

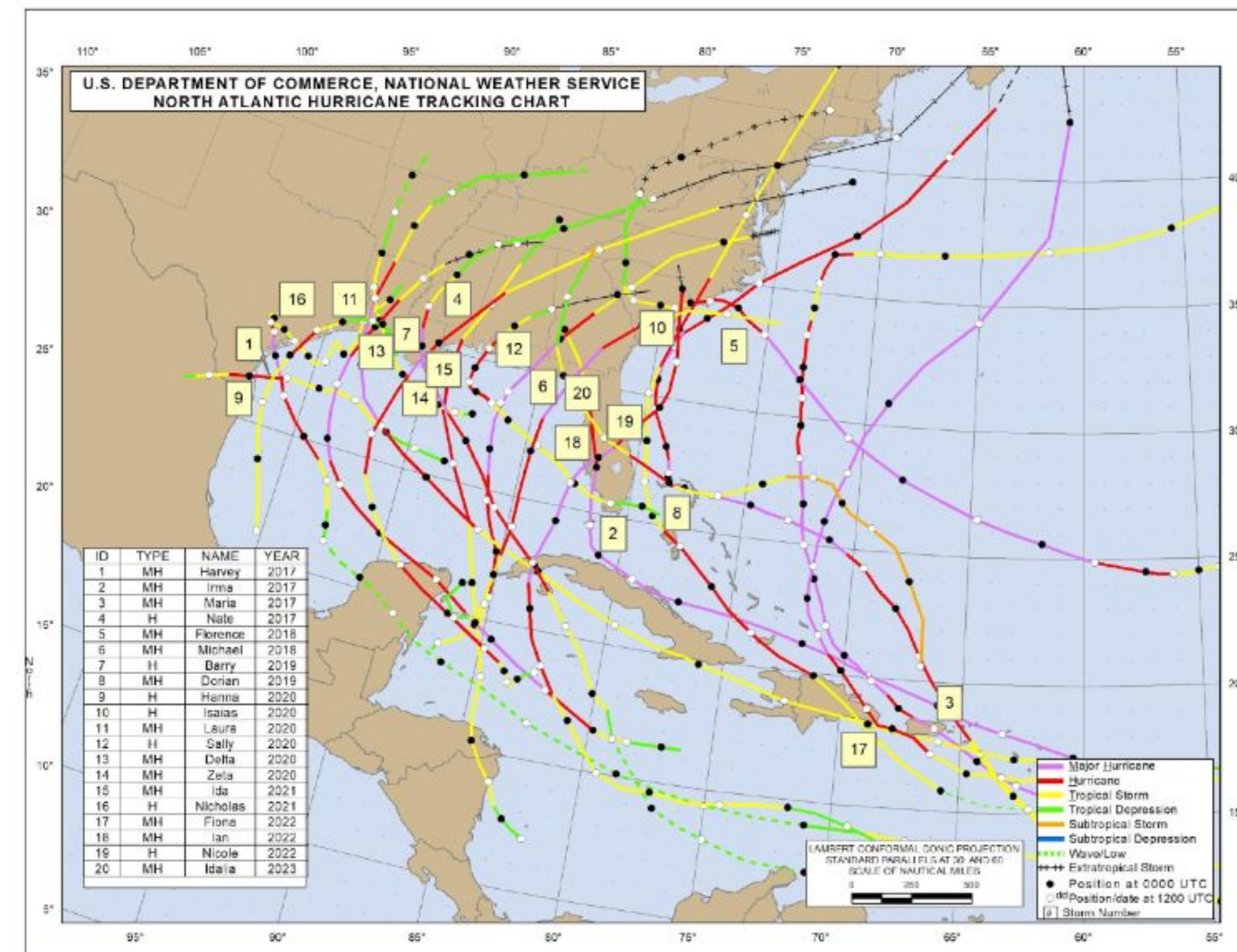
Recent Trends in U.S. Tropical Cyclone Fatalities

