Lesson 8.3: Paying for Postsecondary Education

Adapted from The Federal Reserve Bank of Dallas lesson, “Paying for College”

Standards and Benchmarks

See page 6.

Lesson Description

This lesson is designed to look at different options to help finance postsecondary education. Whether students want to attend a community college, university, complete an apprenticeship or other training, they will probably need to finance all or part of their education. Students will describe the costs and benefits of postsecondary education payment options and analyze the return on investment of postsecondary education for various scenarios. To obtain answer keys for the handouts and assessment in this lesson, create an account on FederalReserveEducation.org.

Concepts

Budgeting
Cost/benefit analysis
ROI (Return on Investment)

Objectives

Students will be able to:

- describe different ways to pay for postsecondary education.
- describe and identify the costs and benefits of postsecondary payment options.
- *(Extension)* identify and analyze the costs and benefits of postsecondary education using return on investment (student loan costs compared to anticipated monthly income).

Compelling Question

What are the costs and benefits of different ways to pay for postsecondary education?

Time Required

90 minutes

Materials

- Paying for Postsecondary Education Lesson 8.3 Slides
- Video: “College Choice 101: Financial Aid”: https://youtu.be/6U91VRMGyt0
- Handout 8.3.1: Video Questions, one copy for each student
- Handout 8.3.2: Financial Aid Information Web & Costs/Benefits Analysis, one copy for each student

- Handout 8.3.3: Quiz Game Cards, one copy for each team of 3-4 students
- Handout 8.3.4: Money Cards, one copy for each team of 3-4 students
- Handout 8.3.5: Return on Investment, one copy for each student
- Handout 8.3.6: Assessment, one copy for each student
- (Optional): Handout 8.3.7: Extension, one copy for each student

Preparation

Prepare Handout 8.3.3: Quiz Game Cards and Handout 8.3.4: Quiz Game Money Cards prior to class.

Procedure

1. Tell students that, according to the U.S. Department of Education, more than 70 percent of undergraduate students receive some type of financial aid. This lesson will explore different types of financial aid.

2. Give each student a copy of Handout 8.3.1: Video Questions.

3. Play the video, *College Choice 101: Financial Aid*. Explain to students that they should answer the video questions as they watch.

4. When the video is completed, review the correct answers with students.

5. Give each student a copy of Handout 8.3.2: Financial Aid Information Web & Cost/Benefits Analysis. Explain to students that they will now create a web of key terms related to Financial Aid based on what they learned in the video. They will also complete the Cost/Benefits chart to further describe the different types of Financial Aid.

   NOTE: An example of an information web comparing fast-food chains is included in the slides for this lesson as an example.

6. When completed, discuss the students' information web and the Cost/Benefits Analysis chart. Some questions may include, "What key words did you use to describe the different types of financial aid in your information web?", "What are the biggest differences between the four key types of financial aid?", "Is there a particular type of aid that you would use before others? Why?", "Which of these financial aid options would you utilize as a last resort? Why?".

7. Explain to students that they will now play a quiz game about paying for postsecondary education. The questions and answers are provided below and on the slides.

8. Divide students into teams of 3-4 students and give each team a set of cards from Handout 8.3.3: Quiz Game Cards.

9. Tell students to answer the questions in the game by holding up the appropriate card that names the type of aid: a scholarship, a grant, work study or a loan.

