Retirement Insights

Guide to Retirement

2025

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Page reference

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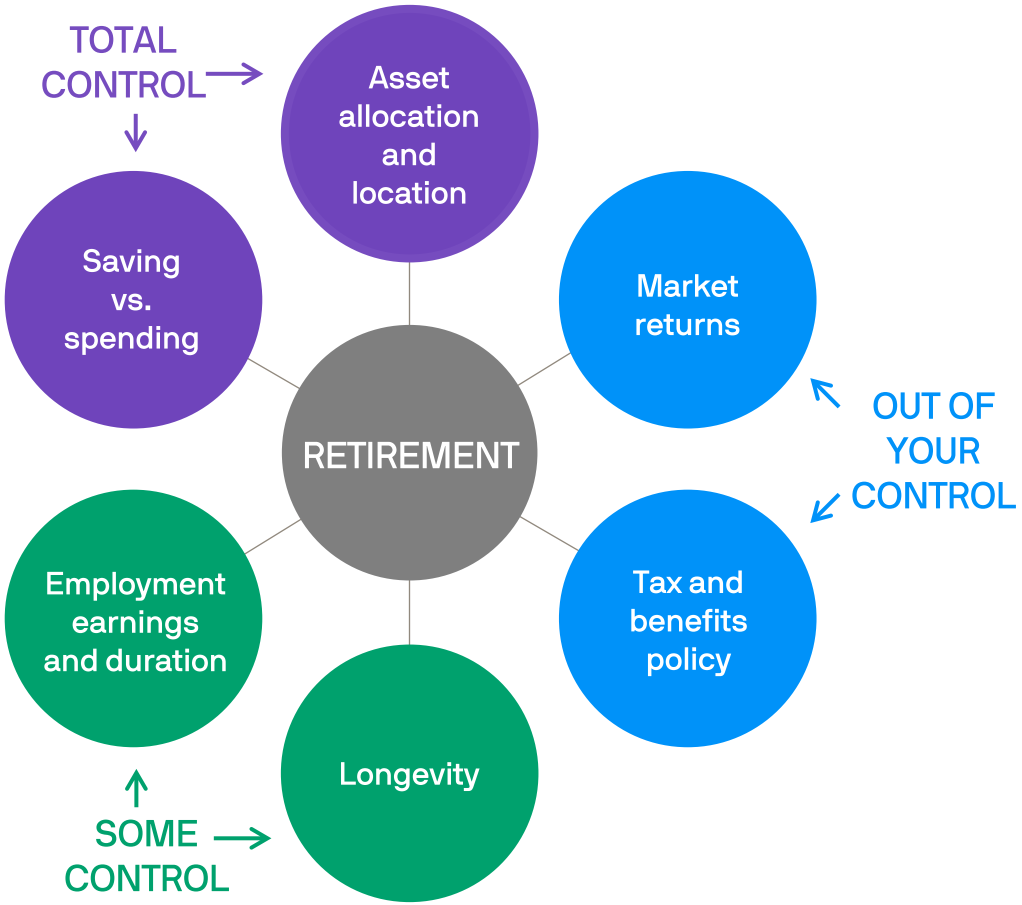
The retirement equation



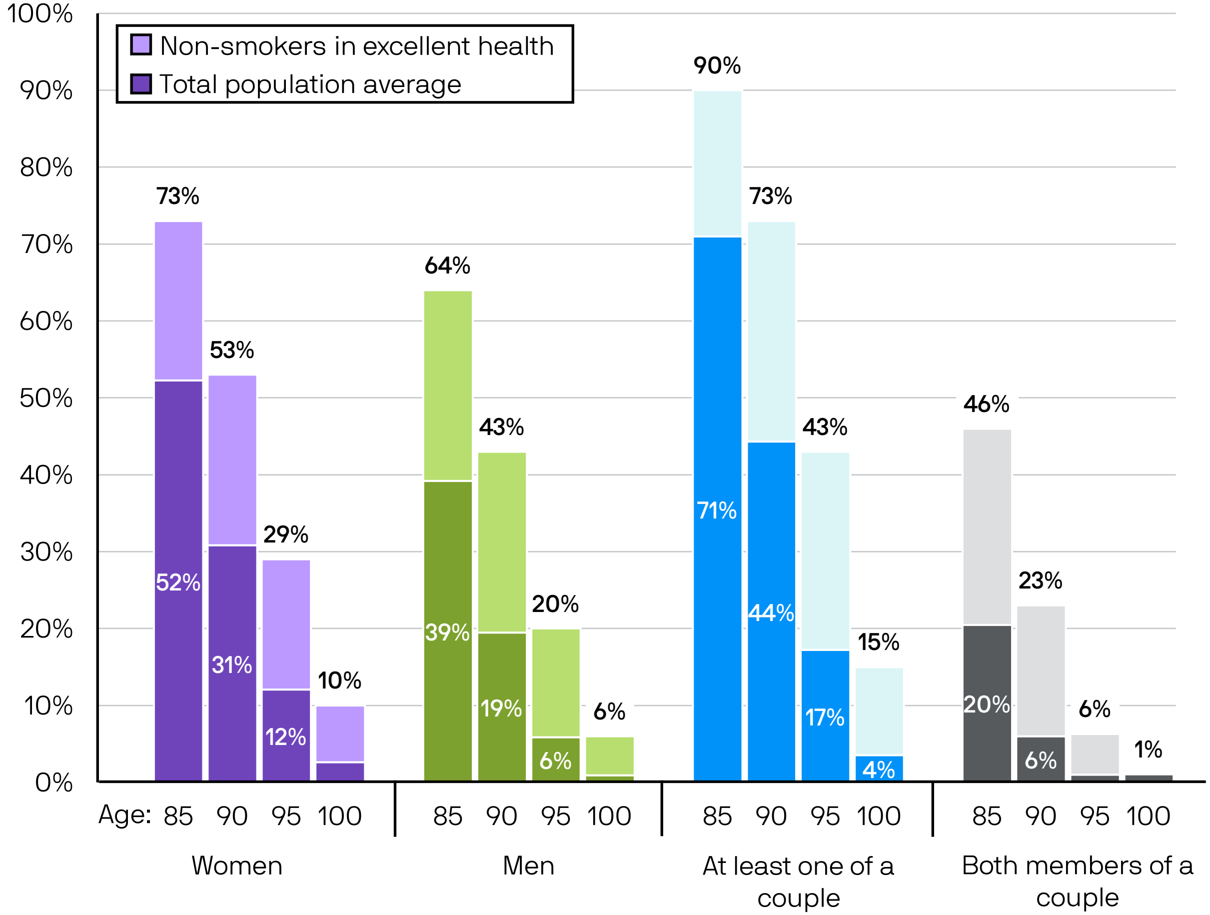
A sound retirement plan

Make the most of the things that you can control but be sure to evaluate factors that are somewhat or completely out of your control within your comprehensive retirement plan.

Source: J.P. Morgan Asset Management.

