



Vandalism

This bulletin examined vehicle vandalism claims by month, day of week, and holidays. Vandalism was found to be highest during the summer months and on weekends. Halloween had the highest number of vandalism claims of any day of the year. Analysis at the county level showed that incidences of Halloween vandalism claims relative to their annual daily average was highest for Atlantic County in New Jersey.

► Introduction

This Highway Loss Data Institute (HLDI) bulletin presents the results of an analysis on vandalism claims. Damage caused to vehicles due to vandalism is insured under comprehensive coverage. Differences in the number of vandalism claims by month, day of the week, selected holidays, and county were examined.

► 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 comprehensive coverage, and in particular, vandalism claims. Comprehensive coverage insures against theft or physical damage to insured people's own vehicles for reasons other than crashes.

Of the 36 companies that currently report comprehensive coverage to HLDI, 28 provide information on vandalism covered under comprehensive insurance. Vehicle exposure from the 28 companies represents 89 percent of the HLDI database.

Subject vehicles

The study period was from January 2008 through December 2012 and included passenger vehicles between 0 and 9 years old. Motorcycles were not included.

► Results

During the five-year study period there was an average of 692 vandalism claims per day at an average cost of \$1,528 per claim. This translates to an average cost of over \$1 million per day for vehicle vandalism claims reported to HLDI. Based on published market share data, the estimated cost for the entire industry is over \$1.4 million per day. **Figure 1** shows the average daily vandalism claims by month relative to the annual daily average. For example, January averaged 590 vandalism claims per day, the lowest of any month. The average number of daily claims for January relative to the annual daily average was 0.85 (i.e., 590/692), or 15 percent below average. The relative daily average (RDA) for other months was calculated in the same manner. An RDA close to 1.0 indicates the average number of claims per day in the corresponding month did not differ from the average number of daily claims for the year. An RDA higher than 1.0 indicates a greater than average number of daily claims for that month, whereas an RDA lower than 1.0 means the average number of daily claims for that month was lower than average.

May through October had higher than average vandalism claims relative to the annual daily average. The summer months (June through August) were the overall highest, peaking in July with an RDA of 1.13, or 13 percent more claims than the yearly average. October was the fourth-highest month with 6 percent more claims than average. The claims for November through March were all below the annual daily average.

Figure 1: Average daily vandalism claims by month relative to annual daily average

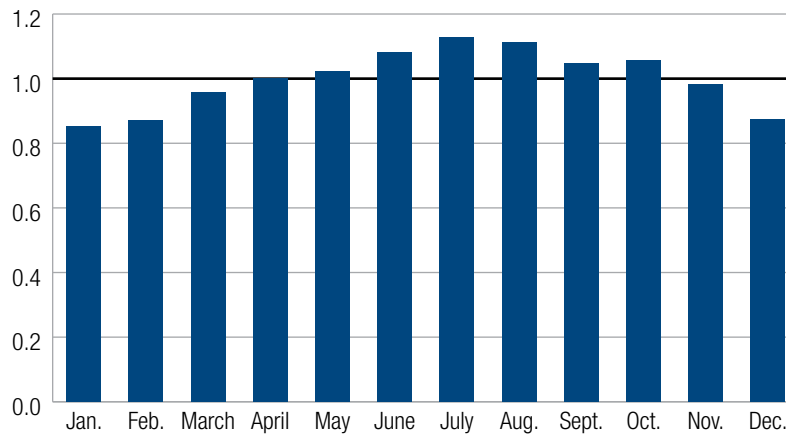


Figure 2 shows the average daily vandalism claims by day of the week relative to the annual daily average. In order to calculate this relative daily average, the average number of vandalism claims on a particular day of the week was divided by the annual daily average of 692. For example, there were 180,096 claims reported on Fridays during the study period, which translates to 693 vandalism claims per Friday. Thus the average number of claims on Friday relative to the annual daily average was 1.0. Monday also had an approximately average number of claims. The number of claims for days in the middle of the week (Tuesday through Thursday), were all approximately 7-8 percent below average. Vandalism claims on the weekend days of Saturday and Sunday were 16 percent and 7 percent above average, respectively.

