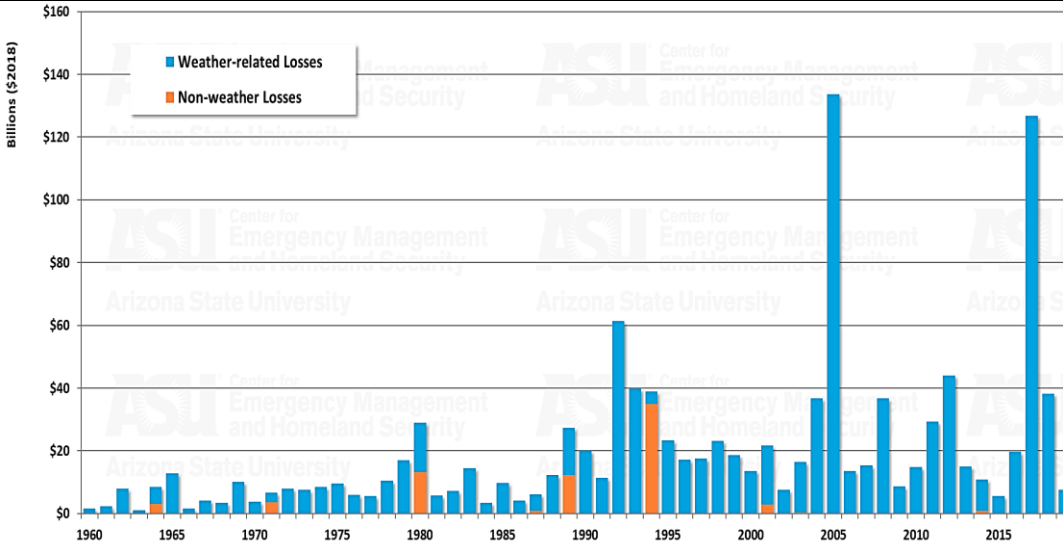


## SUMMARY OF LOSSES

Year	Total Direct Damage	Fatalities	Injuries	Property (\$2019b)	Crop (\$2019b)
1960 - 2019	\$1,143.9	34,933	252,361	\$946.3	\$197.6
Annual Average	\$19.1	583	4,206	\$15.8	\$3.3