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Background

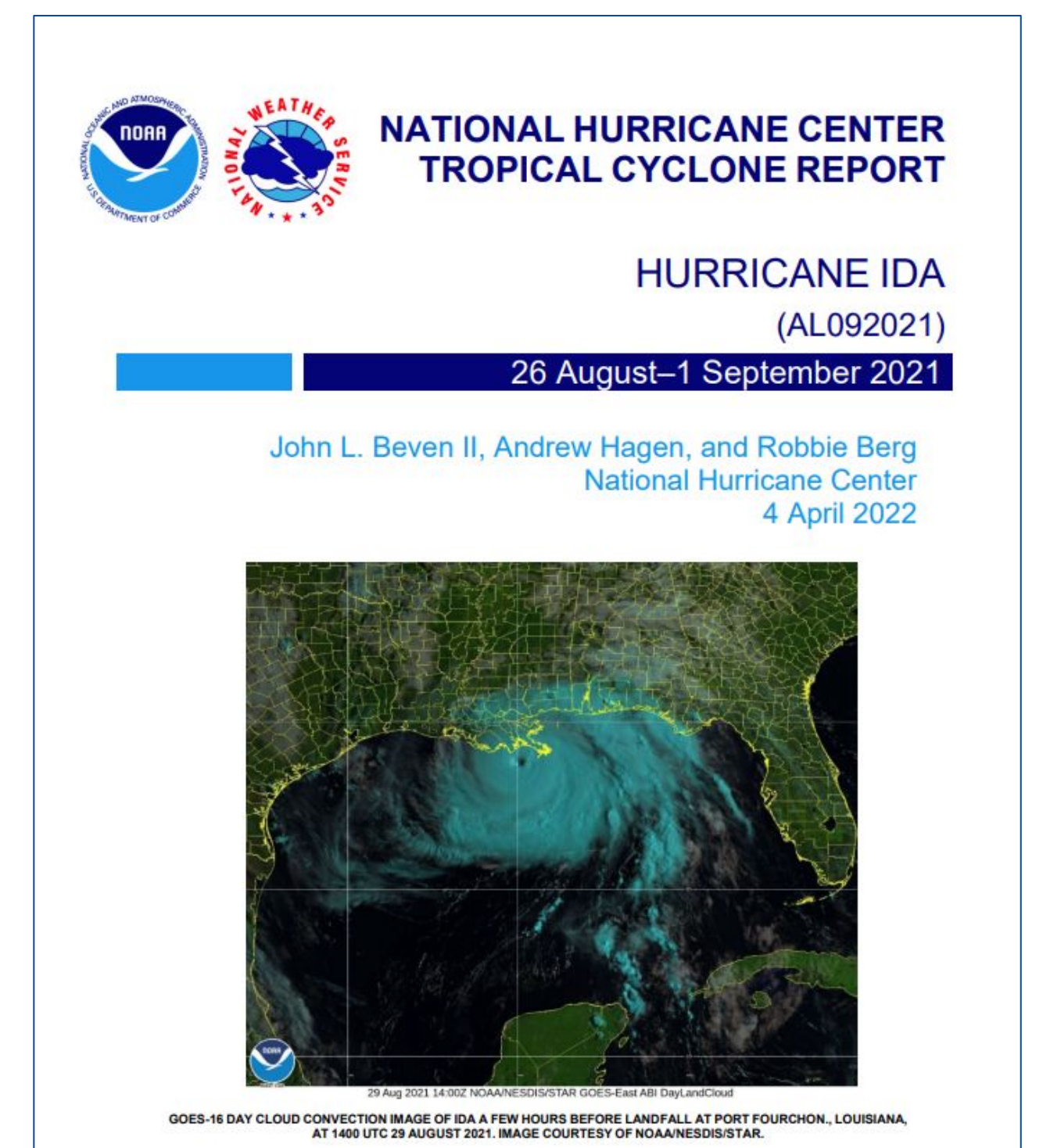
- 20 U.S. hurricane landfalls since 2017, including 9 major hurricanes, with most of this activity occurring along the Gulf Coast
- More U.S. landfalling Category 4 and 5 hurricanes (6) since 2017 than from 1963–2016
- Last published updates of U.S. tropical cyclone fatalities included data through 2012
- NOAA/NWS introduced a Storm Surge Watch/Warning for the U.S. in 2017 to explicitly warn for the deadliest hazard historically associated with TCs



