financialalgebra

9.5 Grants, Scholarships, and Loans

Student Activity Packet

UNIT: PAYING FOR COLLEGE & STATISTICAL ANALYSIS

Name:

IN THIS LESSON, YOU WILL:

- Use an interest formula to calculate student loan debt after 4 years of college
- Understand how grants and scholarships are awarded and why they are superior forms of student aid
- Search for grants or scholarships they might personally be eligible for
- Describe why federal direct loans to undergraduates are superior to private student loans and parent PLUS loans

INTRO

QUESTION OF THE DAY: What percent of students receive scholarships or grants for college?

Write your answer to the question below. Then, compare your answer to the answer on the second slide. Finally, follow your teacher's directions on how to answer the follow-up questions below. You may assume there are 30 days in a month for this saving example.

Narration

1. **What percent of students receive scholarships or grants for college?**

2. **Would you choose a college just based on how many scholarships or how much grant aid you receive from them? Why or why not?**

LEARN IT

INFOGRAPHIC: Order of Operations to Pay for College

As you've previously learned, a necessary step in the paying for college process is completing the FAFSA, which will determine your eligibility for need-based aid. Once that application is completed, you'll want to understand the many ways to pay for college, which ones are accessible to you, and in which order you should use them.

1. **Consider your own personal situation. Categorize each of these 9 ways to pay for college according to whether you will have access to this resource when it's time to pay for college:**

	Yes, I'll have access	Not sure	No, I won't have access
1. Scholarships & grants	•	•	•
2. Your savings (as a student)	•	•	•
3. Your earnings (as a student)	•	•	•
4. Parents savings for college	•	•	•
5. Parents current income	•	•	•
6. Fellowships & assistantships	•	•	•
7. Aid through school work-related programs	•	•	•
8. Federal student loans	•	•	•
9. Private student loans	•	•	•

2. **Which of these ways to pay are reliant on FAFSA completion?**

3. **Suggestions 3, 6, and 7 revolve around you spending some of your time as a college student also working. Paying costs as they occur, rather than paying them later in the form of interest-bearing loans, seems like a win.**
    a. Name at least 2 other potential benefits of working while you're enrolled in college.

    b. But what might be the drawbacks of working while also a college student?

ARTICLE: College Grants vs. Scholarships vs. Loans

Before we dive in deeper with a podcast, let's do some categorizing of three of the main types of aid – grants, scholarships, and loans. Read this article, but you can stop when you get to the section on How to Apply. Use what you learn to complete the chart.

1. **Answer the three questions for each type of aid.**

	Does the money need to be repaid?	Is the aid based on need or merit?	Who gives out this type of aid?
Grants			
Scholarships			
Student loans			

PODCAST: Paying for College: What to Know Before You Go

In the next three resources, we'll listen to portions of a much longer podcast. In this first section, please listen from 14:54 - 18:07, where you'll hear a bit more about grants and scholarships.

1. **Regarding Pell Grants, the podcast says "you can essentially put it in a backpack and carry it to whatever school you want to." What do they mean by this?**

2. **Explain how it's possible that an expensive, private college can end up being a cheaper option than a public school.**

3. **Answer true or false for each of the following:**
    a. It's possible for a student to have both grants and scholarships
    b. It's possible to use multiple grants to pay for college
    c. It's possible to use multiple scholarships to pay for college
    d. The best strategy for scholarships is to focus on the large, high dollar national awards

EXPLORE IT

ACTIVITY: Find Some Aid for You

It's time to head out onto the internet and try to find a financial aid option for you. First, choose one of these assignment options:

A. Do a web search for an as-local-as-possible scholarship you could apply to
B. Choose the college you'd most love to attend and read on their website about their scholarship and/or grant programs
C. Research great options available at the state level

As you research and learn more, record answers to as many of the following questions as possible:

- How much money is available?
- How many of the awards are available?
- Who is eligible, and do you meet those requirements?
- What is the application process, and when is the deadline?