10. Display Slides 4-43 to go through the game questions.

11. Award one $1,500 certificate from Handout 8.3.4: Quiz Game Money Cards to each team that has the correct answer.
    a. Here are the Game Questions and Answers (also found in Slides 4-43):
        1. You are an education major, and part of your financial aid is the money you earn as a tutor. *(work study)*
        2. You are majoring in chemistry and entering your third year of college. You receive money from the federal government through a program that awards financial aid to students majoring in science, technology, engineering or math. *(grant)*
        3. You receive $500 from the local cultural society. *(scholarship)*
        4. Your father lost his job and the family's income became much lower. You received money from the government to pay for college. *(grant)*
        5. You borrowed money through a federal program to pay for your education this year. *(loan)*
        6. You entered your painting in a contest and won $750 to pay for your college expenses. *(scholarship)*
        7. You work in an office on campus after class every day. *(work study)*
        8. You received $3,000 per year from the lottery funds in your state. Every high school graduate can receive this aid if they attend an in-state college. *(grant)*
        9. You received $4,000 from the federal government because you promised to teach in a school that serves low-income students after graduation. If you change your mind, you will have to repay the full amount. *(grant)*
        10. You were a high school athlete. The university is paying your tuition while you play on the college team. *(scholarship)*
        11. Your parents borrowed money through a U.S. government program for parents of college students. *(loan)*
        12. You were raised by a single parent. Your family income qualified you to receive a need-based award from the U.S. government. *(grant)*
        13. You are going to school to study voice performance, and you receive $1,000 per semester because you sing in the college choir. *(scholarship)*
        14. You work 20 hours per week in the library at your college. *(work study)*
        15. Your family qualified for a federal government program that reduced the interest on the money you borrowed to pay for college. *(loan)*
        16. Your mom works for a company that will pay 50 percent of your tuition at any in-state public college. *(scholarship)*
        17. You receive a $1,000 award to help pay for college from a local community organization in recognition of your volunteer activities. *(scholarship)*
        18. Your other financial aid did not cover all of your college costs, so you borrowed money from a private lender. *(loan)*
        19. You work in the college's computer lab three days per week. *(work study)*
        20. Your PSAT scores qualified you as a National Merit Scholar. Several schools have offered you free tuition. *(scholarship)*

12. Ask each team to add up the total amount of financial aid that the team earned.

13. Use the information below to remind students about the cost of tuition and fees at different types of institutions. This is included on Slide 44 as a visual for students. Explain that with more financial aid, they will have more choices about the type of institution that they might choose to attend.

    NOTE: Remind students that these figures are for tuition and fees only (‘25-’26 Academic year). As they have previously learned, the cost of attending college will also include other items such as room and board, books and supplies, etc.

14. Distribute Handout 8.3.5: Return on Investment to each student.

15. Review the ROI formula box with students, modeling the worked example aloud and emphasizing how to identify the gain from investment and cost of investment.

16. Complete Scenario 1 as a whole class. Have students pair up to complete Scenario 2 with a partner, and have them complete Scenario 3 independently. Circulate to check for understanding and correct use of the formula.

17. Conclude by debriefing which option had the highest ROI in each scenario and reinforcing that ROI is one factor, along with personal goals and non-financial considerations, when evaluating postsecondary choices.

Closure

18. Review the important points of the lesson by asking students the following questions:
    a. What are some different ways to pay for postsecondary education? *(Answers will vary but may include grants, scholarships, work study, loans, etc.)*

    b. What are some costs of paying for postsecondary education? *(Cost of education and your time to complete the applications)*

    c. What are some benefits of paying for postsecondary education? *(Increased income potential, learning new things, obtaining the career or job you desire)*

    d. (Extension) How can you determine if you are making a good return on your investment? *(By analyzing the costs and benefits in terms of monthly income compared to the monthly loan payment, as well as the employment outlook.)*

Assessment

19. Provide students with a copy of Handout 8.3.6: Assessment. Have students complete the assessment independently.

Extension Activity

20. Provide students with a copy of Handout 8.3.7: Extension Activity. In this activity students will calculate the ROI using their top postsecondary school choice and entry level salary of their top career choice. They will also compare the cost of financing their tuition through a loan and compare the student loan payment to their projected starting salary.

Standards and Benchmarks

National Standards for Personal Financial Education

Standard 1: Earning Income

Most people earn wage and salary income in return for working, and they can also earn income from interest, dividends, rents, entrepreneurship, business profits, or increases in the value of investments. Employee compensation may also include access to employee benefits such as retirement plans and health insurance. Employers generally pay higher wages and salaries to more educated, skilled, and productive workers. The decision to invest in additional education or training can be made by weighing the benefit of increased income-earning and career potential against the opportunity costs in the form of time, effort, and money. Spendable income is lower than gross income due to taxes assessed on income by federal, state, and local governments.

Benchmarks: Grade 12

3. People vary in their willingness to obtain more education or training because these decisions involve incurring immediate costs to obtain possible future benefits. Discounting the future benefits of education and training may lead some people to pass up potentially high rates of return that more education and training may offer.
4. Employers generally pay higher wages or salaries to more educated, skilled, and productive workers than to less educated, skilled, and productive workers.

