

More Than 50 Cats: PCS® Full-Year 2016 Catastrophe Review

Commentary

The United States saw more catastrophe events in 2016 than any year since 1980. In Canada, it was the busiest year on record for PCS®, and we designated our first two catastrophe events in Turkey. In each of these three countries, it wasn't just the volume of catastrophe activity that made 2016 a challenge—it was the nature of the events. Some catastrophe events were unexpectedly large, especially for the perils they involved. Others had unique complexity.

In the United States, 43 events resulted in more than \$21 billion in insured losses, with three still undergoing the resurvey process. An astounding 86 percent were above \$100 million industrywide. In Canada, nine events resulted in insured losses of C\$4.9 billion, including the unprecedented Fort McMurray wildfire, which was the largest wildfire event in North American history and the largest Canadian catastrophe on record (as measured by industrywide insured loss). The first two catastrophe events for PCS Turkey involved terror attacks, and preliminary estimates are in the works.

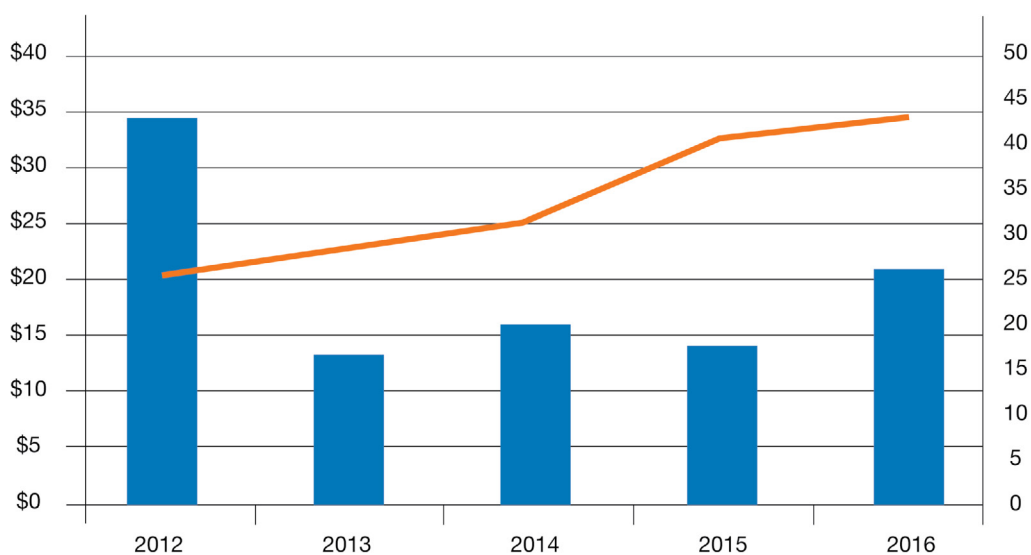
If 2015 was interesting—as we indicated in this report a year ago—2016 was utterly fascinating. Frequency was up, and unusually large losses came from both wildfire and severe thunderstorm events. The two terror events could have significant physical damage, a distinct departure from the prevailing global trend toward lower losses and a focus on fatalities and casualties.

FY2016 U.S. Catastrophe Review

PCS designated 43 U.S. catastrophe events in 2016—up less than 10 percent from the year before. Meanwhile, aggregate industry losses for the year climbed 46 percent year over year from \$14.3 billion to \$20.9 billion. PCS has resurveys open on three catastrophe events, so full-year 2016 estimates remain subject to change in accordance with the disciplined execution of the PCS methodology.

Historical Annual Catastrophe Activity

■ Insured Loss Estimate (\$ Billions)
— Number of Events



Source: Property Claim Services (PCS), a Verisk Analytics business

Compared with the ten-year average of \$19.1 billion, the 2016 result is up modestly. For the ten-year period ending with 2016, only two years (2011 and 2012) had totals above \$30 billion, and only two more (2008 and 2016) were above \$20 billion. Frequency, of course, reached a record-setting level for years with an industry loss event threshold of \$25 million. Over the past decade, annual average frequency was 32 events, which puts last year 34 percent higher.

