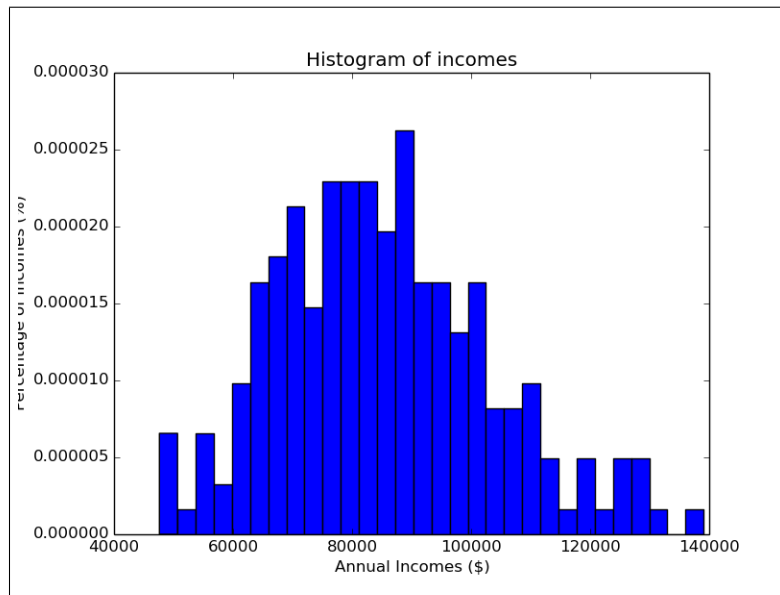# Problem Set #4

MACS 30010, Dr. Evans

Yang Hou

Problem 1 Part (a).

Figure 1: Histogram for Income

Part (b).

The result of the test is:[[0.0019079 0.00123533] [0.00217547 0.0019646]]
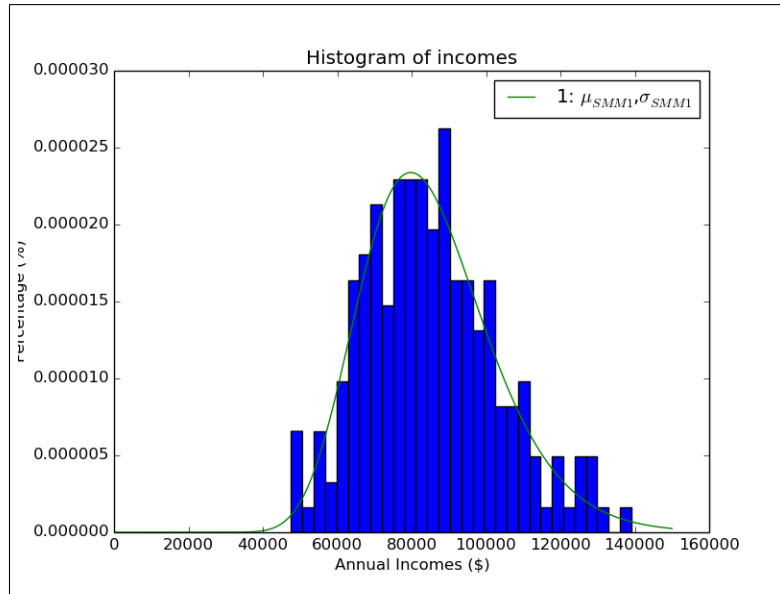
Part (c).

The mu is 11.330637236 and the sig is 0.2092293707

Data mean is: 85276.8236063 Data std is: 17992.542128

model mean is: 85276.8280717 model std is: 17992.5430829

The value of the criterion function is: [[5.55827975e-15]]

Figure 2: smm

Part (d).

The m is 11.3306372141 the sig is 0.209229359136

Data mean is: 85276.8236063 Data std is: 17992.542128

model mean is: 85276.8259939 model std is: 17992.5416292

The value of the criterion function is: [[0.0001776]]

Figure 3: two-step