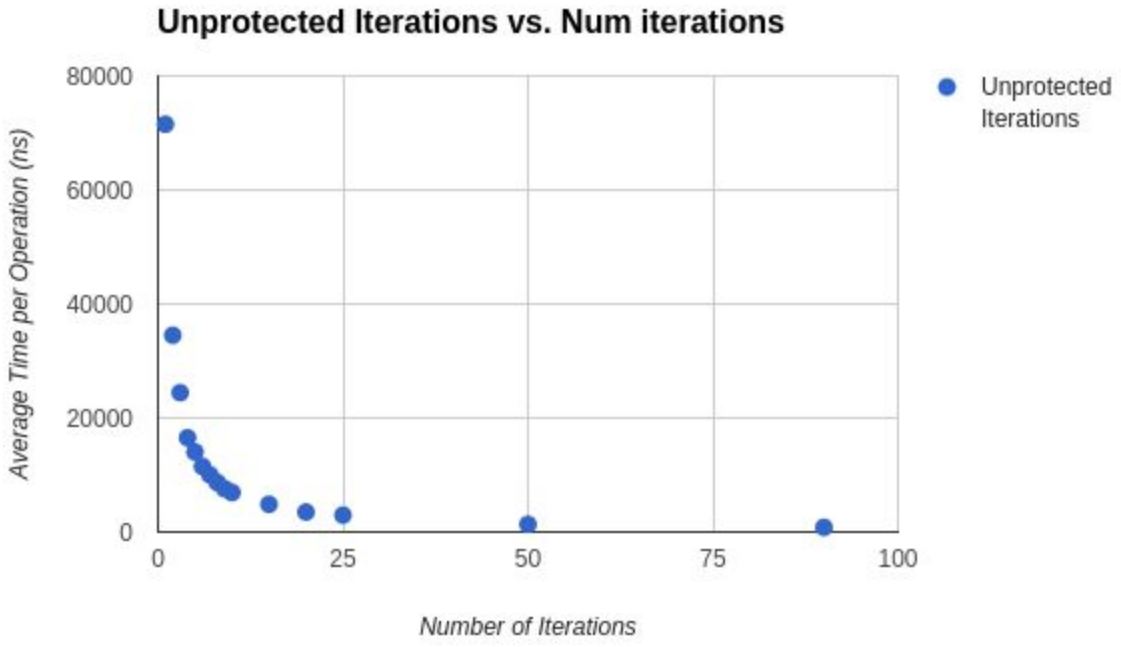
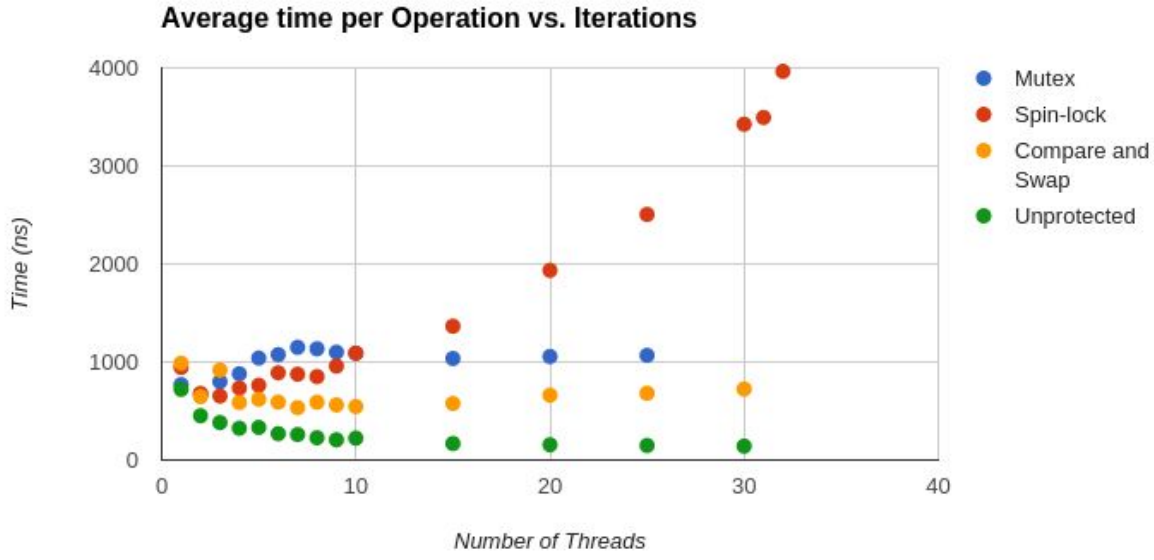
