Longevity and Retirement Planning

Name: _____

Date: _____

The Challenge: Morgan starts investing $2,000/year at age 22 and stops at age 30 (9 years, $18,000 total). Jordan starts at age 31 and invests $2,000/year until age 65 (35 years, $70,000 total). At 7% annual returns, who has more at age 65? This surprising answer reveals why longevity planning must start NOW.

Core Concepts: Planning for Longer Lives

Life Expectancy Impact

- A 65-year-old today may live into their 90s
- Retirement could last 25-30+ years
- More years = more savings needed
- Healthcare costs increase with age

Longevity Risk

The risk of outliving your savings. Contributing factors:

- Longer retirement periods
- Inflation eroding purchasing power
- Rising healthcare costs
- Underestimating life expectancy

Inflation Over Time

At 3% annual inflation:

- $100 today = $181 in 20 years
- $100 today = $243 in 30 years
- $100 today = $326 in 40 years

Time Horizon Advantage

Starting early is powerful because:

- Compounding builds exponentially
- Small early amounts beat large late amounts
- You can weather market volatility

Part A: The Power of Starting Early

👤 Morgan: The Early Starter

Start Age: 22	**Stop Age:** 30 (stops contributing)
Annual Contribution: $2,000	**Total Invested:** $18,000 over 9 years

👤 Jordan: The Late Starter

Start Age: 31	**Stop Age:** 65 (continuous)
Annual Contribution: $2,000	**Total Invested:** $70,000 over 35 years

Compare the Outcomes (at 7% average annual return)

Person	Years Investing	Total Contributed	Value at Age 65
Morgan	9 years (age 22-30), then 35 years growth	$18,000	≈ $243,000
Jordan	35 years (age 31-65)	$70,000	≈ $283,000

Key Insight: Jordan invested nearly 4× more money than Morgan ($70,000 vs $18,000), yet the final amounts are relatively close. Morgan's money had more time to compound!

1. Why does Morgan end up with nearly as much as Jordan despite investing so much less?

2. What would happen if Morgan CONTINUED investing $2,000/year from 22 to 65?

Part B: Longevity Planning Challenges

Calculate Inflation's Impact on Retirement

Use the Rule of 72: Money doubles approximately every 72 ÷ inflation rate years.

At 3% Inflation: 72 ÷ 3 = 24 years for prices to double

If someone retires at 65 and lives to 90 (25 years), prices will more than double during their retirement.

Retirement Year	Starting Annual Need	After 10 Years (3% inflation)	After 25 Years (3% inflation)
Year 1	$50,000	$50,000 × 1.34 = $_____	$50,000 × 2.09 = $_____

3. If someone needs $50,000/year at retirement age 65, how much will they need at age 90 to maintain the same lifestyle?

4. Why does this create a problem for people who keep all their retirement savings in "safe" investments like savings accounts?

Part C: Strategies to Address Longevity Risk

Evaluate Retirement Shortfall Strategies

For each strategy, rate its effectiveness (1-5) and explain when it would be most useful.

Strategy	Description	Your Rating (1-5)	Best For...
Delay Retirement	Work 2-5 more years; more savings time, fewer retirement years to fund		
Increase Savings Rate	Boost contributions by reducing current spending		
Part-Time Work in Retirement	Supplement retirement income with flexible work		
Downsize Housing	Move to smaller/cheaper home to reduce expenses		
Relocate to Lower-Cost Area	Move to area with lower cost of living		

5. Which strategy do you think is most effective for someone who starts planning at age 25? Why?

6. Which strategy might be best for someone who realizes at age 55 they haven't saved enough? Why?

Part D: Life Expectancy Factors

Factors Affecting How Long You'll Live

Understanding these factors helps you plan realistically.

Factors Within Your Control

- Diet and nutrition
- Exercise and physical activity
- Smoking and alcohol use
- Stress management
- Healthcare habits

Factors Partially in Control

- Access to healthcare
- Environmental quality
- Income/education level
- Geographic location
- Social connections

7. Based on your family history and lifestyle choices, do you expect to live longer or shorter than average? How should this affect your retirement planning?

Part E: Your Longevity Plan

Create Your Early-Start Strategy

Design a plan that accounts for potentially living 25-30 years in retirement.

Expected retirement age: _____

Expected life expectancy: _____

Retirement duration: _____ years

8. What three specific actions will you take in your 20s to prepare for a potentially 30-year retirement?

9. How will you adjust your investment strategy throughout your life to balance growth and protection as you age?

Check Your Understanding

1. What is "longevity risk" in retirement planning?

☐ A. The risk of dying too young

☐ B. The risk of outliving your savings

☐ C. The risk of stock market crashes

☐ D. The risk of high inflation

2. Why is starting retirement savings at 22 better than starting at 32, even if you save the same monthly amount?

3. If someone plans for a 20-year retirement but lives 30 years, what strategies could help them avoid running out of money?

4. In your own words, explain why retirement planning should start in your teens or early 20s rather than your 40s or 50s.