In this paper logistic and non-logistic cumulative (sigmoidal) models that have fairly equal degree of predictions are compared for their peak point occurrences. It is discovered that only logistic (Hubbert) models have their peaks at half way to the ultimate recovery. Non-logistic models peak not necessarily at half way (but at some other point) to the ultimate recovery (see table 1). Peaking of logistic and non-logistic models are functions of the models, and not geology. Empirical experience revealed that even with different logistic models the same historical data gives different peaks and ultimate values; revealing that these values are mainly functions of the models, and not geology. When the historical data is large enough all the logistic models tend to peak at half way to the ultimate (central limit theorem). Peak production could therefore occur somewhere other than at half way to the ultimate recovery depending on the mathematical model used and is basically a function of the model if the historical data is not large.