Life expectancy probabilities

If you're age 65 today, the probability of living to a specific age or beyond



Plan for longevity

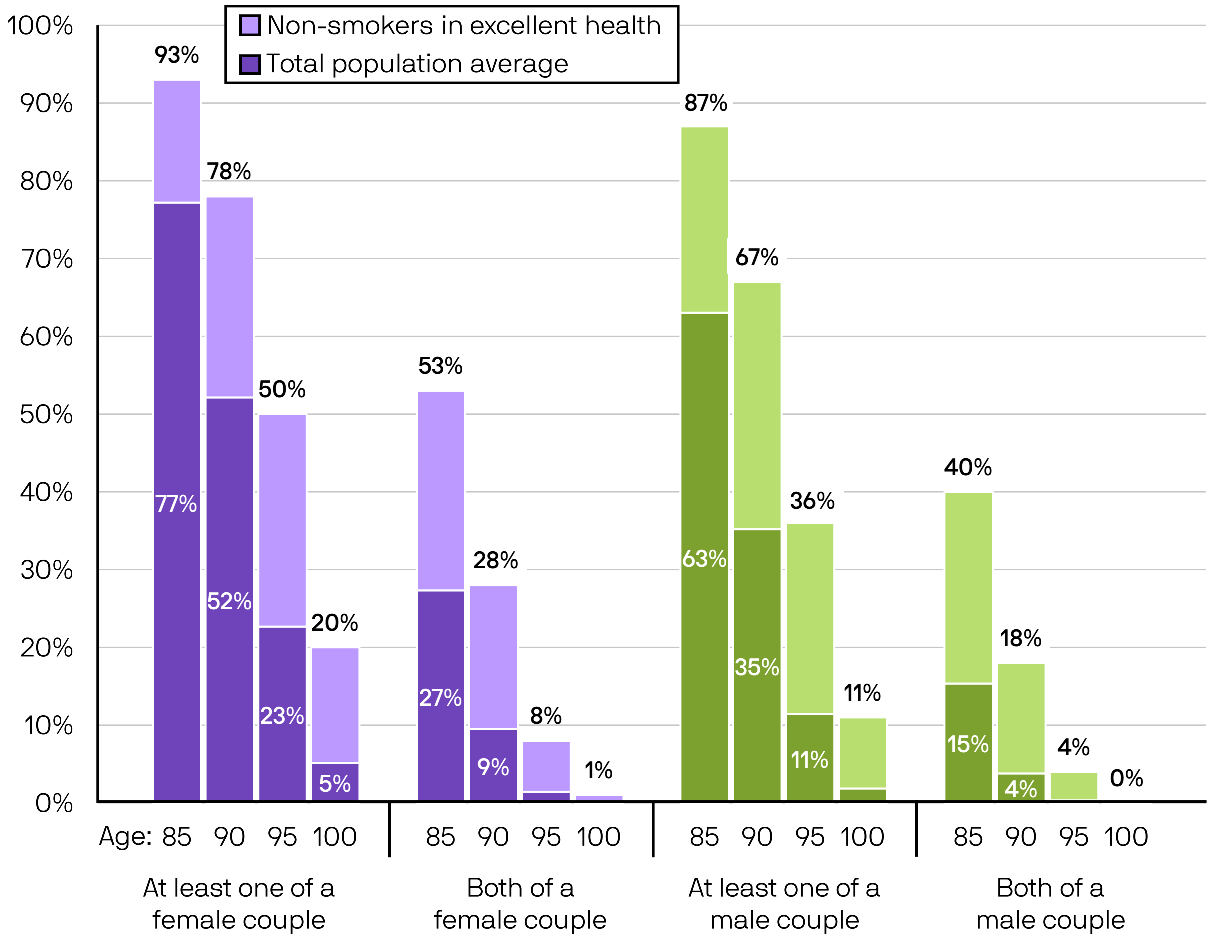
Average life expectancy is a mid-point not an end-point. You may need to plan on the probability of living much longer – perhaps 35 years in retirement – particularly if you are a non-smoker in excellent health.

Investing a portion of your portfolio for growth is important to maintain your purchasing power over time.

Source (chart): Social Security Administration, Period Life Table, 2021 (published in the 2024 OASDI Trustees Report); American Academy of Actuaries and Society of Actuaries, Actuaries Longevity Illustrator, http://www.longevityillustrator.org/ (accessed December 2024), J.P. Morgan Asset Management.

Life expectancy probabilities for same-sex couples

If you're age 65 today, the probability of living to a specific age or beyond



Plan for longevity

Average life expectancy is a mid-point not an end-point. You may need to plan on the probability of living much longer – perhaps 35 years in retirement – particularly if you are a non-smoker in excellent health.

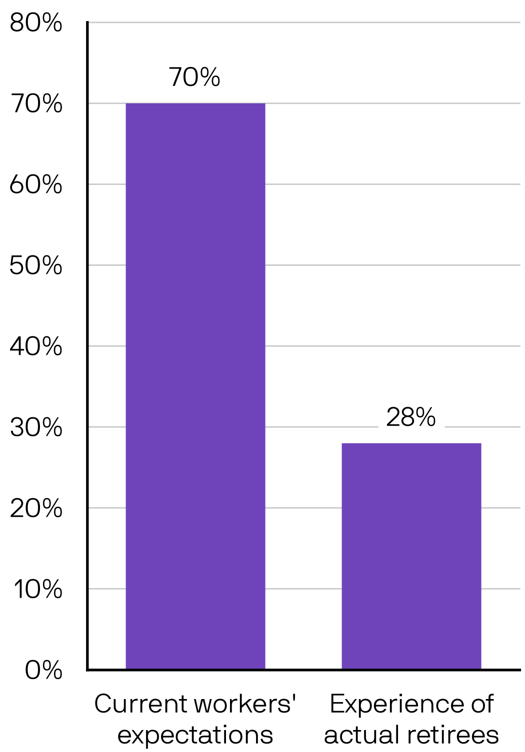
Investing a portion of your portfolio for growth is important to maintain your purchasing power over time.

Note: Sex assigned at birth; categories available in standard Social Security life expectancy tables.
Source (chart): Social Security Administration, Period Life Table, 2021 (published in the 2024 OASDI Trustees Report); American Academy of Actuaries and Society of Actuaries, Actuaries Longevity Illustrator, http://www.longevityillustrator.org/ (accessed December 2024), J.P. Morgan Asset Management.

Managing expectations of ability to work

Expectations of workers vs. retirees

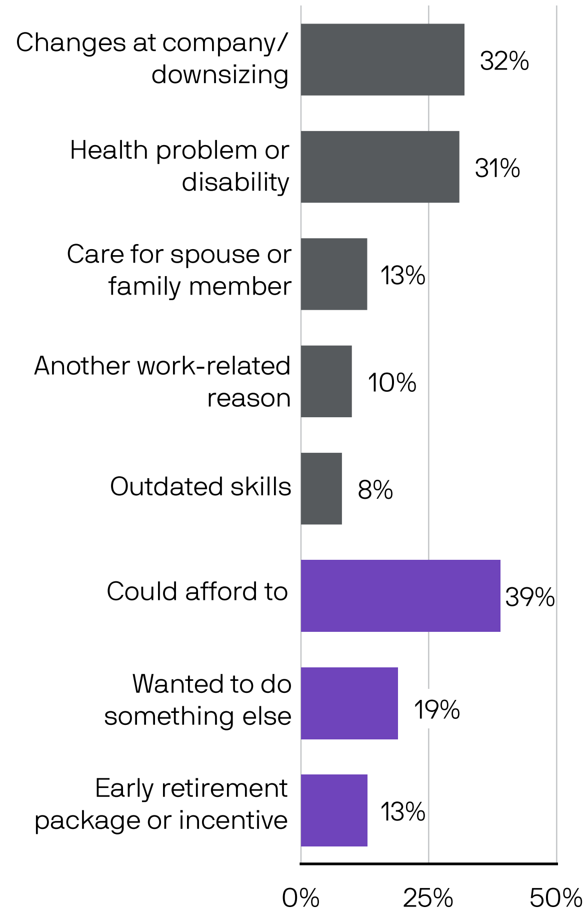
To retire at age 65 or older



Median retirement age:

