Options for Meeting Retirement Needs

3% Deferral

Prepared for 25 Year Old Worker

Based upon the assumptions utilized in this report, you are projected to have a retirement **shortfall** of **\$4,154,546**. There are several options presented below which, alone or in combination, might allow you to achieve your retirement objectives. These options include your desire to have at least **\$0** in portfolio assets at the end of retirement.

Save More Before You Retire

By saving more towards retirement, you may be able to accumulate enough assets to fund retirement. If excess cash flow is insufficient to fund this savings, you would need to reduce your current living expenses accordingly.

You would need to save an additional \$462 per month (or \$5,540 per year) through 2051, the year before retirement starts, assuming these new funds will grow at 7.61%.

This results in portfolio assets of **\$3,089,390** at retirement and **\$3,872** at the end of retirement.

Retire Later

Another option is to delay the start of retirement, allowing you more time to save and for your assets to grow.

Desired retirement for 25 Year Old is age 65 (2052). Earliest retirement would start when 25 Year Old is age 76 (2063).

This results in portfolio assets of **\$3,647,941** at retirement, an adjusted retirement cost of **\$8,833,255**, and portfolio assets of **\$270,772** at the end of retirement.

Spend Less During Retirement

If you can't increase your portfolio assets sufficiently, you may consider reducing your living expenses during retirement.

Consider reducing your retirement living expenses of \$45,000 (in today's dollars) to \$29,000.

This results in an adjusted retirement cost of **\$8,043,732**, and portfolio assets of **\$244,911** at the end of retirement.

SUMMARY

Increase Savings by \$462 (monthly) \$5,540 (annually)

Assets at Retirement \$1,643,998 (current) \$3,089,390 (new)

Assets in 2077 (\$4,154,546) (current) \$3,872 (new)

SUMMARY

Retirement Starts Age 65 (current) Age 76 (new)

Cost of Retirement \$10,159,998 (current) \$8,833,255 (new)

Assets in 2077 (\$4,154,546) (current) \$270,772 (new)

SUMMARY

Living Expenses \$45,000 (current) \$29,000 (new)

Cost of Retirement \$10,159,998 (current) \$8,043,732 (new)

Assets in 2077 (\$4,154,546) (current) \$244,911 (new)

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Monte Carlo Summary

3% Deferral

from the 1000 trials.

Prepared for 25 Year Old Worker

This *Monte Carlo Analysis* runs multiple simulations of your financial plan against future market conditions. The result of introducing random investment volatility to the analysis produces a range of values that demonstrates how changing investment markets may impact your future plans.

| Case | Percentile | Total Portfolio Assets |
|-------------------------|------------|------------------------|
| Upside (Outperform) | 97.5 | \$4,154,532 |
| Median (Moderate) | 50.0 | (\$4,283,233) |
| Downside (Underperform) | 2.5 | (\$12,359,120) |

The table below shows an upside case, the median case, and a downside case

SUMMARY

Upside Case \$4,154,532

Median Case (\$4,283,233)

Downside Case (\$12,359,120)

Probability of Success 15%

This Monte Carlo simulation is successful in 15% of the trials.

Portfolio Asset Comparison

The chart below illustrates an upside case (97.5 percentile), the median case (50 percentile), and a downside case (2.5 percentile) from the 1000 trials.



This Monte Carlo analysis illustrates the potential results of your financial plan using up to 1000 randomly generated market returns and volatility called trial runs. In each trial run, the mean and standard deviation of a selected benchmark index for each account or portfolio is used for a randomly chosen year. This hypothetical investment performance is combined with the detailed cash flow and tax calculations for your plan. The trial runs produce a range of potential results and are one way of illustrating and evaluating the statistical probability of your planning strategies.

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Options for Meeting Retirement Needs

6% Deferral

Prepared for 25 Year Old Worker

Based upon the assumptions utilized in this report, you are projected to have a retirement **shortfall** of **\$2,088,869**. There are several options presented below which, alone or in combination, might allow you to achieve your retirement objectives. These options include your desire to have at least **\$0** in portfolio assets at the end of retirement.

Save More Before You Retire

By saving more towards retirement, you may be able to accumulate enough assets to fund retirement. If excess cash flow is insufficient to fund this savings, you would need to reduce your current living expenses accordingly.

You would need to save an additional **\$144** per month (or **\$1,730 per year**) through **2051**, the year before retirement starts, assuming these new funds will grow at **7.61%**.

This results in portfolio assets of **\$3,366,964** at retirement and **\$4,146** at the end of retirement.

Retire Later

Another option is to delay the start of retirement, allowing you more time to save and for your assets to grow.

Desired retirement for 25 Year Old is age 65 (2052). Earliest retirement would start when 25 Year Old is age 68 (2055).

This results in portfolio assets of **\$3,796,180** at retirement, an adjusted retirement cost of **\$11,878,808**, and portfolio assets of **\$776,397** at the end of retirement.

Spend Less During Retirement

If you can't increase your portfolio assets sufficiently, you may consider reducing your living expenses during retirement.

Consider reducing your retirement living expenses of \$45,000 (in today's dollars) to \$39,000.

This results in an adjusted retirement cost of **\$11,037,581**, and portfolio assets of **\$213,684** at the end of retirement.

