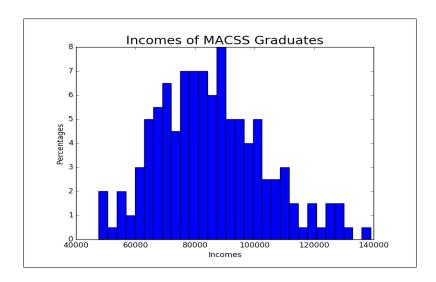
Problem Set #4

MACS 30100, Dr. Evans Sushmita V Gopalan

Part 1(a).

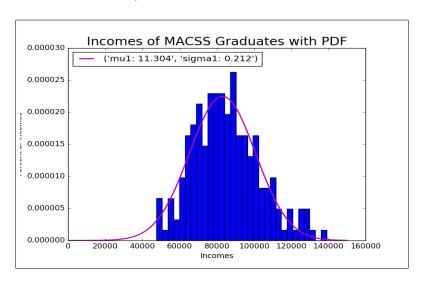


Part 1(b).

[[1.94074838e-07 3.78322944e-08] [3.37284530e-07 2.18887663e-07]]

Part 1(c).

$$\label{eq:mean} \begin{split} \text{Mean} &= 11.3038802994 \text{ Sigma} = 0.211858934679 \\ \text{Value of criterion function: } 0.00086555386333 \\ \text{Data mean} &= 85276.8236063 \text{ , Data standard deviation} = 17992.542128 \\ \text{Model mean} &= 83039.3433958 \text{ , Model standard deviation} = 17752.2700341 \end{split}$$



Part 1(d).

 $\mathrm{Mean} = 11.3087274412 \; \mathrm{Sigma} = 0.218151670903$

Value of criterion function: 19.2043308985

Data mean = 85276.8236063, Data standard deviation = 17992.542128 Model mean = 83463.1953452, Model standard deviation = 18428.0767771