Expected:	65
Actual:	62

Reasons for retiring earlier than planned



Early retirement

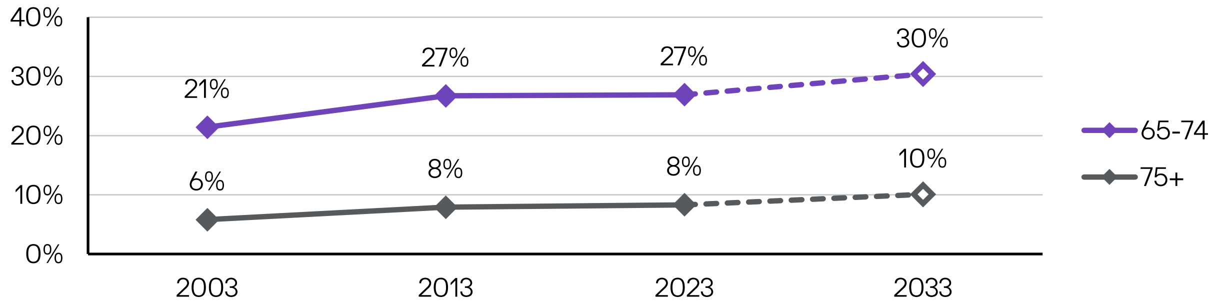
You may not have complete control over when you retire, so you should consider having a back-up plan including:

- Disability insurance
- Saving for financial freedom and the ability to weather changing circumstances

Source: Employee Benefit Research Institute, Greenwald Research: 2024 Retirement Confidence Survey. Individuals may have given more than one answer. Latest available data as of December 31, 2024.

Older Americans in the workforce

Percentage of people in the civilian labor force 2003-2033

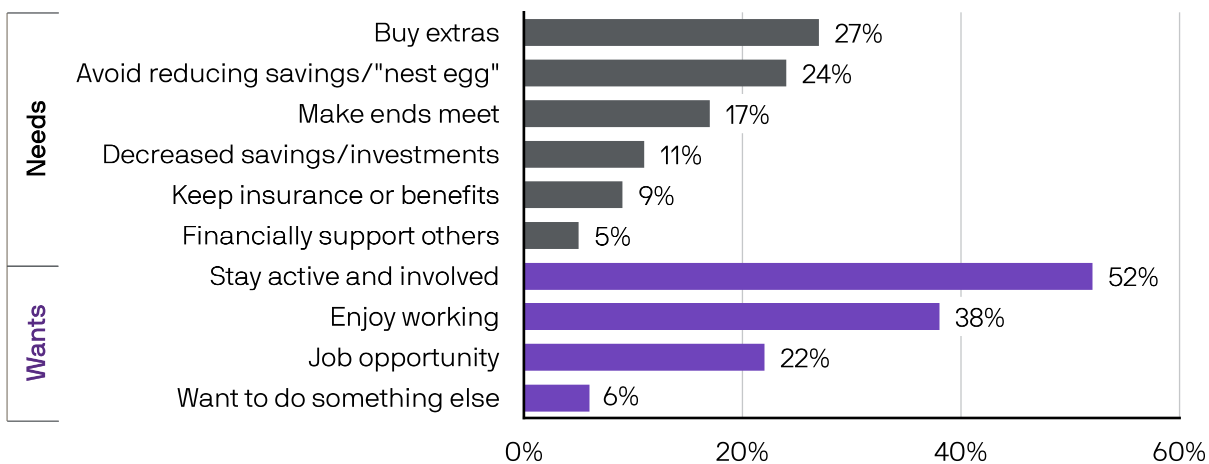


Total civilian population 65+	34m	43m	58m	72m

It's still off to work I go

More people are working later in life, motivated by needs and wants.

Major reasons people work in retirement



Source (top chart): Bureau of Labor Statistics, Employment Projections, Table 3.2 and Table 3.3. Actual data to 2023 and projection to 2033. Civilian population age 65+ is non-institutionalized population.
Source (bottom chart): Employee Benefit Research Institute, Mathew Greenwald & Associates, Inc., 2021 Retirement Confidence Survey. Latest available data as of December 31, 2024. Individuals may have given more than one answer.

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Partially-retired household profile

53% **Of households partially retire** including spouses that retire at different times

Partially retired households:

1. Spend more before and after retirement relative to their income vs. households that fully retire
   - Many experience a spending surge at retirement
2. Have more credit card debt
   - 54% have revolving debt at retirement vs. 47% of fully-retired households (pre-retirement income $50k-$90k)
3. Retire later
   - Majority retire after age 65 vs. before age 65 for fully-retired households

Prepare so you can retire on your own terms

Partial retirement should mean you want to stay active and involved and enjoy your work.

But lack of preparedness may mean at least one member of your household has to work longer to pay for higher spending and credit card debt.

Note: For households that retired age 60-69. The spending surge was only apparent for households with pre-retirement income <$150,000.
Source: J.P. Morgan Asset Management, Three New Spending Surprises, 2024; credit card debt percentage: internal select data from JPMorgan Chase Bank, N.A. and its affiliates (collectively "Chase") including select Chase check, credit and debit card and electronic payment transactions from 2013 to 2022. Inflation adjusted to April 2023 dollars. Information that would have allowed identification of specific customers was removed prior to the analysis.

Fostering well-being in retirement

The transition from...

Structured time

Free time

Know what you are retiring to, not just what you are retiring from

To make the most of your retirement years, using time to "PUSH" may improve your outlook and life satisfaction.