Standard 5: Managing Credit

Credit allows people to purchase and enjoy goods and services today, while agreeing to pay for them in the future, usually with interest. There are many choices for borrowing money, and lenders charge higher interest and fees for riskier loans or riskier borrowers. Lenders evaluate creditworthiness of a borrower based on the type of credit, past credit history, and expected ability to repay the loan in the future. Credit reports compile information on a person's credit history, and lenders use credit scores to assess a potential borrower's creditworthiness. A low credit score can result in a lender denying credit to someone they perceive as having a low level of creditworthiness. Common types of credit include credit cards, auto loans, home mortgage loans, and student loans. The cost of postsecondary education can be financed through a combination of grants, scholarships, work-study, savings, and federal or private student loans.

- **Benchmarks: Grade 12**

4. Post-secondary education is often financed by students and families/caregivers through a combination of scholarships, grants, student loans, work-study, and savings.

5. Federal student loans have lower rates and more favorable repayment terms than private student loans, and may be subsidized.

Handout 8.3.1: Video Questions (page 1 of 2)

College Choice 101: Financial Aid

After watching the video, answer the following questions:

1. What is gift aid?
    a. Financial aid offered in the form of grants or scholarships
    b. Money your family members give you when you graduate from high school
    c. Financial aid you must repay with interest at the end of college
    d. Money set aside to be given to you once you graduate from college

2. Which of the following is true about paying back grants?
    a. You must pay back the difference if you are awarded an amount above a maximum set by the state in which you are attending college.
    b. You must pay back a grant if you withdraw from or stop attending the classes for which the grants were provided.
    c. You must always repay grants in full, but the payback timeline is income based.
    d. The FAFSA will determine whether or not you must repay the grant in part or in full.

3. What is a Pell grant?
    a. A common, need-based public grant based upon the student's Expected Family Contribution (EFC), the school cost, and the student’s attendance status.
    b. A private grant offered by select colleges and educational institutions based upon merit assessments such as the ACT or SAT.
    c. A need-based grant offered by non-profits and made available only to those who demonstrate the most extreme financial need.
    d. A common, demographic-based private grant based upon region and ethnicity.

4. Which of the following abbreviations stands for how much a student’s family will be predicted to pay for college?
    a. FAFSA
    b. FSEOG
    c. EFC
    d. PLUS

5. What is a Federal Supplemental Educational Opportunity Grant (FSEOG)?
    a. A need-based public grant based upon the student’s Expected Family Contribution (EFC), the cost of the school, and the student’s attendance status.
    b. Additional money available only to those who qualified for the Pell grant and demonstrate the most extreme financial need based on their EFC.
    c. A private grant colleges and educational institutions offer based upon merit and the student’s EFC.
    d. A private grant you must pay back in part following a 6-month grace period after leaving school.

Handout 8.3.1: Video Questions (page 2 of 2)

6. What is a scholarship?
    a. Financial aid the federal government gives that is based upon the student's Expected Family Contribution (EFC).
    b. A one-time financial aid award that you must repay in part following a 6-month grace period after leaving school.
    c. A renewable financial aid award that you must repay in full, with interest, after leaving school.
    d. A one-time or renewable financial aid award offered by private sources or the college you attend that you do not have to repay.

7. What is the difference between private scholarships and those granted by your chosen school?
    a. Private scholarships are never merit based.
    b. Private scholarships are not covered by FAFSA, and you must search and apply for them on your own.
    c. Scholarships granted by your chosen school are not covered by FAFSA.
    d. Your chosen school grants scholarships solely based upon financial need.

8. Which of the following is true of a public loan?
    a. For Direct and PLUS loans, you must start making payments the first month after you have left school.
    b. If you have a Direct Unsubsidized loan, the government pays the interest that accrues while you are attending school.
    c. Students can take out a PLUS loan if they have good credit.
    d. If you have a Direct Subsidized loan, the government pays the interest that accrues while you are attending school.

9. What are the characteristics of a private loan?
    a. The federal government originates and subsidizes them, but a private company services them.
    b. They are always unsubsidized and offered at a fixed interest rate of 8% to those with good credit and good academic standing.
    c. Banks or credit unions offer them, but usually at higher interest rates, with a shorter grace period, and they may include other fees or penalties.
    d. The federal government offers them to families based upon the student's Expected Family Contribution (EFC).

