

DATE: April 14, 2020
REGARDING: 2017-2019 United States Hail Loss Claims (Public Dissemination)
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Executive Summary

This *ForeCAST*SM illustrates the trends in hail loss claims in the United States (US) submitted from 2017 through 2019. Hail loss claims decreased 26% between 2017 and 2018 and decreased 7% between 2018 and 2019- overall, from 2017 to 2019, hail loss claims decreased 31%.

Texas was the top state in total hail loss claims from 2017 through 2019; with 637,977 hail loss claims. Additionally, Texas had the highest total number of claims each year with the exception of 2018, where Colorado had the highest claims. The top 10 states represented 72% of the total number of hail loss claims during this timeframe. Omaha, NE was the top city in total hail loss claims with 54,153 claims from 2017 to 2019. The top 10 cities made up 11% of the total number of hail loss claims in the US over those 3 years.

“Personal Property- Homeowners” (PPHO) was the policy type most affected by both hail loss claims from 2017 through 2019. On average, PPHO policies were represented more than twice as often as the next most frequent policy type (Personal Automobile) in hail loss claims in that 3-year span.

A national hail loss map provides a visual depiction of the volume and distribution of hail loss claims. This map illustrates the concentration of hail loss claims in the Midwest and South regions of the United States as well as Colorado. An analysis of “severe hail days” by Verisk’s Weather Solutions shows a correlation with the states that accumulate a great number of hail claims per year.

Introduction

According to the National Oceanic and Atmospheric Administration (NOAA) (<http://www.ncdc.noaa.gov/event>), multiple severe hail storms between 2017 through 2019 have caused billions of dollars’ worth of damage across the US. In May 2017, a powerful storm with hail caused widespread damage across Colorado causing \$3.6 Billion in damage. Another hail storm occurred in Minnesota in June 2017 causing \$2.5 billion in damage. Two (2) hail storms occurred in June 2018 causing over \$3.6 billion in hail related damage.

In an effort to identify recent trends in hail loss claims, an analysis of data from ISO ClaimSearch® was performed. Claims containing the loss type “hail” with a date of loss between 2017 and 2019 were analyzed. Additionally, an analysis by Verisk’s Weather Solution is also included.

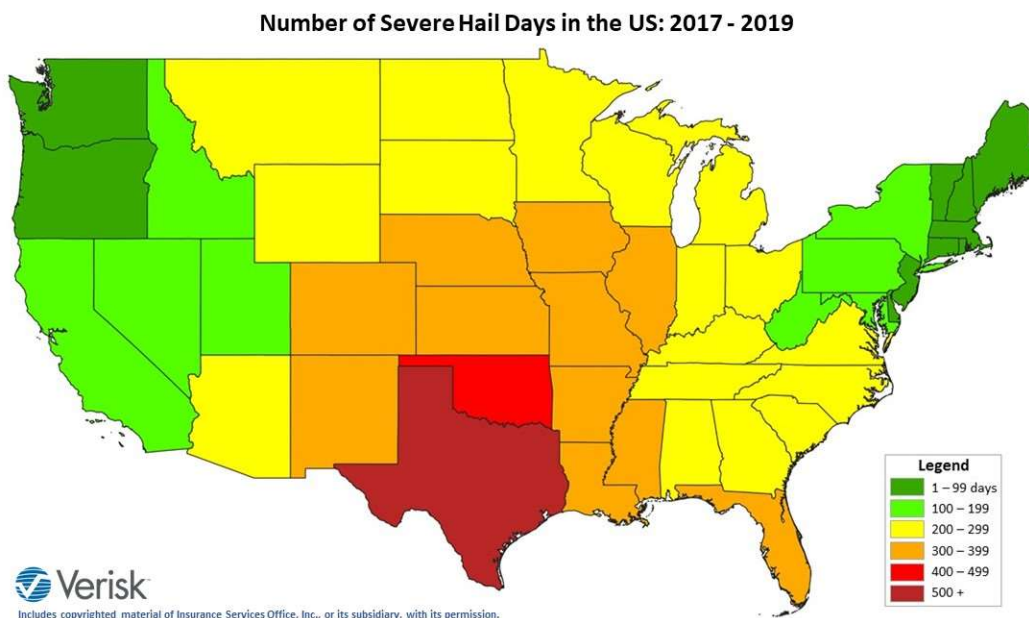
This report is divided into 4 sections. [Section 1](#) analyzes the number of “severe hail days” in the United States from 2017 to 2019. [Section 2](#) analyzes the overall US Hail Damage claim losses from 2017 through 2019. [Section 3](#) contains geographic analysis of Hail Damage claims by loss state. Finally, [Section 4](#) provides a list of indicators for hail damage fraud defense as well as a conclusion. A table of all state totals for Hail Damage claims is located in [Appendix 1](#).