Using time to "PUSH" is associated with well-being in retirement:

Purpose
Create a reason to get up in the morning

Use
time to work, help others, go to events and activities

Socialize
with friends & family; spend time with others

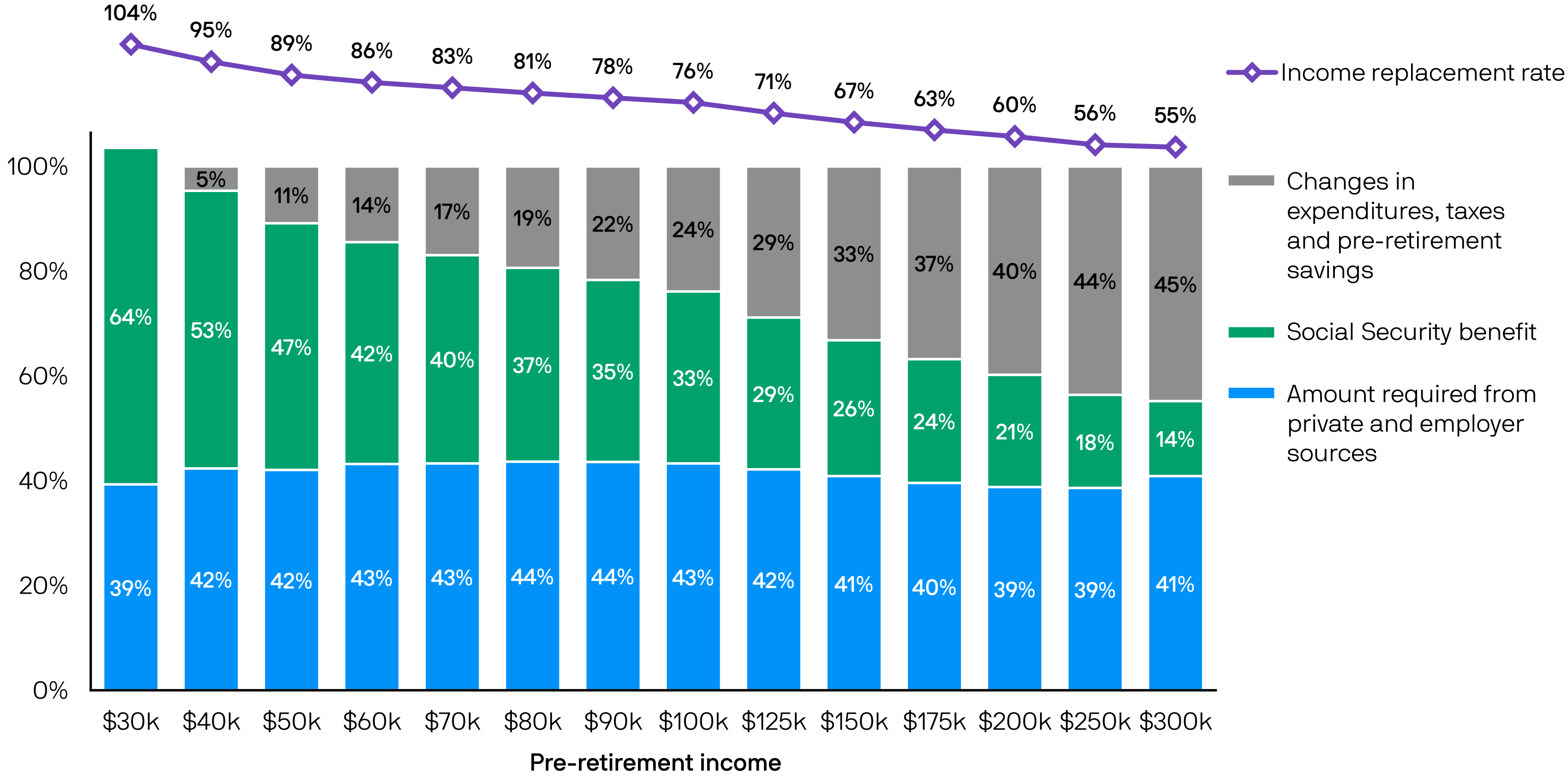
Health
Foster healthy behaviors

Source: PNAS.org, Vol 116, No. 4, Leading a Meaningful Life at Older Ages, January 22, 2019, Volume 8, Article 517226; Journal of Gerontology, 2019, 65:634–639, Investing in Happiness: The Gerontological Perspective, by Andrew Steptoe; PRB.org. online resource library, Happily Ever After? Research Offers Clues on What Shapes Happiness and Life Satisfaction after Age 65, website as of October 18, 2023.

Saving

Income replacement needs vary by household income

Replacement rate detail by household income



Source: Longitudinal Chase data (2016-2023), inflation adjusted. Chase data includes internal select data from JPMorgan Chase Bank, N.A. and its affiliates (collectively "Chase") including select Chase check, cash, credit and debit card, and electronic payment transactions from January 1, 2016 to December 31, 2023. Additional information on J.P. Morgan Asset Management's data privacy standards available at https://am.jpmorgan.com/us/en/asset-management/mod/insights/retirement-insights/gtr-privdisc/. Social Security benefits uses observed Chase household inflows. Percentages and values may not sum due to rounding. J.P. Morgan Asset Management, 2025.

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Saving

Retirement savings checkpoints

Household income ≤$90k
Annual savings rate: 5%

Current household income

Current age	$30k	$40k	$50k	$60k	$70k	$80k	$90k
25	5k	20k	25k	35k	40k	50k	60k
30	15	35	45	60	75	90	100
35	30	55	75	95	115	135	155
40	50	80	105	135	165	195	220
45	70	115	145	190	225	265	300
50	90	145	185	235	280	330	375
55	115	185	240	305	360	420	480
60	145	230	295	375	445	520	590
65	175	275	350	445	525	615	700

Model assumptions

Annual gross savings rate: **5%**

Pre-retirement portfolio: **60/40 diversified portfolio**

Post-retirement portfolio: **40/60 diversified portfolio**

Inflation rate: **2.4%**

Retirement age: **65**

Years in retirement: **35**

This analysis assumes you would like to maintain an equivalent lifestyle in retirement.
Household income is assumed to be gross income (before taxes and savings).

How to use:

- Go to the intersection of your age and your closest current household income.
- This is the amount you should have saved today.
- **Example: For a 40-year-old with a household income of $50,000, your current savings should be $105,000.**

To personalize your plan, use an online calculator or discuss your circumstances with a financial professional.

Source: This chart is for illustrative purposes only and must not be relied upon to make investment decisions. J.P. Morgan Asset Management's (JPMAM) model is based on proprietary Long-Term Capital Market Assumptions returns and an 80% confidence level. Portfolios are described as equity/bond percentages (e.g., a 40/60 portfolio is 40% equities and 60% bonds). Assumptions include household income replacement rates shown on page 10. Consult with a financial professional for a more personalized assessment. Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve. J.P. Morgan Asset Management.

Retirement savings checkpoints

Household income ≥$100k
Annual savings rate: 10%

Current age	$100k	$125k	$150k	$175k	$200k	$250k	$300k
	Current household income						
25	See note[1]						
30	40k	45k	45k	45k	45k	60k	120k
35	110	130	145	160	175	225	330
40	200	240	275	305	340	435	600
45	305	375	435	485	540	685	920
50	415	505	590	665	745	940	1,240
55	565	690	805	910	1,025	1,295	1,690
60	725	890	1,045	1,185	1,330	1,680	2,180
65	890	1,090	1,280	1,455	1,640	2,070	2,670

[1] These households need to save at least 9% of their gross household income going forward.

This analysis assumes you would like to maintain an equivalent lifestyle in retirement.
Household income is assumed to be gross income (before taxes and savings).

How to use:

- Go to the intersection of your age and your closest current household income.
- This is the amount you should have saved today.
- **Example: For a 40-year-old with a household income of $100,000, your current savings should be $200,000.**

To personalize your plan, use an online calculator or discuss your circumstances with a financial professional.