10. If you have a job on campus through a work study program, you are paid directly.
    a. True
    b. False

Handout 8.3.2: Financial Aid Information Web & Costs/Benefits Analysis (page 1 of 3)

Directions: Use the information below to complete an information web about different types of financial aid offered. Then, complete a Cost/Benefits chart by listing the **benefits** (pros) and **costs** (cons) of each type of financial aid. Consider things like repayment, interest, time commitments, and eligibility requirements.

Types of Financial Aid

Gift Aid:
Gift aid is money that does not have to be repaid. It can be in the form of either grants or scholarships.

Grants are often based on financial need. Grants can come from the government, your college or a private or nonprofit organization. You might have to pay back part or all of a grant if you don't follow the grant's requirements. The FAFSA is the application for all federal grants.

Scholarships come in many forms. Some are merit-based because they depend on things like grades, volunteer work, community involvement, athletics, music, etc. Others are need-based because they are determined by your family's income. There are scholarships based on other criteria—military service, where you live, your ethnicity, whether your parents went to college or not, among others.

Scholarships come from many sources. Your college will probably offer many types. Other scholarships are offered by companies, nonprofits, religious groups, and various clubs and organizations. It takes some research to find these, and they will require a separate application.

A scholarship might pay the entire cost of your tuition, or it might be a one-time award of a few hundred dollars. It's worth applying for scholarships because they reduce the cost of your education.

Work Study:
Work-study programs provide you with a job while you're enrolled in school. As with grants, eligibility is determined by the FAFSA. You are paid directly and may use work-study money to pay for school and other expenses.

Student Loans:
Unlike gift aid and work study, student loans have to be repaid with interest. If you decide to take out a loan, make sure you understand who is making the loan and the terms and conditions of the loan. Student loans can come from the federal government or from private sources. Loans made by the federal government usually offer borrowers lower interest rates and have more flexible repayment options, like not making payments while you are enrolled in school. Private loans are available from banks or credit unions. It is important to understand the interest rate, fees and other features of any loan that you are offered.

Handout 8.3.2: Financial Aid Information Web & Costs/Benefits Analysis (page 2 of 3)

Information Web

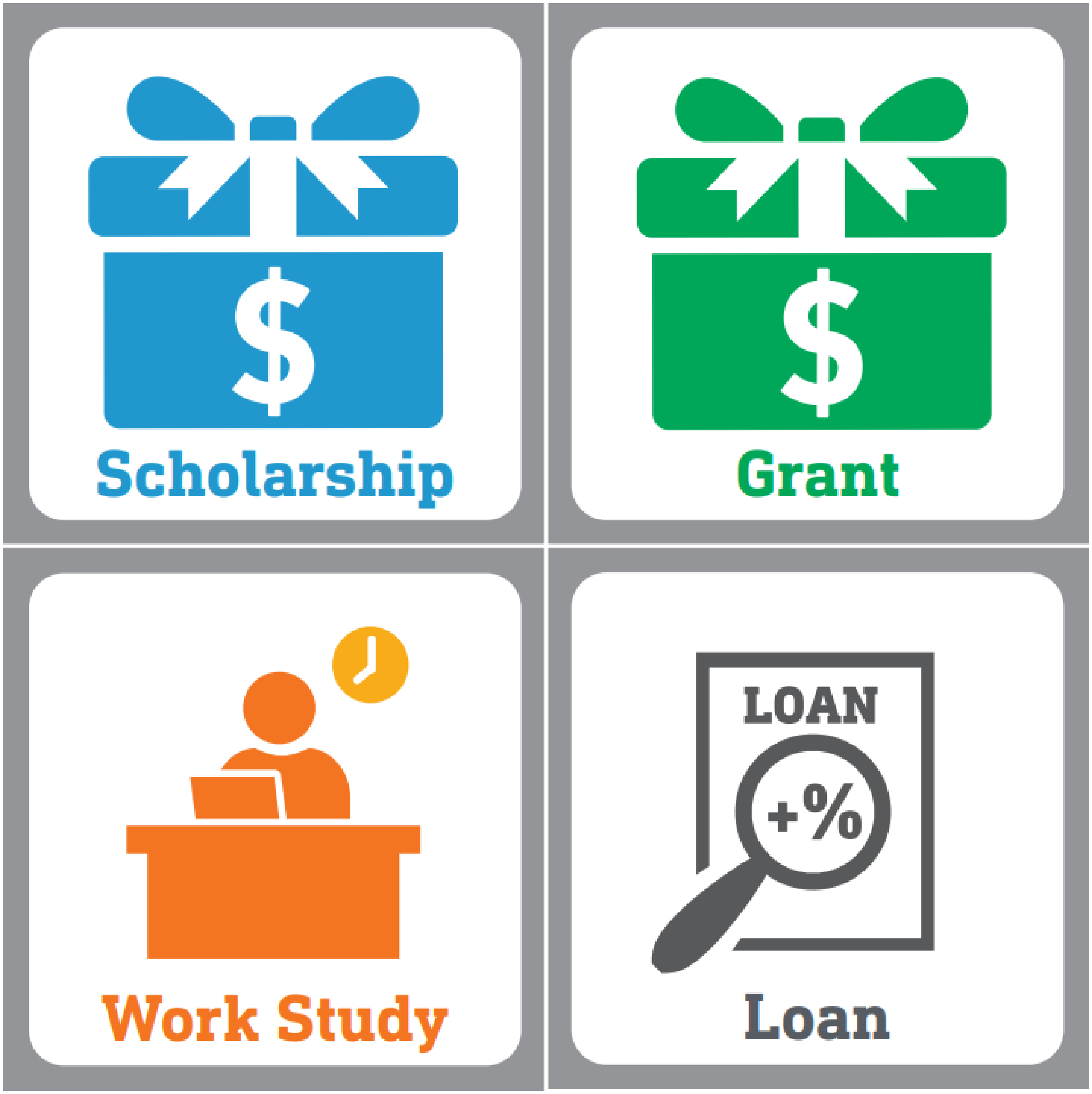
Handout 8.3.3: Financial Aid Information Web & Costs/Benefits Analysis (page 3 of 3)

