

Mass Massacres Have a Bright Future in the US

A natural-growth analysis points to 50% more deaths per year by 2027

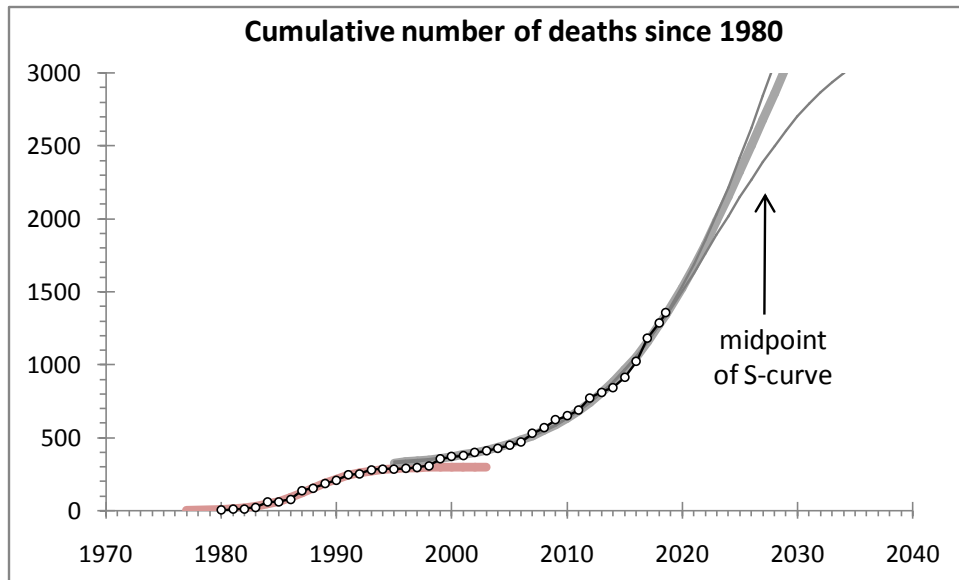
by

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During the last forty years the number of deaths from mass massacres in the US has grown exponentially, like an epidemic disease in its early stages. Epidemics—like species populations—grow along S-shaped growth curves, the so-called *S-curves*. An S-curve is a visual representation of the natural law that governs growth in competition and reflects the equilibrium between opposing forces, for example an organism's ability to grow and society's efforts to curtail its growth. Under normal circumstances such natural-growth processes proceed to the completion of their S-shaped trajectories; that's why S-curves possess a forecasting capability.

When we look at the number of deaths from mass massacres in the US over the last forty years we distinguish two S-curves: a small one, completed by the mid 1990s, and a larger one, still in its early exponential stage.



Data source: Wikipedia as of August 5, 2019.

The small S-curve (purple line in the drawing) with a midpoint in late 1988 describes accurately the data during the first fifteen years, which largely coincide with the administration of George H. W. Bush. The second S-curve (the thick gray line shows only its lower half) is populated with data only on its early stage. The curve's midpoint is at the end of 2027; that's when the yearly number of deaths is forecasted to reach a maximum of 180 deaths per year, namely 50% higher than today's rate. Also shown in the drawing is the 90% confidence-level band, delimited by the thin gray lines. It means that nine times out of ten the actual future data will fall within this band.

This forecast can be trusted to the extent that circumstances remain "normal" i.e. we keep doing the same things as we have been doing in the past. The only way this growth process will deviate from the forecasted trajectory is if drastic actions are taken—unlike any actions seen in the past—which will effectively transform the growing "species" into a different one with a new trajectory of its own.

The above analysis refutes the claim by Northeastern University criminologist James Alan Fox, who shared his views in [a podcast](#) broadcast recently by Reason, a libertarian publication, that there is no evidence that the United States is experiencing an “epidemic” of mass shootings. Furthermore, this analysis undermines the effectiveness of minor actions such as strengthening background checks for gun buyers; much more drastic actions are required to contain this epidemic.