



Date: May 22, 2017

Regarding: 2014-2016 United States Hail Loss Claims  
(Public Dissemination)

Prepared By: David Fennig, Strategic Analyst

## Executive Summary

This *ForeCAST*<sup>SM</sup> illustrates the trends in hail loss claims in the United States (US) submitted from 2014 through 2016. Overall, hail loss claims increased 16% from 2014 through 2016.

Texas was the top state in hail loss claims from 2014 through 2016; with 675,678 hail loss claims. The top 10 states represented 71% of the total number of hail loss claims in the US in the 3 years analyzed.

San Antonio, TX was the top city in loss claims from 2014 through 2016; with 81,668 hail loss claims. The top 10 cities made up almost 15% of the total number of hail loss claims.

“Personal Property Homeowners” (PPHO) was the policy type most affected by both hail loss claims from 2014 through 2016. On average, PPHO policies were represented almost twice as often as the next most popular policy type (Personal Automobile) in hail loss claims the 3 year span.

A national hail loss map provide a visual depiction of the volume and distribution of hail loss claims across the US. This map illustrates the concentration of hail loss claims in the central and southeast sections of the United States.

## Introduction

According to the National Oceanic and Atmospheric Administration (NOAA) (<http://www.ncdc.noaa.gov/billions/events>), multiple severe hail storms between 2014 through 2016 have caused billions of dollars’ worth of damage across the US. In March and April 2016 alone, powerful storms with hail caused widespread damage across Texas and the South and Southeast. Each of these storms are estimated by the NOAA to have each caused over \$1.2 billion in damage, including a North and Central Texas hail storm in April, 2016 costing an estimated \$3.5 billion in damage.

In an effort to identify recent trends in hail loss claims, an analysis of the Insurance Service Office (ISO) ClaimSearch data was performed. Claims containing the loss type “hail” with a date of loss between 2014 and 2016 were analyzed.

This report is divided into 2 sections. Section 1 analyzes the overall US hail loss claims from 2014 through 2016. Section 2 contains geographic analysis of hail loss claims by loss state. Finally, Appendix 1 provides totals for all states, policy types and referral reasons included in this report. Additionally, Appendix 2 provides a list of indicators for hail damage fraud defense.

## Section 1: United States Hail Loss Claims

A total of 2,450,743 hail loss claims were identified with a date of loss from January 1, 2014 through December 31, 2016. Hail loss claims decreased 21% between 2014 and 2015; from 831,469 to 654,121. Hail loss claims then increased 48% between 2015 and 2016; to 965,153. Overall, from 2014 through 2016, hail loss claims increased 16% from 831,469 to 965,153.