Financial Aid: Cost/Benefits Analysis

Directions: Complete the chart by listing the benefits (pros) and costs (cons) of each type of financial aid. Consider things like repayment, interest, time commitments, and eligibility requirements.

	Costs (Cons)	**Benefits (Pros)**
Scholarships		
Grants		
Work Study		
Loans		

Handout 8.8.3: Quiz Game Cards



Handout 8.3.4: Quiz Game Cards

Handout 8.4.4: Quiz Game Money Cards

Handout 8.4.5: Return on Investment (page 1 of 3)

What Is ROI?

Return on Investment (ROI) is a way to measure whether an investment is worth its cost. When applied to postsecondary education, ROI compares how much money a person spends on education (tuition, fees, books, and other costs) to how much additional income they earn because of that education. If the extra income earned over time is greater than the cost of the education, the ROI is positive. Understanding ROI will help you think critically about different education and career pathways and recognize that not all postsecondary options have the same financial outcomes.

How to Calculate ROI

$$ROI\ for\ Time\ Period = \frac{Total\ Earnings\ in\ Time\ Period\ After\ Graduation}{Total\ Cost\ of\ Postsecondary\ Education}\ x\ 100$$

Scenarios

Directions: For each scenario below, use the information provided to calculate the ROI.

Scenario 1: Community College Path

Alex's goal is to become a licensed HVAC technician. He is considering attending a two-year community college to earn a technical certificate instead of entering the workforce immediately after high school. The total cost of the two-year program is **$12,000**. If Alex completes the program, his anticipated annual entry-level income is **$42,000**. If he does not attend college and enters the workforce right away, his anticipated annual income would be **$32,000**.

a. What is Alex's anticipated **annual income increase** from completing the community college program?

b. Calculate Alex's Return on Investment (ROI) for the **first 10 years** after completing postsecondary education using the following steps:

- **Step 1:** Calculate the anticipated total earnings increase over 10 years by multiplying the annual income increase by 10.
  $___________________
- **Step 2:** Calculate the ROI by dividing the anticipated total earnings increase by the total cost of education.
  $___________________
- **Step 3:** Calculate the ROI as a percentage by multiplying the ROI in Step 2 by 100.
  $___________________

c. Should Alex choose the postsecondary option he is considering? Explain your reasoning.

