

## Problem Set #1

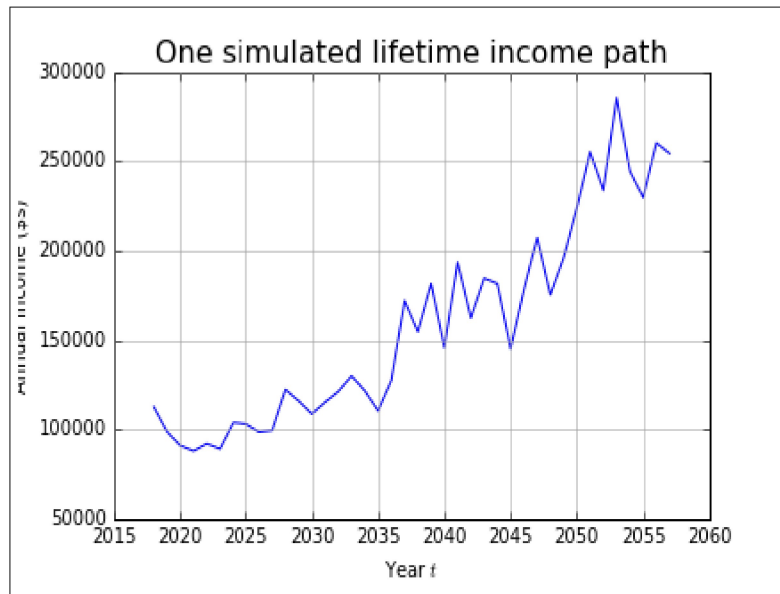
MACS 30000, Dr. Evans

Cheng Yee Lim

### Problem 1

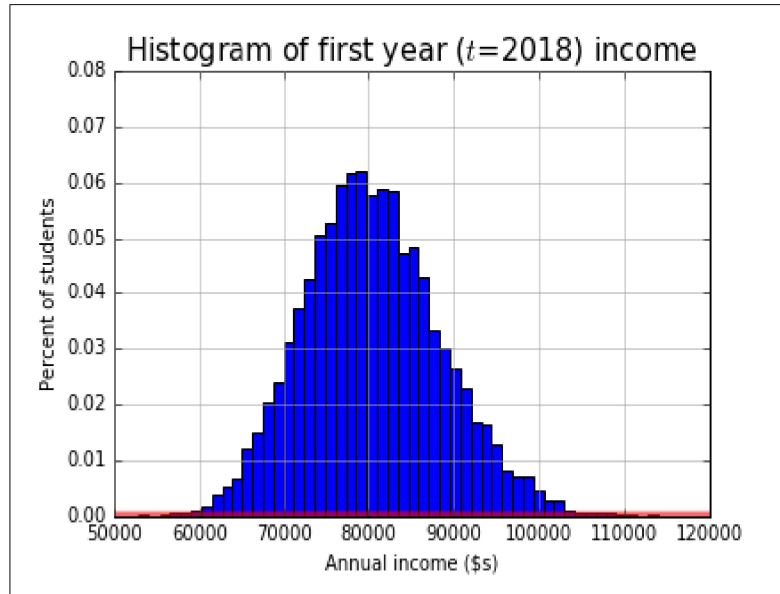
Part (a).

Figure 1: Screenshot of one simulated lifetime income path



Part (b).

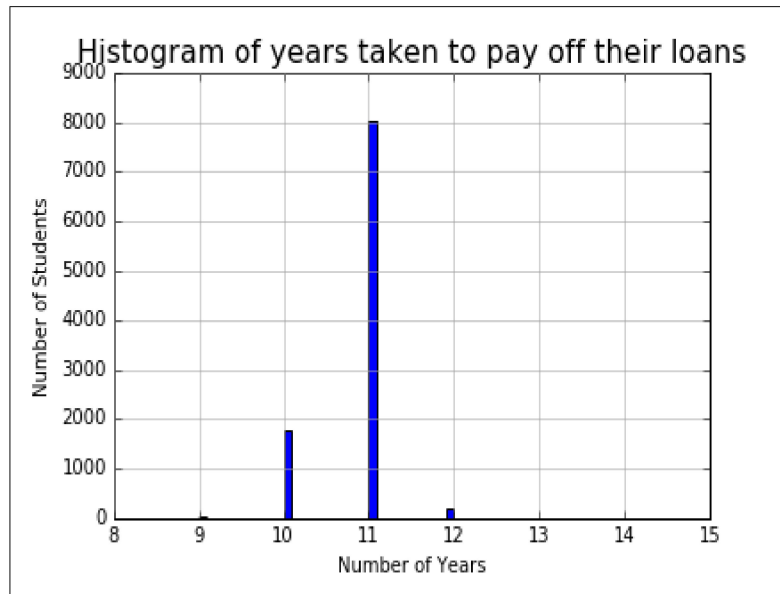
Figure 2: Screenshot of histogram of 10,000 initial income simulations



1.41% of the class will earn more than \$100,000 in the first year out of the program.  
8.59% of the class will earn less than \$70,000 in the first year out of the program.  
No, the histogram is not normally distributed, it has fatter ends and a higher mean than a normal distribution.

Part (c).

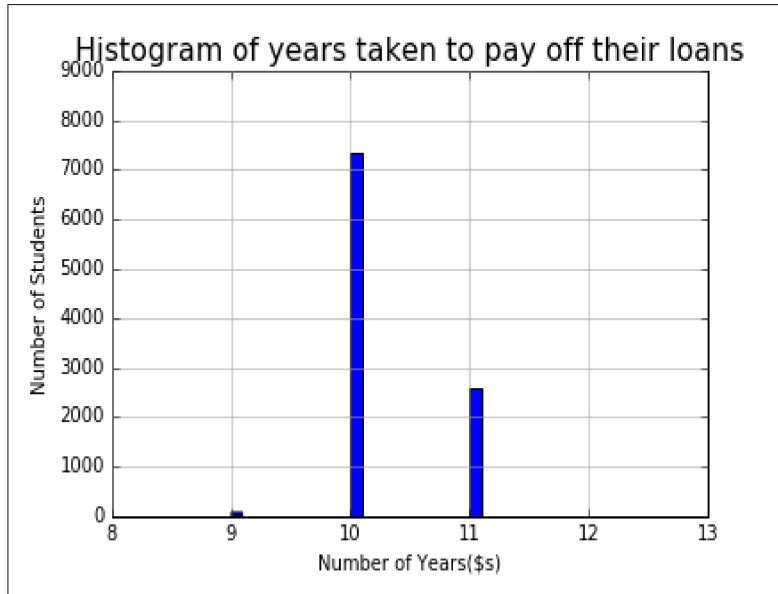
Figure 3: Screenshot of histogram of 10,000 simulations of years taken to pay off loans



18.08% of the simulations are able to pay off the loan in 10 years.

Part (d).

Figure 4: Screenshot of histogram of 10,000 simulations of years taken to pay off loans



74.69% of the simulations are able to pay off the loan in 10 years, after the Chicago MACSS program becomes very well-known and the skills of the students are in high demand.