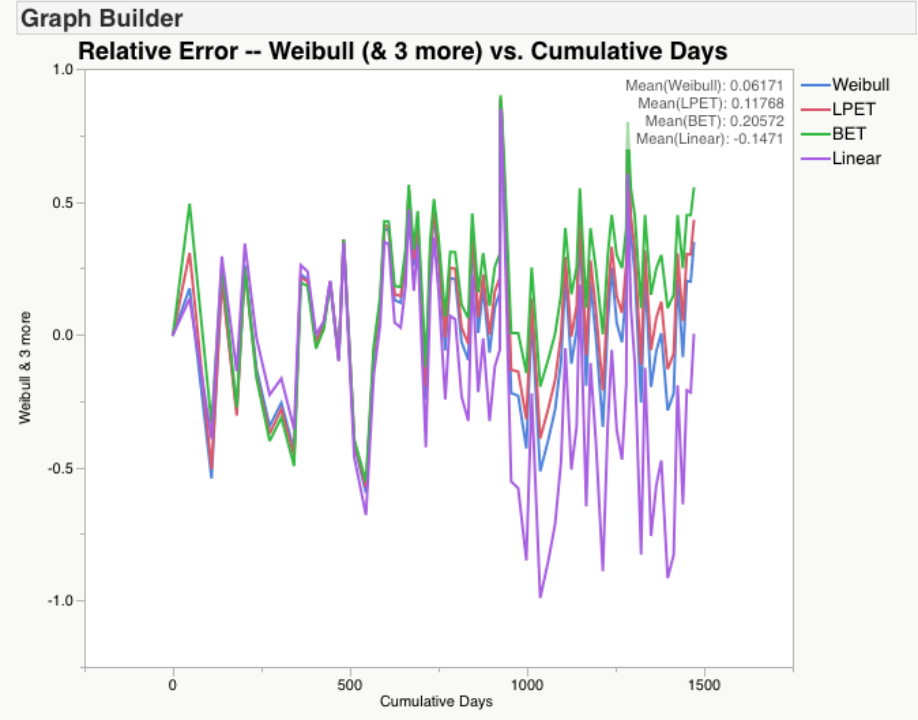
# REPORT

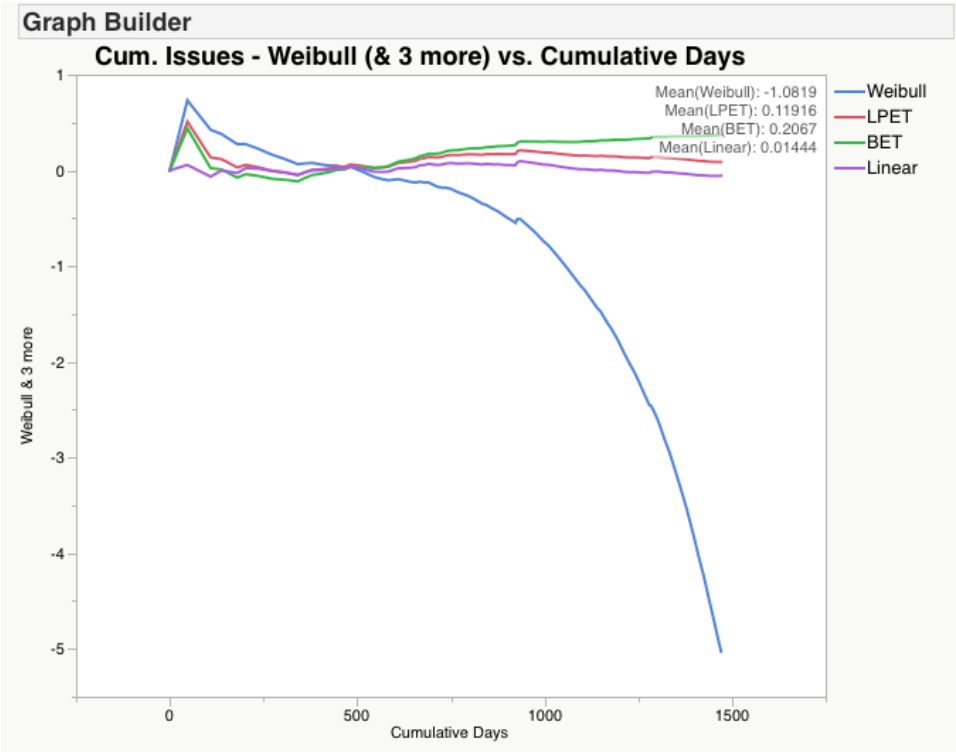
## Prediction with 25% data

- Kindly refer to the attached files for the overlay plots.