Model assumptions

Annual gross savings rate:
10%

Pre-retirement portfolio:
60/40 diversified portfolio

Post-retirement portfolio:
40/60 diversified portfolio

Inflation rate: **2.4%**

Retirement age: **65**

Years in retirement: **35**

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Annual savings needed if starting today

Household income ≤$90k

Current household income

Current age	$30k	$40k	$50k	$60k	$70k	$80k	$90k
	Savings rate (x current household income)						
25	6%	7%	7%	8%	8%	8%	8%
30	8%	9%	10%	10%	10%	11%	11%
35	11%	12%	13%	14%	14%	14%	14%
40	15%	17%	18%	19%	19%	19%	19%
45	20%	24%	24%	26%	26%	27%	27%
50	29%	34%	35%	37%	37%	38%	39%

Model assumptions

Pre-retirement portfolio:
60/40 diversified portfolio

Post-retirement portfolio:
40/60 diversified portfolio

Inflation rate: **2.4%**

Retirement age: **65**

Years in retirement: **35**

Values assume you would like to maintain an equivalent lifestyle in retirement.
Household income is assumed to be gross income (before taxes and savings).

How to use:

- Go to the intersection of your current age and your closest current household income.
- This is the percentage of your current household income to contribute annually going forward if you have $0 saved for retirement today.
- **Example: A 40-year-old with household income of $50,000 and $0 saved for retirement today may need to save 18% every year until retirement.**

Source: This chart is for illustrative purposes only and must not be relied upon to make investment decisions. J.P. Morgan Asset Management's (JPMAM) model is based on proprietary Long-Term Capital Market Assumptions returns and an 80% confidence level. Portfolios are described as equity/bond percentages (e.g., a 40/60 portfolio is 40% equities and 60% bonds). Assumptions include household income replacement rates shown on page 10. Consult with a financial professional for a more personalized assessment. Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve. J.P. Morgan Asset Management.

Annual savings needed if starting today

Current age	Current household income						
	$100k	$125k	$150k	$175k	$200k	$250k	$300k
	Savings rate (x current household income)						
25	9%	9%	9%	9%	9%	9%	9%
30	12%	12%	12%	11%	11%	11%	12%
35	16%	16%	15%	15%	15%	15%	16%
40	22%	22%	21%	21%	21%	21%	22%
45	31%	30%	29%	29%	29%	29%	31%
50	44%	43%	42%	41%	41%	41%	44%

Values assume you would like to maintain an equivalent lifestyle in retirement.
Household income is assumed to be gross income (before taxes and savings).

How to use:

- Go to the intersection of your current age and your closest current household income.
- This is the percentage of your current household income to contribute annually going forward if you have $0 saved for retirement today.
- **Example: A 40-year-old with household income of $100,000 and $0 saved for retirement today may need to save 22% every year until retirement.**

Model assumptions

Pre-retirement portfolio:
60/40 diversified portfolio

Post-retirement portfolio:
40/60 diversified portfolio

Inflation rate: **2.4%**

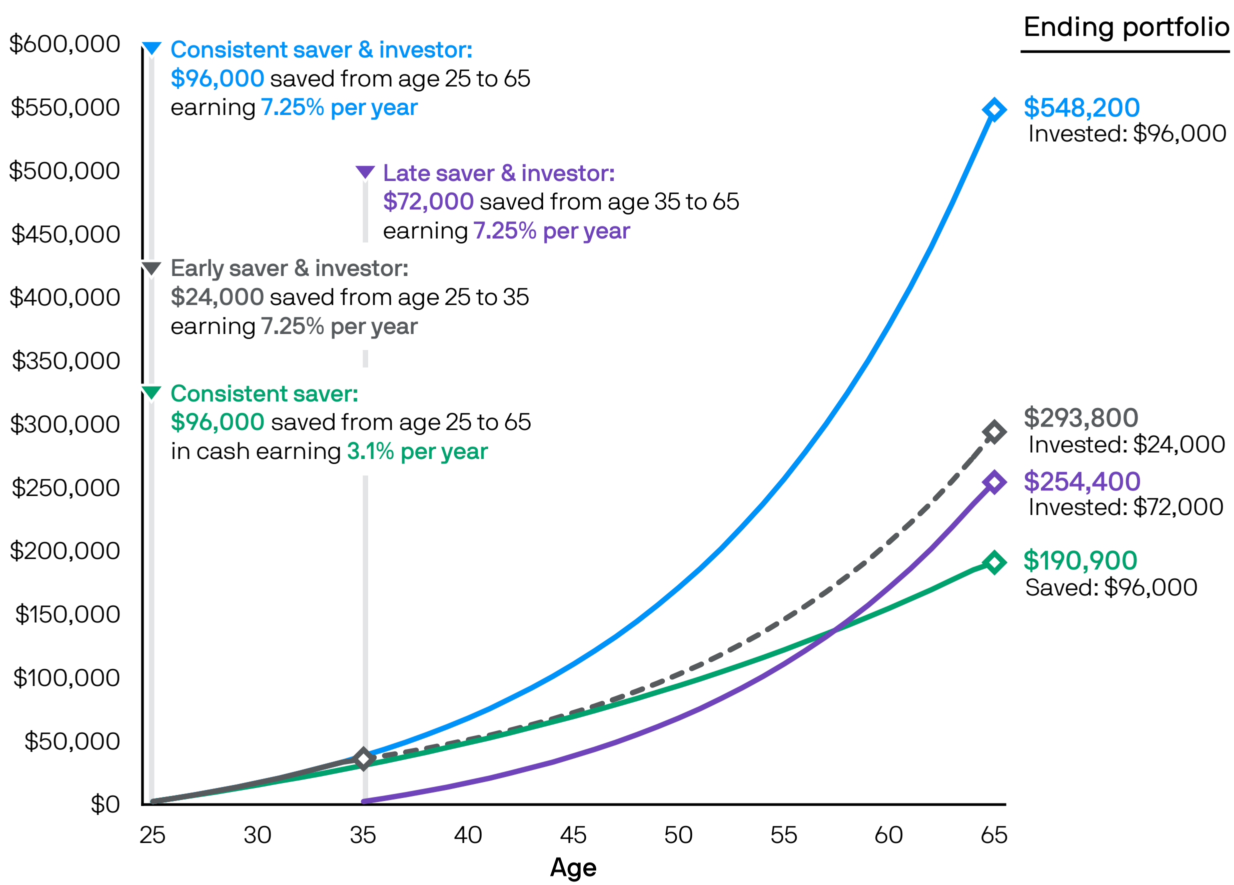
Retirement age: **65**

Years in retirement: **35**

Source: This chart is for illustrative purposes only and must not be relied upon to make investment decisions. J.P. Morgan Asset Management's (JPMAM) model is based on proprietary Long-Term Capital Market Assumptions returns and an 80% confidence level. Portfolios are described as equity/bond percentages (e.g., a 40/60 portfolio is 40% equities and 60% bonds). Assumptions include household income replacement rates shown on page 10. Consult with a financial professional for a more personalized assessment. Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve. J.P. Morgan Asset Management.

Benefit of saving and investing early

Account growth of $200 invested/saved monthly



Starting early and investing are the keys to compound returns

The early and consistent investor has the best results.

The early investor who stops after 10 years does slightly better than the late investor who invests significantly more over a longer time.

And the consistent saver who does not invest loses out on higher returns.

