

# Problem Set #6

MACSS 40000

Weijia Li

## Problem 1

(a)

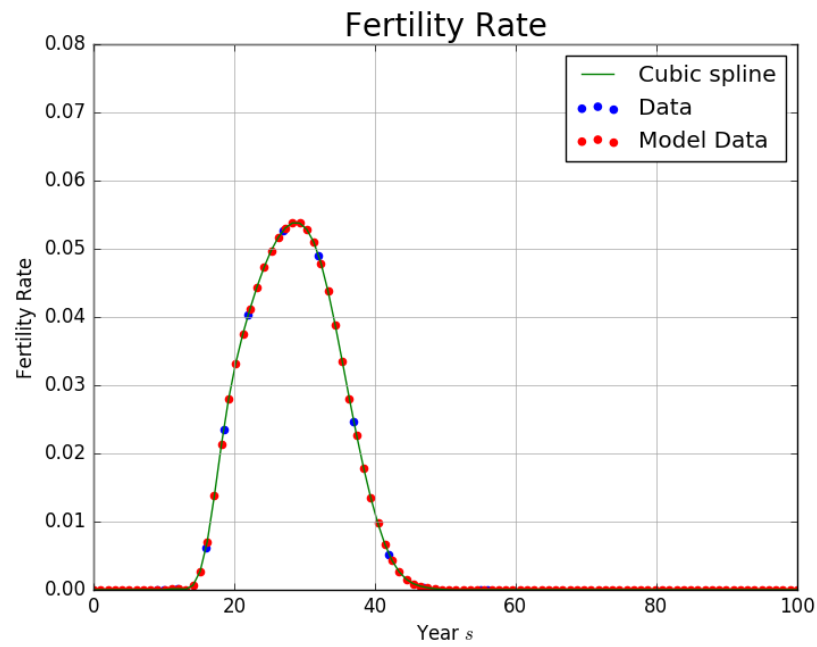


Figure 1: Fertility Rate for 100 Periods

(b)

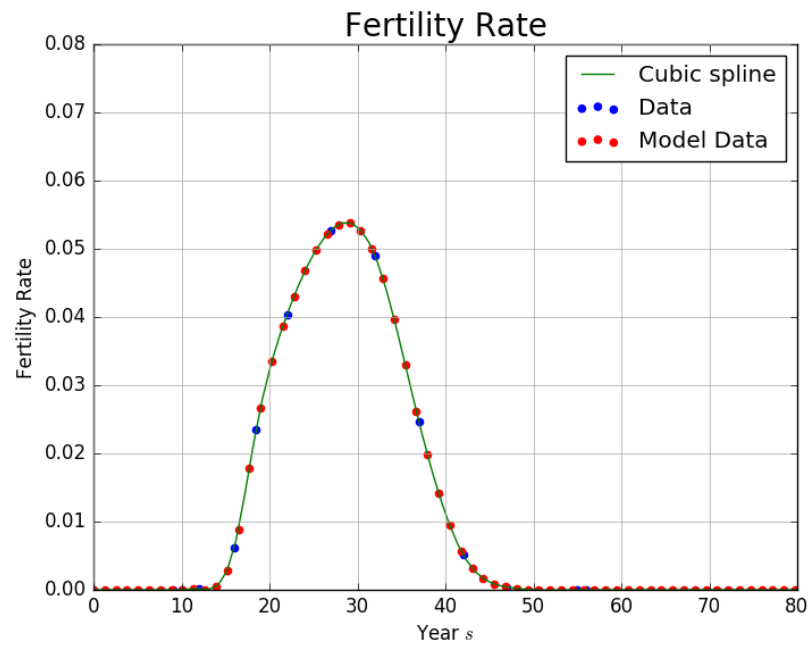


Figure 2: Fertility Rate for Period 80

(c)

