

Supplementary Figure 2 (S2): Allegheny Hospital Standard Data

Allegheny Hospital Table of Final Outputs (averaged over four runs)

| | Low Patient Arrival | Middle Patient Arrival | High Patient Arrival |
|-------------------------------|---------------------|------------------------|------------------------|
| Percent Patients Ignored | 0.0371 ± 0.0014 | 0.0366 ± 0.0012 | 0.0350 ± 0.0019 |
| Average Wait Time | 7.1564 ± 0.3977 | 7.2154 ± 0.2911 | 10.3071 ± 4.9555 |
| Percent Patients Turned Away | 0 ± 0 | 0.3138 ± 0.0125 | 0.4975 ± 0.0106 |
| Percent Patients Treated | 0.9629 ± 0.0014 | 0.6497 ± 0.0124 | 0.4421 ± 0.0133 |
| Number of Other Deaths | 0 ± 0 | 0 ± 0 | 1234.25 ± 185.2339 |
| Number of Heart Attack Deaths | 0 ± 0 | 0 ± 0 | 101.75 ± 11.9826 |

Figure A: Table of Allegheny Hospital final outputs, averaged over four runs, for different variables at different patient arrival rates.

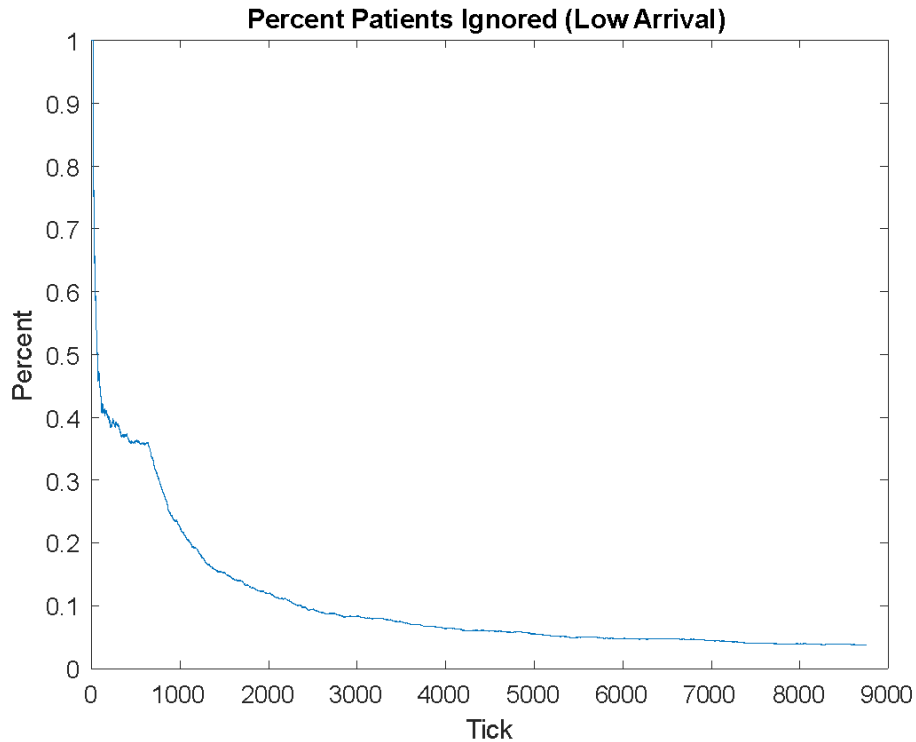


Figure B: Graph of percent of patients ignored vs. time (ticks) for Allegheny Hospital at a low patient arrival rate.