Section 1: Verisk Weather Solutions Severe Hail Days

An analysis by Verisk’s Weather Solutions determined the number of severe hail days per year to impact each state from 2017 to 2019. A severe hail day is defined as a day when hail greater than or equal to 1 inch in diameter impacted a portion of the state. The hail data in the analysis was derived using radar data from the National Weather Service radar network and calculated using proprietary algorithms to determine the hail size that impacted the surface. Over the past 3 years, the South region has proved to consistently, and most frequently, receive large hail, as displayed in the graphics below.

Severe Hail Days 2017 – 2019: Top Ten US States (# of days)					
State	2017	2018	2019	Total	Average
Texas	187	189	208	584	195
Oklahoma	135	124	154	413	138
Kansas	133	122	142	397	132
New Mexico	134	119	137	390	130
Nebraska	119	113	141	373	124
Colorado	123	114	120	357	119
Florida	109	125	121	355	118
Missouri	113	114	118	345	115
Arkansas	98	107	118	323	108
Louisiana	95	117	108	320	107

The following map shows a geographic analysis of severe hail days by state as provided by Verisk’s Weather Solutions.



Section 2: United States Hail Loss Claims

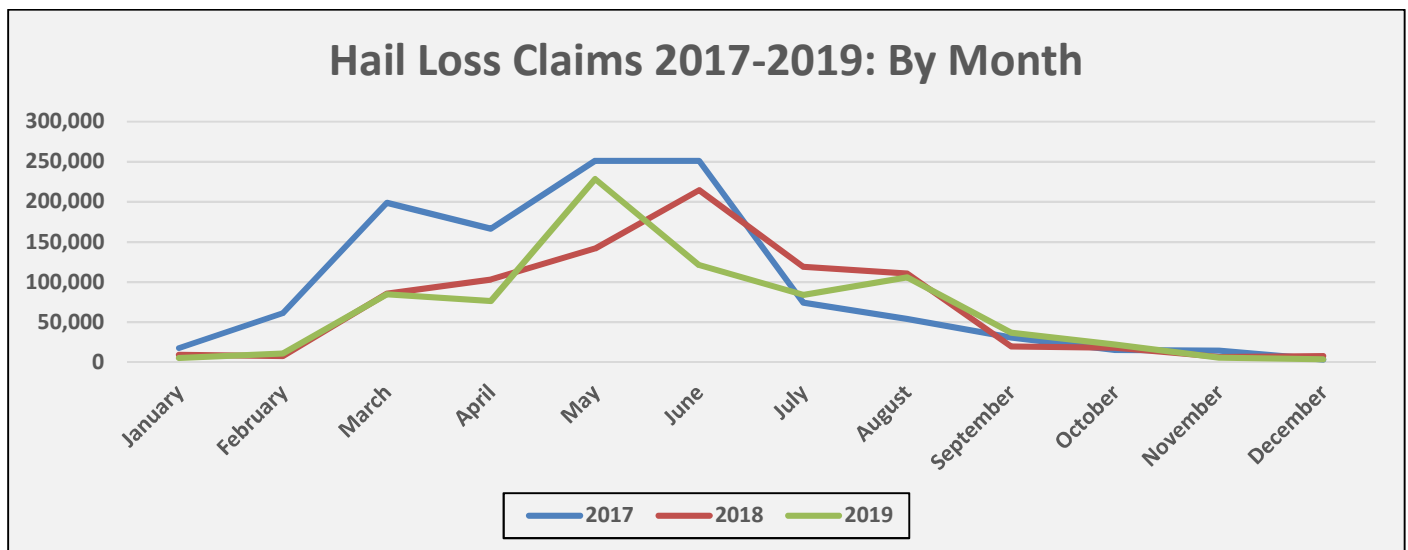
A total of 2,769,362 hail loss claims were identified with a date of loss from January 1, 2017 through December 31, 2019. Hail loss claims decreased 26% between 2017 and 2018; from 1,139,616 to 844,932. Hail loss claims then decreased 7% between 2018 and 2019; to 784,814. Overall, from 2017 through 2019, hail loss claims decreased 31% from 1,139,616 to 784,814. Please note that ISO ClaimSearch claims are a dynamic dataset. Some claims may have been voided in ISO ClaimSearch, while other claims may be updated by the member entering the claim and therefore may not reflect the exact numbers reported in previous or subsequent reports.

Hail Loss Claims By Loss Month

The following table shows hail loss claims, by loss month, from January 1, 2017 through December 31, 2019. The majority of hail loss claims occur in the spring and early summer months, between March and June. This is likely due to increased numbers of thunderstorms during this time period.