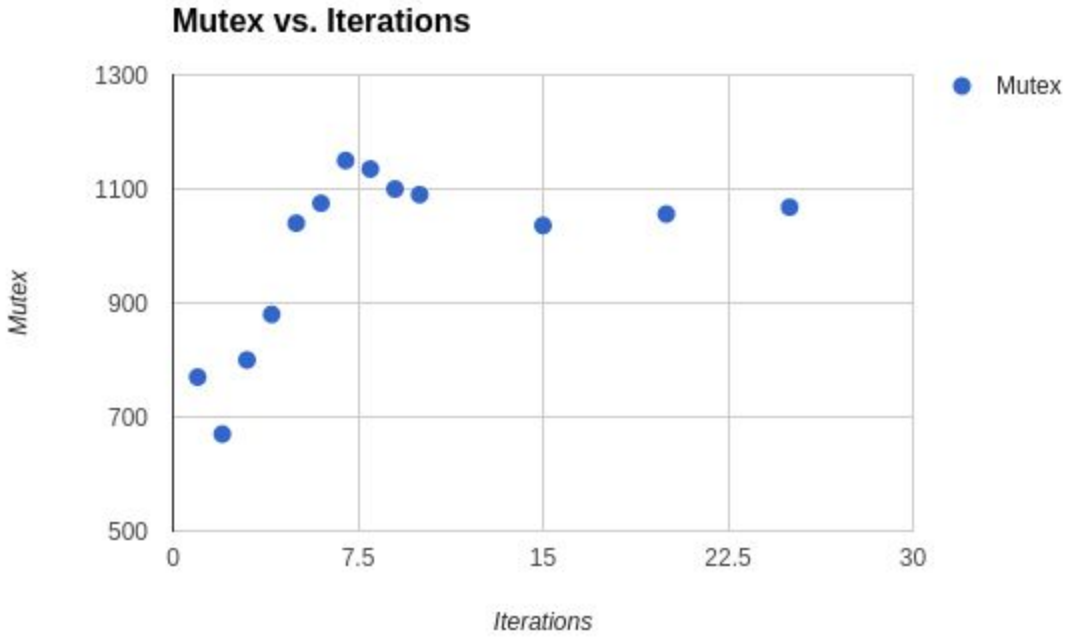
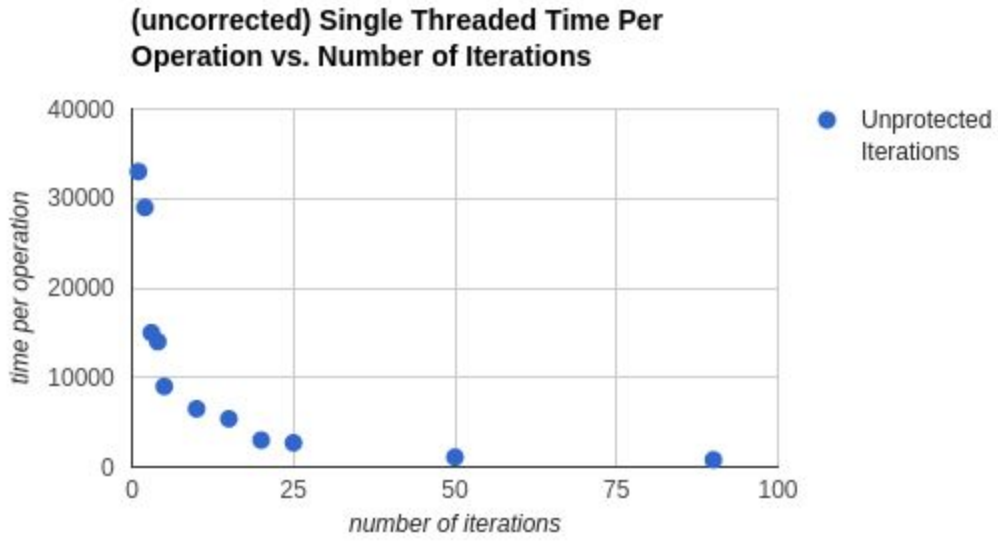
Part1