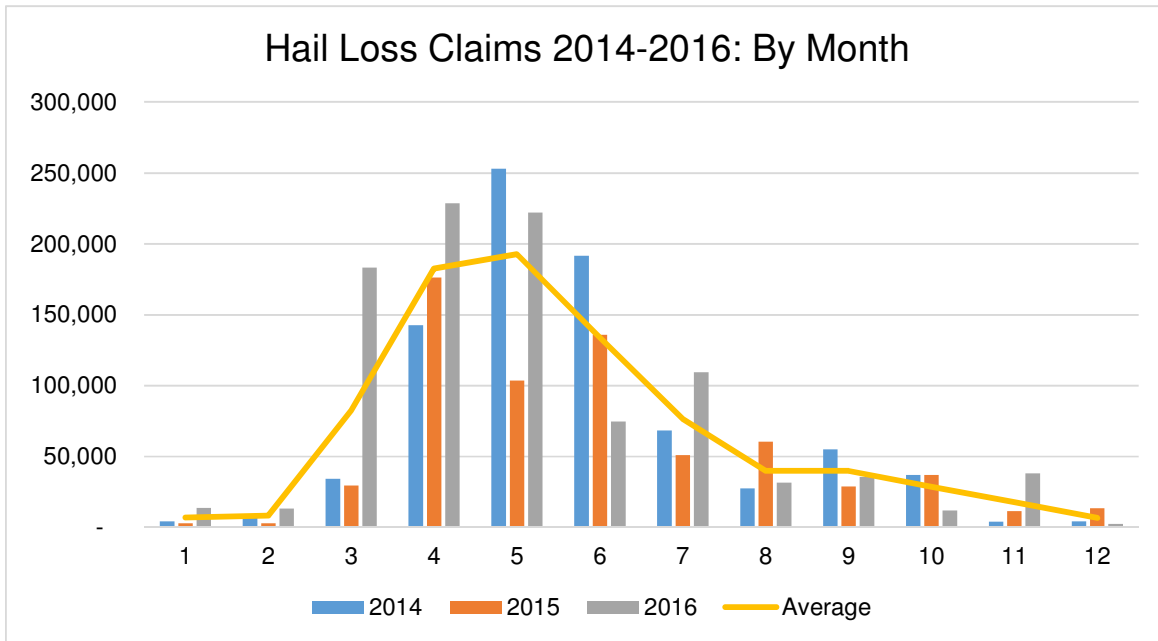
### Hail Loss Claims By Loss Month

The following table shows hail loss claims, by loss month, from 2014 through 2016. The majority of hail loss claims occur in the spring and early summer months, between March and July. This is likely due to increased numbers of thunderstorms during this time period. Research performed at the NOAA “Storm Prediction Center” ([NOAA Severe Weather Event Summaries](#)) supports these findings. Between 2014 and 2016 NOAA hail reports were found to be most numerous in April, May, June and July, which is reflected in the monthly averages of hail loss claims shown below.

Hail Loss Claims 2014 - 2016: By Month				
Month	2014	2015	2016	Monthly Average
January	4,303	2,933	13,714	6,983
February	8,835	3,075	13,465	8,458
March	34,350	29,494	183,344	82,396
April	142,711	176,360	228,544	182,538
May	252,966	103,573	221,967	192,835
June	191,580	135,736	74,809	134,042
July	68,597	51,261	109,482	76,447
August	27,453	60,737	31,647	39,946
September	55,245	28,874	35,626	39,915
October	36,990	36,907	12,041	28,646
November	4,046	11,486	38,048	17,860
December	4,393	13,685	2,466	6,848
<b>Total</b>	831,469	654,121	965,153	
<b>Yearly Percent Change</b>	-	<b>-21%</b>	<b>48%</b>	

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

The following graph shows hail loss claims by month from 2014 through 2016.



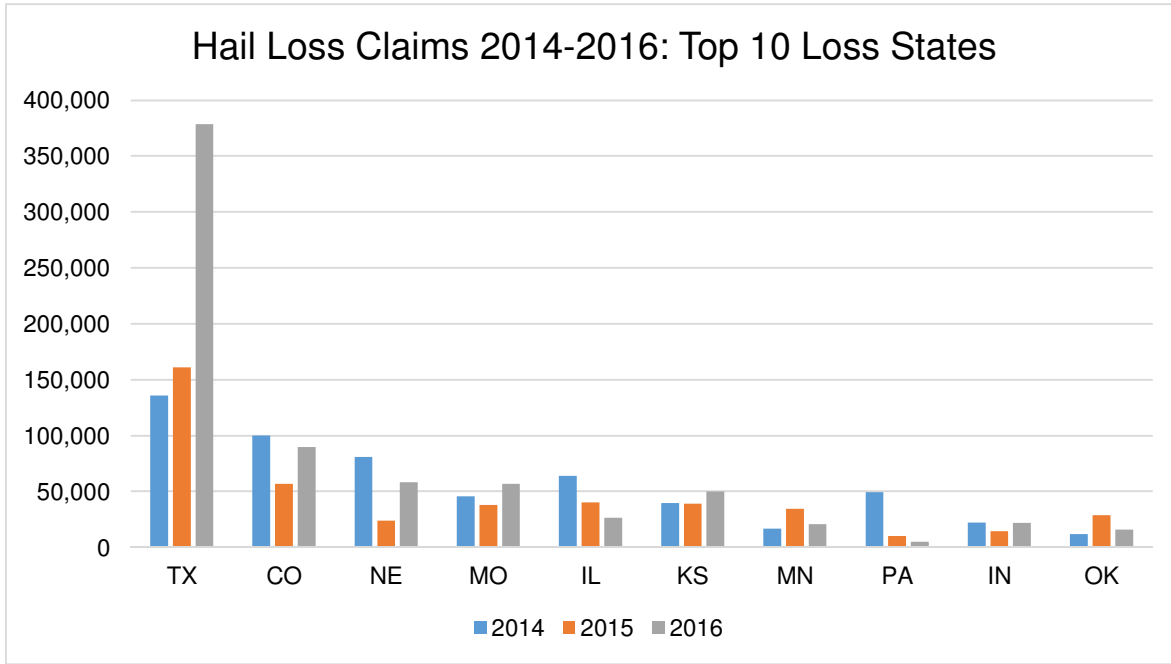
### Hail Loss Claims By Loss State

The following table represents the top 10 loss states with the largest combined total of hail loss claims from 2014 through 2016. These loss states represent 71% of the total hail loss claims during this time. Texas was the top loss state with 675,678 claims, or 28% of the total claims between 2014 and 2016. This was more than double the state with the second highest amount of hail claims, Colorado. The hail loss claim totals for all states are viewable in Appendix 1.