U.S. Landfalling Hurricanes 2017-2023

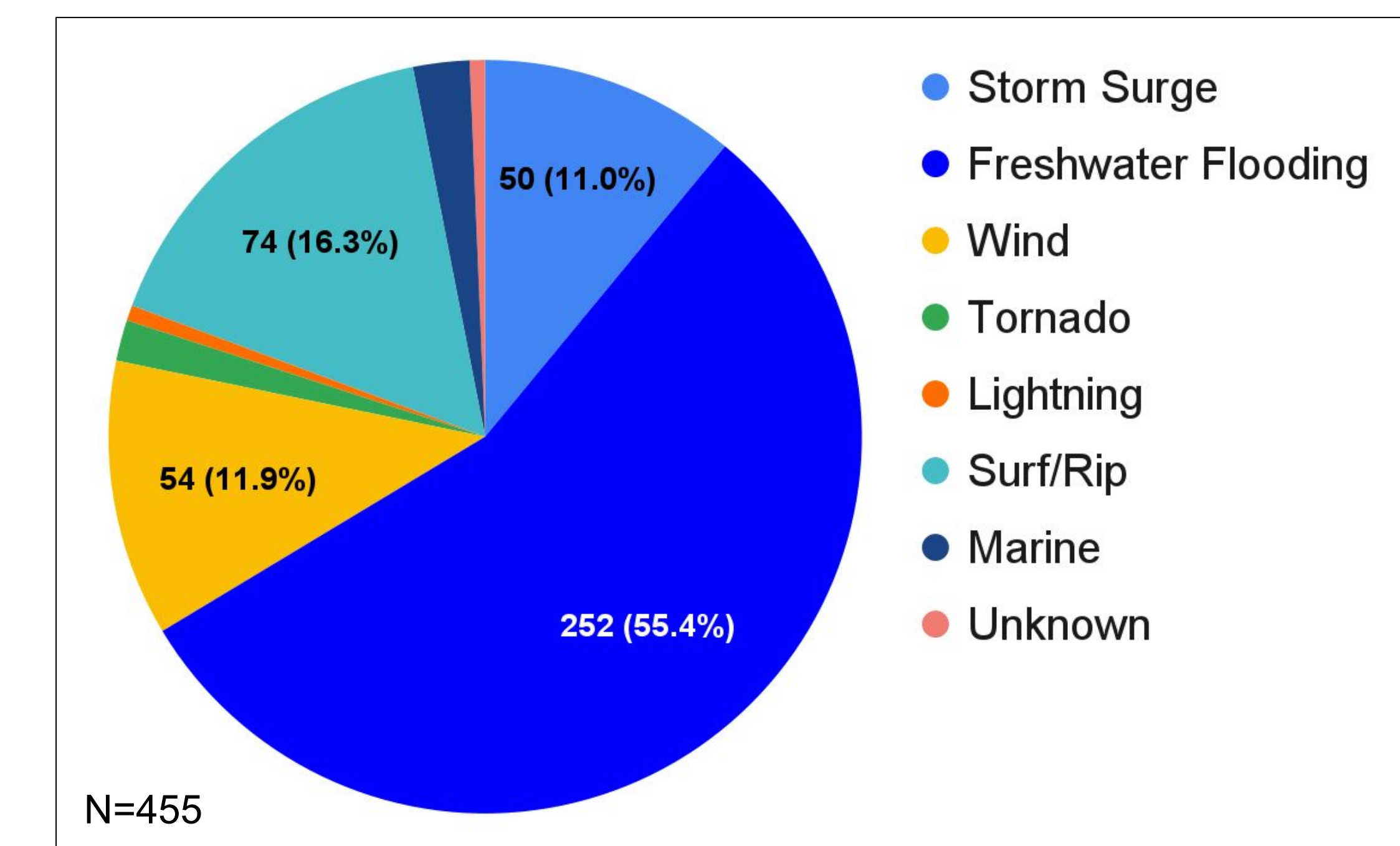
Data and Methodology

- Data in NHC's Tropical Cyclone Reports and other sources were reviewed to identify and categorize fatalities
- Results are subject to change, especially for recent storms, as causes of death and connection to a given storm are ambiguous in some cases
- Historical record is more robust for direct fatalities, but documentation of indirect fatalities has improved
- The nearly 3,000 fatalities from Maria in Puerto Rico are not included due to lack of information on fatality details
- Location approximation was done through georeferencing data
- Events without exact locations were shown at the center of the county, city, or state provided

