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1. INTRODUCTION

Florida has 67 Counties containing a population over 22 million people (U.S. Census, 2022) The state has over 10 million housing units and a population density of 400 people per square mile (~150/km²). Figure 1 shows that the population is primarily located along the coastlines near the I-75 and I-95 corridors and through central Florida north and south of the I-4 corridor. The remaining inland areas are mostly rural. The climate varies from subtropical in the north to tropical in south Florida.

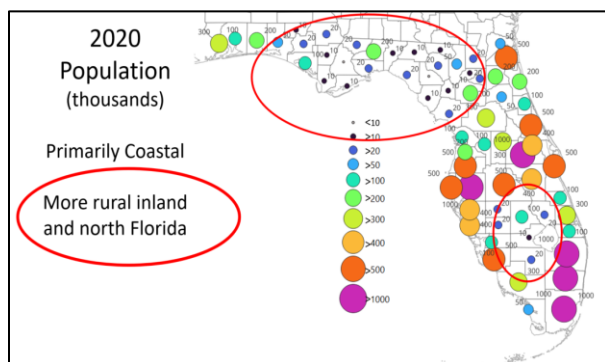


Figure 1. Florida 2020 county population (thousands).

Florida, with 6.5% of the U.S. population, has some homeowner's insurance inconsistencies with 9% of the home insurance claims but an astonishing 79% of the home insurance lawsuits in the U.S. Florida is an outlier of litigated insurance claims and it has been noted that legislative factors had encouraged claims litigation.

In December of 2022 a bill was passed to address the litigation factors and included: eliminating assignment of benefits (to roofers, etc.), eliminating one-way attorney fees which shielded policyholders from legal bills if they needed to sue an insurer, now requiring breach of policy to be proven prior to the claim, reducing filing period from two years to one, permitting arbitration and other dispute resolution, and permitting settlement for multiple claimants.

2. TROPICAL CYCLONE IMPACTS FLORIDA 2007-2021

During the period, 39 tropical cyclone events were identified that produced damage linked to direct tropical cyclone damage.

Figures 2-5 show the tropical cyclones, by maximum category, that came near the state during their lifecycle. Many tropical storms and zig-zagged across the state as shown in Figure 2. The category 1 storms impacting the state were Nate, Elsa, and Hermine (Figure 3). Figure 4 shows only two category 2 storms: Ida and Sally that primarily impacted the Florida panhandle. Only one category 3 storm, Zeta hit the state's panhandle during the 15 years.

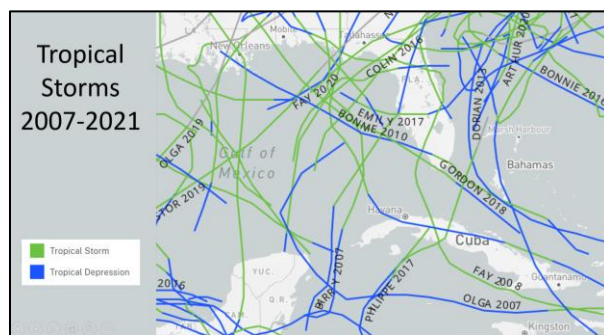


Figure 2. Tropical storms and tropical depressions.

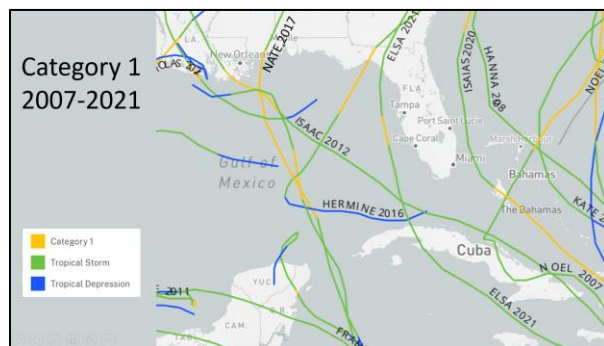


Figure 3. Category 1 storms.

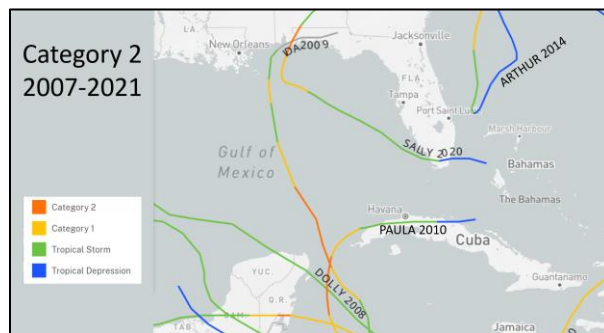


Figure 4. Category 2 storms.