Hail Loss Claims 2017 - 2019: By Loss Month				
Month	2017	2018	2019	Total
January	17,701	9,233	5,205	32,139
February	61,079	7,976	10,834	79,889
March	198,733	85,546	84,606	368,885
April	166,615	103,267	76,332	346,214
May	251,300	141,941	228,704	621,945
June	251,008	214,639	121,102	586,749
July	74,621	118,942	83,800	277,363
August	54,271	110,625	105,768	270,664
September	31,124	19,925	36,998	88,047
October	15,445	18,161	22,052	55,658
November	14,402	6,730	5,769	26,901
December	3,317	7,947	3,644	14,908
Total	1,139,616	844,932	784,814	2,769,362
Yearly Percent Change	---	-26%	-7%	-31%

The following graph shows hail loss claims by loss month from 2017 through 2019.



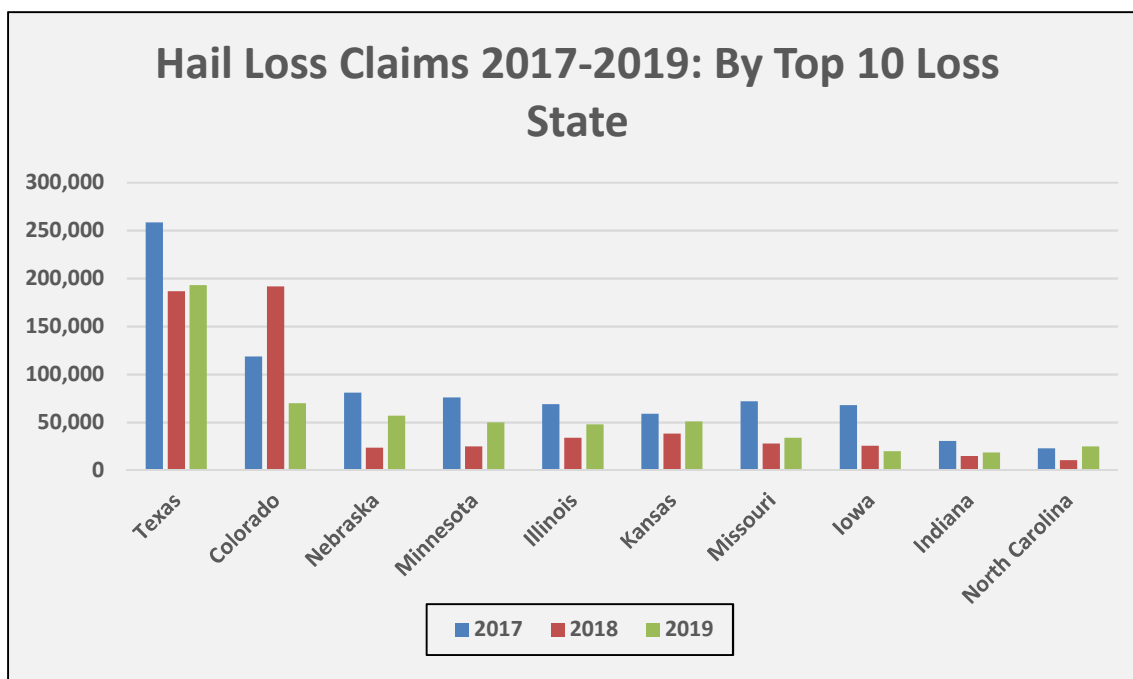
Hail Loss Claims By Loss State

The following table represents the top 10 loss states with the largest combined total of hail loss claims from January 1, 2017 through December 31, 2019. These loss states represent 72% of the total hail loss claims during this time. Texas was the top loss state with 637,977 claims, or 23% of the total claims between 2017 and 2019. Texas had the highest number of total claims each year beside 2018 where Colorado had the most claims for that year with 191,679 claims. The hail loss claim totals for all states are viewable in [Appendix 1](#).

Hail Loss Claims 2017 - 2019: Top 10 Hail Loss States					
State	2017	2018	2019	Total	State % of US Hail Claim Total
Texas	258,319	186,670	192,988	637,977	23%
Colorado	118,645	191,679	69,742	380,066	14%
Nebraska	81,053	23,424	56,897	161,374	6%
Minnesota	75,835	24,865	49,973	150,673	5%
Illinois	68,831	33,787	47,798	150,416	5%
Kansas	58,939	38,117	50,737	147,793	5%
Missouri	71,938	27,790	33,976	133,704	5%
Iowa	67,731	25,664	19,744	113,139	4%
Indiana	30,636	14,852	18,404	63,892	2%
North Carolina	22,850	10,466	25,026	58,342	2%
Yearly Top 10 State Totals	854,777	577,314	565,285	1,997,376	
Top 10: % of Yearly Total	75%	68%	72%	72%	---

Note: Percentages have been rounded to the nearest whole number.

The following graph shows hail loss claims for the top 10 hail loss states from 2017 through 2019.