Handout 8.4.5: Return on Investment (page 2 of 3)

Scenario 2: Four-Year University with Student Loans

Jordan's dream is to work in business management. Jordan plans to attend a four-year public university and will need to borrow **$96,000** to finance the degree. After graduation, Jordan's anticipated annual entry-level income is **$65,000**. If Jordan entered the workforce with only a high school diploma, the anticipated annual income would be **$38,000**.

a. What is Jordan's anticipated **annual income increase** from earning a bachelor's degree?

b. Calculate Jordan's Return on Investment (ROI) for the **10-year time period** after completing postsecondary education using the following steps:

- **Step 1:** Calculate the anticipated total earnings increase over 10 years.
  $____________________
- **Step 2:** Calculate the ROI by dividing the anticipated total earnings increase by the total cost of education.
  $____________________
- **Step 3:** Calculate the ROI as a percentage.
  $____________________

c. Should Jordan pursue this postsecondary option? Explain your reasoning.

Scenario 3: Trade School vs. Bachelor's Degree

Taylor is deciding between two postsecondary options after high school. If Taylor chooses a one-year trade certification program, the total cost will be **$18,000**, and the anticipated annual income after completion is **$50,000**. If Taylor chooses a four-year bachelor's degree, the total cost will be **$80,000**, and the anticipated annual income will be **$62,000**. If Taylor does not pursue postsecondary education, the anticipated annual income would be **$32,000**.

Option A: Trade School

a. What is Taylor's anticipated annual income increase with the trade certification?

b. Calculate the ROI for the **first 5 years** after completing the trade program using the following steps:

- **Step 1:** Calculate the anticipated total earnings increase over 5 years.
  $____________________
- **Step 2:** Calculate the ROI by dividing the anticipated total earnings increase by the total cost of education.
  $____________________
- **Step 3:** Calculate the ROI as a percentage.
  $____________________

Handout 8.4.5: Return on Investment (page 3 of 3)

Option B: Bachelor's Degree

c. What is Taylor's anticipated annual income increase with the bachelor's degree?

d. Calculate the ROI for the **first 5 years** after completing the bachelor's degree using the same steps as in Option A: Trade School.

e. Which option has the higher ROI in the short term? Explain your reasoning.

Handout 8.3.6: Assessment (page 1 of 2)

Part 1: Multiple Choice

1. Which of the following types of financial aid is considered "gift aid" and generally does not need to be repaid?
    a. Direct Unsubsidized Loans
    b. Federal Work-Study Programs
    c. Private Student loans
    d. Pell Grants

2. What is a major advantage of a Federal Subsidized student loan compared to a private student loan?
    a. The federal government covers the interest while you are enrolled in school.
    b. You never have to repay a federal student loan if your income remains low.
    c. Private student loans always carry much more flexible repayment options.
    d. Federal loans do not require filling out the FAFSA application.

3. Which type of financial aid requires a student to work a part-time job on or near campus to earn money directly for school expenses?
    a. Merit-based scholarship
    b. PLUS Loan
    c. Federal Work-Study
    d. Supplemental Educational Opportunity Grant

(continued on next page)

Handout 8.3.6: Assessment (page 2 of 2)

Part 2: Scenario Analysis

Directions: Read the scenario below and use the financial information provided to complete the questions and evaluate the Return on Investment (ROI).

Scenario: Marcus wants to become a Web Developer. He is deciding whether to attend a 2-year Associate Degree program at a local college or enter the workforce immediately with his high school diploma.

- **Total Cost of the 2-Year Program:** $15,000
- **Anticipated Annual Income (with Associate Degree):** $55,000
- **Anticipated Annual Income (with High School Diploma only):** $35,000

4. **Calculate the Financial Metrics:**
    a. What is Marcus's anticipated **annual income increase** if he completes the Associate Degree program?

    b. Calculate Marcus's **total earnings increase over the first 5 years** after graduation.

    c. Calculate Marcus's **5-Year Return on Investment (ROI) as a percentage** using the formula:

$$ROI\ for\ Time\ Period = \frac{Total\ Earnings\ in\ Time\ Period\ After\ Graduation}{Total\ Cost\ of\ Postsecondary\ Education}\ x\ 100$$

ROI= ________%

5. **Evaluation & Reasoning:**
Based on your calculations above, does this postsecondary option represent a positive or negative financial investment for Marcus? Aside from the percentage, name one other financial or personal factor Marcus should keep in mind when making this decision.