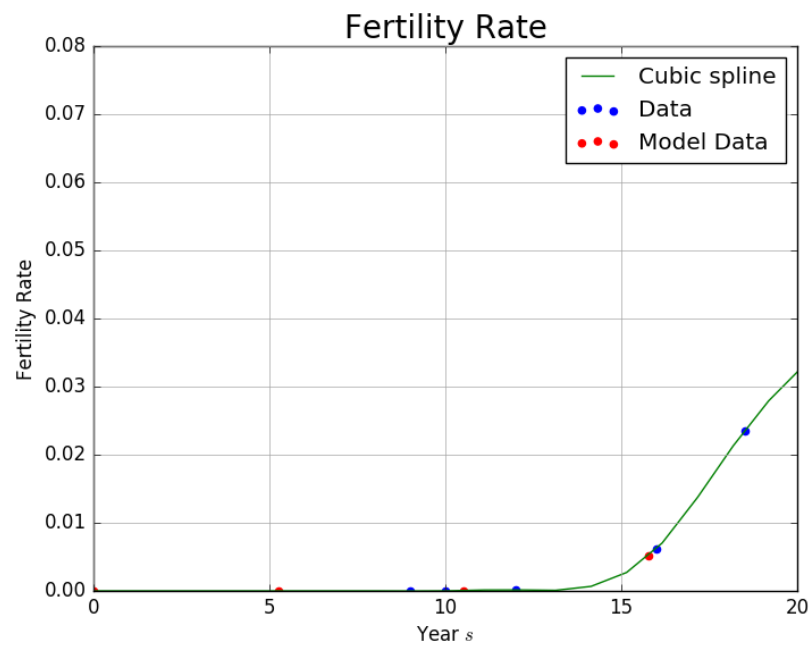


Figure 3: Fertility Rate for Period 20

## Problem 2

(a)

The plot is shown as following:

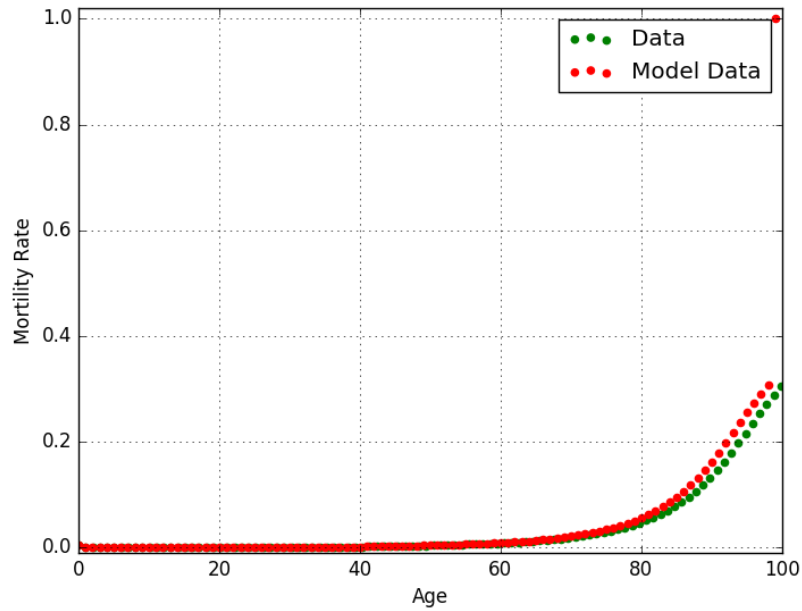


Figure 4: Mortality Rate for 100 Periods

(b)

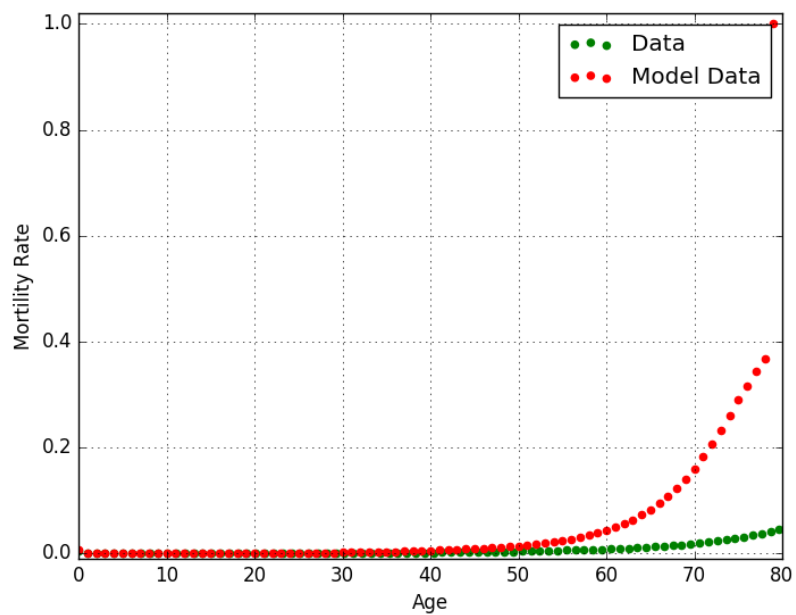


Figure 5: Mortality Rate for 80 Periods

(c)