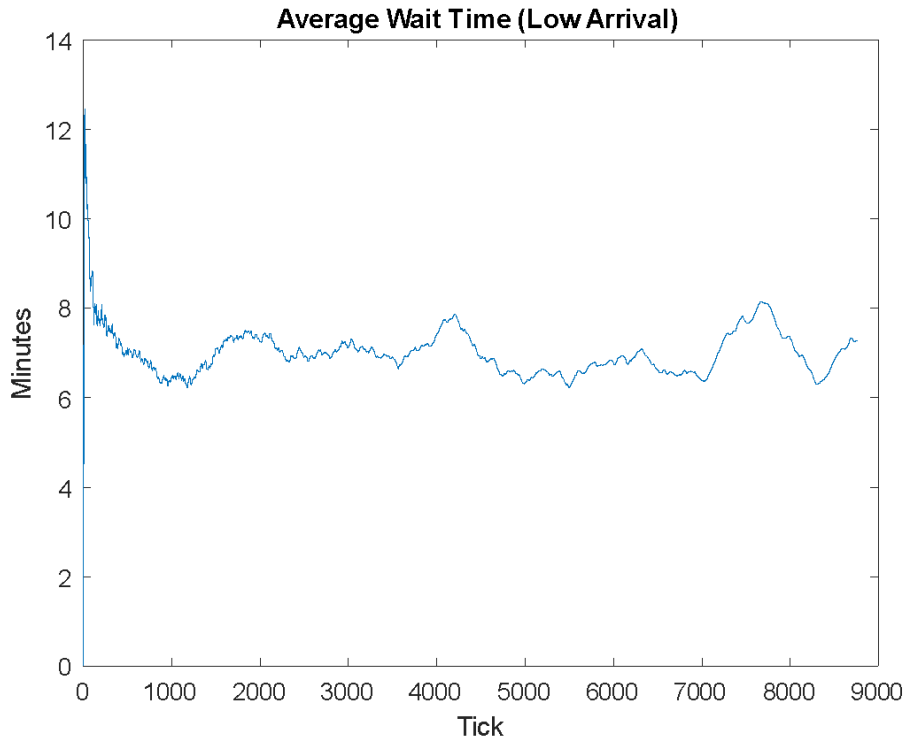


Figure C: Graph of average wait time (minutes) vs time (ticks) for Allegheny Hospital at a low patient arrival rate.

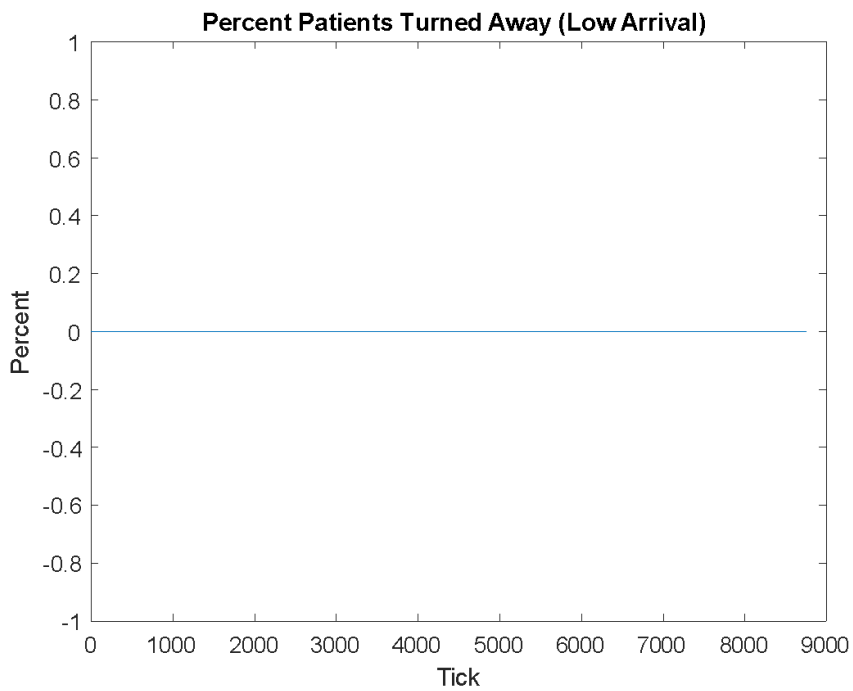


Figure D: Graph of percent of patients turned away vs time (ticks) for Allegheny Hospital at a low patient arrival rate.

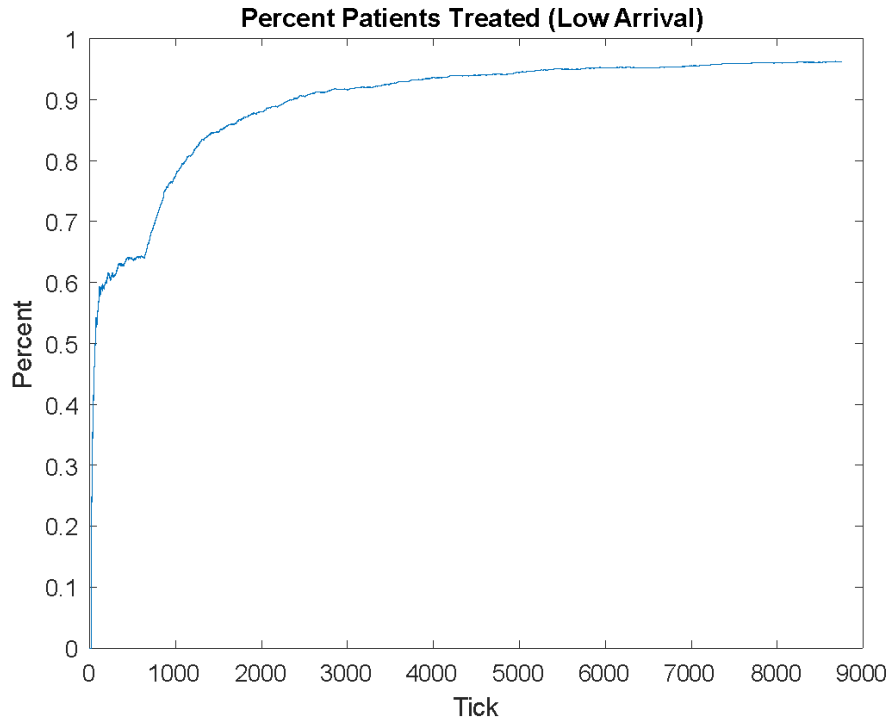


Figure E: Graph of percent of patients treated vs. time (ticks) for Allegheny Hospital at a low patient arrival rate.

