. Frontal claims are the most costly regardless of coverage or vehicle type. Left and right side severities are approximately equal, and rear claims are the least costly to repair. For all points of impacts and vehicle types, collision claims cost more than animal strike claims.

Figure 6: Claim severity by point of impact, animal strike vs. collision



► Discussion

The point-of-impact distribution for animal strike claims is different from collision claims. A much larger proportion of claims are to the front of the vehicle, and very few animal strike claims involve damage to the sides or rear. The claim distribution illustrates that there are limited scenarios where the sides or rear of a vehicle would come into contact with an animal. The evolution of forward collision warning systems that have the ability to detect animals in the roadway may prove to be effective countermeasures to animal strike collisions.

References

Highway Loss Data Institute. 2014. Losses due to animal strikes. *Loss Bulletin* Vol. 31, No. 3. Arlington, VA.

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