High-Frequency Catastrophe Years (United States)

Year	Insured Loss Estimate	Number of Events
1998	\$10.1 billion	37
2008	\$27.0 billion	37
2015	\$15.2 billion	40
2016	\$21.0 billion	43

Source: Property Claim Services (PCS), a Verisk Analytics business

Catastrophe activity last year affected 44 states, up from 43 in 2015. Texas remained the most affected, at \$8 billion—up nearly 200 percent from \$2.9 billion in 2015. Colorado was a distant second, at \$1.5 billion, followed by Louisiana (\$1.2 billion), North Carolina (\$970 million), and Florida (\$900 million). Two hurricanes made landfall in Florida last year—for the first time since 2005. However, the combined insured loss from the two events was only \$2.5 billion, significantly lower than what many thought the outcome would be. PCS continues to review Hurricane Matthew and expects to publish the latest resurvey results in March.

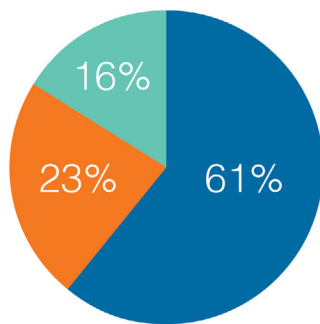
FY2016 Most-Catastrophe-Affected States

State	PCS Estimated Insured Loss
TX	\$7,958,610,000
CO	\$1,467,757,000
LA	\$1,230,272,000
NC	\$972,185,000
FL	\$885,160,000
TN	\$818,407,000
NE	\$662,200,000
SC	\$636,200,000
VA	\$556,410,000
MO	\$532,230,000

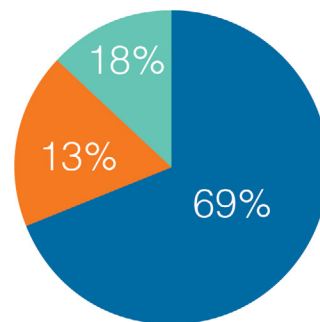
Source: Property Claim Services (PCS), a Verisk Analytics business

Personal losses accounted for 61 percent of catastrophe losses in 2016, down from 69 percent in 2015 but fairly consistent with the 60 percent seen in 2014. Commercial losses fell slightly from 18 percent to 16 percent, with auto up substantially from 13 percent to 23 percent. In particular, the flood event in Louisiana had a significant impact, with more than 60,000 auto claims, accounting for 5.6 percent of all catastrophe-related auto claims last year.

FY 2016 U.S.



FY 2015 U.S.



- Personal
- Auto
- Commercial

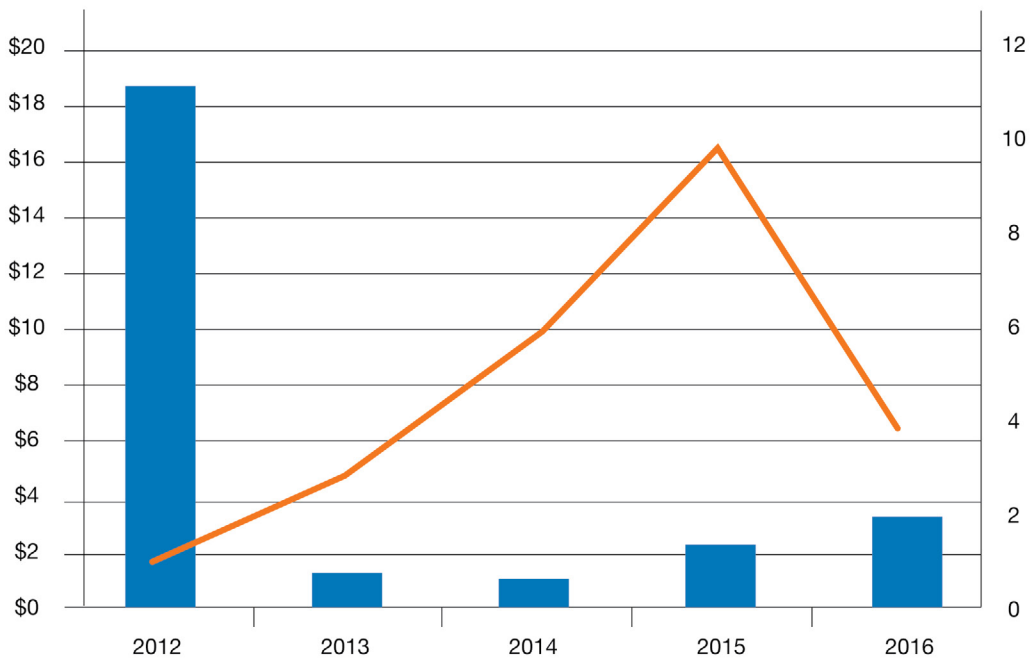
Source: Property Claim Services (PCS), a Verisk Analytics business