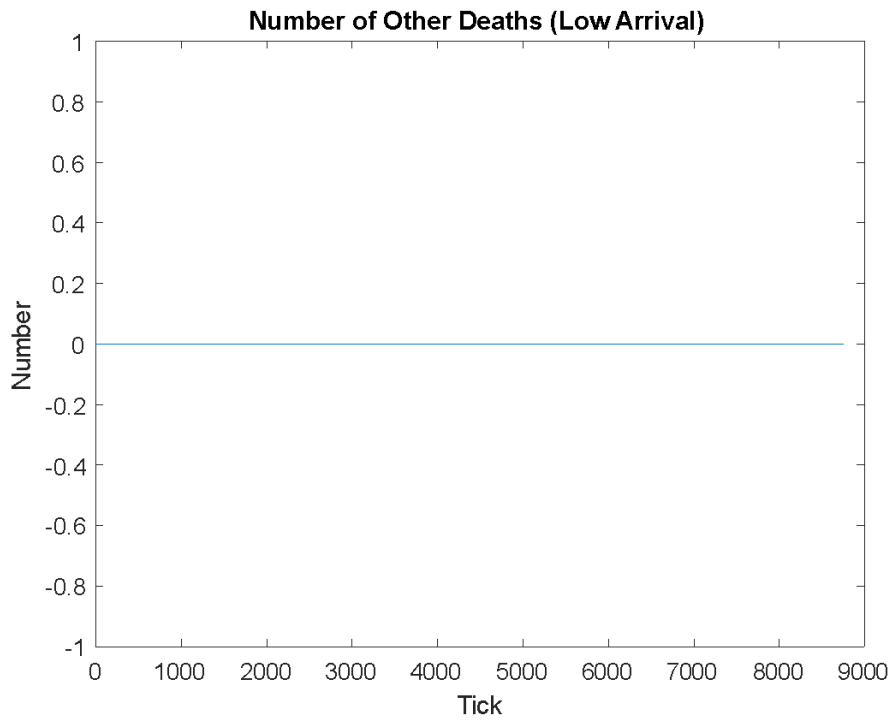


Figure F: Graph of number of other deaths vs. time (ticks) for Allegheny Hospital at a low patient arrival rate.

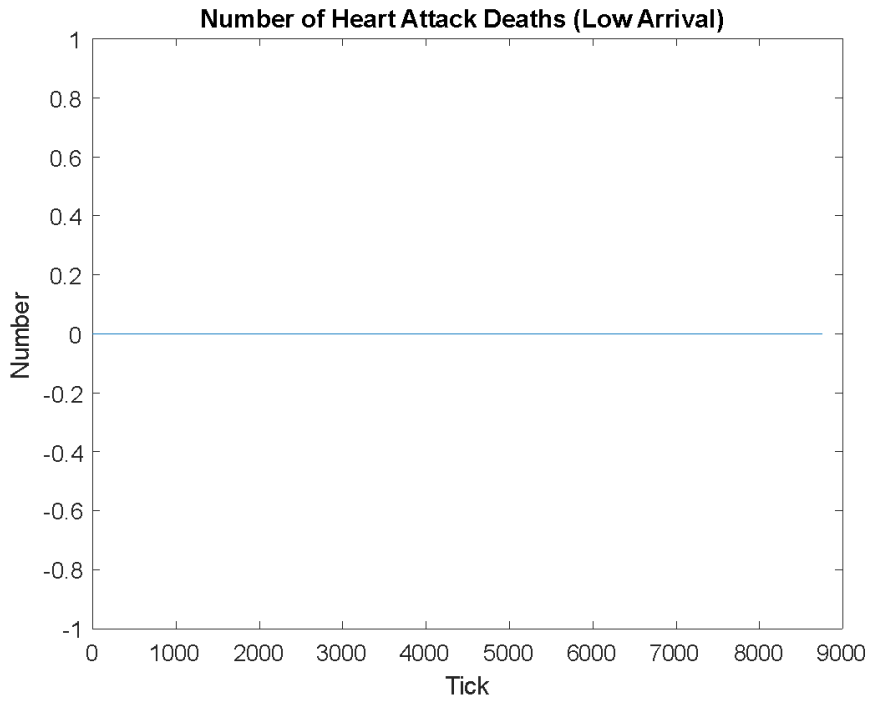


Figure G: Graph of number of heart attack deaths vs. time (ticks) for Allegheny Hospital at a low patient arrival rate.

