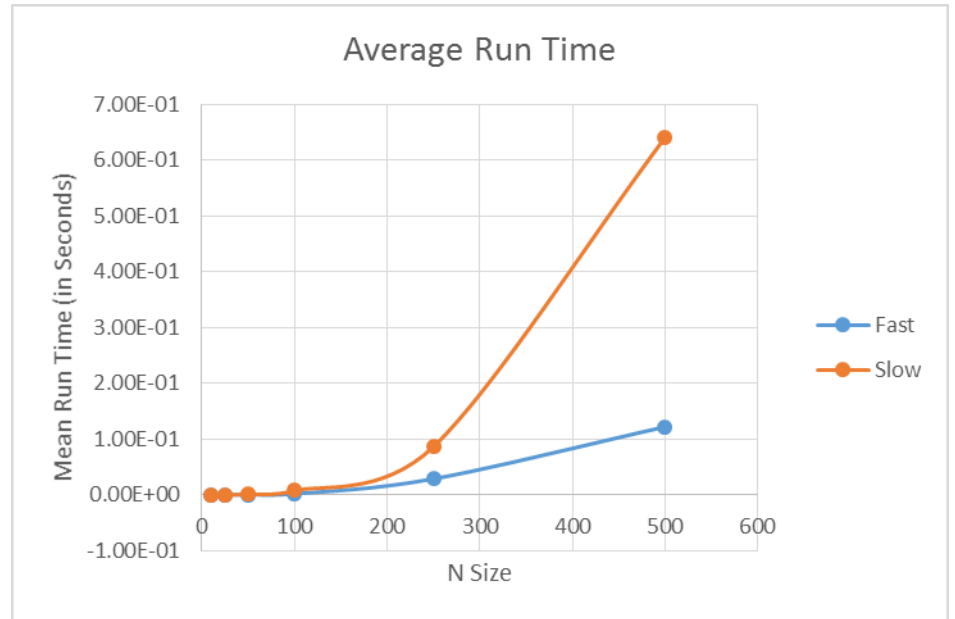


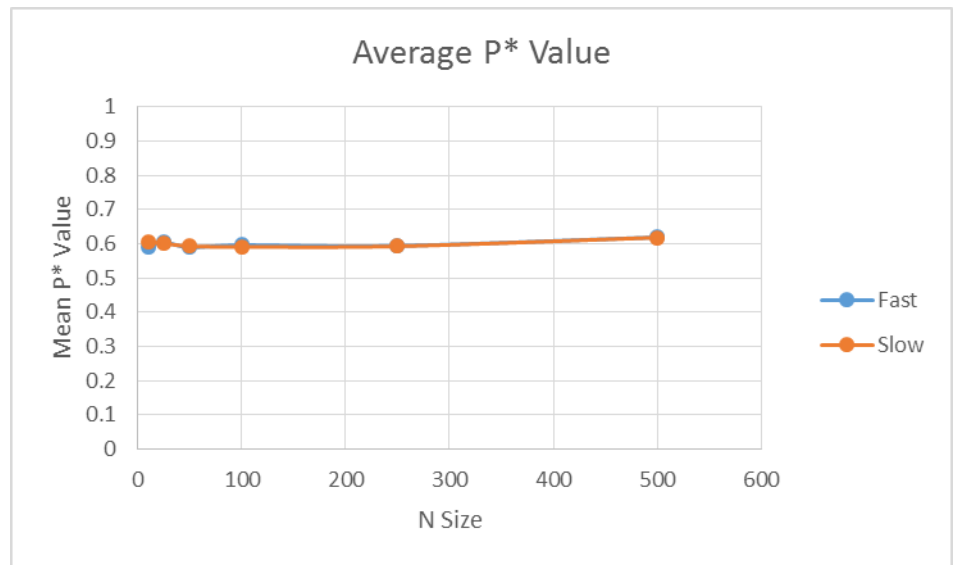
Analysis

FAST	
N	Mean Run Time
10	2.26E-04
25	3.29E-04
50	6.62E-04
100	0.0023
250	0.0291
500	0.1223
SLOW	
N	Mean Run Time
10	3.20E-04
25	4.70E-04
50	0.0016
100	0.0078
250	0.0866
500	0.6407



The run time for the Quick Union Find (slow) increases significantly as the N size approaches ≥ 200 compared to the run time for Weighted Quick Union Find (fast).

FAST	
N	Mean P*
10	0.589
25	0.6048
50	0.59
100	0.5963
250	0.5943
500	0.619
SLOW	
N	Mean P*
10	0.605
25	0.6016
50	0.5932
100	0.5911
250	0.5931
500	0.6184



For both the QUF and Weighted QUF implementations, the average P* values were roughly the same; both were around ~ 0.59 - 0.61 . This means that in order to percolate, roughly 60% of the blocks need to be opened.