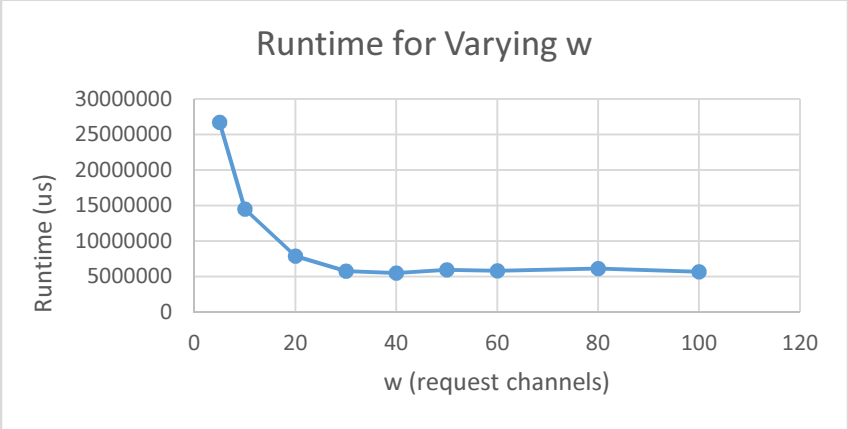
MP 7 Report

By: Tyler Wahl and Eric Redondo

The following 2 graphs show the performance of our program with n set to 10000. The tests were run on the sun.cse.tamu.edu UNIX server. The performance compared to MP6 is initially worse, but once we increase the number of request channels the performance outpaces MP6. This could be due to each worker thread having its own request channel in MP6. There will be a 1 to 1 ratio. In MP7 we only have 1 worker thread, so if we start out with a small number of request channels the performance will be worse until we get a more favorable number of request channels.

For varying w we can see in the figure below that as we initially increase w from a very small number the time drops significantly. However once we get past about w = 40 the time actually increases a little. Once the number of request channels is high enough to keep up with the single worker thread and delayed responses, creating additional request channels will only hamper performance due to the time it takes to create them.



For varying b we can see in the figure below that as the buffer size increases the performance improves but only by a small margin. This could be because our worker thread does not have to wait for a response from a single request channel, thus creating a buildup in the buffer. It can immediately pull w pieces of data from the buffer to send to the w request channels.