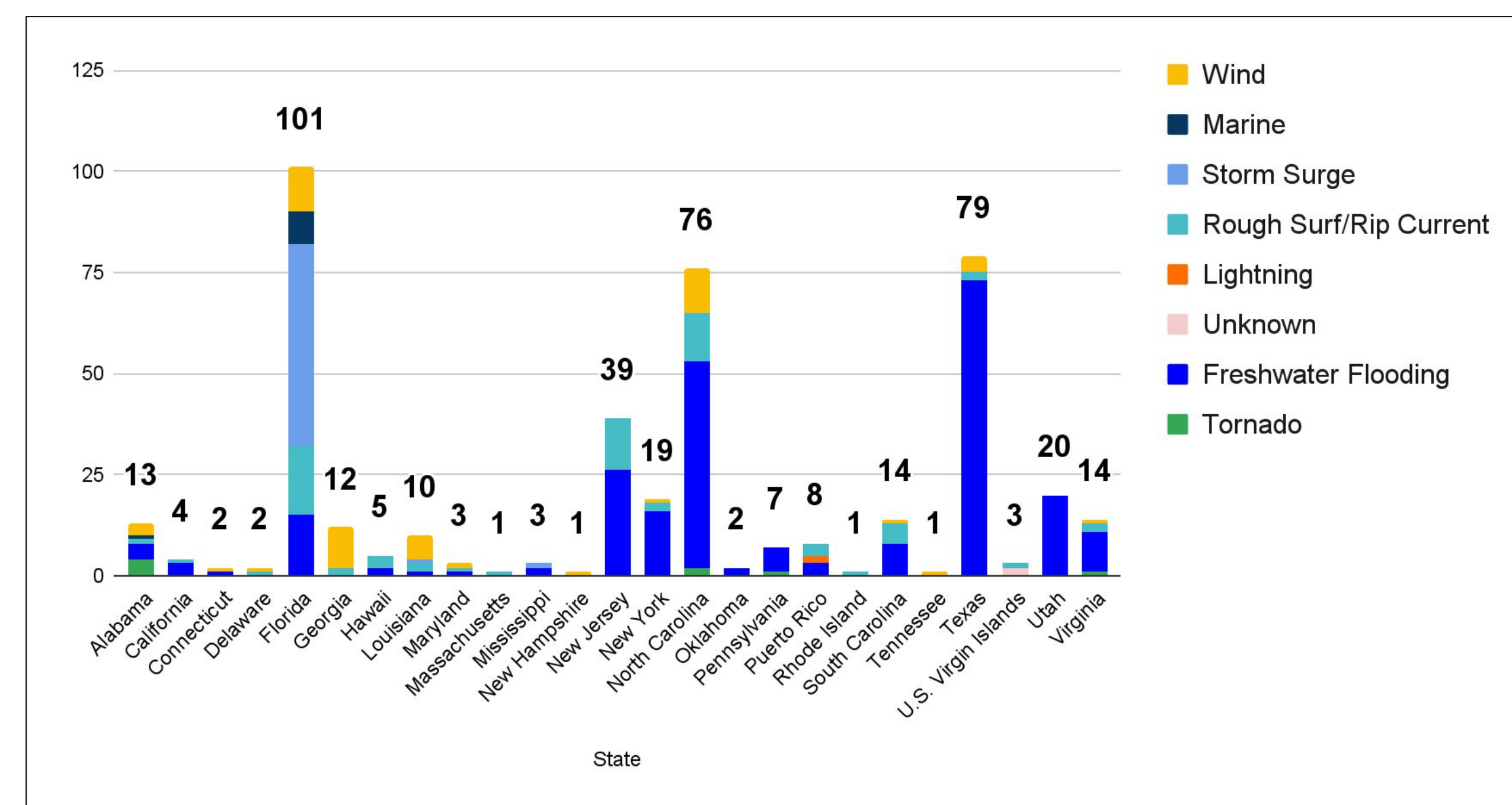


B	C	D	E	F	G	H	I	J
State	County/Parish	Locality	WFO	Male/Female	Age	Cause	Circumstances	Direct/Indirect
Florida	Bay	Mexico Beach	TAE	male	65	Storm Surge	moved by storm surge	direct
Florida	Bay	Mexico Beach	TAE	female	60	Storm Surge	moved by storm surge	direct
Florida	Bay	Mexico Beach	TAE	female	79	Storm Surge	moved by storm surge	direct
Florida	Gulf	Port St. Joe	TAE	male	70	Storm Surge	occurred in storm surge ev direct	direct
Florida	Bay	Panama City	TAE	male	67	Storm Surge	Swept away by house durm direct	direct
Florida	Gadsden County	Quincy	TAE	male	44	wind	tree fallen on home	direct
Florida	Jackson	Alford	TAE	male	67	wind	tree fallen on home	direct
Virginia	Pittsylvania	Danville	RNK	male	53	freshwater flooding	floodwaters had stranded at direct	direct
Virginia	Pittsylvania	Danville	RNK	female	60	freshwater flooding	floodwaters had stranded at direct	direct
Virginia	Pittsylvania Cou Mt. Hermon	RNK	male	45	freshwater flooding	swept away from his vehicle direct	direct	direct
Virginia	Charlotte	Charlotte County	RNK	male	36	freshwater flooding	swept away from a bridge	direct