Figure 2: Average daily vandalism claims by day of week relative to annual daily average

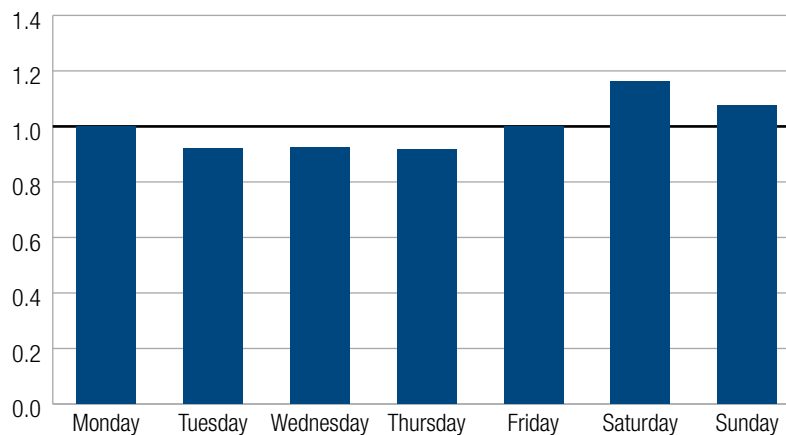
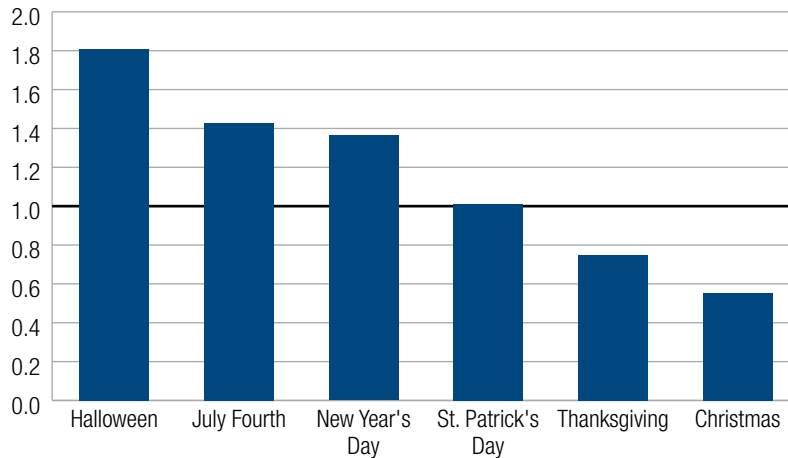


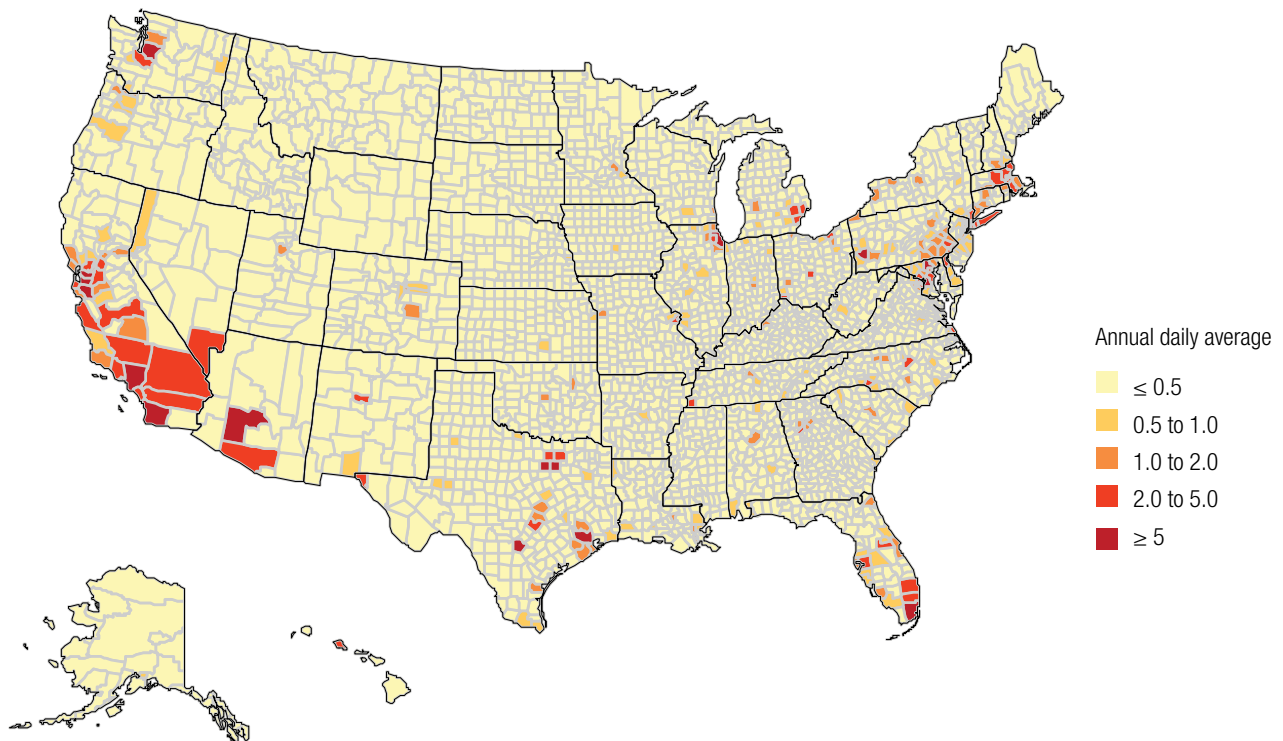
Figure 3 shows the average daily vandalism claims on selected holidays relative to the annual daily average. These relative daily averages were calculated in the same manner. Halloween had the highest number of claims for any day, with over 81 percent more claims than average. The average cost per claim on Halloween was \$1,660, approximately 9 percent higher than the annual daily average cost per claim. As a result of the increased incidence and higher average cost, the average cost per day on Halloween was over \$2 million for vandalism claims reported to HLDI. The estimated cost for the entire industry is more than \$2.8 million per day on Halloween. July Fourth and New Year's Day had 43 percent and 36 percent more claims than average. Both Thanksgiving and Christmas had below-average claim counts. The average number of claims on Christmas was 45 percent below the annual daily average.