### Relative Error (Rate Estimation)

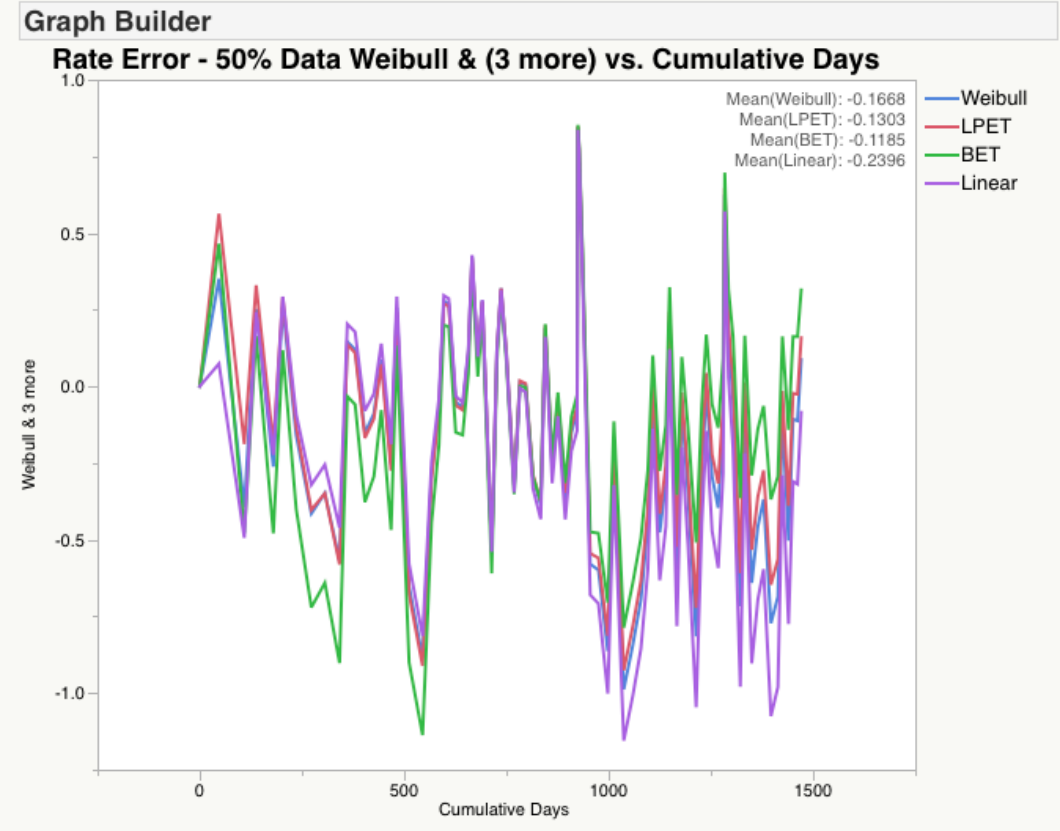



### Relative Error (Cum. Issues)

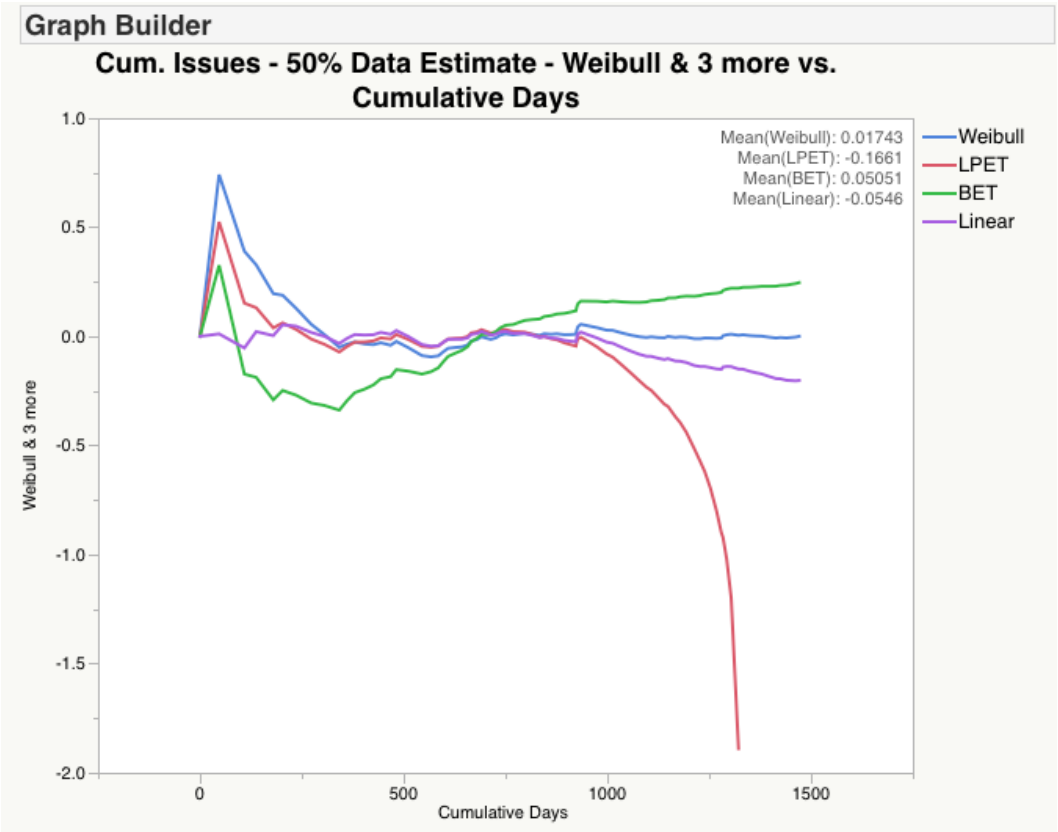


# Prediction with 50% data

## Relative Error (Rate Estimation)

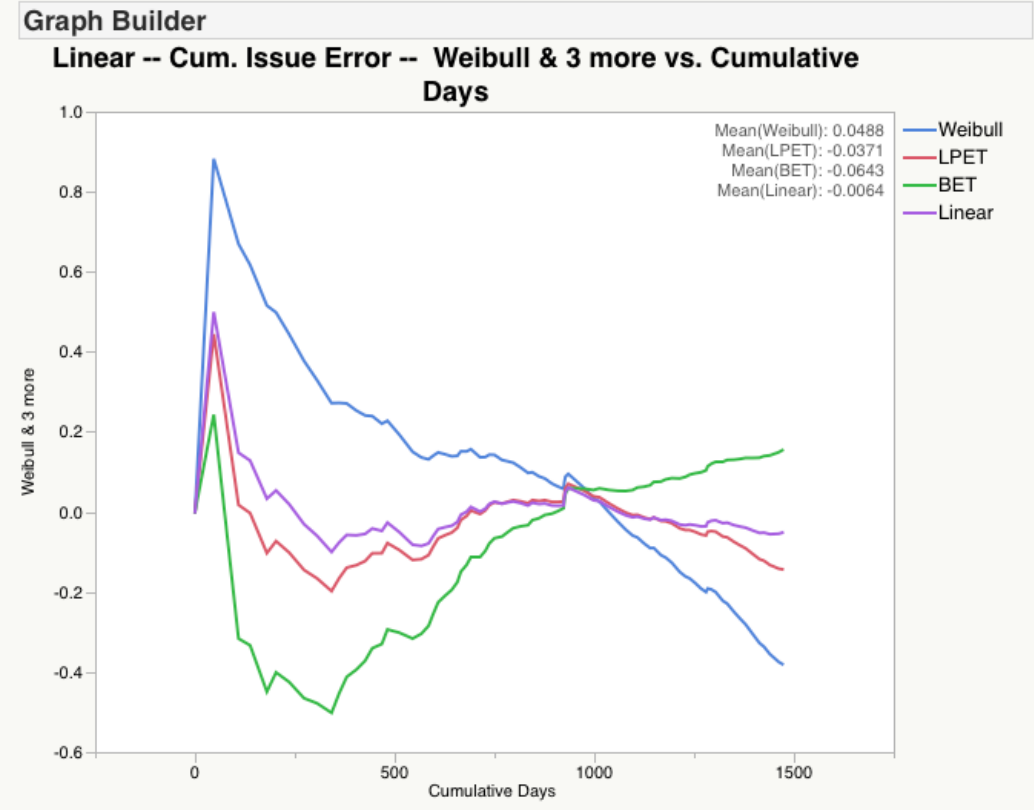



## Relative Error (Cum. Issues Estimation)

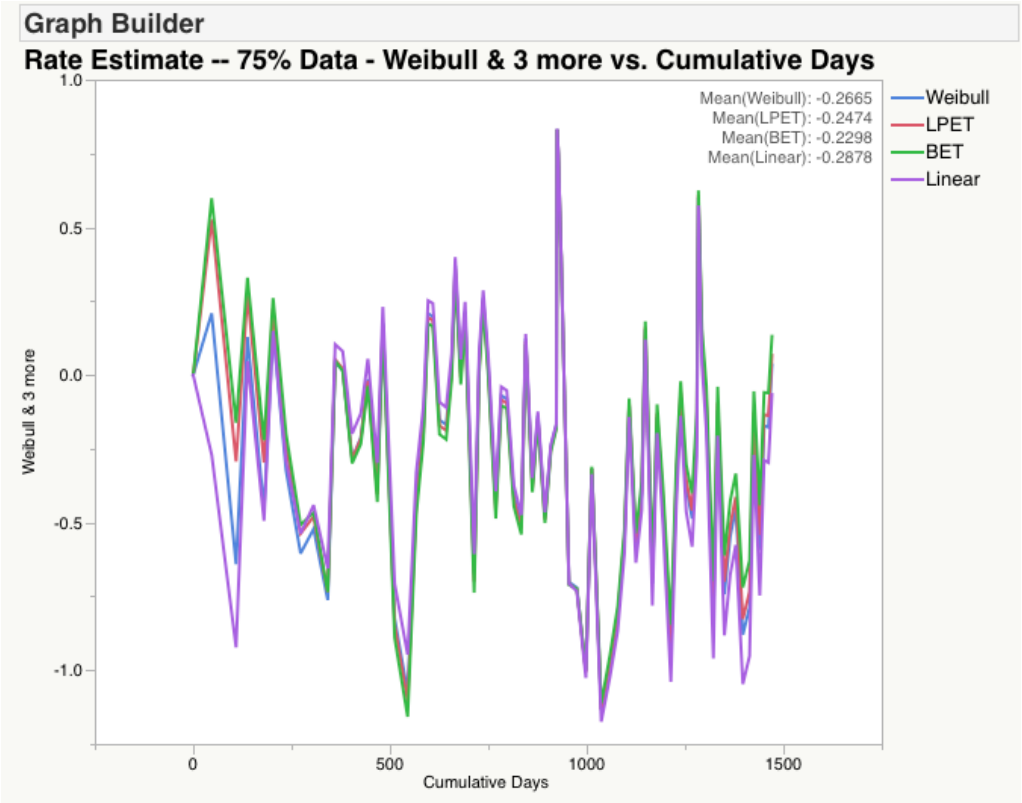


# Prediction with 75% data

## Relative Error (Cum. Issues)



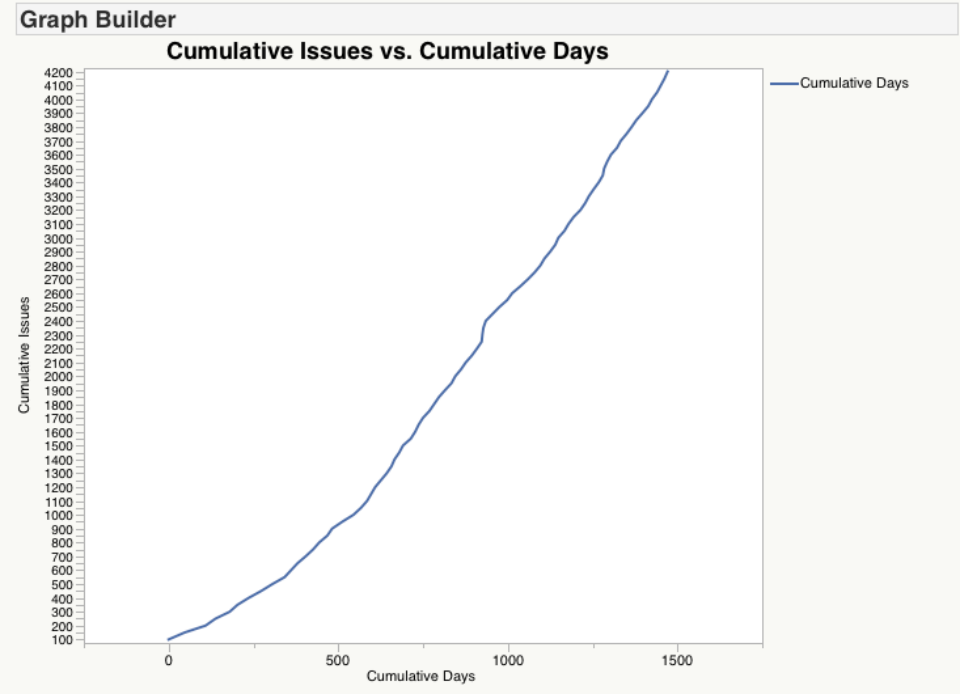

## Relative Error (Rate Estimation)



## Remarks:

- For prediction of Cumulative issues:
  - At 25% data - The linear model provides the best estimate. The mean relative error is 0.06171
  - At 50% data – The Weibull model provides the best estimate. The mean relative error is about 0.01743 for the Weibull model.
  - At 75% data – Again the linear model provides the best estimate. The mean relative error is -0.0064.

  This is a fair analysis because the Cum. Issues data is fairly linear in nature for this data set (see below..)




  Also, the relative error decreases as we increase the amount used for prediction.
- For prediction of Issue Rate:
  - At 25% data – The Weibull model produced the least relative error. The mean relative error was 0.06171
  - At 50% Data – The BET model produced the least relative error. The mean relative error was 0.1185
  - At 75% Data – Again the BET model gave the least relative error. The mean relative error was 0.2298.

  The fact the mean relative error seems justified if we look at the how the issue rate spike at or after the 50% pruning occurs (At around 1000 days, see below). As a result of these abrupt changes the model parameter are modified to the better fit the data resulting in more errors.

## Graph Builder