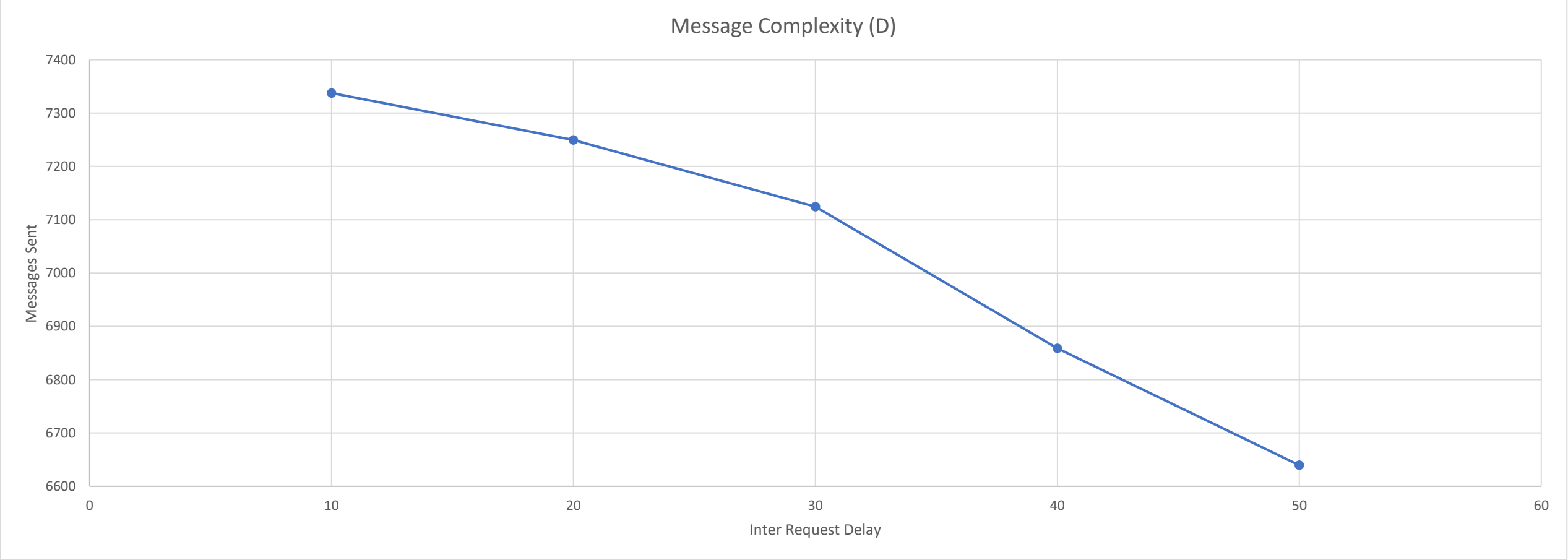
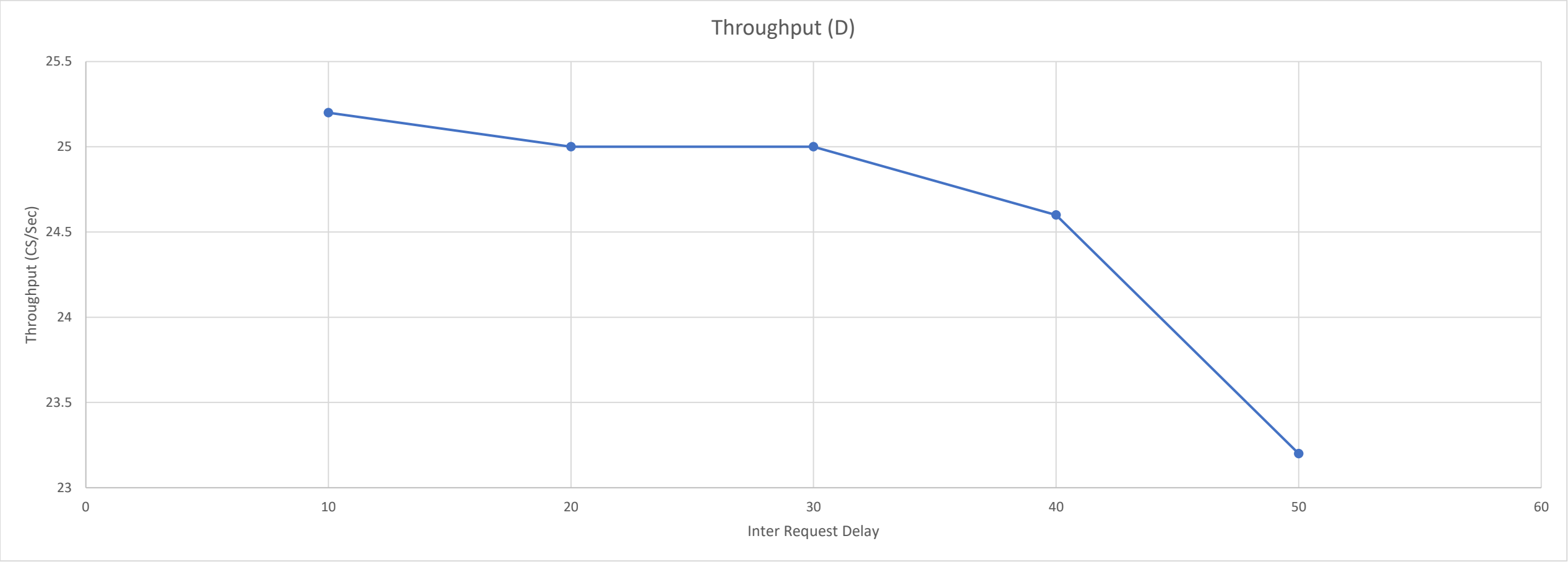
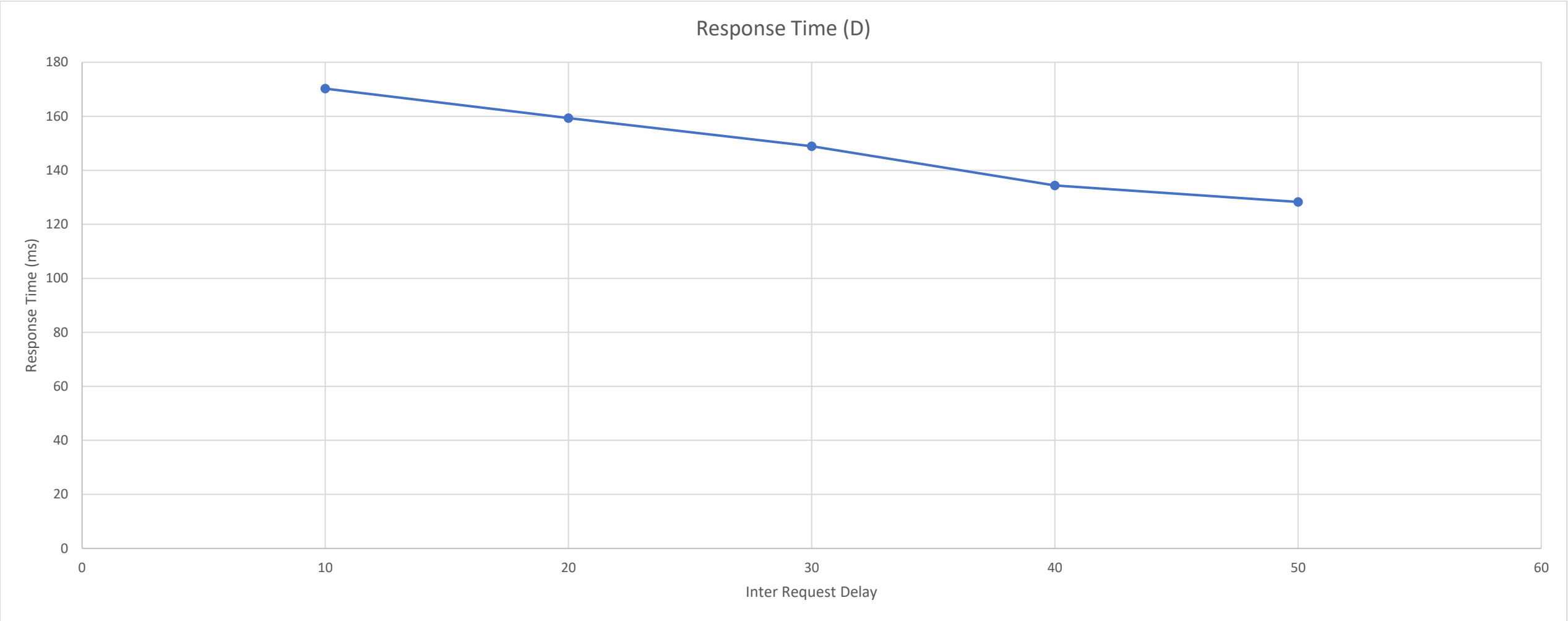
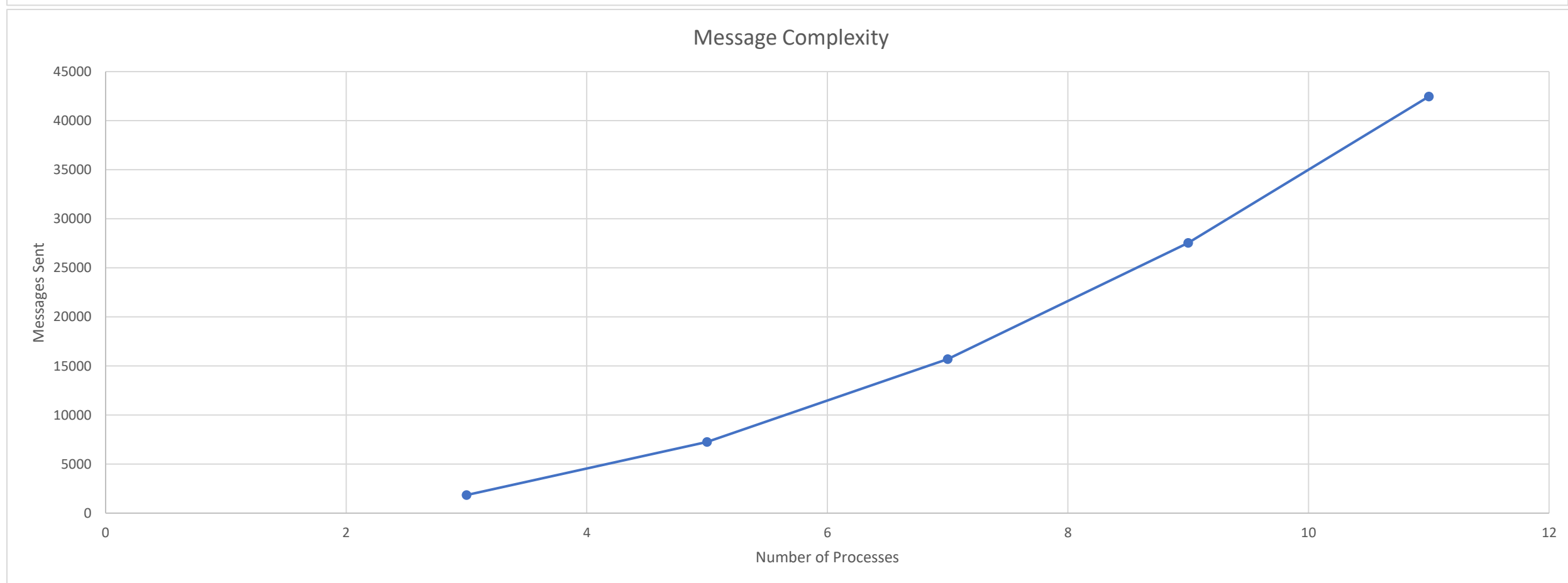
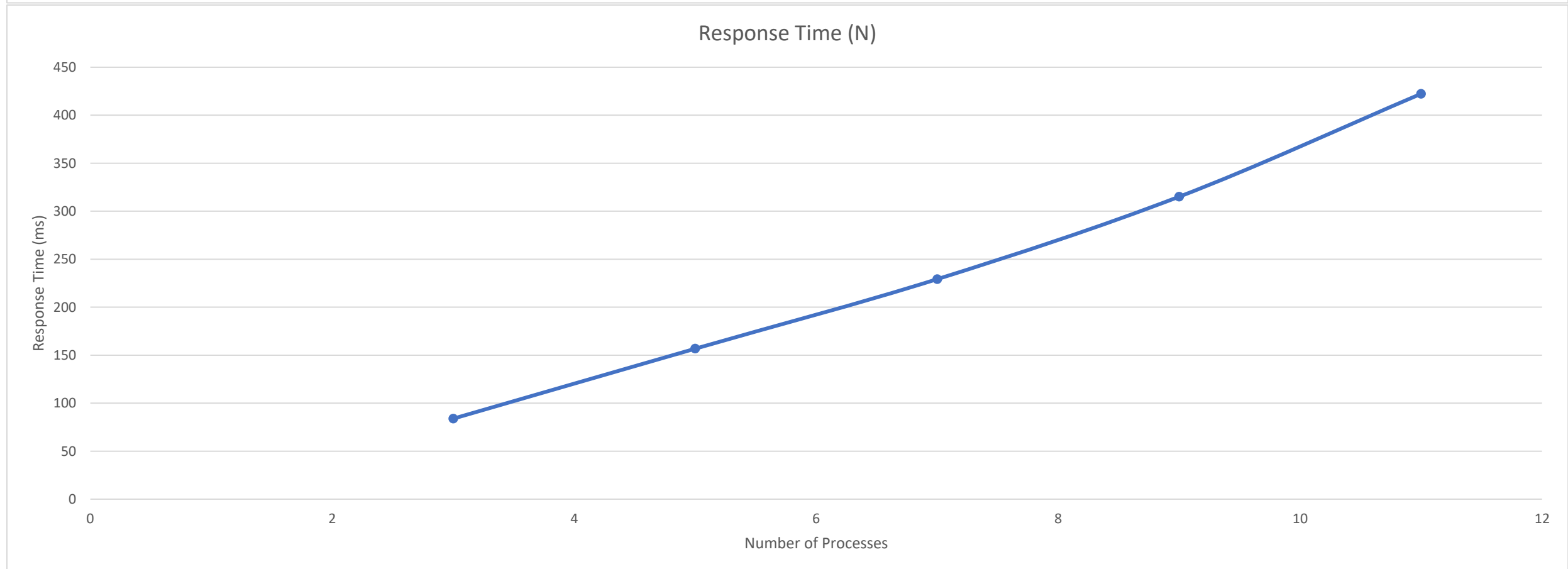
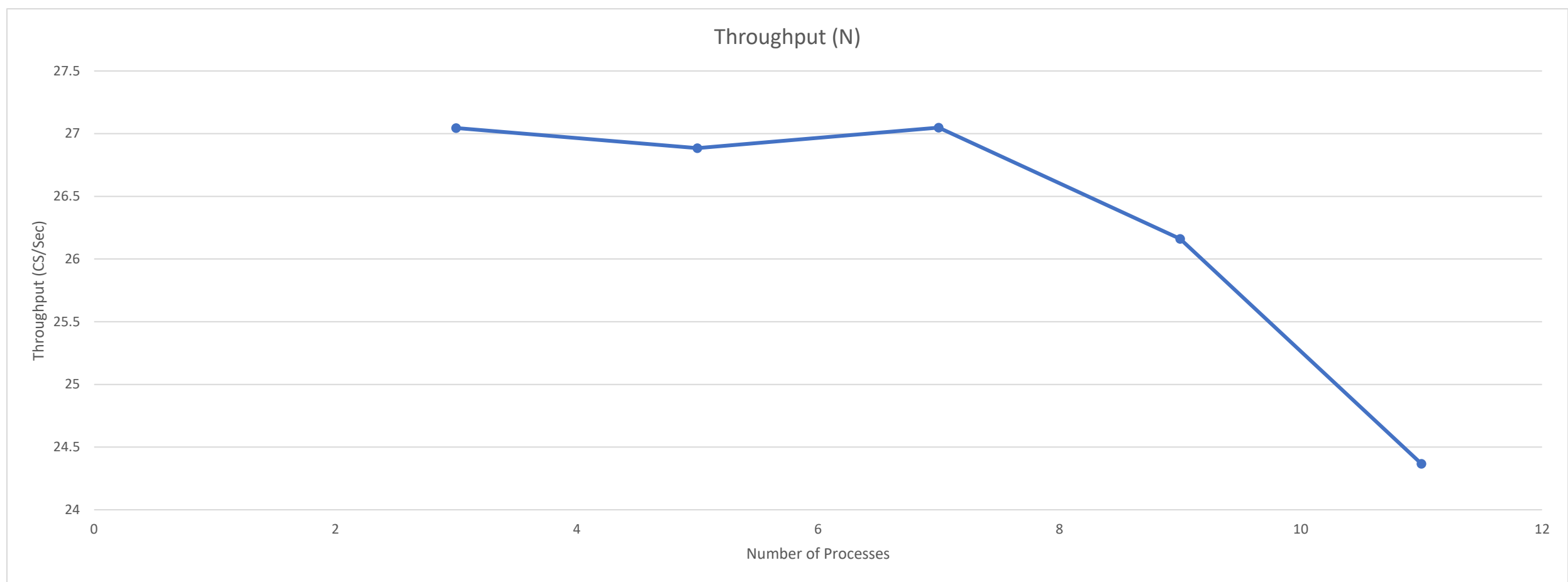


Number of Requests = 200, Mean Inter-Request Delay = 20ms, # of Processes = 5



Number of Requests = 200, Mean CS Execution Time = 20ms, # of Processes = 5



Number of Requests = 200, Mean CS Execution Time = 20ms, Mean Inter-Request Delay = 20ms
Note: Each data point is the average of 5 runs at that value.

Results:

These results show us how changing the various variables will affect the different performance metrics.

Execution Time:

Increasing execution time causes Throughput to decrease, Response times to increase, and message complexity to increase. Increasing the execution time increases the likelihood that a request will be deferred, due to a process being in critical section longer. Response time will directly increase by at least the execution time, since execution time is a part of the response time.

Inter-Request Delay:

Increasing inter-request delay causes Response Time, Throughput, and Message complexity to decrease. This is due to how this reduces contention, which means that a process is more likely to get a release right after it requests and reduces the number of requests that may be preempted.

Number of Processes:

Increasing the number of processes causes Throughput to decrease, while causing Response Time and Message Complexity to increase. Because there are more processes attempting to access the critical section, a single process must wait longer for other processes to finish their critical sections, and must send messages to more processes between critical sections.