Figure 3: Average daily vandalism claims on selected holidays relative to annual daily average



Map 1 shows the annual daily average vandalism claims by county. Most counties averaged less than one vandalism claim per day. Urban areas typically had the highest annual daily average, with Los Angeles and Cook counties having the highest overall at 14 and 12 vandalism claims per day respectively.

Map 1: Annual daily average vandalism claims by county, 2008-2012



The increased risk of vandalism on Halloween was investigated at the county level. **Table 1** shows the Halloween risk for the 10 counties with the highest annual daily average vandalism claims. These are all densely populated counties with four of the top 10 from California and three from Texas. Los Angeles County had the highest annual daily average of 14 vandalism claims per day. The average number of claims on Halloween was almost twice that at 27. All 10 counties showed increased risk of vandalism on Halloween, with Halloween claims ranging from 29 percent (Harris, Texas) to 103 percent (Philadelphia, Pennsylvania) above their respective annual daily averages.

Table 1: Halloween claim risk for top 10 counties with highest annual daily average vandalism claims, 2008-12

Rank	County	State	Claims	Annual daily average	Halloween claims	Halloween average	Halloween relative daily average
1	Philadelphia	Pennsylvania	11,671	6.4	65	13.0	2.0
2	San Diego	California	12,048	6.6	66	13.2	2.0
3	Los Angeles	California	25,977	14.2	136	27.2	1.9
4	Cook	Illinois	21,382	11.7	110	22.0	1.9
5	Maricopa	Arizona	11,216	6.2	56	11.2	1.8
6	Santa Clara	California	14,019	7.7	65	13.0	1.7
7	Dallas	Texas	13,737	7.5	57	11.4	1.5
8	Alameda	California	13,322	7.3	54	10.8	1.5
9	Bexar	Texas	12,214	6.7	46	9.2	1.4
10	Harris	Texas	21,165	11.6	75	15.0	1.3