Hail Loss Claims 2014 - 2016: Top 10 Hail Loss States					
State	2014	2015	2016	Total	State % of US Hail Claim Total
Texas	135,927	161,099	378,652	675,678	28%
Colorado	100,127	56,773	90,002	246,902	10%
Nebraska	80,733	23,791	58,142	162,666	7%
Missouri	45,478	37,823	56,736	140,037	6%
Illinois	63,853	40,246	26,502	130,601	5%
Kansas	39,415	39,000	49,864	128,279	5%
Minnesota	16,786	34,324	20,759	71,869	3%
Pennsylvania	49,402	10,233	4,836	64,471	3%
Indiana	22,102	14,291	21,750	58,143	2%
Oklahoma	11,889	28,788	15,925	56,602	2%
<b>Yearly Top 10 State Totals</b>	<b>565,712</b>	<b>446,368</b>	<b>723,168</b>	<b>1,735,248</b>	
<b>Top 10: % of Yearly Total</b>	<b>68%</b>	<b>68%</b>	<b>75%</b>	<b>71%</b>	

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 2014 through 2016.



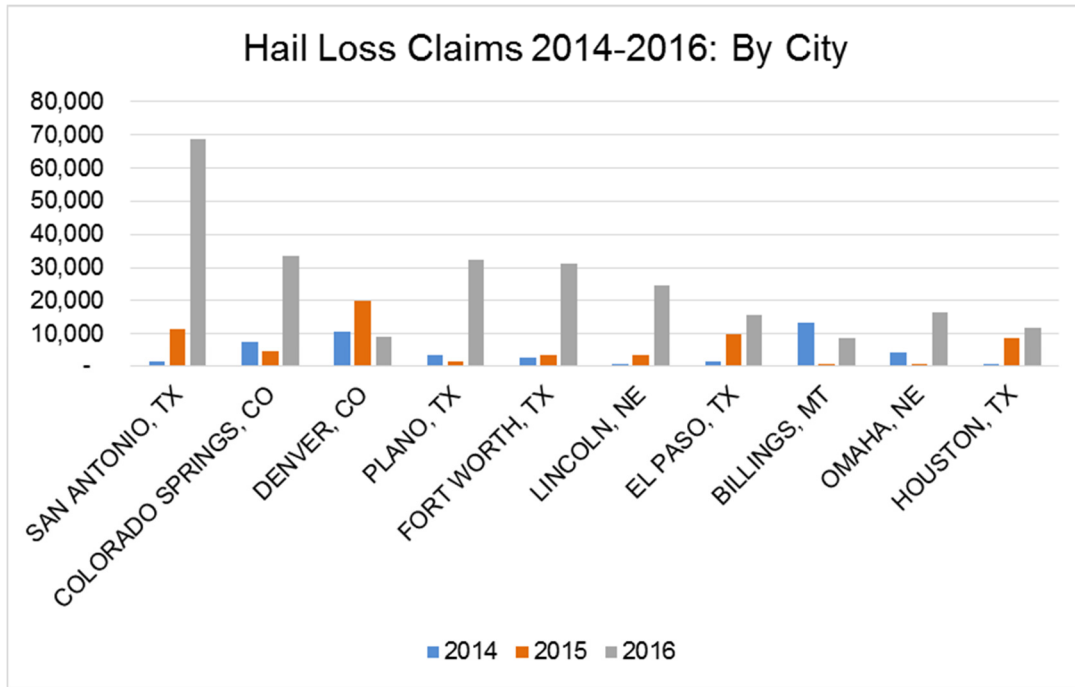
### Hail Loss Claims By City

The following table represents the top 10 cities with the largest combined total of hail loss claims from 2014 through 2016. The top 10 cities below represented almost 15% of the total hail loss claims for the U.S. San Antonio was the city with the most hail loss claims between 2014 and 2016, with a total of 81,668. Five (5) of the top 10 cities were located in Texas, the state with the most hail loss claims.