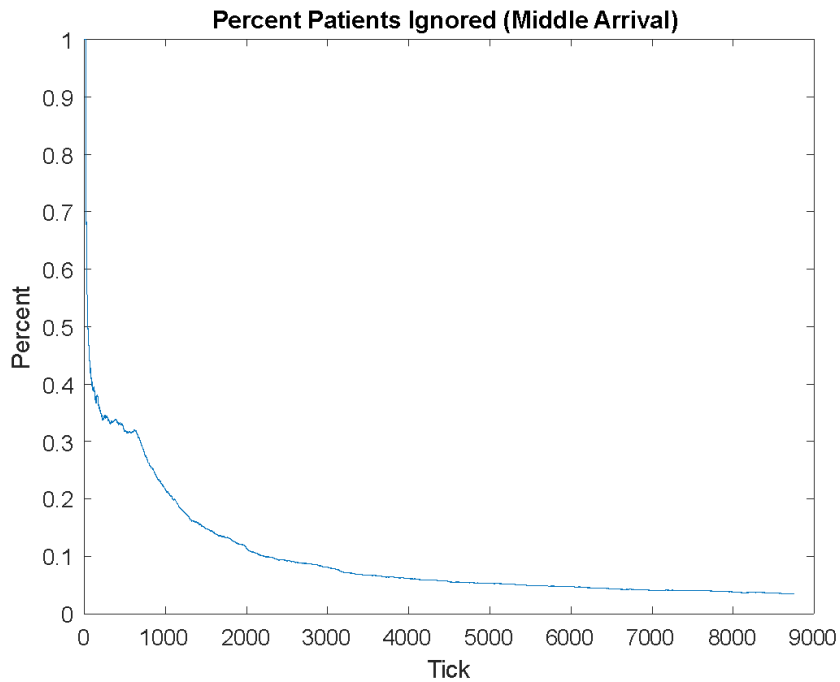


Figure H: Graph of percent of patients ignored vs. time (ticks) for Allegheny Hospital at middle patient arrival rate.

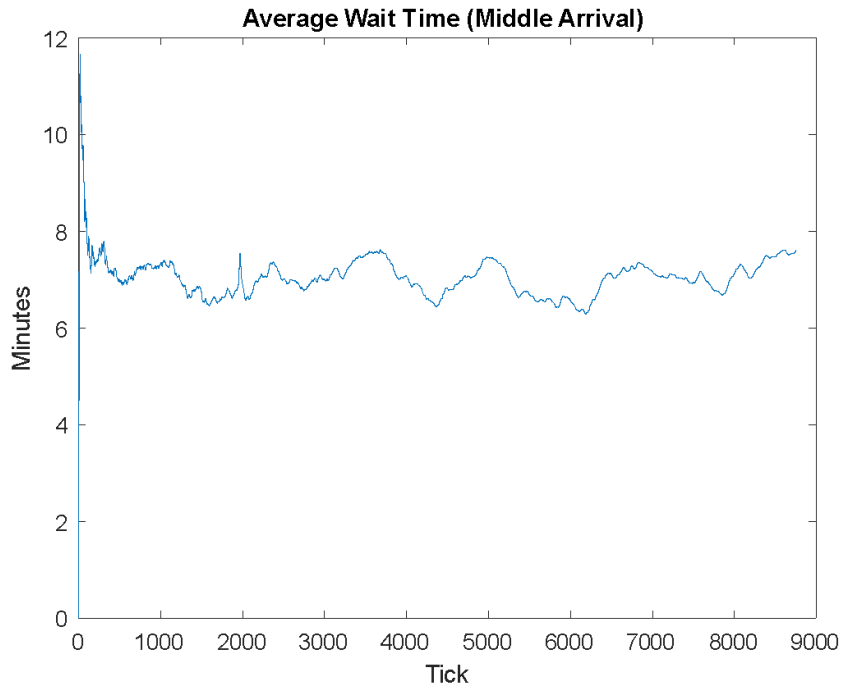


Figure I: Graph of average wait time (minutes) vs. time (ticks) for Allegheny Hospital at middle patient arrival rate.

