

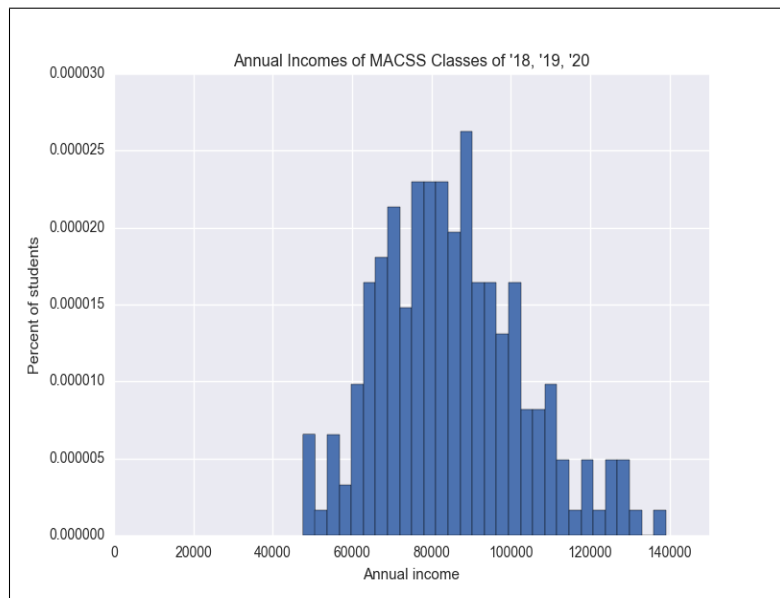
Problem Set 4

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Problem 1

Part (a).



Part (b).

The Log-normal pdf value for the given test is:

```
[[ 0.0019079 0.00123533]
 [ 0.00217547 0.0019646 ]]
```

Part (c).

At $\mu_{SMM} = 11.3307, \sigma_{SMM} = 0.2089$, the value of the criterion function is 0.02133506023518376

Data mean is: 85276.8236063

Data std is: 17992.542128

Model mean is: 85276.8398507

Model std is: 17992.5431262

Part (d).

At $\mu_{SMM} = 11.3307, \sigma_{SMM} = 0.2089$, the value of the criterion function is 200.00000000000003

Data mean = 85276.8236063

Data std = 17992.542128

Model mean is: 85276.8358167

Model std is: 17992.5399164

Figure 1: 1(c)

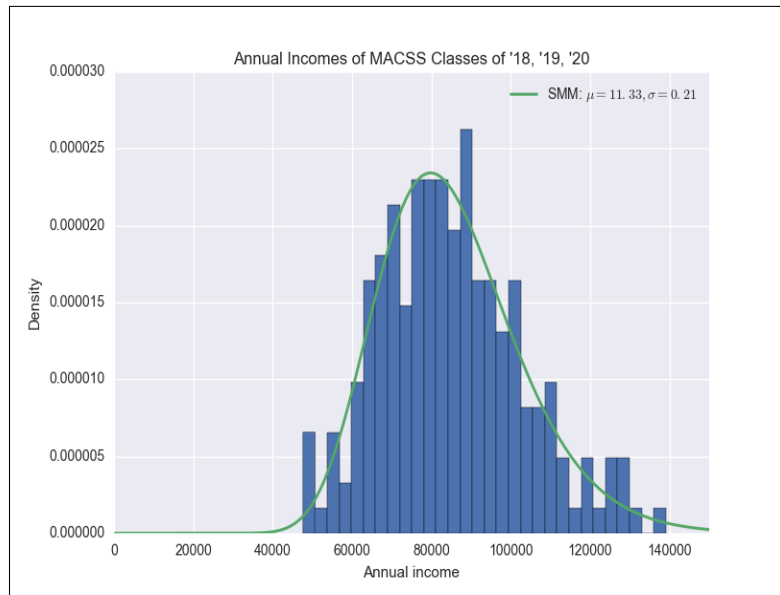


Figure 2: 1(d)