Source: J.P. Morgan Asset Management, Long-Term Capital Market Assumptions. Compounding is the increasing value of assets due to investment return earned on both principal and prior investment gains. The above example is for illustrative purposes only and not indicative of any investment.

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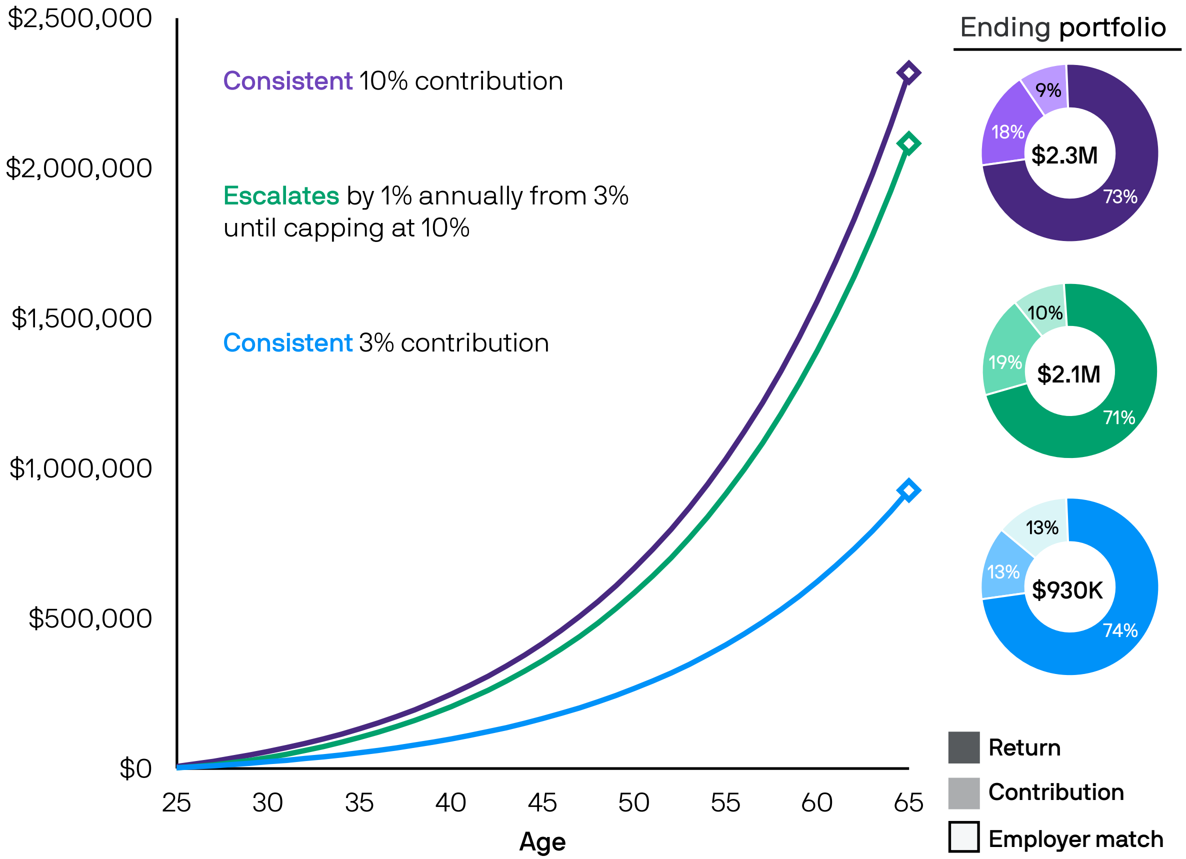
The benefits of auto-escalation

Account growth from contributions, employer match and investment returns



Model assumptions

Start age: **25**

Retirement age: **65**

Starting salary: **$50,000**

Wage growth: **2.4%**

Assumed annual employer match: **100% of employee contribution up to 5%**

Investment return: **7.25%**

Individual is assumed to retire at the end of age 65. Growth of portfolio is tax deferred; ending portfolio may be subject to tax.
Source: J.P. Morgan Asset Management, Long-Term Capital Market Assumptions. The above example is for illustrative purposes only and not indicative of any investment.

Tax implications for retirement savings by account type

	Contributions[1]	Investment growth	Withdrawals
Pre-tax 401(k)/ Traditional IRA	+	+	− (Taxed as ordinary income)
Roth 401(k)/ Roth IRA	−	+	+ (For qualified withdrawals)
After-tax 401(k)/ non-deductible Traditional IRA	−	+	− (Investment returns taxed as ordinary income)
Health Savings Account (HSA)[3]	+	+	+ (For qualified health care expenses)

Retirement accounts: Taxes generally apply to contributions or withdrawals. Most withdrawals must be qualified to avoid tax penalties.[2]

If not used for qualified health care expenses, withdrawals after age 65 will be taxed as ordinary income (without penalty).

+ Preferential tax treatment   − Subject to taxes

Federal taxes; states may differ. This is not intended to be individual tax advice. Consult your tax professional.
[1]Income and other restrictions may apply to contributions. Tax penalties usually apply for early withdrawals. Qualified withdrawals are generally those taken over age 59½; qualification requirements for amounts converted to a Roth from a traditional account may differ; for some account types, such as Roth accounts, contributions that are withdrawn may be qualified. See IRS Publications 590 and 560 for more information. [2]Withdrawals from after-tax 401(k) and non-deductible IRAs must be taken on a pro-rata basis including contributions and earnings growth. For non-deductible IRAs, all Traditional IRAs must be aggregated when calculating the amount of pro-rata contributions and earnings growth. [3]There are eligibility requirements. Qualified medical expenses include items such as prescriptions, teeth cleaning and eyeglasses and contacts for a medical reason. A 20% tax penalty applies on non-qualified distributions prior to age 65. After age 65, taxes must be paid on non-qualified distributions. See IRS Publication 502 for details.
Source: J.P. Morgan Asset Management.

Diversified sources of retirement funding

Account type	Investment earnings/ withdrawals	Included when calculating whether: Income taxes owed?	Social Security % taxed? Medicare surcharges?
Health Savings Account	Tax-free withdrawals (for qualified health care expenses)[1]		
Roth 401(k)/IRA	Tax-free withdrawals[2]		
Taxable Account	Tax-exempt interest		☑
	Ordinary dividends Taxable interest	☑	☑
	Qualified dividends	☑	☑
	Realized capital gains	☑	☑
Pre-tax 401(k)/ Traditional IRA	Taxable withdrawals (ordinary income)[3]	☑	☑

Retirement funding sources are not created equal

Be aware of:

- Income taxes
- How much Social Security benefit is subject to tax
- Additional required Medicare premiums

Qualified withdrawals from Roth or Health Savings Accounts can provide tax-free funding that will not result in reduction of government benefits.

This is not intended to be individual tax advice; consult your tax professional.

[1]Must have a qualifying high-deductible health plan to make contributions. Funds in the HSA may be withdrawn tax free for qualified medical expenses unless a credit or deduction for medical expenses is claimed. After age 65 funds also may be withdrawn at ordinary income tax rates without penalty for any reason.

[2]Subject to 5-year Roth account holding period and age requirements.

[3]Withdrawal of non-deductible contributions from a traditional IRA are not taxable.

Source: J.P. Morgan Asset Management.