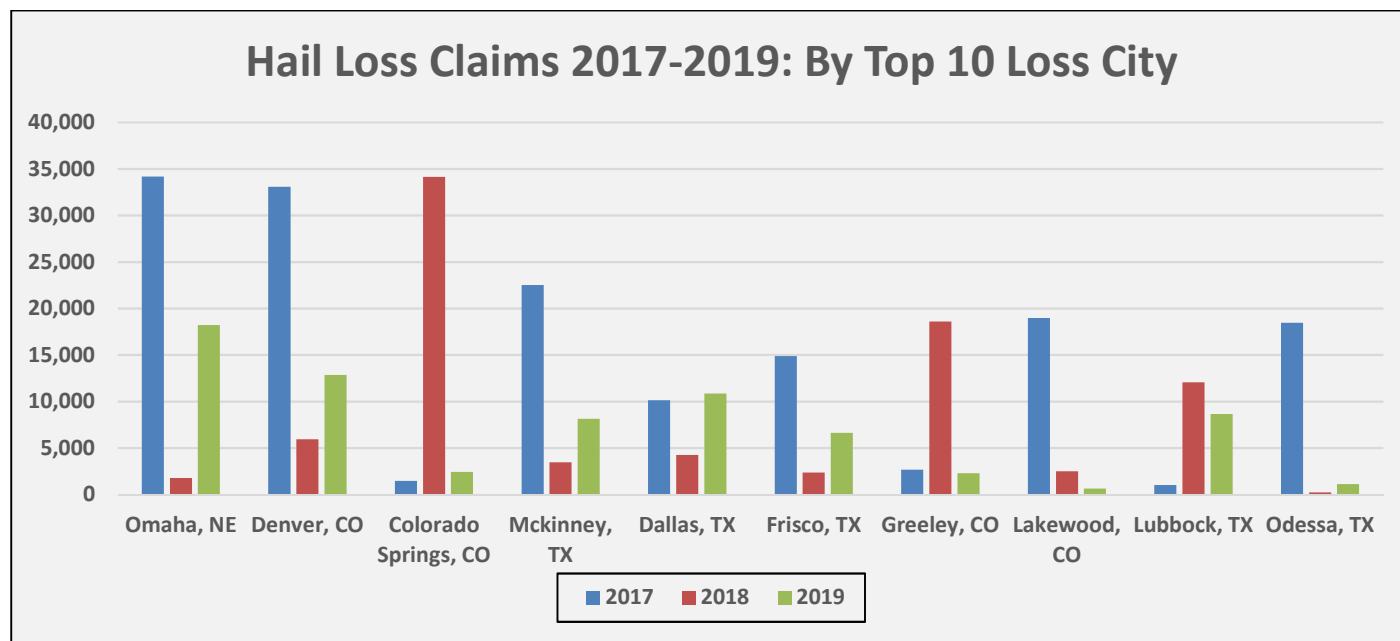
Hail Loss Claims By City

The following table represents the top 10 cities with the largest combined total of hail loss claims from January 1, 2017 through December 31, 2019. The top 10 cities represented 11% of the total hail loss claims in this timeframe. Despite only having 1,788 claims in 2018, Omaha, NE was the city with the most hail loss claims with a total of 54,153 from 2017 to 2019. Five (5) of the top 10 cities were located in Texas, the state with the most hail loss claims and 4 were located in Colorado, the state with the second highest claim total.

Hail Loss Claims 2017 - 2019: Top 10 Hail Loss Cities				
City, State	2017	2018	2019	Total
Omaha, NE	34,166	1,788	18,199	54,153
Denver, CO	33,077	5,953	12,857	51,887
Colorado Springs, CO	1,468	34,147	2,429	38,044
McKinney, TX	22,519	3,472	8,143	34,134
Dallas, TX	10,128	4,260	10,874	25,262
Frisco, TX	14,887	2,372	6,615	23,874
Greeley, CO	2,682	18,576	2,298	23,556
Lakewood, CO	18,986	2,489	630	22,105
Lubbock, TX	1,027	12,058	8,671	21,756
Odessa, TX	18,467	229	1,116	19,812
Yearly Top 10 State Totals	157,407	85,344	71,832	314,583
Top 10: % of Yearly Total	14%	10%	9%	11%

Note: Percentages have been rounded to the nearest whole number.

The following graph shows hail loss claims for the top 10 hail loss cities from 2017 through 2019.



