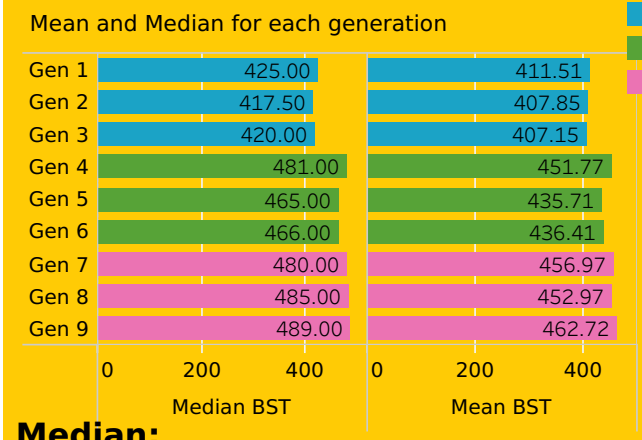
Pokémon Stats

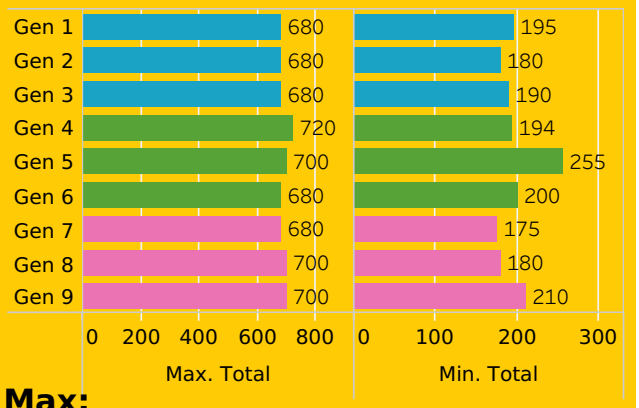
We have created our Mean, Median, Minimum and Maximum graphs. The colours represent which third of the generations they come from. Pink meaning newest 3 and Blue meaning oldest 3.

To explore how ingame stats have changed throughout the makings of new pokemon games, we can look at a few things. The first is to look at the median **Base Stat Total (BST)**, mean, minimum and maximum BSTs to see how generations differ and to check for any trends. Then we can count how many pokemon have over a certain BST and compare between generations

Mean and Median for each generation



Minimum and Maximum BST for each generation



Median:

By sorting the median plot in generation order, we can see a large increase from the earliest three generations and the rest, with the three newest having a median that is 60 points higher. This will become a reccuring theme for any plots we have.

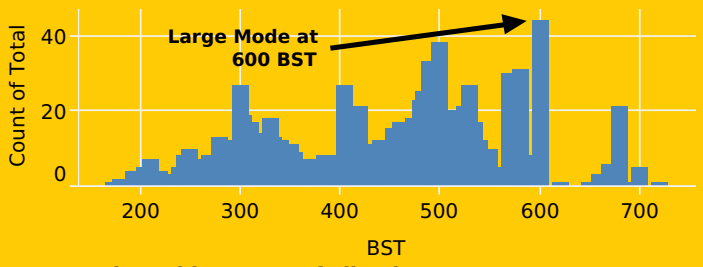
Mean:

Doing the same to the mean graph gives us a similar outlook, with the older games having a lower mean and the newer games having the higher means. The outlier in both plots is generation 4, which has the third highest median and the fourth highest mean but these values are very close to the three newest generations as well

Min Max:

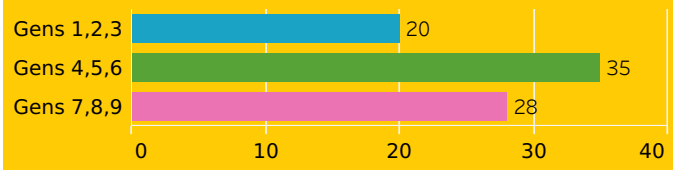
We don't see any trends in the minimum graph but the maximum graph has a tie for joint last at 680 BST. This tie includes generations 1,2 and 3 along with generations 6 and 7.

Histogram of all Pokemon BST



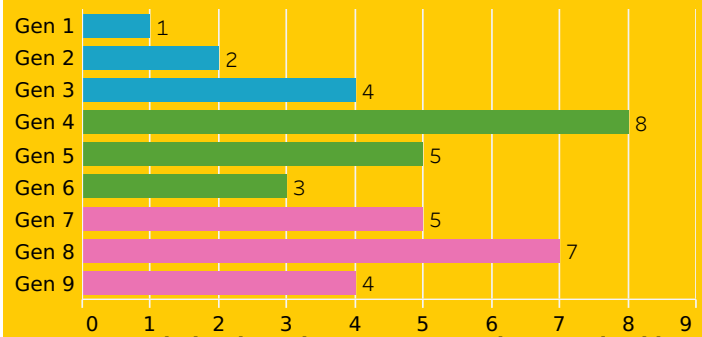
By creating a histogram of all pokemon BST, we can see a large mode at 600 BST. This will be our BST to base our plots off. We create 4 plots, 2 for >= 600 and 2 for >600 to see if there is a large difference in the generations named.

Count of unique Pokemon **>= 600 BST** Split by generations

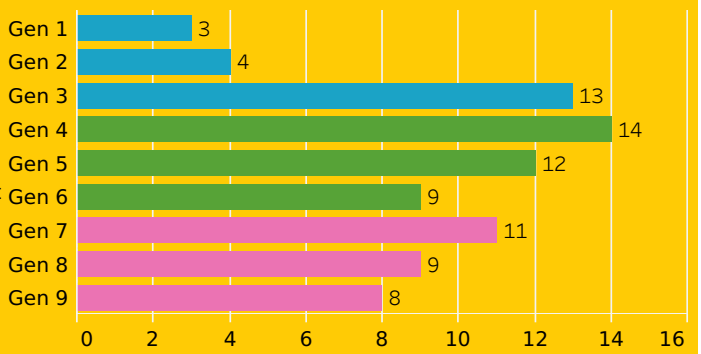


In all 4 graphs, we see low values in blue, followed by an increase in green and pink. In the >= 600 plot by generation, we can see a mode at generation 4 and it looks similar to a bell curve, showing the Pokemon Company may have toned back the total number of pokemon with at least 600 BST after these generations. When we remove the pokemon with 600 BST, we see a bimodal graph when split by generation, with the modes at Gen 4 and Gen 8. When split into groups, gens 4,5,6 have the same number as gens 7,8,9 while gens 1,2,3 have under half these values

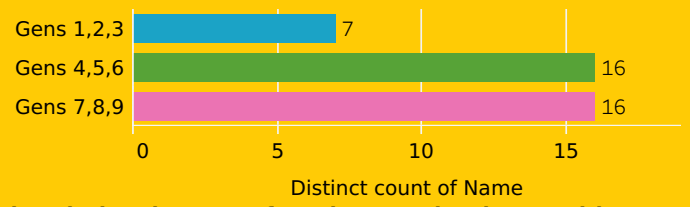
Count of unqiue Pokemon **> 600** BST per generations



Count of unique Pokemon **>= 600** BST Split by generations



Count of unique Pokemon **> 600** BST Split into generation groups



To conclude, the Pokemon Company have evolved how they design the stats of a pokemon. They began with lower means and only a couple over 600 BST, and ended with means of almost 500 and numerous pokemon over 600 BST.

It will be interesting to see how Pokemon continue to develop these stats in future games