

the average number of cars derailed. Regarding mainline movements, lower speed derailment accidents involve fewer cars on average than higher speed derailment accidents.

The filtered data for each of the three cases is plotted in a histogram based on the position of the first car derailed in Figure 3 for train speeds between 25 mph and 50 mph and Figure 4 for train speeds less than or equal to 25 mph.

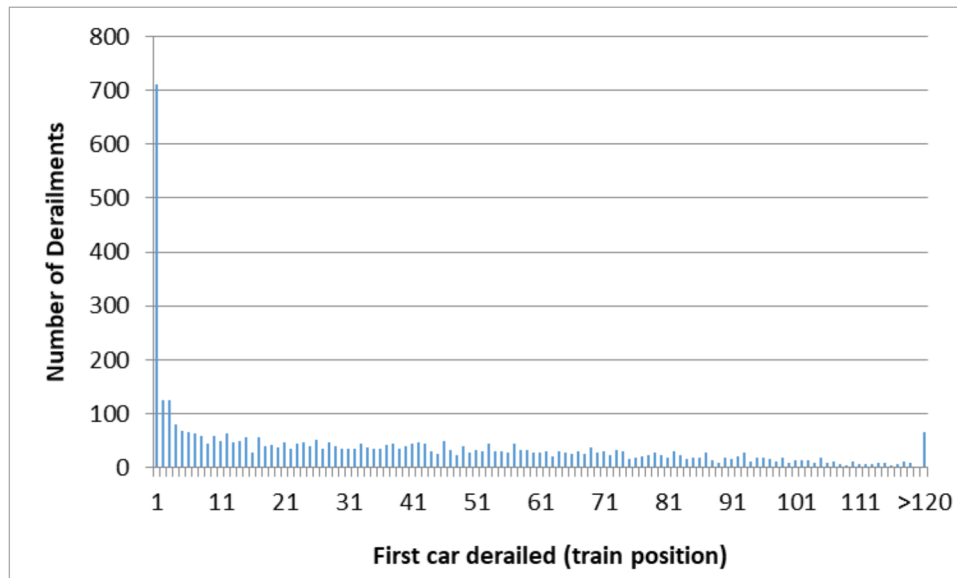


Figure 3. Frequency (count) of the first car position-in-train for mainline derailments with train speeds greater than 25 mph up to 50 mph (total count equals 3,501 derailments).²⁰

²⁰ Note that the value at the > 120 car position in the histogram represents the sum of all cars from 120 up to 200 listed in the database.