Hail Loss Claims By Region

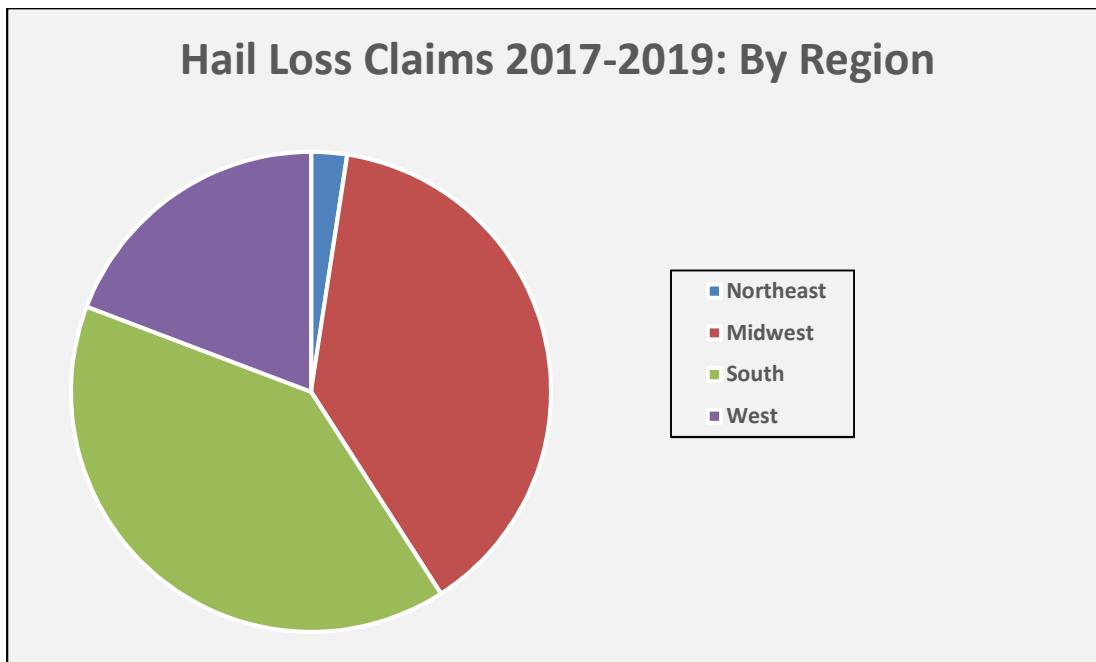
The following table shows hail loss claims, by loss region, from January 1, 2017 through December 31, 2019. In this timeframe, the majority of claims occurred in the South (40%) and Midwest (38%). The large number of claims in the South may be attributed to Texas, which made up 58% of the total claims in the South. The Northeast region had the lowest number of claims and only attributed to 2% of the total claims in the U.S. from 2017 to 2019. Regions were determined by the United States Census Bureau at the following link:

<https://www.census.gov/geographies/reference-maps/2010/geo/2010-census-regions-and-divisions-of-the-united-states.html>.

Hail Loss Claims 2017 - 2019: By Loss Region					
US Region - States	2017	2018	2019	Total	% of Total Claims
Northeast- CT, ME, MA, NH, RI, VT, NJ, NY, PA	19,582	12,460	35,058	67,100	2%
Midwest- IL, IN, MI, OH, WI, IA, KS, MN, MO, NE, ND, SD	510,930	235,818	318,787	1,065,535	38%
South- DE, FL, GA, MD, NC, SC, VA, DC, WV, AL, KY, MS, TN, AR, LA, OK, TX	453,659	338,635	312,206	1,104,500	40%
West- AZ, CO, ID, MT, NV, NM, UT, WY, AK, CA, HI, OR, WA	155,445	258,019	118,763	532,227	19%

Note: Percentages have been rounded to the nearest whole number.

The following graph shows hail loss claims by loss region from 2017 through 2019.



