Student loans

The objective of this activity is to explore the costs associated with attending college and taking out student loans.

Congratulations! You just got accepted into your dream college! However, college can be pretty expensive and the tuition at this school is \$25,000 per year. You decide to do some research and apply to financial aid programs to help with these costs.



Funding your first year of college

You just received your financial aid package in the mail and discovered that you will did not receive any scholar-ships, bummer.

You decide to fully fund your first year of tuition with a Direct unsubsidized federal loan. For this loan, you are charged a 1.057% loan fee along with an interest rate of 4.99% which is compounded monthly.

- 1. Including the loan fee, what is the principal amount of your loan?
- 2. Direct unsubsidized loans start to accrue interest from the date they're disbursed. How much will you owe on this loan at graduation (after 4 years) if no payments have been made?
- 3. After graduation, you decide to start paying off your student loan by making a \$300 monthly payment. How long, in years, will it take you to pay off this new balance?
- 4. If you started making \$300 monthly payments at the start of college, how long would it take you to pay off your loan?
- 5. How much would you actually spend on your first year of college for each of these options?

Compound interest 1

Scholarships

While the numbers above may be intimidating, there are over 1.7 million scholarships awarded annually. The U.S. Department of Education awards an estimated \$46 billion in scholarships annually and private sources award over \$7.4 billion in scholarships annually. On average, first time undergraduates who receive government grants and scholarships at a 4-year college receive about \$13,690 annually.

Knowing this, you spent your junior and senior year of high school applying for every scholarship you felt qualified for. Great news! You have now funded 50% of your first year of college through scholarships!

For the remainder of your tuition, you decide to take out a Direct unsubsidized federal loan which charges a **1.057%** loan fee along with an interest rate of **4.99%** which is compounded monthly.

- 1. Including the loan fee, what is the principal amount of the loan needed to cover half of the tuition for your first year?
- 2. If you started making \$300 monthly payments at the start of college, how long would it take you to pay off your loan?
- 3. How does the actual total cost of the first year of college with a scholarship compare to the cost without a scholarship?

For more information on scholarships and student loans:

- Fastweb, free scholarship search platform that connects students to scholarships and financial aid tools
- US Department of Education: Interest Rates and Fees for Federal Student Loans

Compound interest 2

¹Education Data Intiative: Scholarship Statistics