Fourth Quarter 2016 U.S. Catastrophe Review

PCS designated only four catastrophe events in fourth-quarter 2016, down 60 percent year over year. However, the insured loss estimate increased significantly, jumping from almost \$2.1 billion to \$3.5 billion. And that's following a significant increase from 2014 to 2015, with the fourth quarter of 2014 reaching \$700 million in insured catastrophe losses. Two events were "wind and thunderstorm," with one hurricane (Hurricane Matthew) and one wildfire (in Tennessee).

Historical Q4 Catastrophe Activity

- Insured Loss Estimate (\$ Billions)
- Number of Events



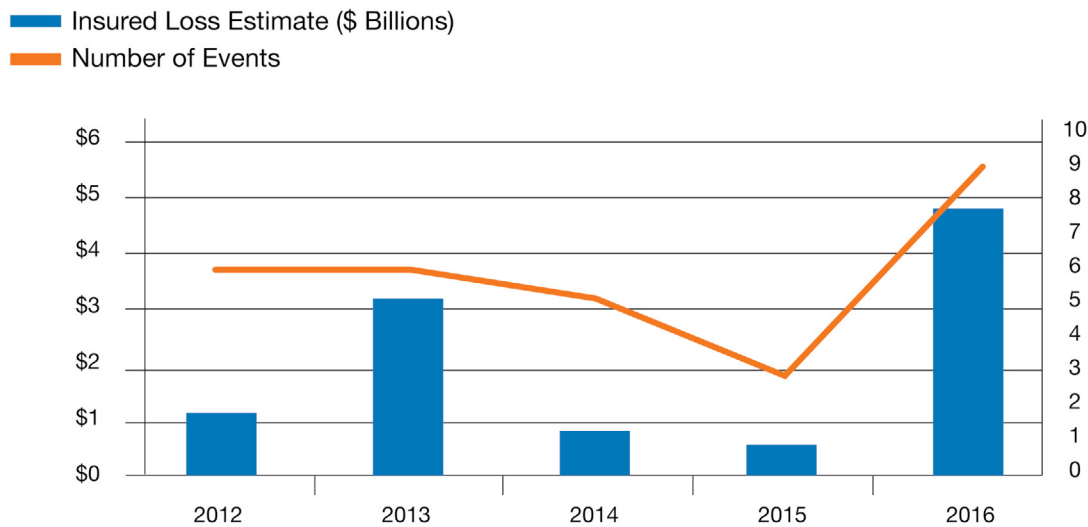
Source: Property Claim Services (PCS), a Verisk Analytics business

The fourth quarter of 2016 was in line with both the ten-year average of 3.6 events and insured loss of \$3.3 billion.

FY2016 Canadian Catastrophe Review

PCS designated nine catastrophe events in Canada in 2016 (one in the fourth quarter), up from three in 2015 and five in 2014. Insured losses from those events reached about C\$4.9 billion, putting 2016 at nearly ten times more severe than 2015, which was the quietest Canadian catastrophe year on record (PCS Canada® launched in 2010).