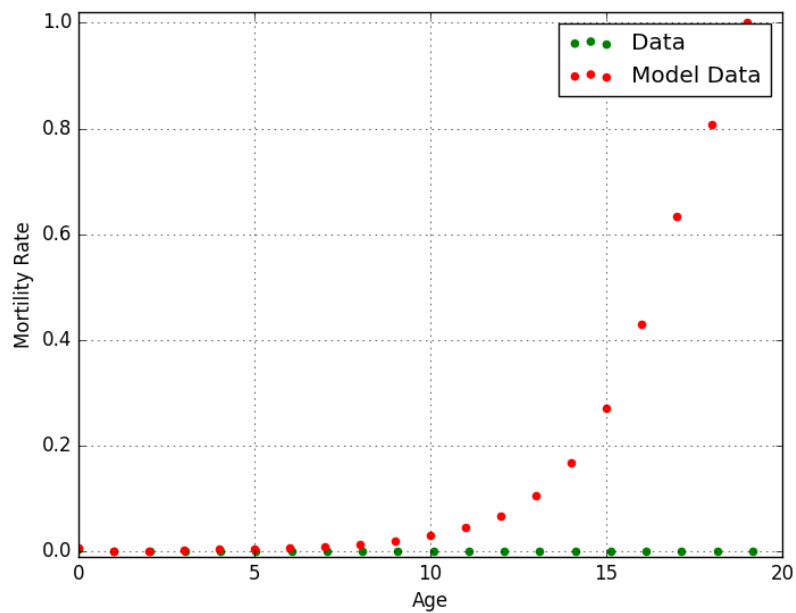


Figure 6: Mortality Rate for 20 Periods

### Problem 3

(a)

The plot is shown as following:

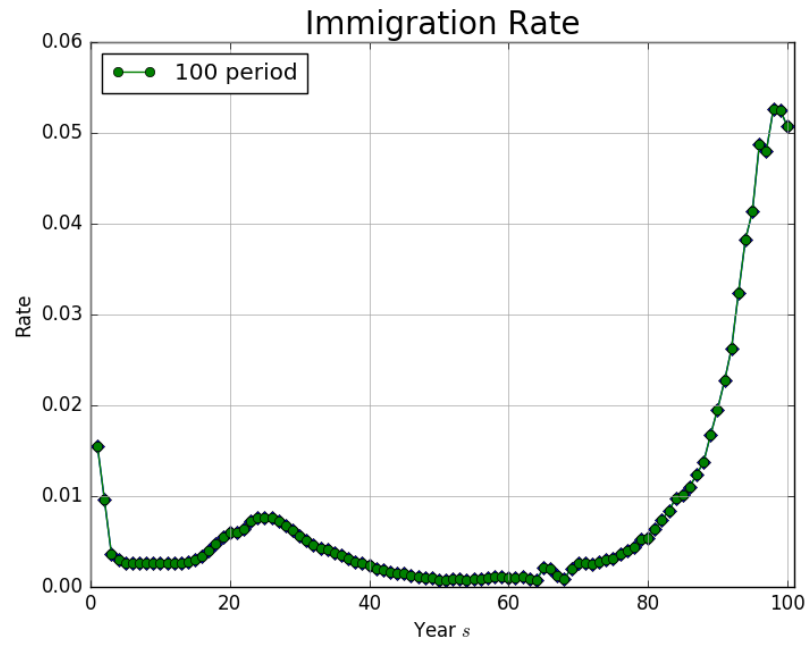


Figure 7: Immigration Rate for 100 Periods

(b)