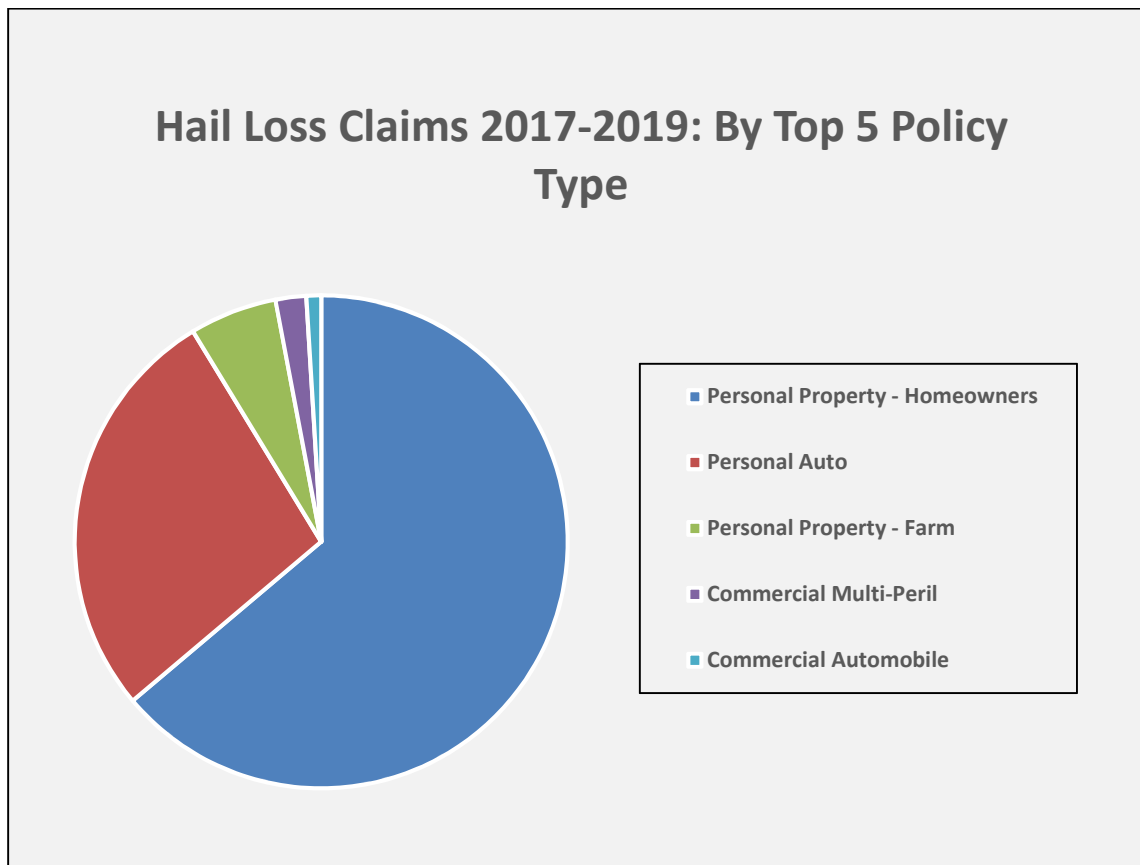
Hail Loss Claims By Policy Type

The following table represents the top 5 policy types identified in hail loss claims from January 1, 2017 through December 31, 2019. The top 5 policy types below represented 97% of the total hail loss claims during this timeframe. The policy type “Personal Property- Homeowners” was the top policy type with 1,711,094, or 62% of the total number of hail loss claims between 2017 and 2019.

Hail Loss Claims 2017 - 2019: Top 5 Hail Loss Policy Types				
Policy Type	2017	2018	2019	Total
Personal Property - Homeowners	653,188	546,599	511,307	1,711,094
Personal Auto	341,303	213,082	180,600	734,985
Personal Property - Farm	72,168	36,626	44,943	153,737
Commercial Multi-Peril	23,857	15,775	14,504	54,136
Commercial Automobile	10,498	7,460	7,745	25,703
Yearly Top 5 Policy Totals	1,101,014	819,542	759,099	2,679,655
Top 5: % of Yearly Total	97%	97%	97%	97%

Note: Percentages have been rounded to the nearest whole number and therefore may not equal 100%