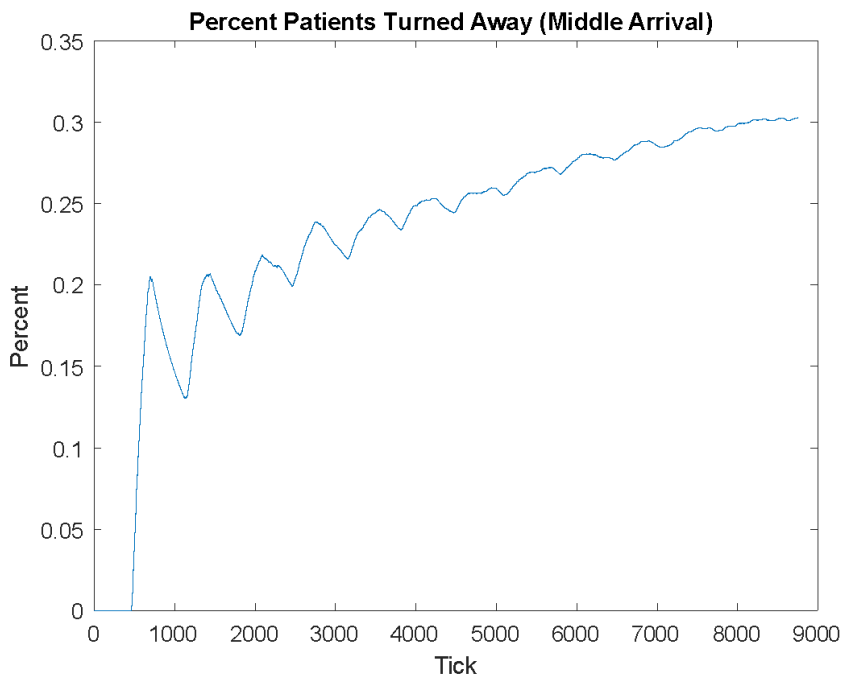


Figure J: Graph of percent of patients turned away vs. time (ticks) for Allegheny Hospital at middle patient arrival rate.

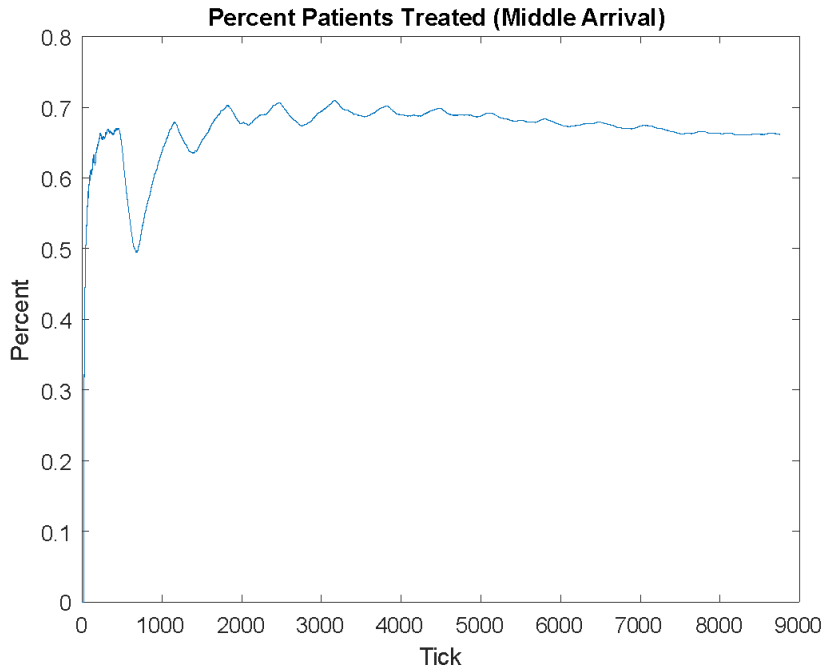


Figure K: Graph of percent of patients treated vs. time (ticks) for Allegheny Hospital at middle patient arrival rate.

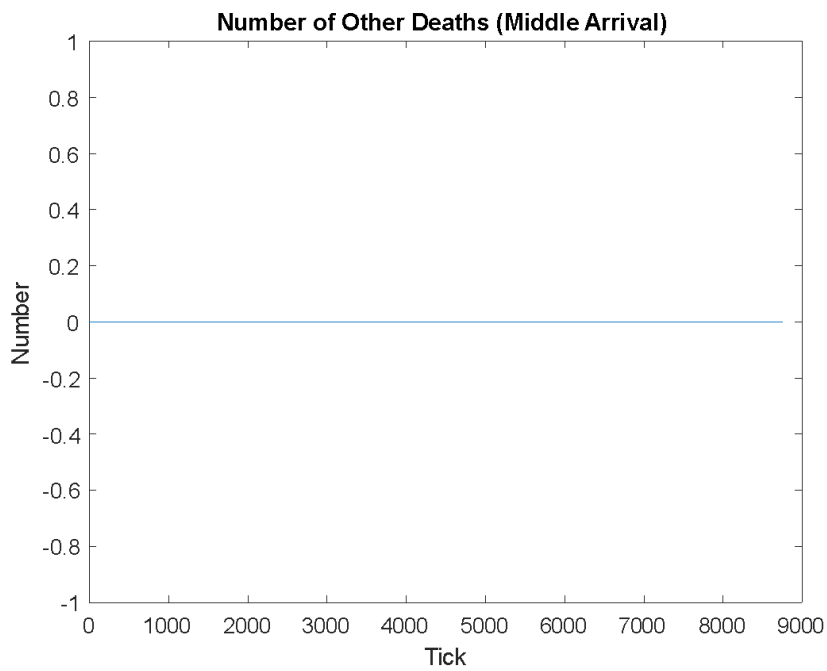


Figure L: Graph of number of other deaths vs. time (ticks) for Allegheny Hospital at middle patient arrival rate.