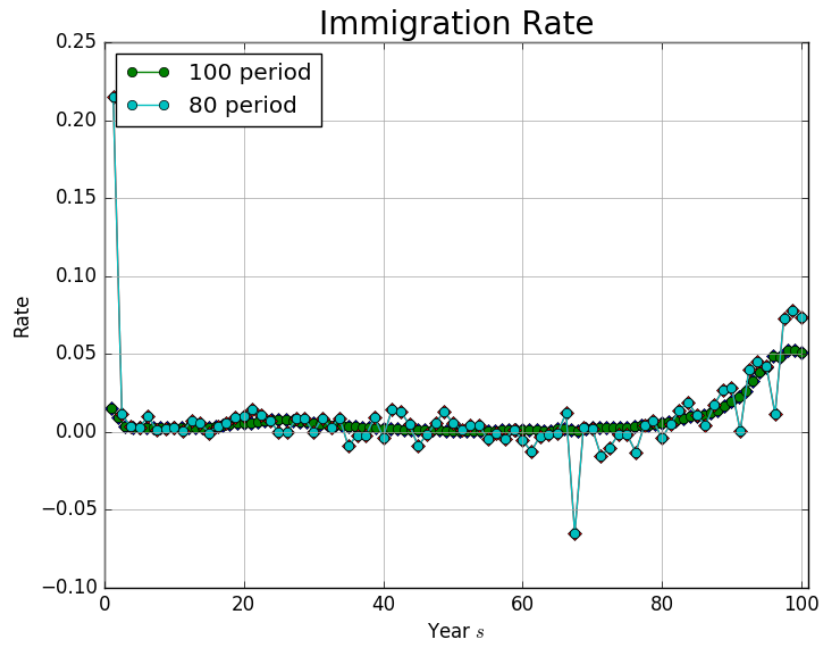


Figure 8: Fertility Rate for 100 and 80 Periods

(c)

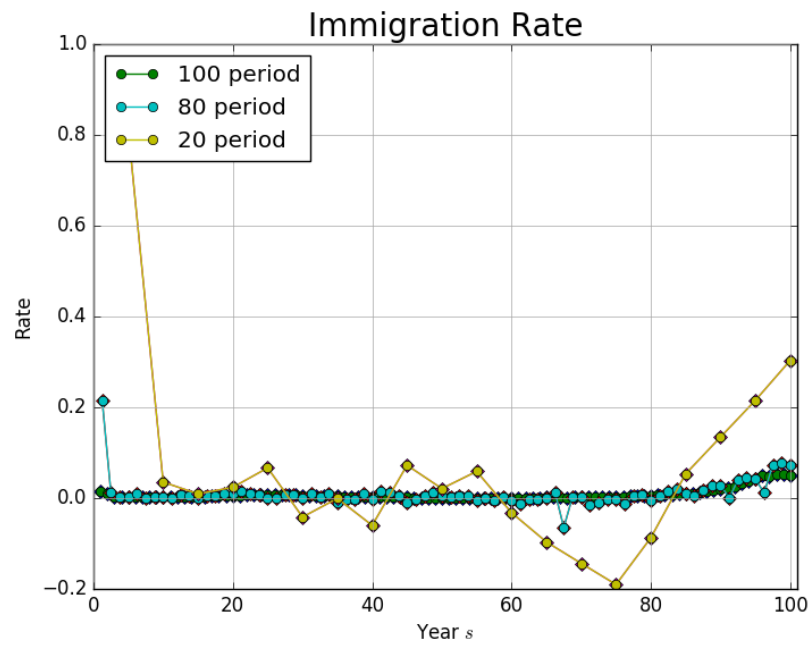


Figure 9: Fertility Rate for 100 and 80 and 20 Periods

## Problem 4

(a)

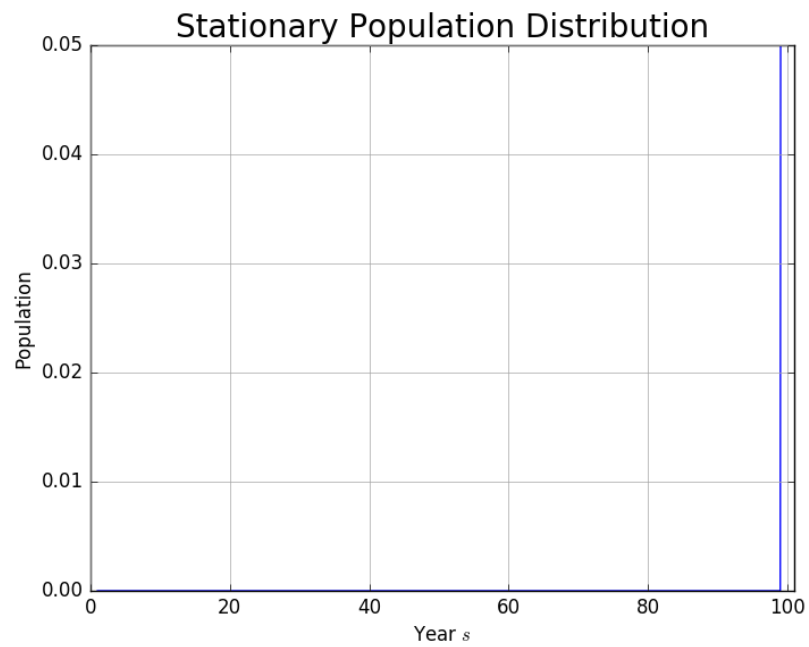


Figure 10: Stationary Population Distribution

(b)

