TABLE 2.5 The Ten Largest Daily Percentage Changes in the Dow Jones Industrial Average, January 1980–September 2017, and the Normal Probability of a Change at Least as Large

Date	Percentage Change (x)	Standardized Change $z = (x - \mu)/\sigma$	Normal Probability of a Change at Least This Large $\Pr(\lvert Z\rvert \geq \lvert z\rvert) = 2\Phi(-\lvert z\rvert)$
October 19, 1987	–22.6	–21.0	6.6×10^{-98}
October 13, 2008	11.1	10.2	1.5×10^{-24}
October 28, 2008	10.9	10.0	1.0×10^{-23}
October 21, 1987	10.1	9.4	7.7×10^{-21}
October 26, 1987	–8.0	–7.5	7.2×10^{-14}
October 15, 2008	–7.9	–7.3	2.3×10^{-13}
December 01, 2008	–7.7	–7.2	7.4×10^{-13}
October 09, 2008	–7.3	–6.8	8.5×10^{-12}
October 27, 1997	–7.2	–6.7	2.2×10^{-11}
September 17, 2001	–7.1	–6.6	3.1×10^{-11}