

CS3100 - FIFO Scheduling

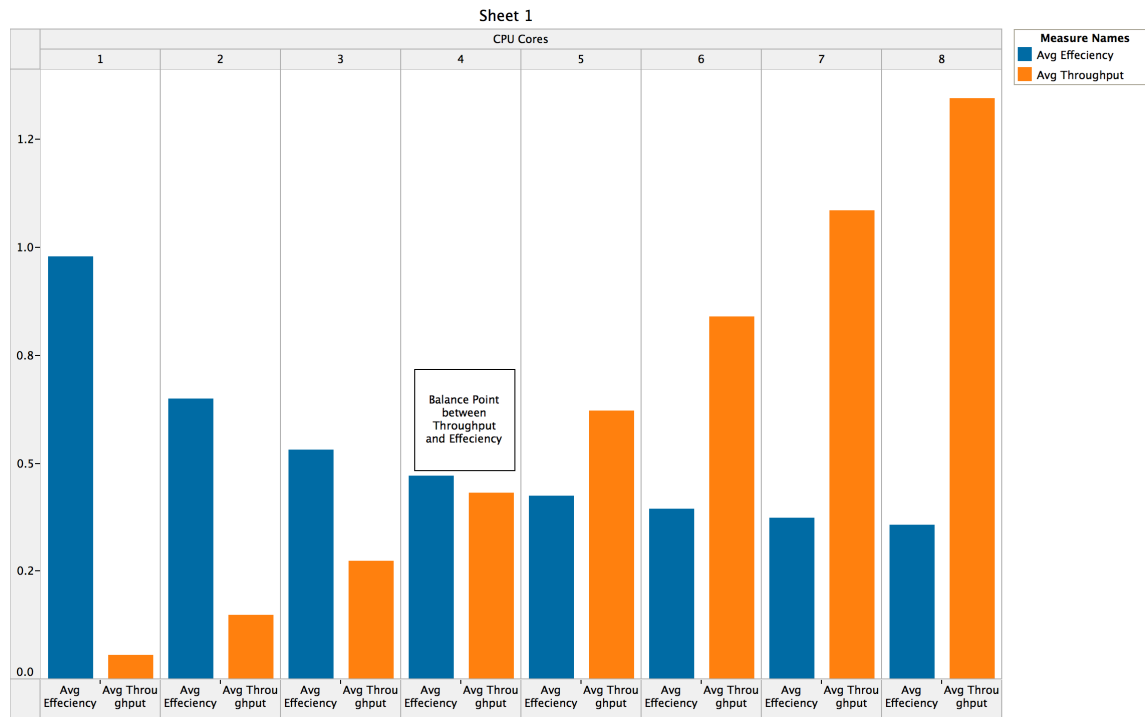
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Hypothesis

I hypothesize that as the number of cores increase so will throughput. However efficiency will decrease with the increase in the number of cores. To test this hypothesis I will run an experiment on the simulator maintaining the number of tasks created and increasing the number of CPU cores from one to 8.

Data



Conclusion

As seen in the bar graph above, as the number of CPU cores increase so does the throughput. With the increase in the number of CPU cores the efficiency decreases. The correlation between efficiency, throughput, and the number of CPU cores is that the increase in the number of CPU cores allows for more work to be done. However, while there is more cores to do work there is more time spent doing context switches and waiting on work.