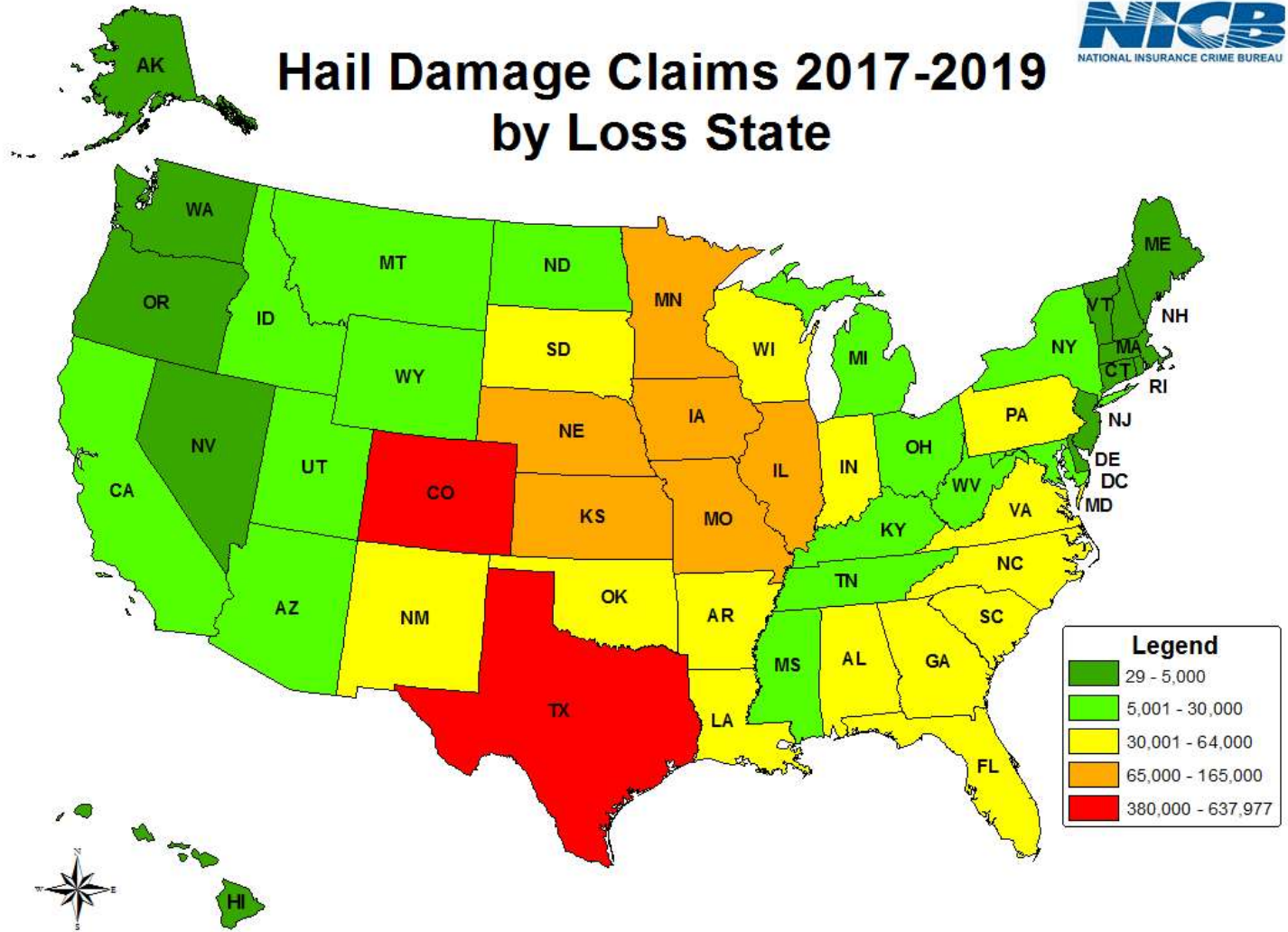
The following graph shows hail loss claims for the top 5 policy types from 2017 through 2019.



Section 3: 2017-2019 Hail Loss Claim Map



Hail Damage Claims 2017-2019 by Loss State



Section 4: Conclusion

Hail loss claims are generally concentrated in the Midwest and South regions of the United States as well as Colorado. However, as noted in [Appendix 1](#), hail claims are not necessarily found in these regions alone. This suggests that fraudulent hail losses may occur in any part of the country. Insurance fraud professionals should therefore carefully examine all potentially fraudulent hail related claims regardless of the loss location and time of occurrence.

Indicators of Hail Damage Fraud Detection – The First Line of Defense

Most claims are legitimate, but some are fraudulent. Therefore, it is appropriate for the adjuster to review all claims for possible fraud. Determining the “fraud probability” of any claim is facilitated when the adjuster is familiar with various fraud indicators.

These indicators should help isolate those claims which merit closer scrutiny. No one indicator by itself is necessarily suspicious. Even the presence of several indicators while suggestive of possible fraud, does not mean that fraud has been committed. Indicators of possible fraud are “red flags” only, not actual evidence.

Some claims, although suspicious, may be paid due to lack of conclusive evidence of fraud. However, they should be referred to NICB for further review.

Many fraudulent hail damage claims involving vehicles/structures may arise from purchases with existing hail damage or claims that have been paid previously, but the damage has never been repaired. This creates a problem for the investigator, since the hail damage is real, but the claim circumstances may be fraudulent. With supporting physical evidence (actual hail damage), it may be difficult to dispute the circumstances of the claim. Additional investigative leads are available in hail damage claims where fabricated damage is suspected. In questionable hail claims, it is advisable to consult with an auto and/or structural damage appraiser for assistance in determining if indicators of fraud exist.

Indicators of Fraud Concerning the Insured

- Damage report appears to have been significantly delayed.
- Insured is unusually knowledgeable regarding insurance terminology and the claims settlement process.
- Insured is overly pushy for quick settlement.
- Insured is willing to accept an inordinately small settlement rather than document all claim losses.
- Recent updates to coverage or policy changes (esp. during/prior to hail season, usually spring).
- Previous claim activity in ISO/NICB Questionable Claims database.
- Owner cannot provide documentation confirming prior damage has been repaired.
- Insured’s friend brings vehicle in for inspection, but the friend doesn’t know any details of the loss (i.e., where vehicle was located or when loss occurred).

Indicators of Fraud Concerning the Damage

- No other claims in the area where the claimed loss occurred.
- Damage is inconsistent with the claimed loss.
- Paint oxidation, coloration and age in the bottom of the dents are consistent with the undamaged areas (shows that damage is not new).
- Damaged surfaces did not face the oncoming storm (The National Weather Service can provide specific storm information concerning direction, strength, reported hail, etc.).
- An apparent random or unreported storm (The National Weather Service can provide information about where storms have occurred).