Handout 8.3.7: Extension Activity (Page 1 of 2)

Directions: In this activity, you will calculate the Return on Investment (ROI) of your chosen postsecondary path by comparing the total cost of your education (including student loans) against the entry-level salary of your desired career.

Step 1: Career & Salary Research

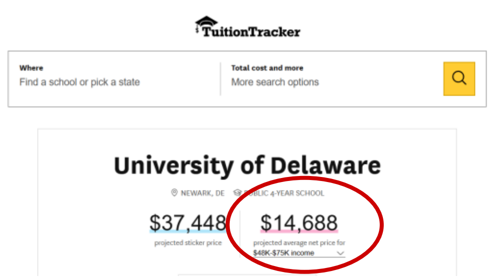
First, let's see what your future career actually pays.

1) Go to the My Next Move (http://www.mynextmove.org/) website.
2) Search for your top career choice.
3) Scroll down to the *Job Outlook and Salary* section.
4) Look at the local or national average salary. *Note: As a recent grad, you will likely start at the lower end of the pay scale (the left side of the salary graph)*.
5) **Top Career Choice:**____
6) **Projected Entry-Level Annual Salary: $**___________________________
7) **Projected Monthly Gross Pay (Annual Salary ÷ 12): $**_______________

Step 2: College Cost & Financing Research

Next, let's figure out how much your top-choice school costs and what a loan would look like.

1) Go to the Tuition Tracker (https://www.tuitiontracker.org/) website.
2) Type your top-choice postsecondary school into the search bar.
3) In the box labeled with the name of the school, it compares the sticker price to the average net price.



4) Select the income bracket that best estimates your household situation to find your **Estimated Annual Net Price**.
5) Multiply that number by the number of years you plan to attend (e.g., 2 or 4 years) to find your **Total Estimated Cost.**
6) **Top School/Program Choice:**____
7) **Estimated Annual Net Price (based on income): $**____________________
8) **Total Estimated Cost of Education (Annual Net Price x years of attendance): $**______________

Handout 8.3.7: Extension Activity (Page 2 of 2)

Student Loans: Assume you need to take out a federal student loan to pay for a portion of your education. Imagine you are financing **$30,000** of your total estimated cost using a standard federal student loan with a **5.5% interest rate** on a standard **10-year repayment plan**. Using a student loan calculator, your estimated monthly payment for this loan would be approximately **$325/month for 120 months**. You will be required to begin repayment six months after you graduate.

Your Estimated Monthly Student Loan Payment: $325

Step 3: Calculating your Return on Investment (ROI)
To find the ROI for your postsecondary and career choices, you will use the following formula:

Education ROI Ratio = Total Estimated Cost of Education / Projected Entry-Level Annual Salary

1) Take your **Total Estimated Cost of Education** from Step 2.
2) Divide it by your **Projected Entry-Level Annual Salary** from Step 1.

   Your ROI Ratio: ___________
   (Note: A ratio of 0.5 means your degree costs half of your first year's salary. A ratio of 1.5 means your degree costs 1.5 times your first year's salary. Lower numbers mean a faster financial return on your investment!)

Step 4: The Reality Check
Financial experts generally recommend that your monthly student loan payment should never exceed **10% of your monthly gross salary**. Let's see how your choices hold up.

Debt-to-Income Ratio = (Monthly Loan Payment / Monthly Gross Pay) x 100

1) Take your **Estimated Monthly Student Loan Payment ($325).**
2) Divide it by your **Projected Monthly Gross Pay** (from Step 1).
3) Multiply by 100 to get your percentage.
4) **Your Calculated Debt-to-Income Percentage:** __________%

Step 5: Reflection & Discussion
Answer the following questions:
1) Look at your ROI from Step 3. Do you feel that the overall cost of this specific school is a good investment for your target career? Why or why not?
2) Is your loan payment under the 10% threshold? If yes, how comfortable do you think your budget would be? If not, what are two ways you could lower your future debt?
3) Beyond the numbers, is the ROI worth it to you? Why or why not? (Consider job satisfaction, personal passion, and long-term career growth).