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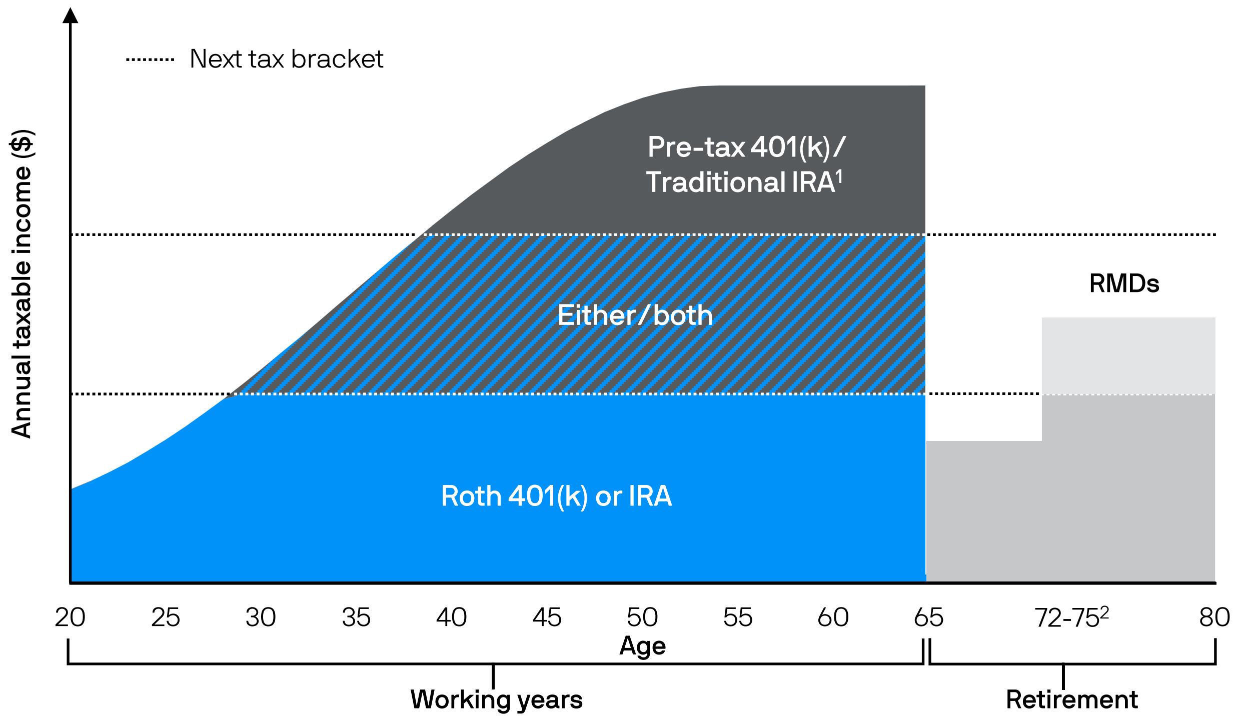
Evaluate a Roth at different life stages

Contribute to a Roth account in lower-income years; Traditional in higher-income years



Exceptions if wealth is concentrated in tax-deferred accounts:

1. Roth 401(k) contributions in peak earning years.
2. Proactive Roth conversions in lower income years.

Tax diversification

Managing taxes over a lifetime requires balancing your current and future tax pictures. Make income-tax diversification a priority to have more flexibility and control in retirement.

General Rule: Contribute to a Roth early in your career if you expect upward wage trajectory, and shift to a Traditional account as your income increases.

Consider the exceptions if wealth is concentrated in tax-deferred accounts.

[1]If eligible to make a deductible contribution (based on your MAGI = Modified Adjusted Gross Income).
[2]SECURE 2.0 increased the starting age for RMD (Required Minimum Distributions) from 72 to 75 depending upon year of birth. The illustration reflects savings options into Traditional and Roth IRA accounts, as well as into pre-tax and Roth 401(k) accounts. RMDs are typically due no later than April 1 following the year the owner turns their distribution age (72-75) and are calculated every year based on the year-end retirement account value and the owner/plan participant's life expectancy using the IRS Uniform or Joint Life Expectancy Table. If the employer contributions are pre-tax, they are subject to tax upon distribution.
The above example is for illustrative purposes only. This is not intended to be individual tax advice; consult your tax professional.
Source: J.P. Morgan Asset Management.

Prioritizing long-term retirement savings

Prioritizing savings

8 Taxable account

7 IRA[3]

6 Pay down lower interest loans (such as student loans with interest < 7.25%)[1]

Maximize contribution

5 Additional Defined Contribution savings

4 HSA (Health Savings Account)[2]

3 Pay down higher interest loans (such as credit card debt/student loans with interest > 7.25%)[1]

Maximize employer match

2 Defined Contribution savings to maximize employer match (if available)

Start here

1 Emergency reserve (see “Annual emergency reserves” on page 21)

Getting started

Start with emergency savings to weather spending and income shocks throughout the year and make sure to take advantage of employer matching funds if they are available.

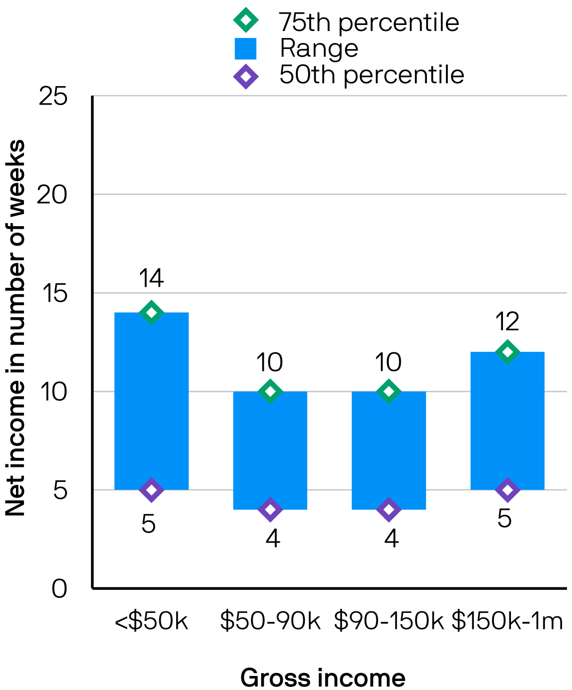
An HSA offers triple tax benefits if used for qualified medical expenses in retirement.

[1]This assumes that a diversified portfolio may earn 7.25% over the long term. Actual returns may be higher or lower. Generally, consider making additional payments on loans with a higher interest rate than your long-term expected investment return.
[2]Must have a high-deductible health insurance plan that is eligible to be paired with an HSA. Those taking Social Security benefits age 65 or older and those who are on Medicare are ineligible. Tax penalties apply for non-qualified distributions prior to age 65; consult IRS Publication 502 or your tax professional.
[3]Income limits may apply for IRAs. If ineligible for these, consider a non-deductible IRA or an after-tax 401(k) contribution. Individual situations will vary; consult your tax professional.
Source: J.P. Morgan Asset Management. Not intended to be a personal financial plan.