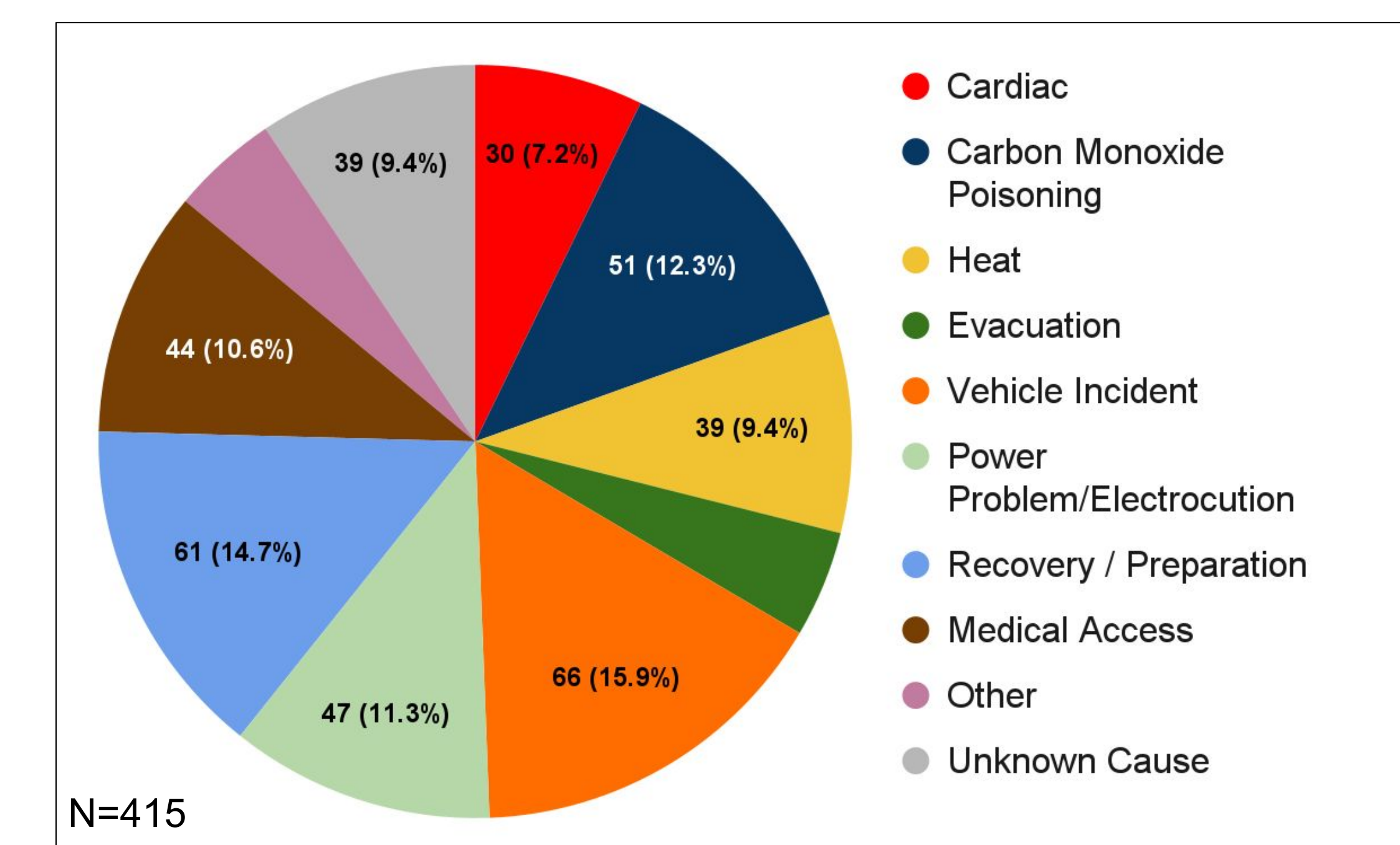
Results



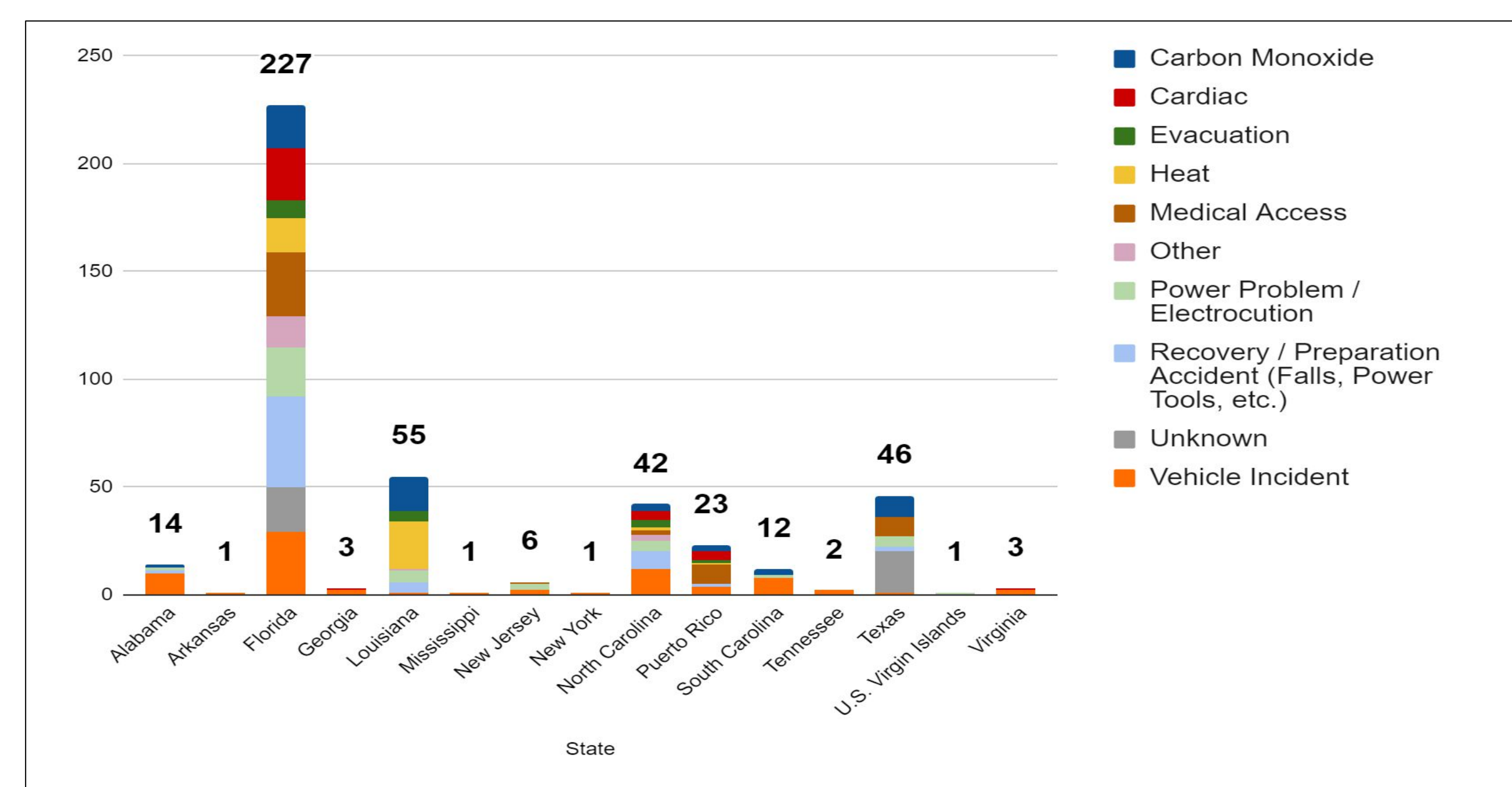
2013-2023 Direct