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Figure 5. Category 3 storms.

Figures 6 and 7 show the category 4 and 5 tropical cyclones. Eta had weakened from a category 4 storm to a tropical storm as it trekked across north Florida. The stronger storms were west of Florida but some still created damage over the Florida panhandle. Hurricane Dorian in 2019, crept through the northern Bahamas as a category 5 storm that threatened Florida but took a sharp right turn northward well away from the Florida coastline. Hurricane Matthew in 2016 skirted Florida's east coast creating damage and claims primarily along the immediate coastline. Hurricane Irma in 2017 made landfall as a category 3 storm over southwest Florida and moved the length of the peninsula over prime real estate creating more damage than any of the other storms during the 15 year period. Hurricane Michael struck Bay County in the Panhandle in 2018. Michael created devastation along its short path between the Gulf of Mexico landfall to its exit into south Georgia.

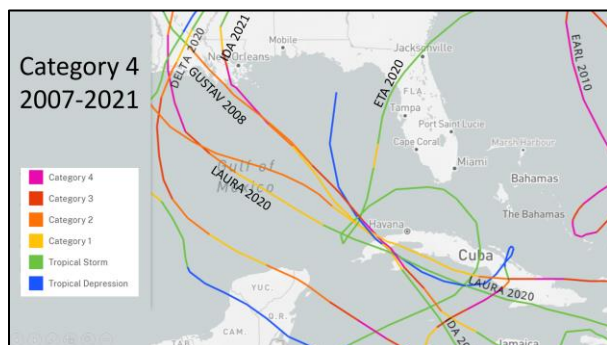


Figure 6. Category 4 storms.



Figure 7. Category 5 storms.

3. DATA AND SOURCE

The data analyzed came from the LexisNexis® Risk Solutions proprietary CLUE database comprised of 97% of claims from U.S. insurers. Wind claims that were aggregated and anonymized were monthly and county-based data. A 30-Day Hurricane Flag for claims inside the tropical cyclone warning extent was used to better identify storms responsible for the damage. Home and mobile home policies were the two types available. The paid and unpaid claim dollar amounts were also available.

The Figure 8 graph shows minor payouts through 2015 with weaker storms impacting the state. No payouts were made in 2014 and 2015 because of no significant storms. Stronger storms impacted Florida beginning in 2016 with Hurricane Matthew then Hurricane Irma and Hurricane Michael.

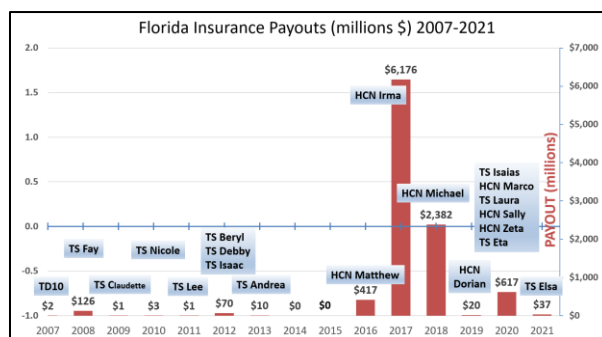


Figure 8. Florida Insurance Payouts

Figure 9 shows an GOES infra-red satellite image of Hurricane Irma near landfall and Figure 10 shows a Hurricane Irma wind analysis produced by the National Weather Service office in Miami.

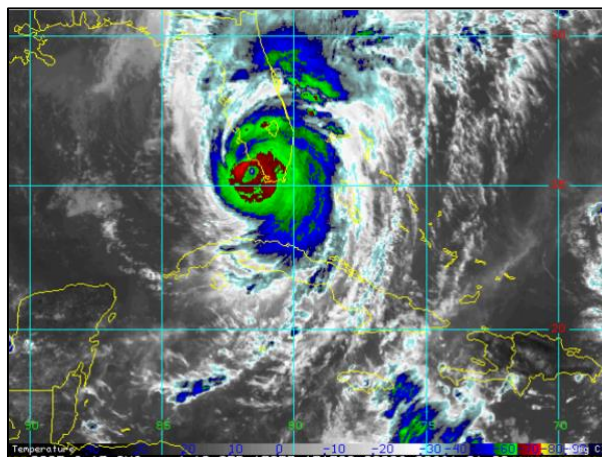


Figure 9. Satellite image of Hurricane Irma near landfall as a category 3 storm.

