

Deadliest American Disasters and Large-Loss-of-Life Events

Project History

This project began in the Fall of 1998 with one student's query, "What were the worst disasters in U.S. history?" This question began my exploration into this seemingly narrow subject, and opened a world of information. By trade and desire, I normally do not teach. I am a researcher. However, on this occasion, I accepted the offer and taught the Introduction to Emergency Management at Shenandoah University in Winchester, VA. From this experience, I began to tackle what has become my life project.

So what was the worst disaster in U.S. history? The class and I began long discussions of what is meant by "worst" and how to measure or quantify "it". How does one breakout or construct the variables that would come together when thinking about "really bad" disasters. One can think in these terms below or create others of merit.

- Financially, such as the billion and multi-billion-dollar loss events/disasters (Hurricane Katrina).
- Some disasters are so horrific or notable in human failure and devastation that they enter the public consciousness for generations (the *Titanic* or *911*).
- Other disasters are associated with a geographical space and large-scale losses of the built environment (San Francisco Earthquake).

As I became more intrigued by disasters responsible for very large losses of life (the 1988 Extreme Heat Event as well as any number of Cholera, Smallpox, or Yellow Fever epidemics). I began formulating ideas, and enjoyed the lively discussions and insightful questioning of the students.

To begin to recognize the scope of this assignment and eventual project, I attempted to compile a list of the deadliest disasters/events in American/U.S. history. To my surprise, I discovered an array of disagreeing lists of the "Top Ten" deadliest American disasters.

First, some lists only deal with natural disasters. If one thinks of disasters as hurricanes, tornadoes and earthquakes, then an epidemic such as cholera would not be included. Moreover, the *Sultana* explosion, taking between approximately 1,300 to 2,000 lives, would be excluded.

Secondly, there is inadequate research in this field. A fatality number gets printed and then is picked up and used by others year after year without searching for actual confirmation the number is factual or defensible. Only sifting through a variety of sources allows one to get a good, or at least better, handle on the mortality of an event. This problem can be an explanation for why a disaster would be on one list but not another – there were two different figures being used for the mortality.

Third, there is not a one-stop place for reliable information. Several agencies look at the same event through different lenses, definitions and report slices of information but not the complete

picture. For example, if one were to look at the National Weather Service/NOAA figure for 2013 heat fatalities, you would find 92. If one then looks at one of several sources that look at heat-associated deaths of young children in vehicles for 2013, you would find details on 44 such deaths, only several of which are noted by the NWS/NOAA or NCDC/NOAA¹ within their 92 deaths figure. Then if one consults the Occupational Safety and Health Administration (OSHA) for worker deaths for the year and look for heat-related deaths, one finds more than a dozen, only which several, again, are included in the NWS figure. Finally, when one reviews a State Department of Health, or similar State agency document, one often finds yet more losses of life in this heat event. Thus whereas the NWS/NOAA shows 7 heat-related deaths for Arizona and the NCDC/NOAA shows 9, the Arizona Department of Health Services shows 139.² Then there is from the Centers for Disease Control and Prevention, the CDC WONDER mortality data website. It shows for AZ for 2013, using ICD-10 X30 code (exposure to excessive natural heat), 151 such deaths. It also shows 372 such deaths nationwide. When I draw from all sources I arrive at 422 heat-associated during 2013, as opposed to the 92 noted by the National Weather service and the National Climatic Data Center.

Finally, another problem encountered, were the discrepancies found from one source to the next on the loss of life. I found many instances wherein the range was substantially large – as in a source which might list 5,000 deaths, another 10,000, and yet another, 12,000. Surely, I thought, better research would enable me to narrow a range of 5,000-12,000 to something more like 9,000 to 10,000.

Thus, I decided to put together my own list, but not to stop at the “Top Ten.” I decided to put together a listing of all disasters taking 1,000 or more lives. Given the disparity between reported mortality given the source of the reporting, I decided I must do my own research.

As I came across more sources containing relevant information, and became intrigued with unknown-to-me events in our past, which were “big deals” at the time,³ I decided to include events down to 500 fatalities, then 200 fatalities, then 100, then 50, then 20, and now, finally, down to ten (with some exceptions).

Given the compelling stories inherent in many of the events, in which I was compiling one-line descriptions of, I also decided to start creating files for each one. These files contain narrative descriptions of each event, in the words of the sources used, including a bibliography of all the sources consulted. In my quest to make sure this is the most accurate data available, I use original source documents when available, and am known to reach out and call and email individuals in agencies and or individuals involved in the actual event or town.

As stated before, this project has become a compilation of data and information on large-loss-of-life events in American/U.S. history, other than battles within wars. In the desire to create a

¹ National Climatic Data Center, Asheville, NC. The NCDC has a searchable database

² *Trends in Morbidity and Mortality from Exposure to Excessive Natural Heat in Arizona.*

³ I cannot recall the numerous times I have read something like this event was so horrible that it will be remembered forever as one of the worst disasters in U.S. history – only it was unknown to me at the time, and I had spent a career in FEMA on disaster and hazard related work.

searchable, definitive source on natural and “man-made” events causing ten or more fatalities in the America/the United States and its Territories this project began and continues.