Credit Card

According to the Federal Reserve, in 2007 the average American had $4,000 in credit card debt. How does this happen? Let’s say a person decides to join a gym, and buys a membership with a $300 initiation fee plus a $100 monthly charge. After one year, the membership is canceled. This person makes all payments using a credit card, paying only $10 a month, which is the minimum due. In this situation, the gym member would owe a balance of more than $4,000 on the credit card in less than 3 years!

1. Use the Credit Card analyzer in the Compound Interest Simulator to determine how long it will take for a person in the above situation to reach a debt of $8,500 with an annual interest rate of 15.4%.

2. Using the analyzer, vary the initial balance and monthly payment to determine other situations that result in a debt of $4,000.

Now let’s determine what most Americans will end up paying if they only make the minimum payment required every month (which is currently close to 4% of the outstanding balance).

3. Use the analyzer to observe how many years it would take to pay off $4,000. Be sure to set the minimum payment percentage to 4% and annual interest rate to 15.4%.

4. How much extra money was paid above the $4,000 initial balance?

5. What if the person put this “extra money” into a savings account at a 4.5% interest rate? How much money would it have grown to if it had been invested for the same amount of time it took to pay off the credit card debt?