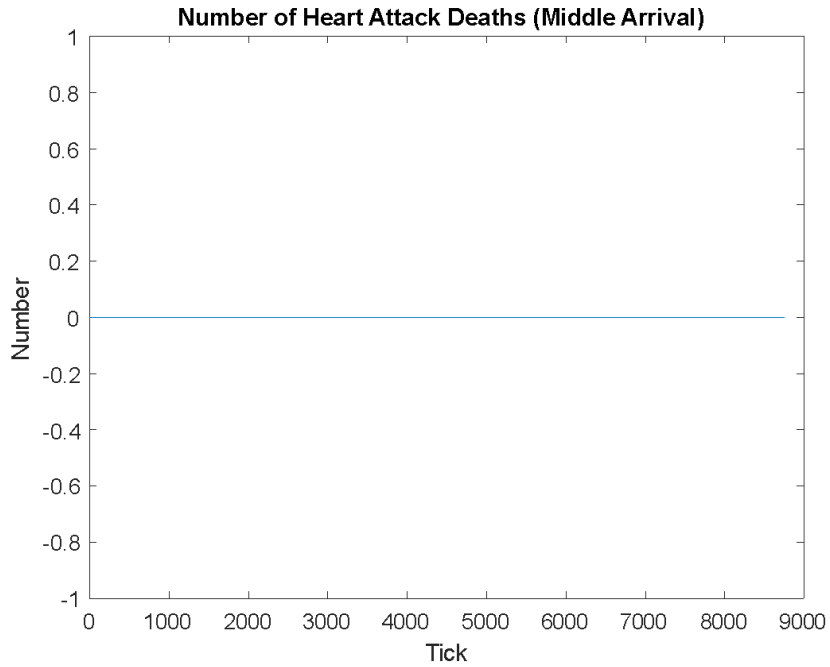


Figure M: Graph of number of heart attack deaths vs. time (ticks) for Allegheny Hospital at middle patient arrival rate.

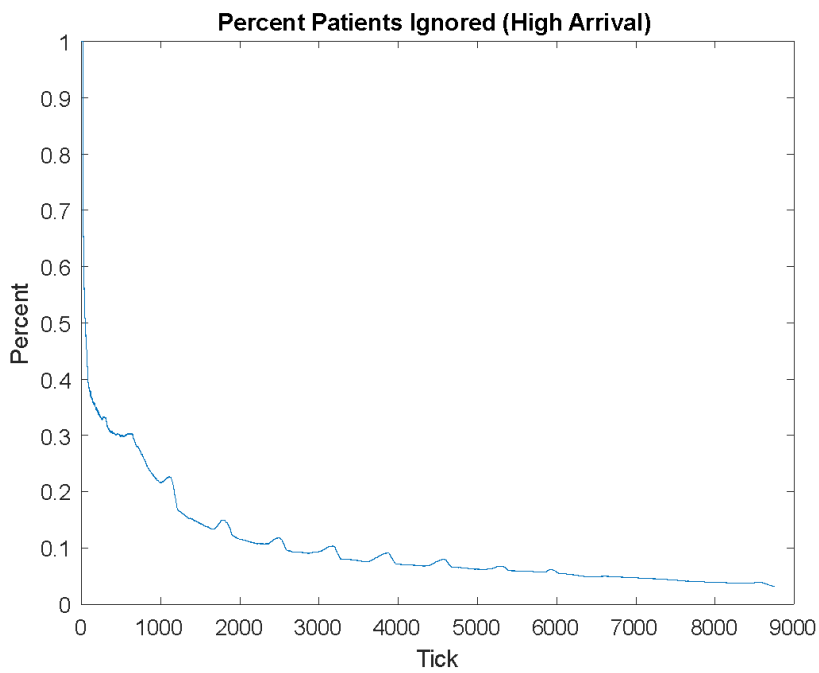


Figure N: Graph of percent of patients ignored vs. time (ticks) for Allegheny Hospital at high patient arrival rate.