## ANNUAL LOSSES

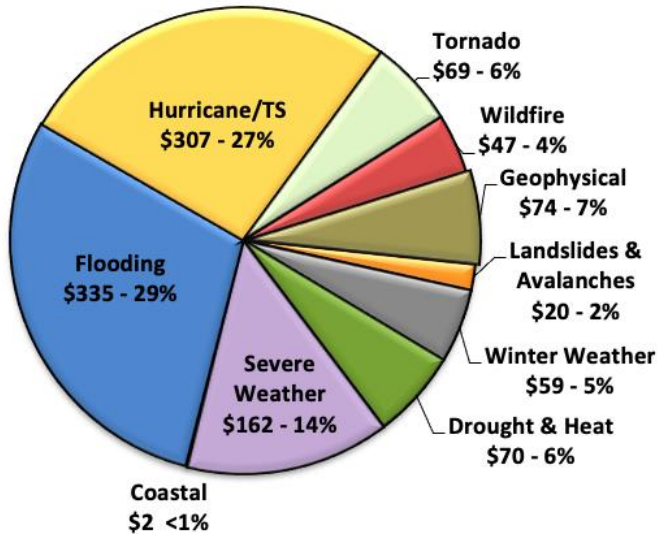


## RECORD YEARS

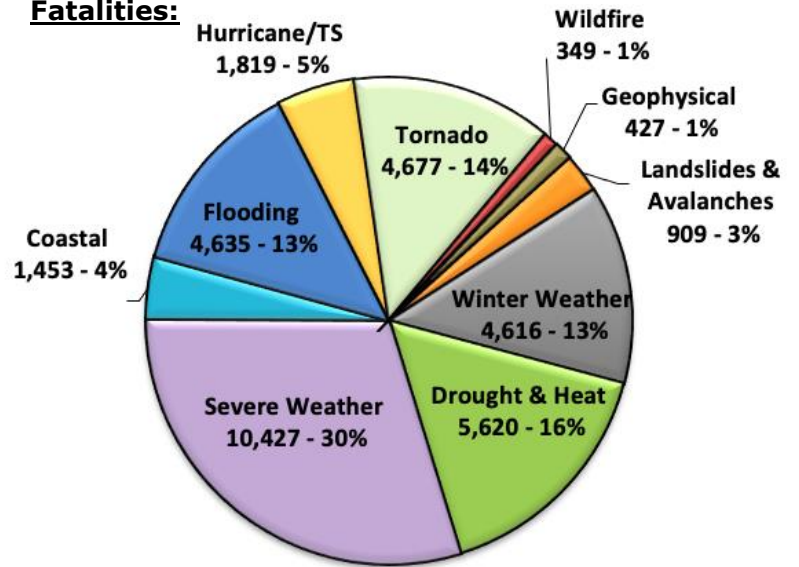
Year	Costliest	Deadliest	Year
2005	\$133.6	1,638	1995
2017	\$126.8	1,449	2005
1992	\$61.4	1,156	2011
2012	\$44.0	1,054	1980
1993	\$39.8	998	1972
1994	\$38.9	917	1999
2018	\$38.3	871	1974
2008	\$36.8	816	1969
2004	\$36.7	748	1971
2011	\$29.4	718	1960
1980	\$29.0	707	1965
1989	\$27.3	671	1998
1995	\$23.3	669	1983
1998	\$23.2	623	1985
2001	\$21.8	618	1989

## COSTLIEST AND DEADLIEST HAZARDS

### Losses (\$2019 Billion):



### Fatalities:



## MOST IMPACTED STATES

### Most Hazard Events

State	Counts
Iowa	60,860
Texas	49,578
Ohio	46,671
New York	42,849
Virginia	38,286

### Highest Losses

State	Damage (\$2019b)
Texas	\$195.6
California	\$136.0
Florida	\$131.1
Louisiana	\$105.5
Mississippi	\$58.6

### Most Fatalities

State	Fatalities
Texas	2,664
California	1,960
Illinois	1,883
Pennsylvania	1,676
Louisiana	1,576

# MOST IMPACTED COUNTIES

## Most Hazard Events

County	State	Counts
Polk	IA	1,694
Oneida	NY	1,386
Middlesex	MA	1,253
Erie	NY	1,217
Harris	TX	1,213
San Bernardino	CA	1,197
Maricopa	AZ	1,194
Chautauqua	NY	1,178
Chittenden	VT	1,161
Allegheny	PA	1,147