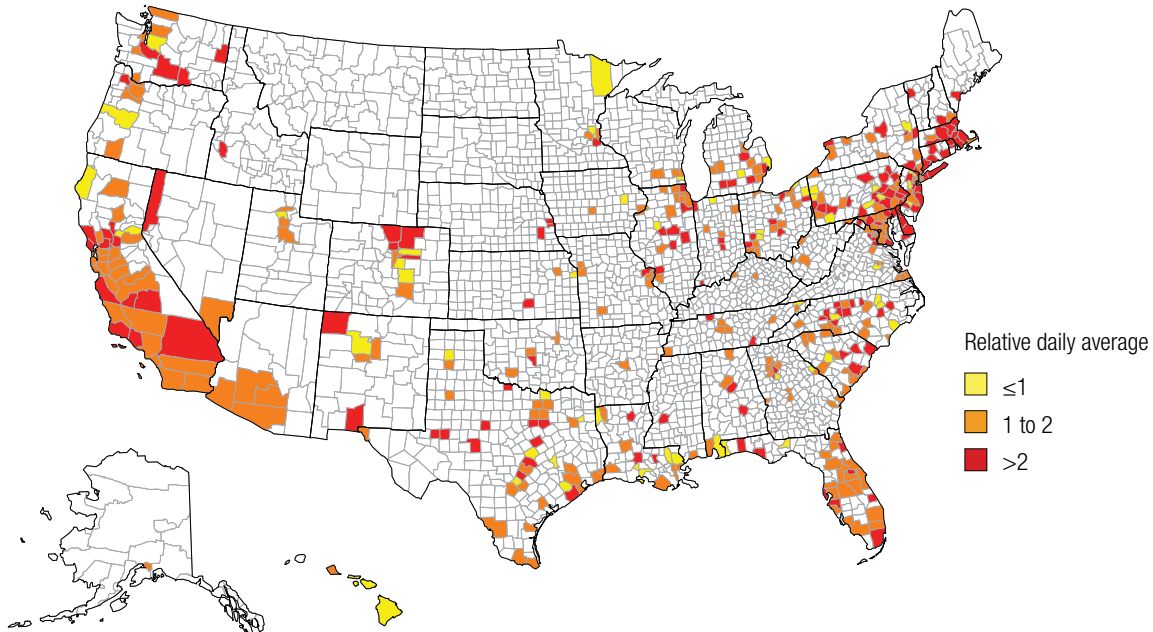
Table 2 lists the top 10 counties with the highest Halloween vandalism claims relative to that county's annual daily average. In order to be included in the top 10, a county must have had at least 500 vandalism claims (an average of 100 per year) during the 2008-2012 study period. While less densely populated and with fewer total claims than the counties shown in **Table 1**, the incidences of Halloween vandalism claims relative to their annual daily average was much higher. Halloween vandalism claims ranged from 279 percent (Schuylkill, Pennsylvania) to 472 percent (Atlantic, New Jersey) above their respective annual daily averages.

Table 2: Top 10 counties with highest relative daily average Halloween vandalism claims, 2008-12

Rank	County	State	Claims	Annual daily average	Halloween claims	Halloween average	Halloween relative daily average
1	Atlantic	New Jersey	574	0.3	9	1.8	5.7
2	Chittenden	Vermont	610	0.3	9	1.8	5.4
3	Tom Green	Texas	641	0.4	9	1.8	5.1
4	Sarpy	Nebraska	545	0.3	7	1.4	4.7
5	Kalamazoo	Michigan	1,011	0.6	11	2.2	4.0
6	Lackawanna	Pennsylvania	1,485	0.8	16	3.2	3.9
7	Florence	South Carolina	744	0.4	8	1.6	3.9
8	Wichita	Texas	943	0.5	10	2.0	3.9
9	Madison	Illinois	1,799	1.0	19	3.8	3.9
10	Schuylkill	Pennsylvania	1,060	0.6	11	2.2	3.8

Map 2 illustrates the relative daily average Halloween vandalism claims by county. Counties that did not meet the cutoff of 500 total claims are shown in white. Counties with a below-average number of Halloween claims are shown in yellow, while those with above-average Halloween claims are shown in orange and red. Of the 450 counties that made the cutoff, 388 or 86 percent of them had an above average number of claims on Halloween. Almost 36 percent of the counties had Halloween vandalism claims more than twice their annual daily average.

Map 2: Relative daily average Halloween vandalism claims by county, 2008-12



► Discussion:

Halloween, known as a day for mischief, was the peak day for vandalism. Nationally, the number of vandalism claims on Halloween was 81 percent higher than the yearly average. Vandalism on New Year's Day and July Fourth was also much higher than average. Vandalism also occurred more often on the weekends and during the summer months. Alcohol, teenagers being out of school, and warmer weather are all factors that likely contributed to this result.

Limitations:

It should be noted that there were observable spikes in the number of vandalism claims that were reported on the 1st and 15th of every month. One company has stated that while the majority of their claims have an associated date, there are a small number of claims where the month is known but the day is unknown. In those instances the 15th was assigned to that claim. It is possible that other companies employ similar methods. While this should not affect the yearly average, or average daily vandalism claims by month, it could have an impact on the average daily vandalism claims by day of the week and on the selected holidays. With the exception of New Year's Day, none of the selected holidays fall on the 1st or 15th, so the average number of claims on these days are most likely underreported.

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The Highway Loss Data Institute is a nonprofit public service organization that gathers, processes, and publishes insurance data on the human and economic losses associated with owning and operating motor vehicles.

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