- All dents are the same size and depth (real hail dents vary in size) or all have similar markings at the deepest part of the dent.
- Damage looks like hammer marks.
- Damages are cuts rather than dings.
- Dents are deeper than wider (real hail dents are shallow dimples more wide than deep).
- Pattern/spacing is consistent rather than random.
- Insured reports damage was done to a specific part of the vehicle/structure.
- Damage/dents inconsistent with the reported size of hail.

Indicators Involving the Vehicle

- Hail markings appear on all four sides of the vehicle.
- Damages are on low parts of the vehicle that wouldn't normally be exposed.
- Trim pieces are not damaged.
- Paint is scratched or removed at the point of the dent. Hail will not remove, chip or scar paint.
- No damage to side panels. In most cases, hail is discharged from the sky at various angles.
- Windshield and rear windows are chipped. Note: Hail will break glass but not "chip" it.
- Vehicle not parked under available protective cover (i.e., a garage).
- No other vehicle damage in area.
- Damage only appears on a specific part of the vehicle (i.e., hail damage to the hood, but not the roof of the car).
- Estimation services show records of similar previous damage.
- Damage on one vehicle is not consistent with damage seen on other vehicles damaged in the same area.
- Comprehensive coverage on older car where the premium outweighs the value of the vehicle.
- Vehicle was in poor condition prior to the storm (i.e., bad motor or transmission).
- The vehicle was waxed or buffed shortly after the alleged damage occurred.
- Car was recently purchased in an "as is" condition.

Indicators Involving the Structure

- Damage consistent all over roof instead of concentrated areas primarily facing the oncoming storm.
- No window or screen damage.
- No air vent or gutter damage.
- Damage only in center of roof (claimant on roof creating damage but afraid to go near roof edge).
- Damage only on edges of roof (claimant on ladder and only creating damage within arm's reach).
- Side where structure was damaged does not face the oncoming storm (The National Weather Service can provide specific storm information concerning direction, strength, reported hail, etc.).
- One neighborhood with several homeowners being solicited by the same roofer. Often times, unscrupulous roofers will gain a foothold in a neighborhood by advertising on the homeowner's front lawn, which will result in numerous fraudulent claims being filed.
- Contractor, roofer or storm chaser reports the claim.
- No other structure damage in area.
- Damage only on vertical surfaces and not horizontal surfaces (or vice versa).

Appendix 1: Claim Counts by State

2017-2019 Hail Claims By U.S. State				
State	2017	2018	2019	Total
TX	258,319	186,670	192,988	637,977
CO	118,645	191,679	69,742	380,066
NE	81,053	23,424	56,897	161,374
MN	75,835	24,865	49,973	150,673
IL	68,831	33,787	47,798	150,416
KS	58,939	38,117	50,737	147,793
MO	71,938	27,790	33,976	133,704
IA	67,731	25,664	19,744	113,139
IN	30,636	14,852	18,404	63,892
NC	22,850	10,466	25,026	58,342
PA	15,154	7,598	31,635	54,387
OK	23,787	9,227	20,621	53,635
SD	20,496	21,910	10,383	52,789
NM	23,791	19,603	9,286	52,680
FL	5,530	19,423	17,168	42,121
GA	15,275	18,635	7,261	41,171
WI	22,271	14,349	4,425	41,045
LA	11,875	16,568	11,786	40,229
VA	25,959	6,655	6,340	38,954
SC	24,143	9,811	4,531	38,485
AR	9,493	20,923	5,974	36,390
AL	16,631	15,724	3,797	36,152
KY	14,063	10,715	4,450	29,228
OH	9,952	6,059	11,577	27,588
MT	680	5,766	18,434	24,880
WY	4,923	9,878	9,349	24,150
AZ	3,517	11,007	5,117	19,641
TN	13,105	3,716	2,602	19,423
MD	7,689	3,131	4,694	15,514
ND	1,796	3,380	7,255	12,431
ID	337	10,950	399	11,686
MI	1,452	1,621	7,618	10,691
MS	4,197	4,018	2,177	10,392
UT	503	7,718	1,071	9,292
CA	1,555	896	4,364	6,815
NY	3,091	1,514	1,620	6,225
WV	584	2,646	2,229	5,459
CT	142	2,454	188	2,784
OR	972	184	640	1,796
NJ	413	431	761	1,605
MA	479	258	467	1,204
DE	90	277	460	827
WA	262	195	236	693
NV	237	125	107	469
NH	95	104	83	282
ME	78	39	120	237
RI	28	22	170	220
DC	69	30	102	201
VT	102	40	14	156
HI	13	7	10	30
AK	10	11	8	29
TOTAL	1,139,616	844,932	784,814	2,769,362