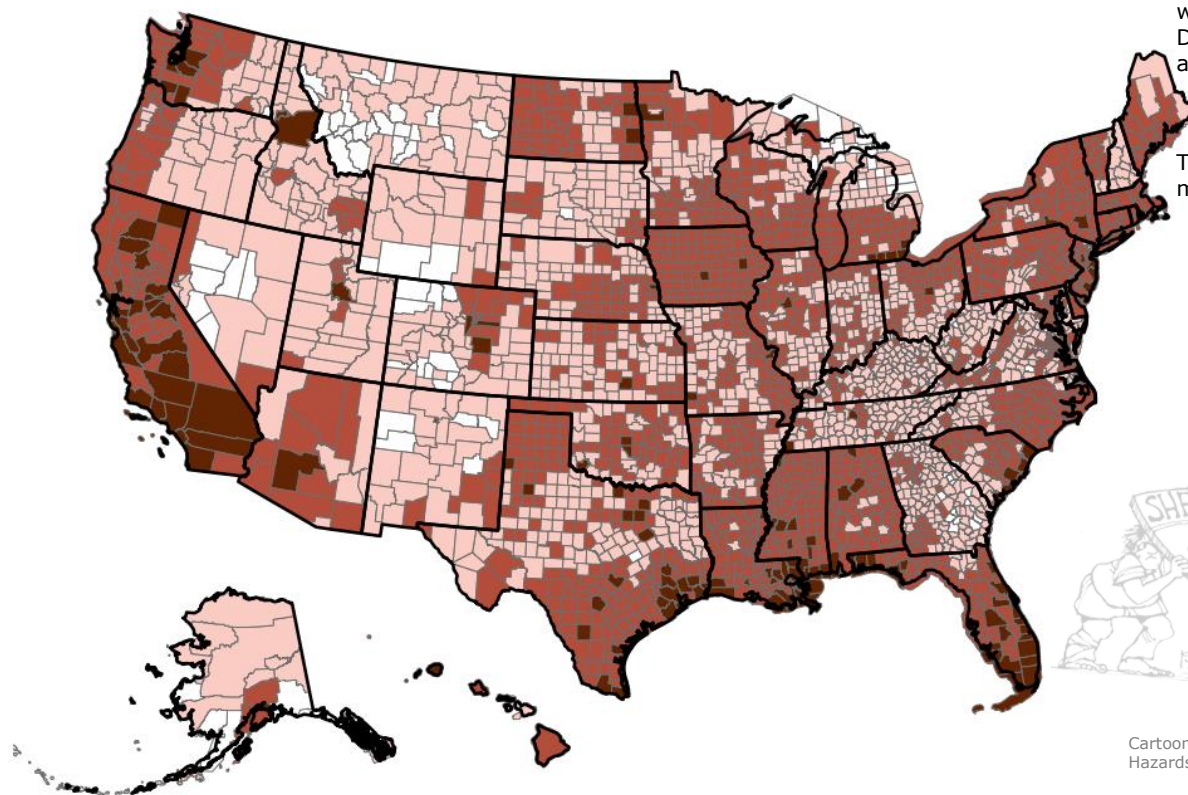
## Highest Losses

County	State	Damage (\$2019 billion)
Los Angeles	CA	\$50.5
Harris	TX	\$36.0
Orleans	LA	\$29.1
Galveston	TX	\$27.6
Fort Bend	TX	\$17.5
Palm Beach	FL	\$16.2
Miami-Dade	FL	\$16.1
Montgomery	TX	\$15.8
Monmouth	NJ	\$13.5
Collier	FL	\$13.3

## Most Fatalities

County	State	Fatalities
Cook	IL	1,273
Orleans	LA	719
Philadelphia	PA	653
Clark	NV	436
Harris	TX	348
Los Angeles	CA	310
Baltimore	MA	304
Dallas	TX	224
Larimer	CO	196
Shelby	TN	185

## TOTAL LOSSES FROM NATURAL HAZARDS BETWEEN 1960 AND 2019



Under \$10 Million  
 Between \$10 and \$100 Million  
 Between \$100 Million and \$1 Billion  
 More than \$1 Billion

Between 1960 and 2019, there were 2,377 Presidential Disaster Declarations (PDDs). The annual average number of PDDs is 40.

The states that received PDDs most frequently were:

Texas	93
California	91
Oklahoma	80
Florida	72
New York	71
Kentucky	64
Louisiana	64
Alabama	63
Mississippi	62
Arkansas	61



Cartoon reprinted with permission from the National Hazards Research Center in Boulder, CO.

For more information on Presidential Disaster Declarations go to FEMA (<http://www.fema.gov/disasters/declarations>).

## RELATED PUBLICATIONS

- Gall, M. and Carol J. Friedland, 2019. If Mitigation Saves \$6 Per Every \$1 Spent, Then Why Are We Not Investing More? A Louisiana Perspective on a National Issue. *Natural Hazards Review* 21(1). [https://doi.org/10.1061/\(ASCE\)NH.1527-6996.0000342](https://doi.org/10.1061/(ASCE)NH.1527-6996.0000342)
- Gall, M., 2019. Loss reduction and sustainability. In: *From Disaster to Catastrophe: U.S. Emergency Management in the 21st Century*, edited by C. Rubin and S.L. Cutter. New York, NY: Routledge: 209-232
- NASEM. 2019. Framing the Challenge of Urban Flooding in the United States. Washington, D.C.: National Academies Press. doi:10.17226/25381.
- Cutter, S. L., C. T. Emrich, M. Gall, and R. Reeves, 2018. Flash flood risk and the paradox of urban development, *Natural Hazards Review* [https://doi.org/10.1061/\(ASCE\)NH.1527-6996.0000268](https://doi.org/10.1061/(ASCE)NH.1527-6996.0000268)
- Cortés, Kristle Romero and Philip E. Strahan. 2017. "Tracing Out Capital Flows: How Financially Integrated Banks Respond to Natural Disasters." Cleveland, OH: Federal Reserve Bank of Cleveland.
- Gall, M., 2017. Direct and Insured Flood Damage in the United States. *Flood Damage Survey and Assessment: New Insights from Research and Practice*, pp.53-63. American Geophysical Union.
- Cutter, S.L., R.L. Schumann III, and C.T. Emrich, 2014. Exposure, social vulnerability and recovery disparities in New Jersey after Hurricane Sandy. *Journal of Extreme Events* 1(1):1450002.
- Cutter, S.L., K.D. Ash, and C.T. Emrich, 2014. The geographies of community disaster resilience. *Global Environmental Change* 29: 65-77.

\*Figures for hazard mortality and injuries are underreported, especially for Hurricane Katrina as well as drought/heat events. For more information on Presidential Disaster Declarations go to FEMA (<http://www.fema.gov/disasters>)