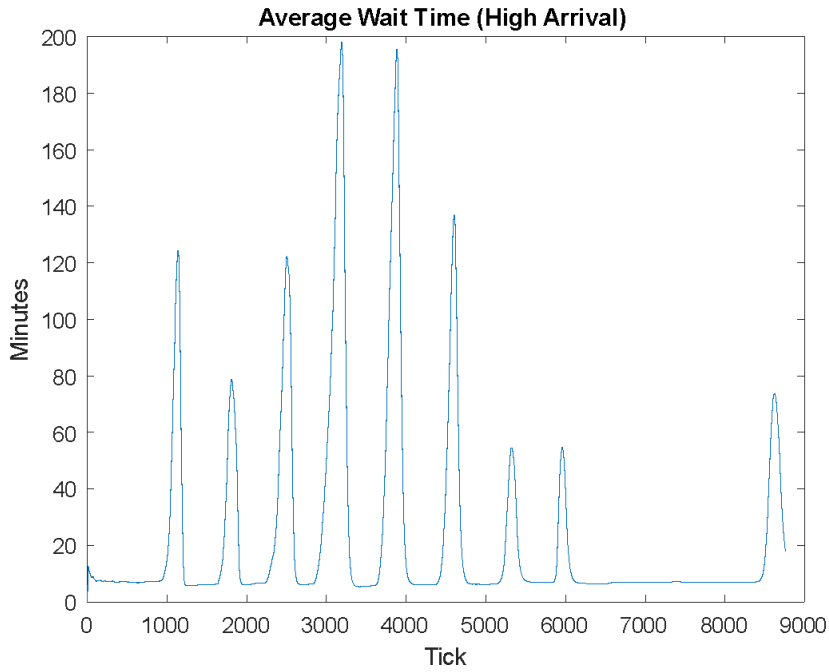


Figure O: Graph of average wait time (minutes) vs. time (ticks) for Allegheny Hospital at high patient arrival rate.

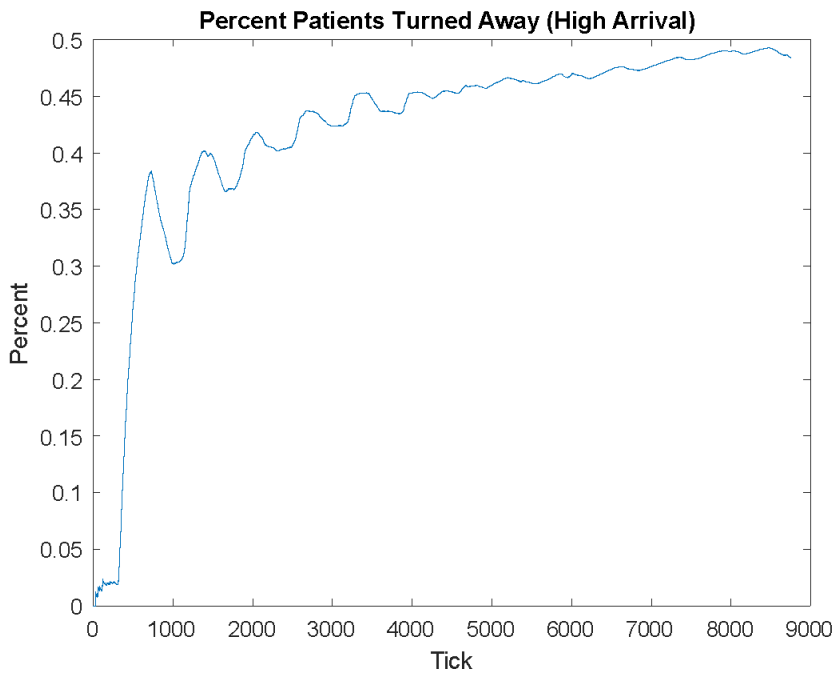


Figure P: Graph of percent of patients turned away vs. time (ticks) for Allegheny Hospital at high patient arrival rate.

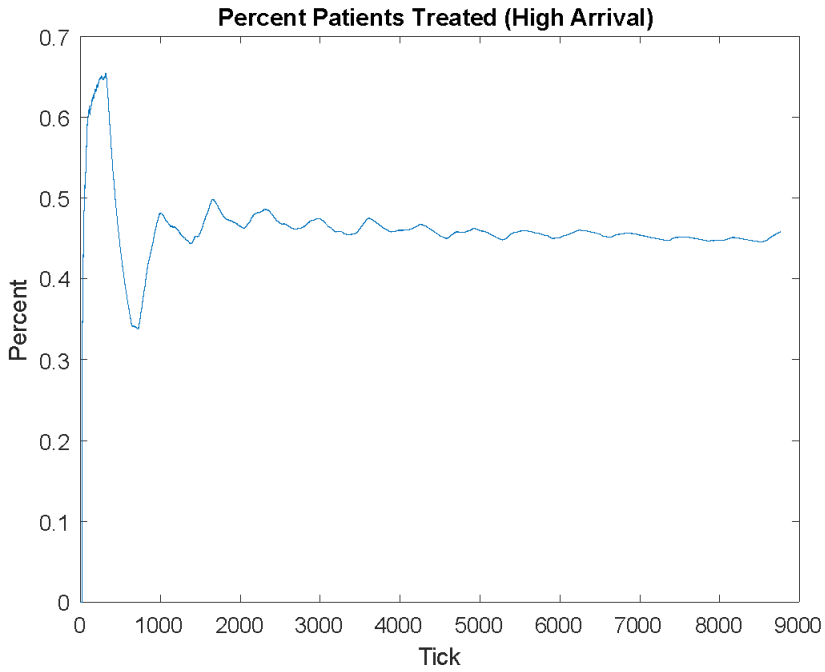


Figure Q: Graph of percent of patients treated vs. time (ticks) for Allegheny Hospital at high patient arrival rate.