U.S. TC Fatalities



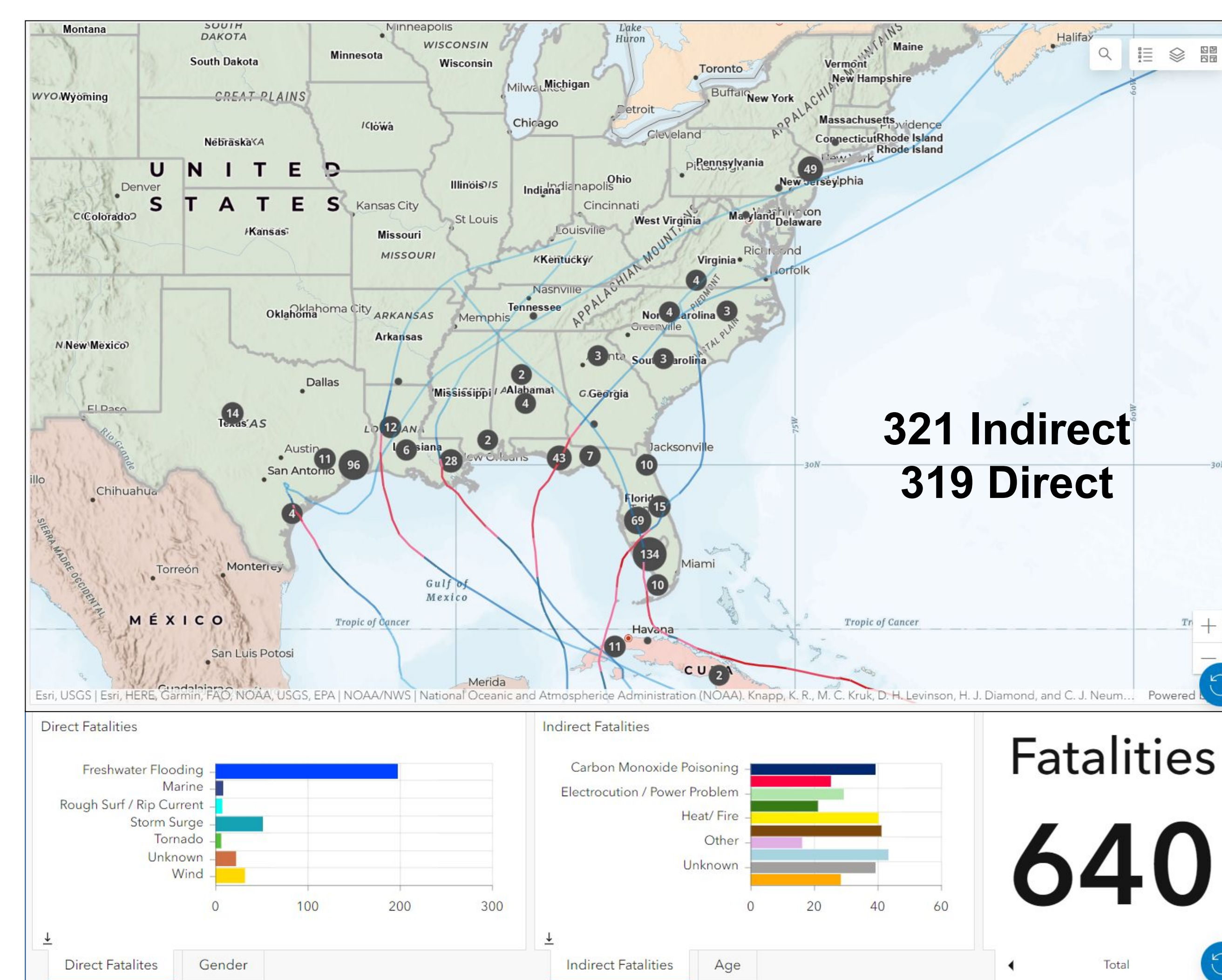
2013-2023 Direct U.S. TC Fatalities by State