Record answers to those questions and other pertinent details here:

Details

LEARN IT

PODCAST: Paying for College: What to Know Before You Go

Next, we'll resume the podcast and listen from 18:07 - 20:25, which discusses both federal and private loans. You may want to preview the questions before pushing play so that you know what details to listen for.

1. **If subsidized loans mean the government doesn't charge you interest until you graduate, what do you think it means if a loan is unsubsidized?**

2. **Multiple "experts" on the podcast agree that $31,000 is a good upward limit for the amount of undergrad loans to take out. Explain why they chose that number.**

3. **Marti hears that she can either get loans from the federal government or loans from a private bank, and she's thinking private banks are a better option because banks lend people money all the time – they're experts! Explain why you agree or disagree with Marti.**

MATH CONNECTION - CALCULATING INTEREST

PODCAST: Paying for College: What to Know Before You Go

Finally, to introduce the math connection portion of this lesson, listen to the podcast from 20:25 - 23:38, which discusses Parent PLUS loans, which come from the federal government but have some commonalities with private loans. Listen to the segment so you understand how Parent PLUS loans work before continuing on with the math problems that follow.

You may be interested to know that, unlike most other loan types, student loans gain interest daily but use a simple daily interest formula. For the following set of problems, we're asking only about loan balances after full years, so the equation can be simplified as:

Interest = (Outstanding Principal Balance)(Interest Rate)(# of years)

1. **During his freshman year, Mo is eligible for the maximum subsidized direct student loan amount, which is $3,500 at a rate of 4.99%. He takes the full amount.**
    a. How much interest does Mo accrue during that year?

    b. How much is his loan balance at the end of freshman year?

2. **His roommate, Zain, uses $3,500 in subsidized loans and $2,000 in unsubsidized loans, the maximum amount a freshman can borrow from the federal government this year. The interest rate for both is 4.99%.**
    a. How much interest does Zain accrue during that year?

    b. How much is Zain's balance after one year?

3. **Michelle, from the podcast, is also in their dorm. If you remember, her parent agrees to take out a PLUS loan of $21,500 for freshman year at 7.54%. How much is Michelle's parent's bill by the end of freshman year?**

Each of these three students continues on the same path they started on: Mo and Zain take the maximum allowable at each grade level, and Michelle takes out a PLUS loan of $21,500 each of the 4 years.

4. **Using the interest formula above, complete this table to determine how much Mo's loan bill is after graduation, assuming his interest rate remains 4.99% and he makes no payments while in school.**

	Loan Amount	Interest at graduation	Cumulative Total Loan Balance
1st year	$3,500 subsidized		
2nd year	$4,500 subsidized		
3rd year	$5,500 subsidized		
4th year	$5,500 subsidized		

5. **Using the interest formula above, complete this table to determine how much Zain's loan bill is after graduation, assuming his interest rate remains 4.99% and he makes no payments while in school.**

	Loan Amount	Interest at graduation	Cumulative Total Loan Balance
1st year	$3,500 subsidized $2,000 unsubsidized		
2nd year	$4,500 subsidized $2,000 unsubsidized	2000(0.0499)(3)= $299.40	5,899.20 + 4,500 + 2,000 + 299.40 = $12,698.60
3rd year	$5,500 subsidized $2,000 unsubsidized		
4th year	$5,500 subsidized $2,000 unsubsidized		

6. **Using the interest formula above, complete this table to determine how much Michelle's loan bill is after graduation, assuming her interest rate remains 7.54% and she makes no payments while in school.**

	Loan Amount	Interest at graduation	Cumulative Total Loan Balance
1st year	$21,500		
2nd year	$21,500	21,500(0.0754)(3)= $4,863.30	27,984.40 + 21,500 + 4,863.30 = $54,347.70
3rd year	$21,500		
4th year	$21,500		

7. **Explain how the college financing choices you make straight out of high school can impact your financial life 15-20 years in the future.**

EXIT TICKET

Follow your teacher's instructions to complete the Exit Ticket.