Hail Loss Claims 2014 - 2016: Top 10 Hail Loss Cities					
State	2014	2015	2016	Total	State % of US Hail Claim Total
San Antonio, TX	1,293	11,597	68,778	81,668	3%
Colorado Springs, CO	7,644	4,625	33,595	45,864	2%
Denver, CO	10,719	19,850	8,946	39,515	2%
Plano, TX	3,481	1,453	32,289	37,223	2%
Fort Worth, TX	2,402	3,221	31,118	36,741	2%
Lincoln, NE	593	3,252	24,564	28,409	1%
El Paso, TX	1,320	9,741	15,647	26,708	1%
Billings, MT	13,535	652	8,822	23,009	1%
Omaha, NE	4,229	511	16,525	21,265	1%
Houston, TX	702	8,792	11,705	21,199	1%
<b>Yearly Top 10 State Totals</b>	<b>45,918</b>	<b>63,694</b>	<b>251,989</b>	<b>361,601</b>	

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

The following graph shows hail loss claims by city from 2014 through 2016.



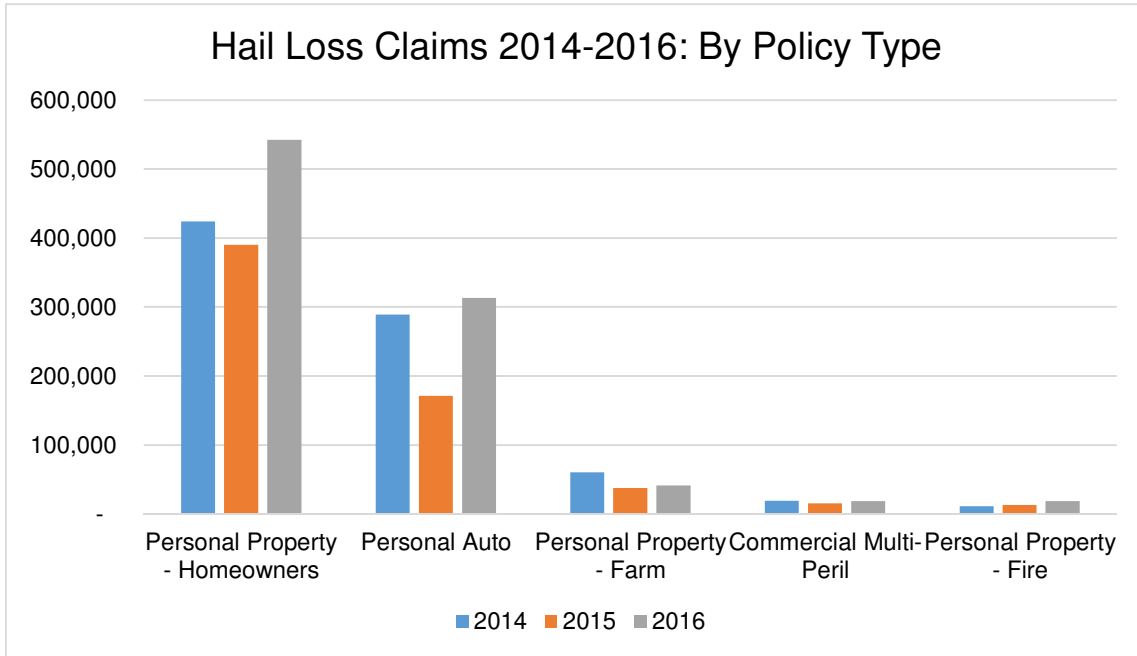
### Hail Loss Claims By Policy Type

The following table represents the top 5 policy types identified in hail loss claims from January 1, 2014 through December 31, 2016. The top 5 policy types below represented 96% of the total hail loss claims during this time. The policy type “Personal Property Homeowners” was the top policy type with 1,356,543, or 55% of the total number of hail loss claims between 2014 and 2016. The policy type claim totals for all states are viewable in Appendix 1.

