**Equal load, but class one smaller than class 2:**

**High load overall: (0.99)**

Mu1 = 10

Mu2 = 1

Lambda1 = 4.95

Lambda2 = 0.495

Rho1 = 0.495

Rho2 = 0.495

Non-preemptive:

Chart

Description automatically generated

Preemptive:

Chart

Description automatically generated

**Not as high load overall: (0.6)**

Mu1 = 10

Mu2 = 1

Lambda1 = 3

Lambda2 = 0.3

Rho1 = 0.3

Rho2 = 0.3

Non-preemptive:

Chart, line chart

Description automatically generated

Preemptive:

Chart

Description automatically generated with medium confidence

**Low load overall: (0.3)**

Mu1 = 10

Mu2 = 1

Lambda1 = 1.5

Lambda2 = 0.15

Rho1 = 0.15

Rho2 = 0.15

Nonpreemptive:Chart, line chart

Description automatically generated

Preemptive:

Diagram

Description automatically generated

**Extremely low load overall: (0.1)**

Mu1 = 10

Mu2 = 1

Lambda1 = 0.5

Lambda2 = 0.05

Rho1 = 0.05

Rho2 = 0.05

Non-preemptive

Chart

Description automatically generated

Preemptive:

Diagram

Description automatically generated

**Unequal load, but classes same size**

**High load class1, high load overall:**

Mu1 = 1

Mu2 = 1

Lambda1 = 0.8

Lambda2 = 0.1

Rho1 = 0.495

Rho2 = 0.495

Nonpreemptive:

Diagram

Description automatically generated

Preemptive:

Diagram

Description automatically generated

**Low load class1, high load overall:**

Mu1 = 1

Mu2 = 1

Lambda1 = 0.1

Lambda2 = 0.8

Rho1 = 0.495

Rho2 = 0.495

(Same as before but swap roles of class 1 and class 2, duh)

**Low load class1, low load overall:**

Mu1 = 1

Mu2 = 1

Lambda1 = 0.2

Lambda2 = 0.1

Rho1 = 0.495

Rho2 = 0.495

Non-preemptive:

Chart

Description automatically generated

Preemptive:

Chart

Description automatically generated

(I think if the two classes have the same distribution and are exponential then preemptive and nonpreemptive should have no difference and moreover the overall should be independent of p)

**Same arrival rate, but unequal sizes (WLOG class 1 is small)**

**High arrival rate:**

Mu1 = 10

Mu2 = 1

Lambda1 = 0.8

Lambda2 = 0.8

Rho1 = 0.495

Rho2 = 0.495

Non-preemptive:

Diagram

Description automatically generated

Preemptive: (same)

**High arrival rate, even more extreme**

Mu1 = 1000

Mu2 = 1

Lambda1 = 0.8

Lambda2 = 0.8

Rho1 = 0.495

Rho2 = 0.495

Diagram

Description automatically generated

**Extreme cases**

**High small job load, low big job load**

Mu1 = 100

Mu2 = 1

Lambda1 = 70

Lambda2 = 0.1

Rho1 = 0.7

Rho2 = 0.1

Nonpreemptive

Diagram

Description automatically generated

Preemptive:

Diagram

Description automatically generated

**High small job load, low big job load and high overall load**

Mu1 = 100

Mu2 = 1

Lambda1 = 80

Lambda2 = 0.19

Rho1 = 0.8

Rho2 = 0.19

Nonpreemptive

Diagram

Description automatically generated

Preemptive

Diagram

Description automatically generated

**higher small job load, low big job load and low overall load**

Mu1 = 100

Mu2 = 1

Lambda1 = 40

Lambda2 = 0.1

Rho1 = 0.4

Rho2 = 0.1

Chart

Description automatically generated with medium confidence

Diagram

Description automatically generated

**Low small job load, high big job load and high overall load**

Mu1 = 100

Mu2 = 1

Lambda1 = 10

Lambda2 = 0.8

Rho1 = 0.8

Rho2 = 0.19

Diagram

Description automatically generated

Diagram

Description automatically generated

**Low small job load, higher big job load and low overall load**

Mu1 = 100

Mu2 = 1

Lambda1 = 10

Lambda2 = 0.4

Rho1 = 0.1

Rho2 = 0.4

A picture containing diagram

Description automatically generated

Chart, line chart

Description automatically generated

**Low small job load, high big job load and even lower overall load**

Mu1 = 100

Mu2 = 1

Lambda1 = 10

Lambda2 = 0.2

Rho1 = 0.1

Rho2 = 0.2

Chart

Description automatically generated with low confidence

Chart

Description automatically generated with medium confidence