

CAREER DEVELOPMENT

Education Pathway Comparison

Compare time, direct cost, opportunity cost, debt, and fit

GRADES 9-12	TIME 2-3 x 42 min	FORMAT Individual + partner	PRODUCT Weighted pathway recommendation
YOUR CHALLENGE Compare four fictional pathways toward an entry-level cybersecurity support career. Calculate direct and opportunity costs, score personal fit with a weighted matrix, test changing circumstances, and make an evidence-based recommendation.			

Important Context

All programs, prices, wages, and outcomes in this packet are fictional and simplified for learning. Real costs and requirements must be verified directly with schools, training providers, employers, and financial-aid documents.

Learning Goals

- Distinguish sticker price, net direct cost, opportunity cost, and borrowing.
- Compare pathways without assuming one credential is always best.
- Calculate weighted decision scores and interpret limits.
- Recommend a pathway using quantitative and personal evidence.

Key Terms

Term	Meaning
Direct cost	Tuition, fees, books, equipment, and required expenses paid for the program.
Grant/scholarship	Aid that generally does not require repayment when conditions are met.
Net direct cost	Direct cost minus grants/scholarships.
Opportunity cost	Value of the next-best option given up, such as foregone earnings.
Borrowing	Amount financed through debt; not necessarily equal to total cost.
Credential	Certificate, license, degree, or documented achievement.
Weighted score	Rating multiplied by the importance assigned to a criterion.

Part 1 - Fictional Pathway Data

Pathway	Length	Direct cost	Grant	Planned borrowing	Illustrative first-year earnings	Notes
A. 9-month certificate	0.75 yr	\$14,400	\$3,000	\$6,000	\$39,000	Fast, intensive; limited general education
B. Paid apprenticeship	1.5 yr	\$3,600	\$0	\$0	\$34,000 during training; \$43,000 after	Earn while learning; competitive entry
C. Associate degree	2 yr	\$18,800	\$7,000	\$8,000	\$45,000	Broader technical + general education
D. Bachelor degree	4 yr	\$56,000	\$16,000	\$28,000	\$55,000	Broadest degree; longest time and highest cost
ASSUMPTION FOR PRACTICE If not enrolled, the student could earn \$24,000 per year in full-time work. For the apprenticeship, use only \$6,000 of foregone earnings because paid training replaces most of the alternative earnings. For all other pathways: opportunity cost = years enrolled x \$24,000.						

Part 2 - Calculate Comparable Costs

Pathway	Net direct cost = direct - grant	Opportunity cost	Combined economic cost = net direct + opportunity
A. 9-month certificate			
B. Paid apprenticeship			
C. Associate degree			
D. Bachelor degree			

Show all four calculations. Round money to the nearest dollar.

Part 3 - Debt and Cash-Flow Check

Borrowing is a financing decision, not the same as total economic cost. Compare each pathway’s planned borrowing with illustrative first-year earnings after completion. For the apprenticeship, use \$43,000 after training.

Pathway	Borrowing	First-year earnings after completion	Borrowing as % of earnings
A. 9-month certificate	\$6,000	\$39,000	
B. Paid apprenticeship	\$0	\$43,000 after	
C. Associate degree	\$8,000	\$45,000	
D. Bachelor degree	\$28,000	\$55,000	

Formula: $\text{planned borrowing} \div \text{first-year earnings} \times 100$. Show work for all four.

Interpretation

Which pathway has the lowest combined economic cost?

Which has the highest planned borrowing relative to earnings?

Why might a student still choose a pathway with a higher economic cost?

What important information is missing before any real enrollment decision?

Part 4 - Weighted Decision Matrix

Scenario: Jordan values low cost most, then speed, then breadth of education, then earning while learning. Use the weights and ratings below. Weighted points = weight x rating. A rating of 1 is weak for Jordan; 5 is strong.

Criterion	Weight	A Cert. rating	B Apprent.	C Associate	D Bachelor
Low combined cost	4	4	5	3	1
Speed to completion	3	5	3	2	1
Breadth/future flexibility	2	2	3	4	5
Earn while learning	1	1	5	2	1
Pathway	Show weighted calculation			Total / 50	Rank
A. Certificate					
B. Apprenticeship					
C. Associate					
D. Bachelor					

Does the highest weighted score automatically settle the decision? Explain one limitation of the matrix.

Part 5 - Circumstance Change Tests

Scenario 1: The apprenticeship is not available this year.

Which remaining pathway becomes strongest for Jordan? What evidence supports it?

Scenario 2: A new scholarship reduces bachelor net direct cost by \$20,000.

Recalculate bachelor combined cost. Does your recommendation change? Why?

Scenario 3: Jordan must remain close to home and only A and C are local.

Compare A and C using cost, time, debt, and flexibility.

Scenario 4: Jordan wants a future role that explicitly requires a bachelor degree.

How should that verified requirement change the analysis?

Part 6 - Final Recommendation

Recommend one pathway for Jordan and identify a backup. Your response must include: combined economic cost; borrowing ratio; weighted score; one nonfinancial factor; one uncertainty; and a verification step.

Decision element	Your evidence
Recommended pathway	
Combined economic cost	
Borrowing-to-earnings ratio	
Weighted score	
Nonfinancial factor	
Uncertainty / risk	
Backup pathway	
Information to verify	

Write a final 6-8 sentence recommendation:

Self-Check

- ☐ All cost calculations show setup and result.
- ☐ I did not confuse borrowing with total cost.
- ☐ My matrix totals are correct.
- ☐ I used both financial and nonfinancial evidence.
- ☐ I named an uncertainty and verification step.