Hail Loss Claims 2014 - 2016: Top 5 Hail Loss Policy Types					
Policy Type	2014	2015	2016	Total	% of US Policy Type Total
Personal Property - Homeowners	423,767	390,135	542,641	1,356,543	55%
Personal Auto	289,032	171,080	312,942	773,054	32%
Personal Property - Farm	60,180	37,215	41,359	138,754	6%
Commercial Multi-Peril	18,753	15,039	18,267	52,059	2%
Personal Property - Fire	10,592	12,779	18,035	41,406	2%
<b>Yearly Top 5 Policy Totals</b>	<b>802,324</b>	<b>626,248</b>	<b>933,244</b>	<b>2,361,816</b>	
<b>Top 5: % of Yearly Total</b>	<b>96%</b>	<b>96%</b>	<b>97%</b>	<b>96%</b>	

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

The following graph shows hail loss claims by policy type from 2014 through 2016.

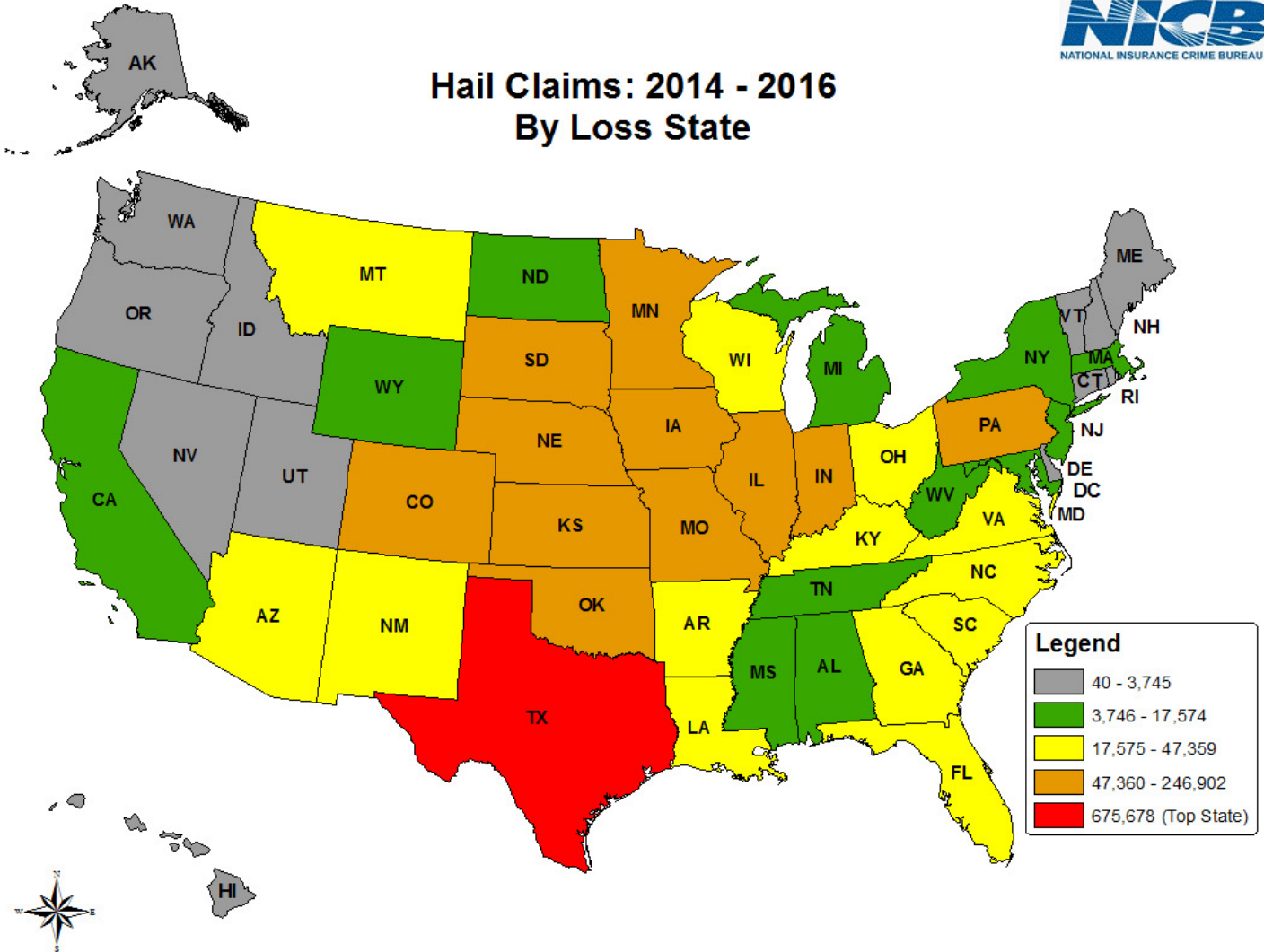


Section 3: Hail Loss Claim Map

2014-2016 Hail Loss Claims



### Hail Claims: 2014 - 2016 By Loss State



### Appendix 1:

Hail Loss Claims: 2014-2016				
States	2014	2015	2016	Total
AK	11	16	13	40
AL	3,657	4,928	2,357	10,942
AR	5,083	12,948	19,601	37,632
AZ	2,826	10,401	5,106	18,333
CA	1,233	1,749	2,473	5,455
CO	100,127	56,773	90,002	246,902
CT	144	106	73	323
DC	15	19	143	177
DE	2,837	77	360	3,274
FL	11,890	14,452	11,013	37,355
GA	6,506	11,980	5,998	24,484
HI	42	20	6	68
IA	35,142	9,233	10,845	55,220
ID	788	557	517	1,862
IL	63,853	40,246	26,502	130,601
IN	22,102	14,291	21,750	58,143
KS	39,415	39,000	49,864	128,279
KY	8,748	11,175	14,799	34,722
LA	10,060	8,270	10,334	28,664
MA	206	7,820	273	8,299
MD	1,763	4,053	5,600	11,416
ME	62	1,783	190	2,035
MI	9,680	5,330	2,564	17,574
MN	16,786	34,324	20,759	71,869
MO	45,478	37,823	56,736	140,037
MS	2,131	2,394	5,725	10,250
MT	20,904	4,998	16,707	42,609
NC	12,153	13,118	20,003	45,274
ND	2,810	2,119	12,565	17,494
NE	80,733	23,791	58,142	162,666
NH	104	204	71	379
NJ	3,656	387	2,235	6,278
NM	10,452	23,396	11,529	45,377
NV	207	187	711	1,105
NY	5,585	805	482	6,872
OH	8,966	7,974	6,666	23,606
OK	11,889	28,788	15,925	56,602