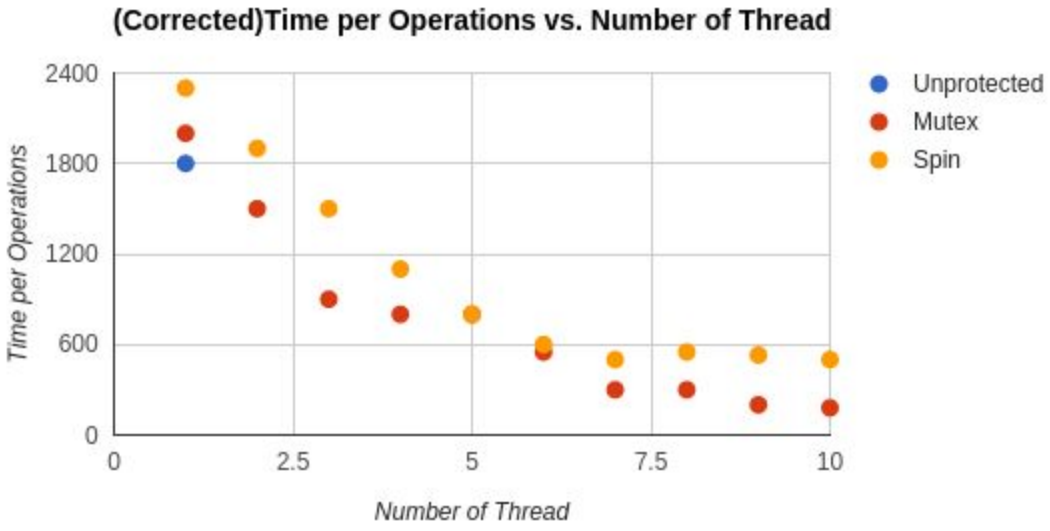

Unprotected Iterations vs. Num iterations
80000
60000
40000
20000
0
0
25
50
75
100
Average Time per Operation (ns)
Number of Iterations
Unprotected Iterations

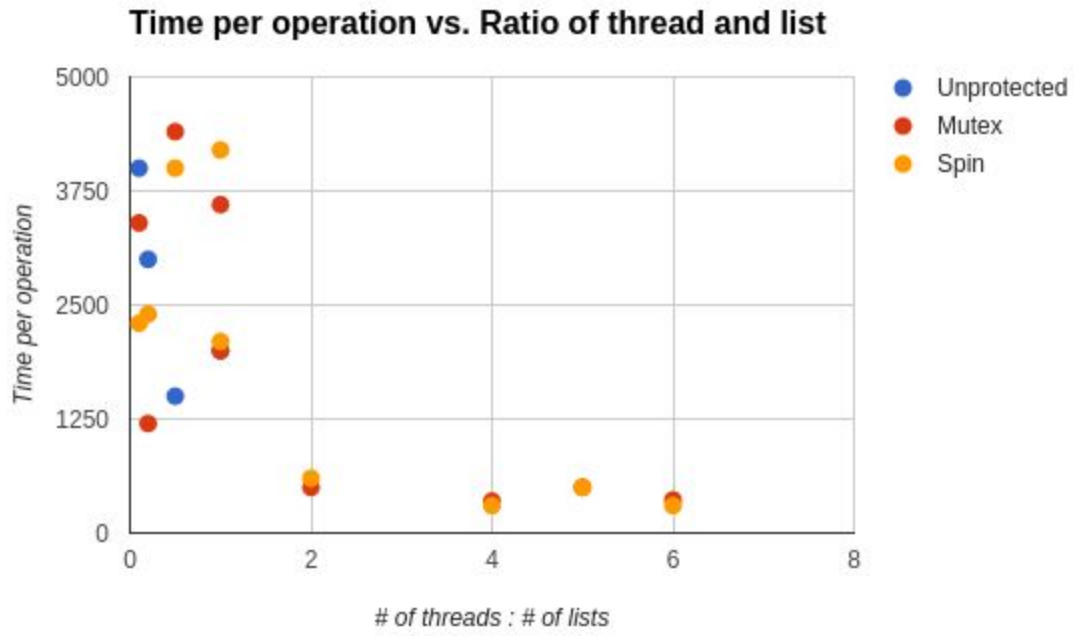

Average time per Operation vs. Iterations
4000
3000
2000
1000
0
0
10
20
30
40
Time (ns)
Number of Threads
Mutex
Spin-lock
Compare and Swap
Unprotected


Mutex vs. Iterations
1300
1100
900
700
500
Mutex
0
7.5
15
22.5
30
Iterations
Mutex

Part2


(uncorrected) Single Threaded Time Per Operation vs. Number of Iterations
40000
30000
20000
10000
0
time per operation
0
25
50
75
100
number of iterations
Unprotected Iterations


(Corrected)Time per Operations vs. Number of Thread
Time per Operations
2400
1800
1200
600
0
0
2.5
5
7.5
10
Number of Thread
Unprotected
Mutex
Spin


Time per operation vs. Ratio of thread and list
Time per operation
5000
3750
2500
1250
0
0
2
4
6
8
# of threads : # of lists
Unprotected
Mutex
Spin