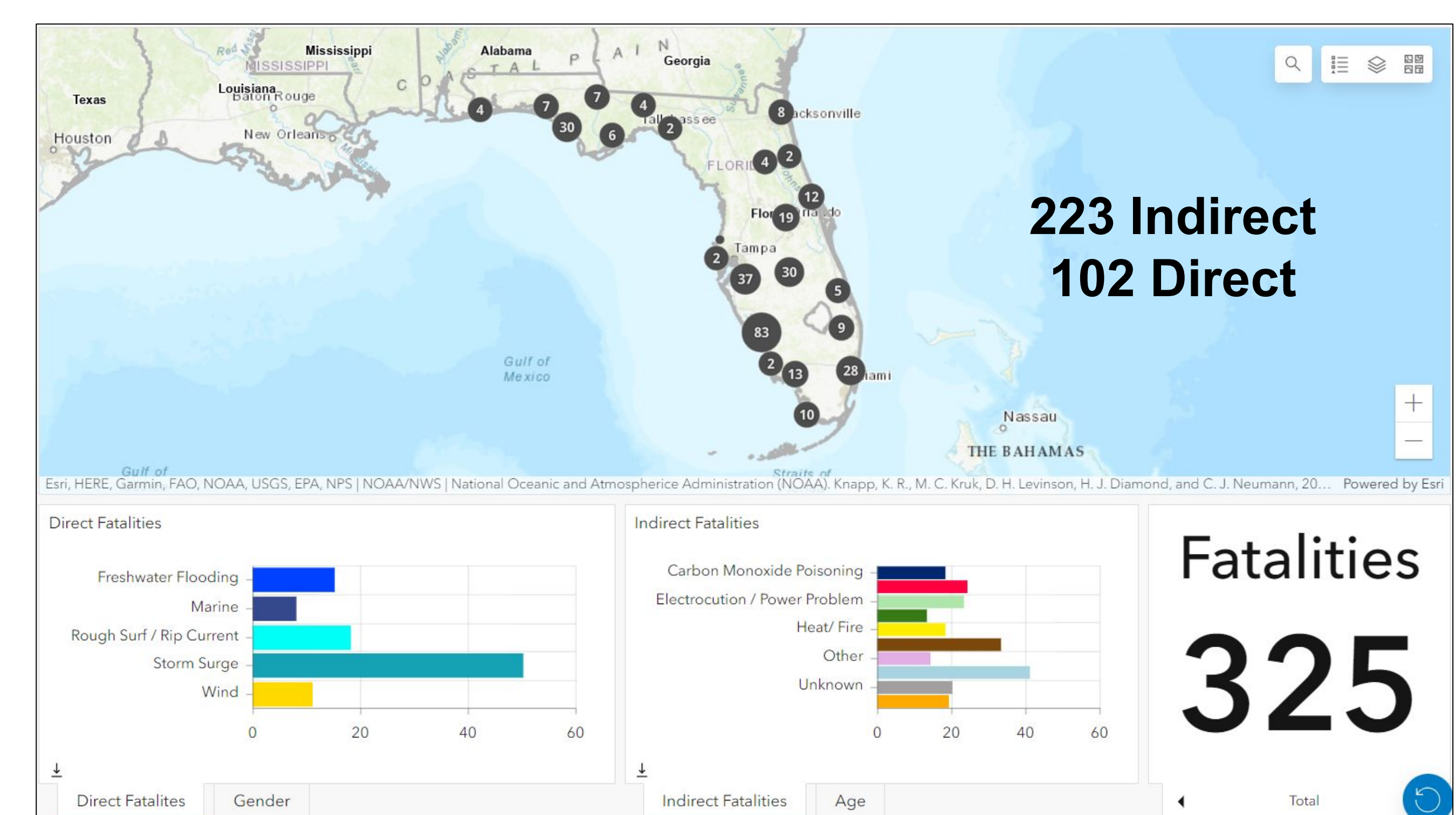
2013-2023 Indirect U.S. TC Fatalities



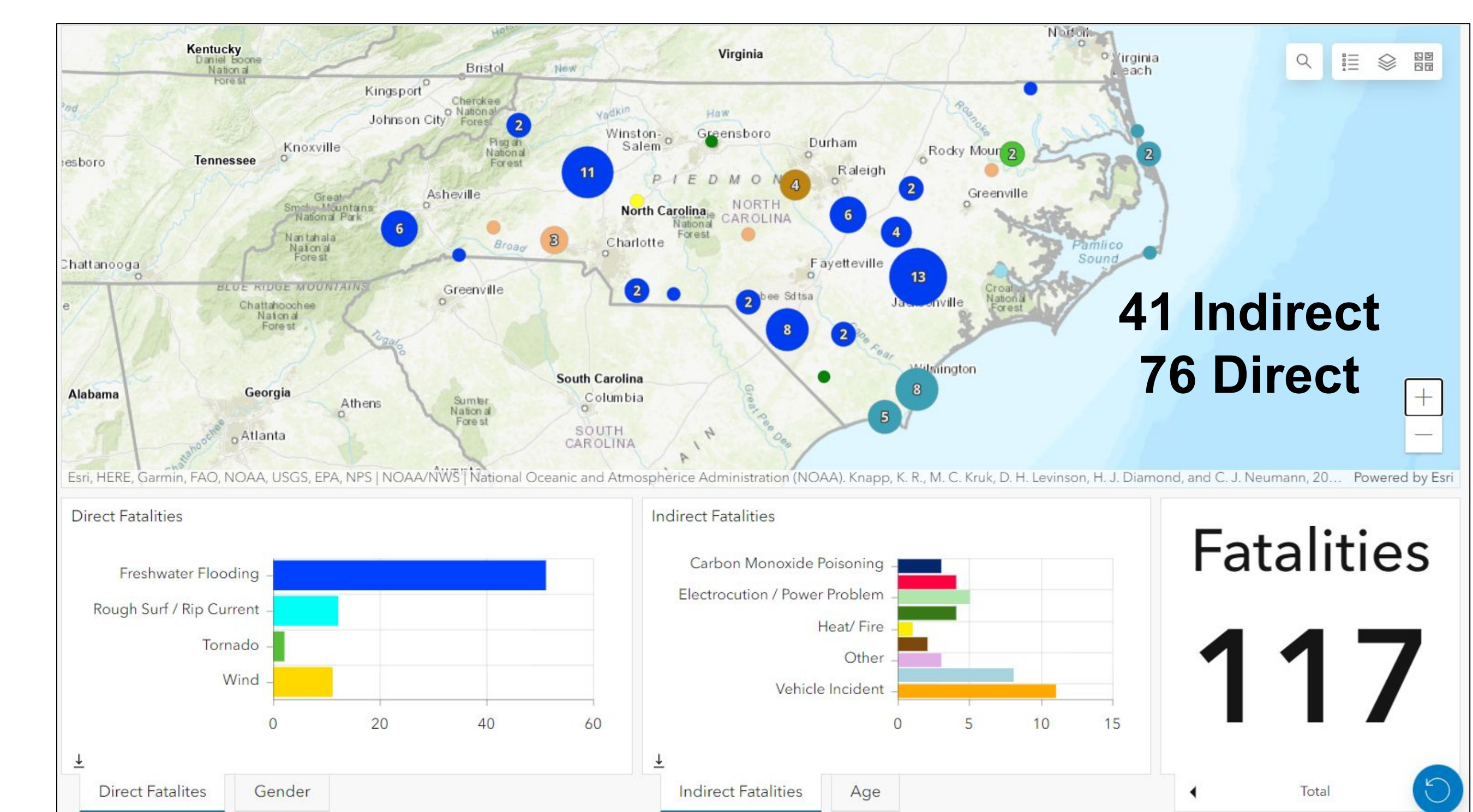
2013-2023 Indirect U.S. TC Fatalities by State



Direct and indirect fatalities associated with the 6 CONUS category 4 and 5 hurricane landfalls since 2017: Harvey, Irma, Michael, Laura, Ida, Ian



Florida direct and indirect fatalities 2017-2023



North Carolina direct and indirect fatalities 2017-2023