

THE CHALLENGE

Sarah, 18, was deciding between Elite Private College (\$55,000/year) and State University (\$15,000/year). Simple analysis: Elite costs \$160,000 more over four years. But Sarah calculated the FULL opportunity cost: Elite's total cost including foregone wages was \$372,000, while State's was \$252,000—a \$120,000 difference. For engineering (her major), research showed the salary premium from Elite was only \$5,000/year. Sarah chose State University and invested the \$120,000 difference. By age 65, that investment grew to \$1,800,000—far exceeding any salary premium from the "prestigious" school. Opportunity cost thinking transformed her decision.

What are you REALLY giving up when you make financial decisions? How do you calculate the true cost of your choices?

Learning Objectives

- Define scarcity and explain why it's the fundamental economic problem.
- Calculate opportunity costs for personal finance decisions.
- Identify explicit and implicit costs in financial choices.
- Analyze how incentives shape behavior in economic systems.
- Apply opportunity cost analysis to major life decisions.

CORE CONCEPTS

Term	Definition
Scarcity	The fundamental economic problem: unlimited human wants exceed limited resources, forcing choices and trade-offs.
Opportunity Cost	The value of the next-best alternative forgone when making a choice—the TRUE cost of any decision.
Explicit Costs	Direct monetary payments required for a choice (tuition, car payment, groceries).
Implicit Costs	Indirect costs including time, foregone alternatives, and non-monetary sacrifices.
Incentive	Reward or penalty that motivates behavior—positive incentives encourage actions, negative incentives discourage them.

Background: Every choice involves opportunity cost—the value of what you give up. When you spend \$15,000 on a car, the opportunity cost isn't just money; it's whatever else you could have done with that \$15,000—invest for retirement, pay down student loans, or start a business. Understanding opportunity cost transforms financial decisions by revealing the TRUE cost of every choice.

APPLY IT

PART A: COLLEGE OPPORTUNITY COST CALCULATION

Calculate the FULL opportunity cost of attending college:

Cost Category	4-Year University	Work Immediately
Tuition (4 years)	\$80,000	\$0
Living Expenses (4 years)	\$48,000	\$48,000
Foregone Full-time Wages	\$120,000 (4 × \$30,000)	\$0
Part-time Earnings During School	-\$48,000	N/A
TOTAL OPPORTUNITY COST		

1. Calculate the total opportunity cost of attending the 4-year university compared to working immediately. Show your work.

Explicit costs + Implicit costs (foregone wages minus part-time earnings):

Total opportunity cost of college: \$_____

Key Insight: College tuition (\$80,000) is just part of the cost. The IMPLICIT costs (foregone wages) often exceed explicit costs!

PART B: TIME OPPORTUNITY COST

Marcus earns \$36/hour but spends 6 hours on Saturday doing home maintenance to "save money."

Task	Hours	Cost to Hire	Marcus's Time Value
Lawn mowing	2	\$40/week	\$72 (2 × \$36)
Gutter cleaning	1	\$10/week avg	\$36
Oil change	1	\$10/week avg	\$36
Pressure washing	2	\$10/week avg	\$72
TOTAL	6 hours		

2. Calculate: Is Marcus actually "saving money" by doing these tasks himself? What's his net gain or loss?

Total cost to hire services vs. Value of Marcus's 6 hours:

Net result: Marcus is _____ (gaining/losing) \$_____ weekly

3. If Marcus instead used those 6 hours for consulting at \$75/hour, what would his weekly net gain be (after paying for services)?

PART C: INCENTIVE ANALYSIS

Identify the incentive and predict the behavioral response:

4. Employer offers 100% 401(k) match up to 6% of salary. What's the incentive and predicted response?

5. Credit card offers 2% cash back on all purchases. What's the incentive, and what's a potential unintended consequence?

CHECK YOUR UNDERSTANDING

1. Why does scarcity force people to make choices?

- ☐ A. Because prices are too high
- ☐ B. Because unlimited wants exceed limited resources
- ☐ C. Because government restricts purchasing
- ☐ D. Because people don't know what they want

2. What is the best definition of opportunity cost?

- ☐ A. The dollar price of something
- ☐ B. The next-best alternative forgone when making a choice
- ☐ C. The total of all possible alternatives
- ☐ D. The interest rate on a loan

3. Explain the difference between explicit costs and implicit costs. Give an example of each for the decision to attend college.

4. Why should "sunk costs" (money already spent) be ignored when making future decisions?

5. **Reflection:** Think of a major financial decision you're facing (college, car, job). What is the explicit cost? What is the implicit/opportunity cost? Does calculating this change your decision?