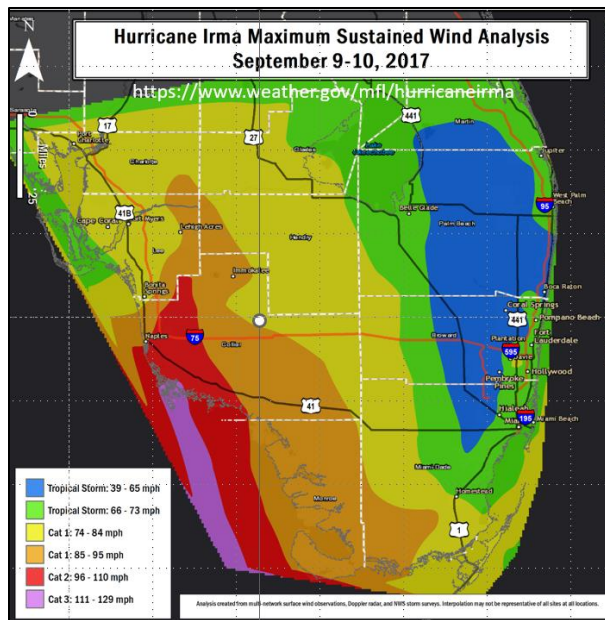


Figure 10. Irma maximum sustained winds produced by NWS Miami.

The number of payouts by year for homes (Figure 11) through the period show that Irma stands out with nearly a quarter million paid claims.

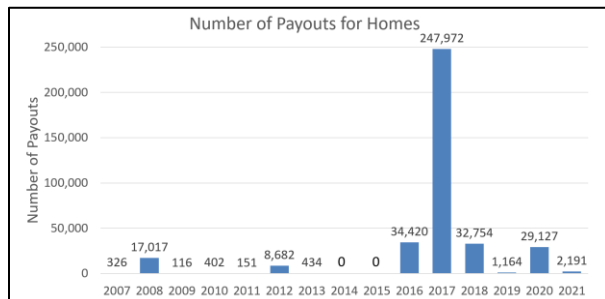


Figure 11. The number of hail reports by year.

The average payout per structure until 2016 averaged \$5,000 to \$6,000 (Figure 12). From 2016 the average payout per structure jumped by 3 to 4 times the previous amount. The years 2020-2021 were impacted by rising costs of COVID and supply chain problems.

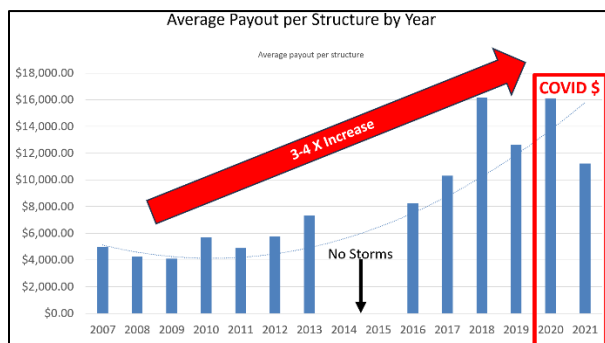


Figure 12. The average payout per structure or residence showed a 3 to 4 times increase.

Mobile home payouts stood out for 2017 with Hurricane Irma but interestingly, 2018 also stands out as Hurricane Michael hit a rural area as a category 5 storm, and was more likely to create more damage (Figure 13).

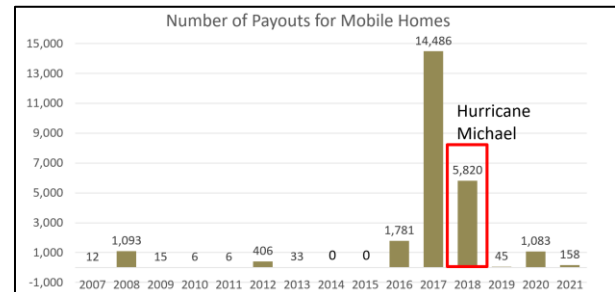


Figure 13. Number of payouts for mobile homes.

During 2014 and 2015 Florida was not impacted by any storms (Figure 14). Figure 15 shows a building El Niño during 2014 and peaking in 2015. Strong El Niño patterns typically create unfavorable conditions for strong development over the Atlantic Basin.



Figure 14. Storms near Florida during 2014 and 2015.