SUMMARY

Increase Savings by \$144 (monthly) \$1,730 (annually)

Assets at Retirement \$2,856,440 (current) \$3,366,964 (new)

Assets in 2077 (\$2,088,869) (current) \$4,146 (new)

SUMMARY

Retirement Starts Age 65 (current) Age 68 (new)

Cost of Retirement \$11,497,832 (current) \$11,878,808 (new)

Assets in 2077 (\$2,088,869) (current) \$776,397 (new)

SUMMARY

Living Expenses \$45,000 (current) \$39,000 (new)

Cost of Retirement \$11,497,832 (current) \$11,037,581 (new)

Assets in 2077 (\$2,088,869) (current) \$213,684 (new)

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Monte Carlo Summary

6% Deferral

from the 1000 trials.

Prepared for 25 Year Old Worker

This *Monte Carlo Analysis* runs multiple simulations of your financial plan against future market conditions. The result of introducing random investment volatility to the analysis produces a range of values that demonstrates how changing investment markets may impact your future plans.

| Percentile | Total Portfolio Assets |
|------------|--|
| 97.5 | \$14,961,196 |
| 50.0 | (\$2,626,952) |
| 2.5 | (\$11,348,574) |
| | Percentile 97.5 50.0 2.5 |

The table below shows an upside case, the median case, and a downside case

SUMMARY

Upside Case \$14,961,196 Median Case (\$2,626,952) Downside Case (\$11,348,574)

Probability of Success 34%

This Monte Carlo simulation is successful in 34% of the trials.

Portfolio Asset Comparison

The chart below illustrates an upside case (97.5 percentile), the median case (50 percentile), and a downside case (2.5 percentile) from the 1000 trials.



This Monte Carlo analysis illustrates the potential results of your financial plan using up to 1000 randomly generated market returns and volatility called trial runs. In each trial run, the mean and standard deviation of a selected benchmark index for each account or portfolio is used for a randomly chosen year. This hypothetical investment performance is combined with the detailed cash flow and tax calculations for your plan. The trial runs produce a range of potential results and are one way of illustrating and evaluating the statistical probability of your planning strategies.

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Options for Meeting Retirement Needs

15% Deferral

Prepared for 25 Year Old Worker

Based upon the assumptions utilized in this report, you are projected to have a retirement **surplus** of **\$12,762,776**. There are several options presented below which, alone or in combination, might allow you to achieve your retirement objectives. These options include your desire to have at least **\$0** in portfolio assets at the end of retirement.

Retire Earlier

Without changing any other factors, you can consider retiring earlier than originally planned. This option typically increases the total cost of retirement and should be considered carefully.

Earliest retirement would start when 25 Year Old is age 60 (2047).

This results in portfolio assets of **\$3,697,064** at retirement, an adjusted retirement cost of **\$14,170,641**, and portfolio assets of **\$1,566,595** at the end of retirement.

SUMMARY

Retirement Starts Age 65 (current) Age 60 (new)

Cost of Retirement \$14,079,969 (current) \$14,170,641 (new)

Assets in 2077 \$12,762,776 (current) \$1,566,595 (new)

Enhance Your Retirement Lifestyle

Without changing any other factors, you can consider spending more during retirement than originally planned. This option typically increases the total cost of retirement and should be considered carefully.

Based on the assumptions given, you may consider increasing your retirement living expenses of \$45,000 (in today's dollars) up to a maximum of \$66,000.

This results in an adjusted retirement cost of **\$18,995,566**, and portfolio assets of **\$496,090** at the end of retirement.

SUMMARY

Living Expenses \$45,000 (current) \$66,000 (new)

Cost of Retirement \$14,079,969 (current) \$18,995,566 (new)

Assets in 2077 \$12,762,776 (current) \$496,090 (new)

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Monte Carlo Summary

15% Deferral

from the 1000 trials.

Prepared for 25 Year Old Worker

This *Monte Carlo Analysis* runs multiple simulations of your financial plan against future market conditions. The result of introducing random investment volatility to the analysis produces a range of values that demonstrates how changing investment markets may impact your future plans.

| Case | Percentile | Total Portfolio Assets |
|-------------------------|------------|------------------------|
| Upside (Outperform) | 97.5 | \$42,155,174 |
| Median (Moderate) | 50.0 | \$6,084,234 |
| Downside (Underperform) | 2.5 | (\$8,186,290) |

The table below shows an upside case, the median case, and a downside case

SUMMARY

Upside Case \$42,155,174 Median Case \$6,084,234 Downside Case (\$8,186,290)

Probability of Success 74%

This Monte Carlo simulation is successful in 74% of the trials.

Portfolio Asset Comparison

The chart below illustrates an upside case (97.5 percentile), the median case (50 percentile), and a downside case (2.5 percentile) from the 1000 trials.

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Optimal Funding

On one side, one must weigh the cost of desire and draw a line between needs and wants. At the other end, there is a fine balance between responsibly saving for your goals and sacrificing a reasonable lifestyle.

| Overfunded | Optimal | Underfunded |
|--|--|--|
| If you are consistently overfunded you may be taking too much investment risk, or sacrificing too much today to reach your goals tomorrow. | The most efficient amount to reach your goals without sacrificing current lifestyle or running a large risk of running out of money in retirement | If you assets fall in this area you may not be taking enough investment risk and may have an increased chance of compromising your goals. |
| Probability: 100-90% | Probability: 89 - 70% | Probability: 69 - 0% |