FY2016 Canadian Catastrophe Losses



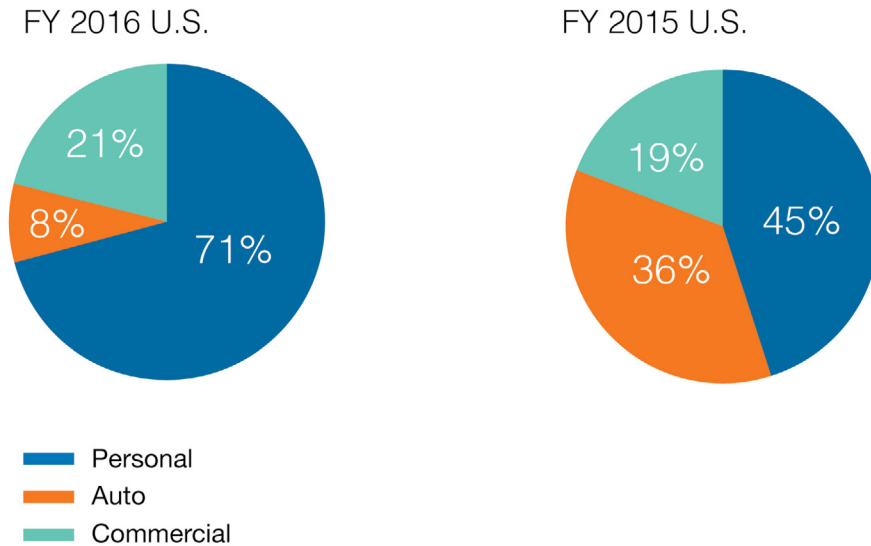
Source: Property Claim Services (PCS), a Verisk Analytics business

Over the past five years, the average insured loss from a PCS-designated catastrophe event was C\$2.1 billion, brought up by the two largest events on record with PCS Canada: the 2013 C\$1.7 billion Alberta wind and thunderstorm event, which caused record flooding, and last year’s Fort McMurray loss (C\$4 billion). Also, 2011 was quite active, with C\$1.6 billion in catastrophe losses. Still, 2016 was almost two-and-a-half times higher than the average.

Six of the events that occurred in Canada were in the “wind and thunderstorm” storm family and resulted in industry losses of nearly C\$860 million in losses. That’s second only to C\$3.2 billion in 2013. An event affecting Alberta, Manitoba, Ontario, and Saskatchewan was the second-most severe event of 2016 at C\$370 million.

Of course, the Fort McMurray wildfire in Alberta was the year’s headline event. The event was nearly three times the size of the next-largest event on record with PCS Canada. And the nearest comparable wildfire event actually consisted of two California wildfires that occurred simultaneously in 2003. The “Old” and “Cedar” events led to a combined \$2 billion in insured losses—and they were two separate PCS-designated events. The Fort McMurray wildfire ultimately resulted in an estimated 34,900 claims, 63 percent of which were personal.

Unlike 2015, in which Alberta and Saskatchewan were the only provinces affected by catastrophe events, 2016 was much broader, with events occurring in nine provinces. In 2014, PCS-designated catastrophe events struck five provinces: Alberta, Manitoba, Ontario, Quebec, and Saskatchewan. Alberta remains the province with the highest insured catastrophe losses since the inception of PCS Canada—C\$9.9 billion from 17 events.



Source: Property Claim Services (PCS), a Verisk Analytics business

As a result of the Fort McMurray wildfire, personal losses increased dramatically year over year. In 2015, personal losses accounted for only 45 percent of the year’s industry insured loss estimate—but 71 percent in 2016. Auto’s share of the year’s losses reached only 8 percent, down from 36 percent the year before. And commercial losses were fairly steady at 21 percent (up from 19 percent).

FY2016 Turkish Catastrophe Review

PCS released its full historical database for PCS Turkey in the third quarter, in collaboration with the Istanbul Underwriting Center (IUC), with five catastrophe events and three noteworthy noncatastrophes going back to 1999. Soon after the release of the historical data, we designated our first two events in the region. Both were terror, occurring in Sirnak Province and the city of Nusaybin. We’re also reviewing the situation to decide whether to include other locations in existing events or whether they warrant separate designation.



Source: Verisk Maplecroft

The events in Nusaybin and Şirnak followed a declaration of Marshall Law by the Turkish government on March 14, 2016, resulting from explosions in Ankara on March 13, 2016. Large portions of both cities were reduced to rubble because of skirmishes between the government and opposition groups. Businesses and homeowners alike sustained losses. Given the complexity of the events, as well as access issues caused by curfews, PCS and the IUC seek to release a preliminary industry loss estimate in the first quarter of 2017.

Market adoption of PCS Turkey was strong throughout 2016 and has continued to grow in 2017.

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