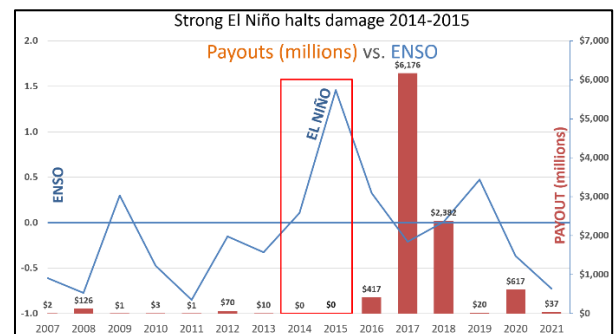


Figure 15. Strong El Niño halts damage 2014-2015

Third party claims (Figure 16), that are no longer permitted by law in Florida, showed a rise in the number of third-party claims during the 15-year period from 2007 to 2021. Initially few third-party claims were made but that rose as the storm damage rose after 2015. Beginning with Hurricane Matthew in 2016 with 88 paid claims, and jumping to 803 paid claims with Hurricane Irma in 2017. Category 5 Hurricane Michael took a short track through Florida but generated 403 third party claims.

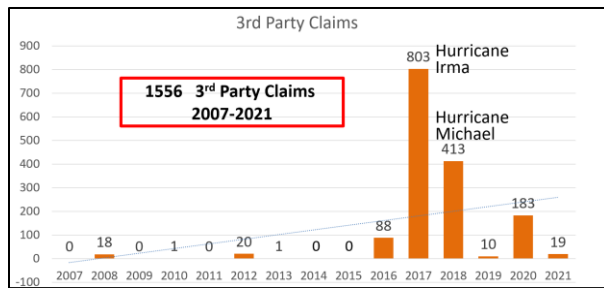


Figure 16. Number of 3rd party claims.

The counties with the highest and lowest total payouts, for the 15-year period, are listed and plotted in Figure 17. Landfalling Hurricane Michael was responsible for the highest county payout, over \$1.8 billion in Bay County. The rest were over south Florida primarily associated with Hurricane Irma with payouts over \$1 billion in Miami-Dade and Lee Counties. The lowest payouts were clustered in mostly rural north Florida with most total payouts below \$1 million.

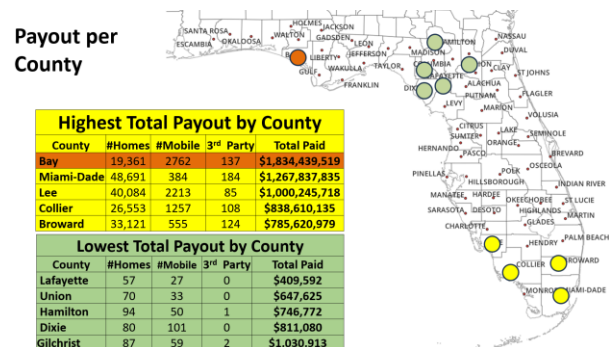


Figure 17. Counties with the highest and lowest total payouts, for the 15-year period.

The counties with the highest and lowest payouts per residence in Figure 18 show Hurricane Michael was responsible for the highest per residence payout in three north Florida counties ranging from \$20,000 to over \$28,000 in Bay County. Other high residential payouts were over south Florida from Hurricane Irma. The lowest payouts were in rural north Florida counties where storms were weaker, and created lesser damage.

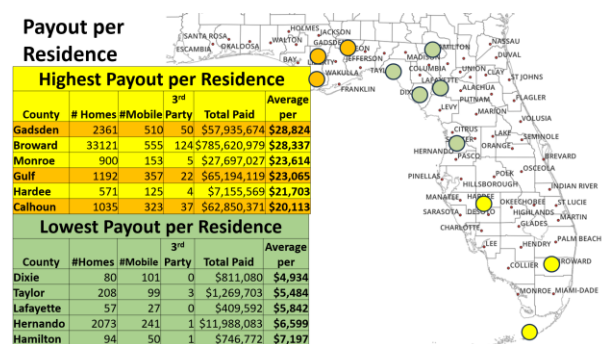


Figure 18. Highest and lowest payout per residence by county.

4. FLORIDA INSURANCE CLAIM SUMMARY 2007-2021

From 2007 through 2021 homeowner's insurance claims that were submitted within 30 days of being inside a tropical cyclone warning extent were analyzed. During the 15-year period 400,526 claims were paid including 374,756 Home claims. Mobile Home claims paid totaled 24,944. Interestingly 28% of the claims were denied totaling 151,938 Declined claims. The average amount of each homeowner's claim for the 15-year period was \$9,766 averaged, but rose significantly during the time from roughly \$5k to \$15k. All totaled, over a half million, 552,464 total claims, were submitted. The grand total paid during the 15-year period was \$9,861,614,754.

5. REFERENCES

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