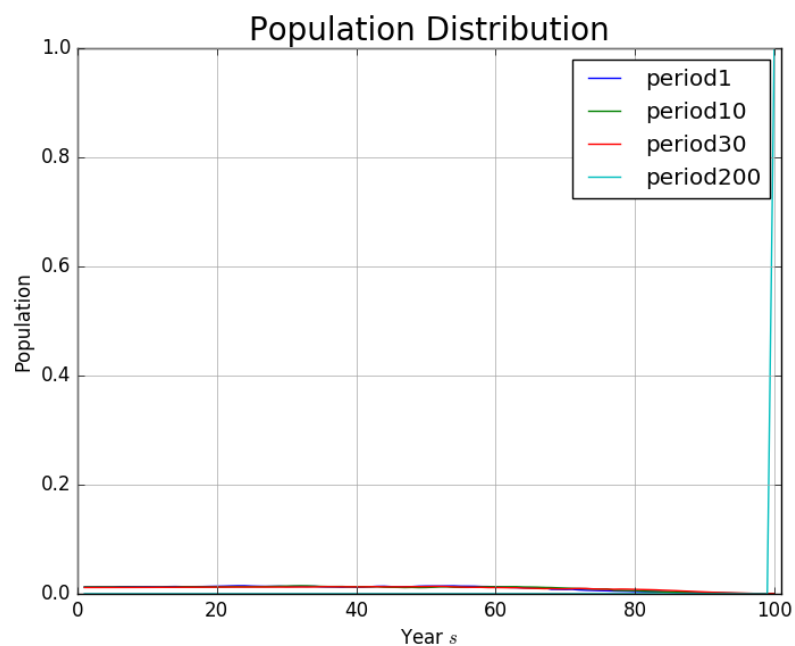


Figure 11: Population Distribution for Multiple Periods

(c)

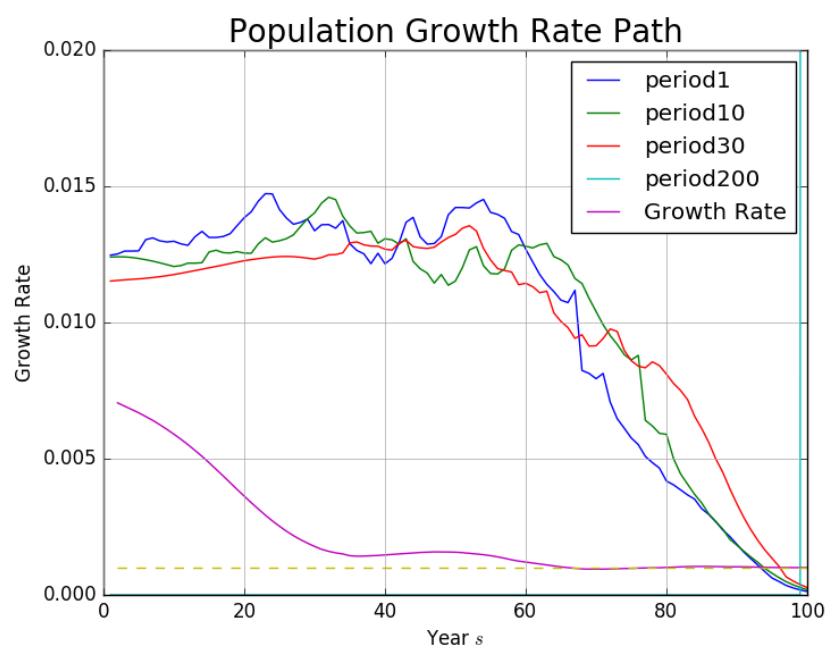


Figure 12: Population Growth Rate Time Path



**Problem 5**  
**Problem 6**