OR	623	196	265	1,084
PA	49,402	10,233	4,836	64,471
RI	21	31	18	70
SC	25,796	6,838	12,384	45,018
SD	30,927	17,150	8,325	56,402
TN	6,757	2,249	4,045	13,051
TX	135,927	161,099	378,652	675,678
UT	181	205	2,440	2,826
VA	3,831	3,762	16,145	23,738
VT	3,543	118	84	3,745
WA	280	245	213	738
WI	19,565	12,882	14,912	47,359
WV	1,507	1,080	5,876	8,463
WY	5,065	2,498	8,319	15,882
Total	831,469	654,121	965,153	2,450,743



<b>Hail Loss Claims Policy Totals: 2014-2016</b>				
<b>Policy Type</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Total</b>
Boat Owners	366	323	412	1,101
Boiler and Machinery	1	2	0	3
Cargo	1	6	4	11
Commercial Automobile	7,804	5,865	9,562	23,231
Commercial Farm Policy	4,287	3,577	4,220	12,084
Commercial Inland Marine	181	155	251	587
Commercial Multi-Peril	18,753	15,039	18,267	52,059
Commercial Ocean Marine	2	1	8	11
Commercial Property - Allied/Other	1,275	621	683	2,579
Commercial Property - Other Property	1,832	1,664	2,541	6,037
Commercial Property Business Owners	3,332	2,420	2,716	8,468
Commercial Property Fire	1,508	1,415	1,205	4,128
Fidelity and Surety	0	0	1	1
Livestock	14	7	31	52
Mobile Equipment	9	14	83	106
Personal Auto	289,032	171,080	312,942	773,054
Personal Property - Allied/Other	694	627	302	1,623
Personal Property - Farm	60,180	37,215	41,359	138,754
Personal Property - Fire	10,592	12,779	18,035	41,406
Personal Property - Homeowners	423,767	390,135	542,641	1,356,543
Personal Property - Inland Marine	79	43	55	177
Personal Property - Marine	12	6	8	26
Personal Property - Mobile Home	3,928	7,509	8,515	19,952
Personal Property - Other	3,820	3,618	1,312	8,750
<b>Total</b>	<b>831,469</b>	<b>654,121</b>	<b>965,153</b>	<b>2,450,743</b>

## Appendix 2:

Hail loss claims are generally concentrated in the central and southeast sections of the US. However, as noted in Appendix 1, hail claims are not necessarily found in the central section 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).