THE FINANCE LAB · LIFE STAGE CALCULATOR ASSIGNMENT

The Life Stage *Experiment*

Most compound interest calculators assume you invest the same amount at the same return for forty years. Real life does not work that way. In this assignment you will build an investing plan shaped like your actual life: what you can save now, what your future work could let you save later, and how much risk fits each stage. Then you will run it and see what compounding does with it.

You will need: this sheet, a pencil, and a laptop with the Life Stage Calculator open at **thefinancelab.co/#calculator** (the laptop is only needed for Part 4).

PART 1

Start where you are

Your first stage is now: the Teen/Student years. You do not need a big number here. Even $1 a month makes you an investor, and the habit is worth more than the amount.

What money reaches you in a typical month right now? (a job, side work, family, gifts)

Of that, what amount could you honestly set aside every month and not touch? Pick a number you would actually stick to, not one that impresses anyone.

My monthly amount, starting now: $_____ a month

What is one thing you could cut, or one way you could earn, that would raise that number by even a few dollars?

PART 2

Your future income, stage by stage

The calculator's next four stages cover a working life. You cannot know your future exactly, and you do not need to: a plan built on reasonable guesses beats no plan, and you will revise it many times. For each stage, name a job you could see yourself holding. If you are unsure, start from education instead: decide how far you plan to go, then use this table to estimate what a typical month might pay.

EDUCATION COMPLETED	MEDIAN WEEKLY PAY	ABOUT PER MONTH	UNEMPLOYMENT RATE
Less than a high school diploma	$738	$3,200	6.2%
High school diploma	$930	$4,030	4.2%
Some college, no degree	$1,020	$4,420	3.8%
Associate's degree	$1,099	$4,760	2.8%
Bachelor's degree	$1,543	$6,690	2.5%
Master's degree	$1,840	$7,970	2.2%
Professional degree	$2,363	$10,240	1.3%
Doctoral degree	$2,278	$9,870	1.2%

Median means the middle worker: half earn more, half earn less. 2024 annual averages for full-time workers age 25 and over, before taxes. Source: U.S. Bureau of Labor Statistics, Current Population Survey, "Education pays, 2024."

Now decide what slice of each stage's income you would invest. There is no magic percentage: many people aim for somewhere around 10 to 15 percent of take-home pay and adjust as rent, family, and surprises come and go. Your number just has to be one you can defend.

STAGE	JOB I MIGHT HAVE	EST. MONTHLY INCOME	I WOULD INVEST ($/MO)
First Job (early 20s)			
Career Growth (late 20s to 30s)			
Peak Earning (40s to early 50s)			
Pre-Retirement (late 50s)			

PART 3

Your risk, your returns

Return is what the market has historically paid investors for living with risk. Stocks have averaged about 10 percent per year over the long run, but with big swings along the way, including years down 20 percent or more. Bonds and stable investments have returned less, with smaller swings. Which mix fits you depends on two things: your **time horizon** (how many years until you need the money) and your **risk tolerance** (how you handle watching your balance fall).

A long horizon gives a portfolio time to recover from bad years, which is why many investors hold more stocks when retirement is decades away and shift steadier as it gets close. Where you land is

your call. For each stage, answer both questions in the worksheet, then use this table to turn your answer into a return rate:

RISK PROFILE	WHAT THE PORTFOLIO LOOKS LIKE	HISTORICAL AVERAGE RETURN
Aggressive	Almost entirely stocks. The biggest swings, and decades to recover from them.	about 10 to 11%
Moderately aggressive	Mostly stocks, some bonds.	about 9 to 10%
Moderate	A balanced mix of stocks and bonds.	about 7 to 8%
Moderately conservative	More bonds than stocks.	about 5 to 6%
Conservative	Mostly bonds and stable investments. The smallest swings.	about 3 to 4%

Historical approximations based on long-run U.S. market averages. They are assumptions for planning, not promises: past performance does not predict future returns.

> **The two questions, for every stage:**
>
> **Horizon:** about how many years would this money have to grow before you need it? (For most people: retirement age minus your age during that stage.)
>
> **The drop test:** imagine your account falls 25 percent in one bad year. With the paycheck, bills, and family you would have at that stage, would you keep investing, hold and wait, or sell?

STAGE	YEARS UNTIL NEEDED	DROP TEST ANSWER	MY RETURN %
Teen/Student			
First Job			
Career Growth			
Peak Earning			
Pre-Retirement			

Now step back and look at the return rates you just chose. In a few sentences: how does the risk you are willing to take change over your life, and why do those choices make sense for the time horizon and responsibilities you expect at each stage?

PART 4

Run your plan

Open the Life Stage Calculator on a laptop. Enter your own plan: the monthly amount from Part 1 for Teen/Student, your amounts from Part 2, and your return rates from Part 3. Adjust the years in each stage if your timeline looks different from the default. Then record what compounding did with your numbers.

Total years invested: _____ I contributed: $_____

Final balance: $_____ Compound growth added: $_____

PART 5

Reflect

1. Compound growth added money you never deposited. Where did it come from? Explain it the way you would to a friend.

2. Retirement feels far away, so many people wait: "Why save now? I'll start investing once I'm settled, around 30 or so." Model that thinking with your own plan: set both Teen/Student and First Job to $0 a month, read the new final balance, then put your numbers back. What did waiting cost, and what would you say to someone your age who plans to start later?

3. Your plan assumes future-you follows through. What is one thing present-you can do this month to make the Part 1 number real?

Keep this sheet. A real plan gets revised every time life changes. This is draft one.

The calculator's return rates are assumptions, not promises. All investing involves risk, and past performance does not predict future returns. This assignment is for education, not individual investment advice.

THE FINANCE LAB · TEACHER NOTES

The Life Stage Experiment

Students need pages 1 to 4 only. This page is for you.

What this is

A one-lesson assignment in which each student builds a lifetime investing plan from their own numbers: what they can save now (even $1 a month counts, and saying so out loud lowers the barrier), what their likely education and work could let them save later, and how much risk fits each stage of life. The calculator then shows them what compounding does with their plan. The deliverable you grade is the reasoning in the blanks, not the size of anyone's numbers.

How to run it

Parts 1 through 3 are pencil work and need no device, so they travel well as homework or quiet classwork. Part 4 needs a laptop with thefinancelab.co open. Solo or pairs both work; in pairs, each student still runs their own plan.

What strong work looks like

Income estimates trace to a named job or to the BLS table. Investment amounts leave room for believable living costs at that age. Return rates generally fall as the horizon shortens, or the student explains clearly why theirs do not: that explanation is exactly the thinking you want to see. Reflection 1 lands when a student says some version of "the growth started earning growth."

Watch for

Returns above 11 percent (the table caps at long-run stock averages). Teens investing most of a part-time paycheck (ask what phones, gas, and going out cost). Students frozen by not knowing their future: any reasonable guess unblocks the plan, and the education table exists for exactly that moment. Risk that rises with age deserves a gentle question about recovery time.

Grading

Full credit is a complete plan with a defended number in every blank and honest reflections. The dollar amounts themselves are the student's own business.

Sources

Earnings table: U.S. Bureau of Labor Statistics, "Education pays, 2024" (Career Outlook, May 2025), 2024 annual averages, full-time wage and salary workers age 25 and over. Refresh the figures each year at bls.gov. Return ranges are historical approximations by allocation, aligned with the ranges used across The Finance Lab's materials.