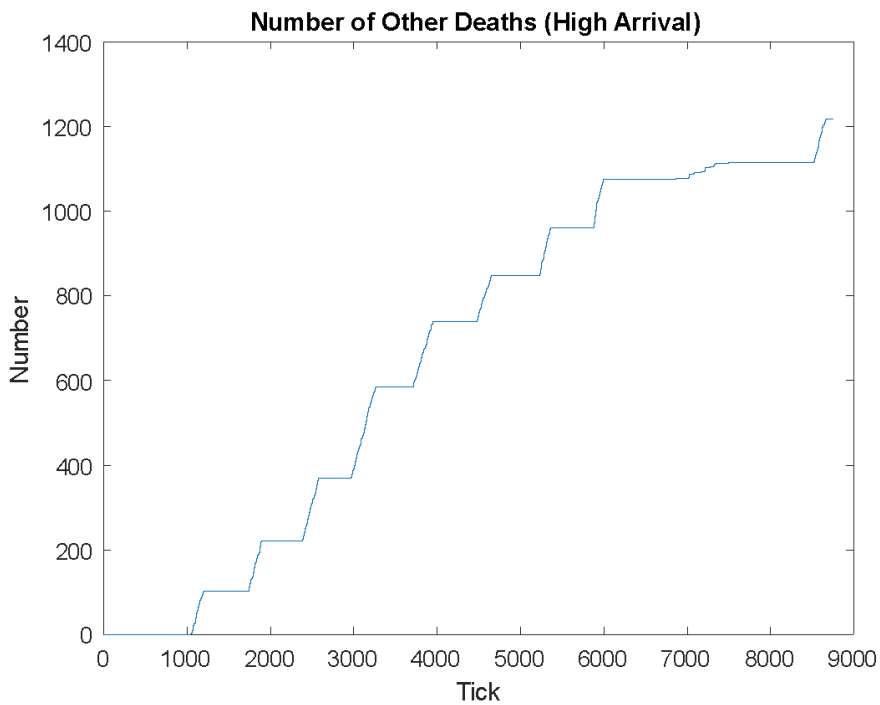


Figure R: Graph of number of other deaths vs. time (ticks) for Allegheny Hospital at high patient arrival rate.

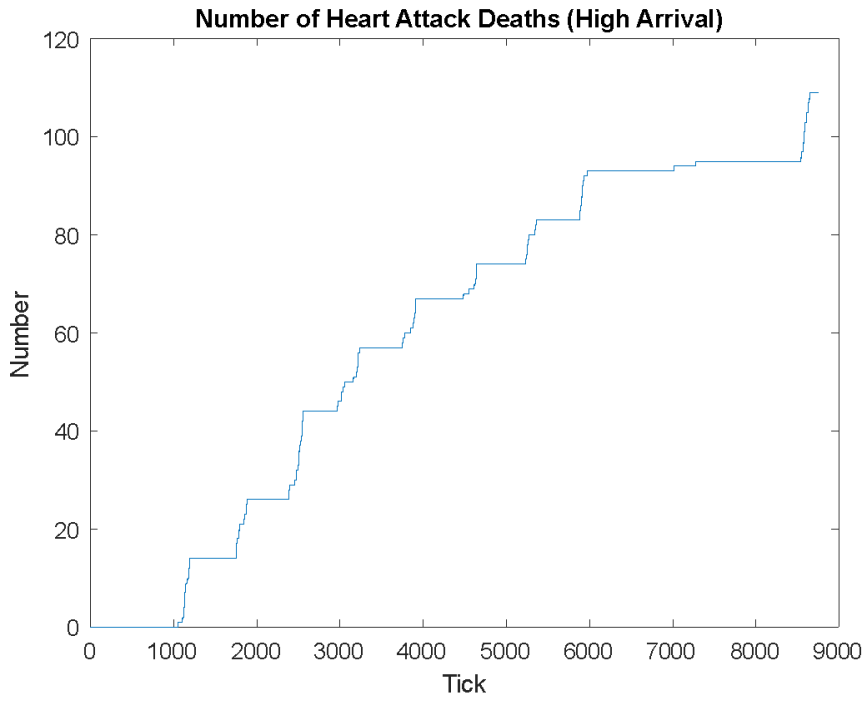


Figure S: Graph of number of heart attack deaths vs. time (ticks) for Allegheny Hospital at a high patient arrival rate.