

Longevity and Retirement Planning Reference Sheet

Quick reference for life expectancy, retirement planning factors, and strategies

KEY TERMS

- **Life Expectancy:** Statistical average of how long you're expected to live
- **Time Horizon:** Years until retirement savings are needed
- **Compounding:** Reinvesting returns to generate exponential growth
- **Longevity Risk:** Risk of outliving your savings
- **Inflation:** Gradual increase in costs that reduces purchasing power

RETIREMENT ACCOUNTS

- **401(k):** Employer-sponsored, pre-tax contributions, employer match
- **Roth IRA:** After-tax contributions, tax-free withdrawals
- **Traditional IRA:** Pre-tax contributions, taxed withdrawals
- **Social Security:** Government benefit, not designed for full support
- **Pension:** Employer-funded retirement income (less common)

Essential Formulas and Rules

Rule of 72 (Doubling Time)

$$72 / \text{Interest Rate} = \text{Years to Double}$$

Example: $72 / 7\% = \sim 10$ years to double investment

Future Value of Investment

$$FV = PV \times (1 + r)^n$$

PV = Present Value, r = rate, n = years

4% Withdrawal Rule

$$\text{Annual Withdrawal} = \text{Nest Egg} \times 0.04$$

\$1M savings = \$40,000/year withdrawal

Inflation Impact

$$\text{Future Cost} = \text{Today's Cost} \times (1.03)^{\text{years}}$$

At 3% inflation: \$100 becomes \$181 in 20 years

Key Statistics to Remember

20-30

Years of retirement to plan for (age 65-85/95)

7%

Historical average stock market return

3%

Average annual inflation rate

10-15%

Recommended savings rate of income

\$315,000

Estimated healthcare costs in retirement (couple)

24

Years for money to double at 3% inflation

Factor	Impact on Retirement	Planning Strategy
Longer Life Expectancy	Need more savings; 20-30+ year retirement	Start early; save more; plan for longevity
Healthcare Costs	Major expense; increases with age	HSA accounts; Medicare planning; long-term care insurance
Inflation	Erodes purchasing power over time	Growth investments; TIPS; adjust withdrawals
Social Security	Provides base income; not full support	Delay benefits to age 70 for higher payout
Market Volatility	Can reduce portfolio value	Diversification; age-appropriate asset allocation

Strategies to Address Retirement Income Shortfalls

Increase Savings

- Maximize employer 401(k) match
- Automate savings contributions
- Increase rate by 1% annually
- Save windfalls and bonuses

Extend Working Years

- Delay retirement for more saving time
- Higher Social Security benefits
- Fewer years to fund in retirement
- Continued health insurance

Adjust Lifestyle

- Downsize housing
- Relocate to lower cost area
- Reduce discretionary spending
- Part-time work in retirement

Smart Investing

- Maintain growth investments
- Diversify across asset classes
- Rebalance portfolio annually
- Consider annuities for guaranteed income

Retirement Planning by Life Stage

Ages 20-35: Build Foundation

- Start saving immediately
- Get employer match (free money)
- Open Roth IRA
- Build emergency fund
- Invest aggressively for growth

Ages 35-50: Accelerate

- Increase savings rate
- Catch-up on any shortfalls
- Pay off high-interest debt
- Consider diversification
- Review insurance needs

Ages 50-65: Final Push

- Max out catch-up contributions
- Shift to more conservative mix
- Plan healthcare transition
- Determine Social Security strategy
- Create withdrawal plan

Key Takeaway: The Power of Starting Early

The most powerful factor in retirement planning is time. Starting at age 22 and investing \$2,000/year for just 9 years (\$18,000 total) can grow to approximately \$243,000 by age 65. Waiting until age 31 and investing \$2,000/year for 35 years (\$70,000 total) results in only about \$283,000. Starting early with smaller amounts beats starting late with larger amounts because of compounding. Every year you wait costs you significant potential growth.