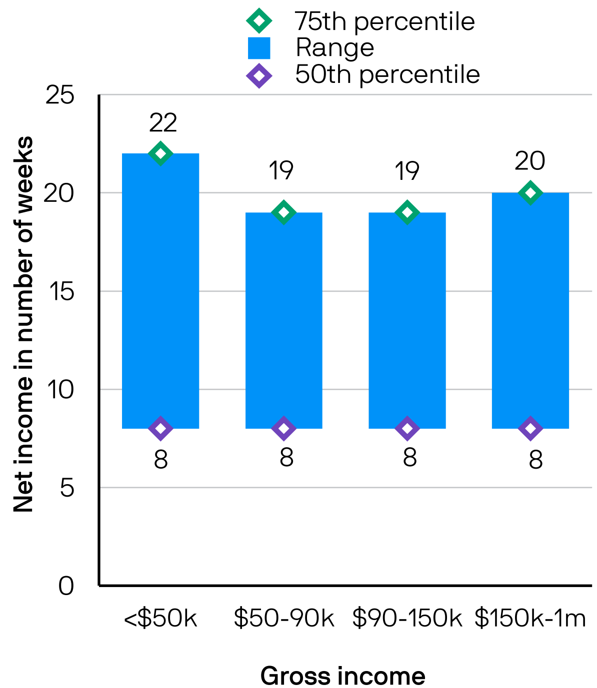
Annual emergency reserves

Net income in weeks needed to weather spending and income shocks

Workers (age 25-64)



Retirees (age 65+)



Prepare for uncertainties in life

Life is uncertain – spending shocks and/or job losses can happen at any time. Emergency savings can help pay for these uncertainties and keep retirement savings intact.

Workers typically encounter spending shocks more frequently (about once every three months) than income shocks (about once a year).

- Consider setting aside 2-3 months of pay

Retirees encounter more spending shocks in larger amounts than workers, likely due to unpredictable costs such as health care.

- Consider setting aside 3-6 months of income

Source: J.P. Morgan Asset Management, 2023; longitudinal Chase data (2022-2023) of those households with monthly income, which may include wage income, unemployment, etc. Chase data includes internal select data from JPMorgan Chase Bank, N.A. and its affiliates (collectively "Chase") including select Chase check, cash, credit and debit card and electronic payment transactions from January 1, 2022 to December 31, 2023. Additional information on J.P. Morgan Asset Management's data privacy standards available at https://am.jpmorgan.com/us/en/asset-management/mod/insights/retirement-insights/gtr-privdisc/. Spending shocks are calculated monthly and include those months when monthly spending is 25% above the previous 12 months' median spending and the 25% excess spending amount could not be funded by that month's income. Income shocks are calculated monthly and include those months when monthly income is 25% less than the previous 12 months' median income and that month's spending amount could not be funded by the reduced income.

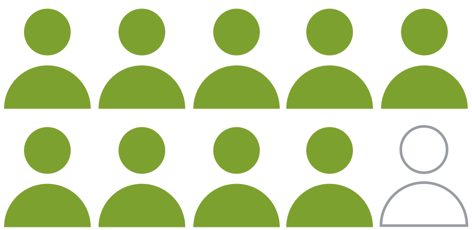
Lack of emergency savings can impact retirement readiness

Households with spending spikes

Monthly spending 25% above the previous 12 months' median spending

9 in 10

have spending spikes > income



1 in 3

households cannot fund spikes with income and cash reserves

What actions were taken by households to raise cash?

48% increased credit card debt

17% took a plan loan

13% decreased contributions

Build emergency savings

Emergency savings is a necessity for everyone. Households without an adequate cash buffer are more likely to take on debt and find themselves at risk of not achieving a successful retirement outcome.

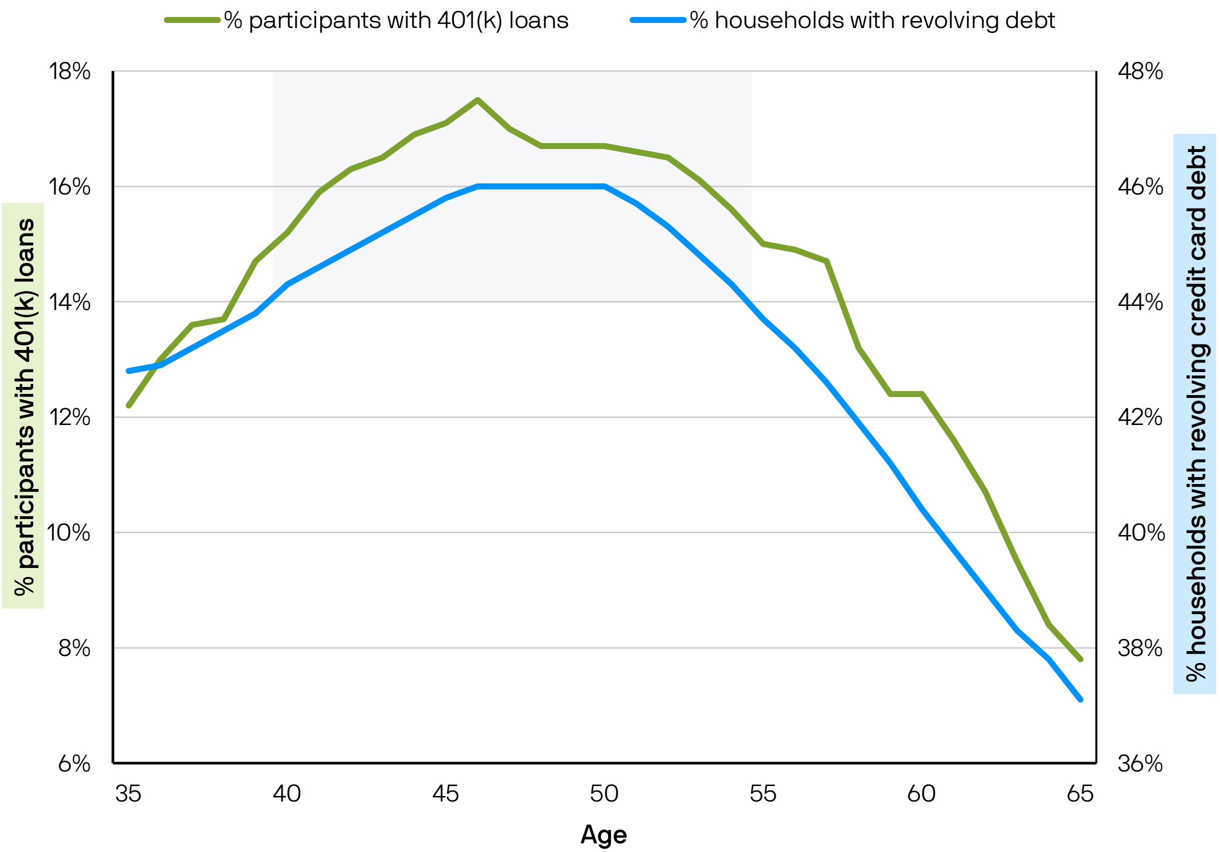
Employers can help:

- 4 in 10 401(k) plan participants lack emergency savings.
- 7 in 10 said access to an emergency savings account through their employer is appealing.

Source: How Financial Factors Outside of a 401(k) Plan Can Impact Retirement Readiness https://www.ebri.org/content/summary/how-financial-factors-outside-of-a-401(k)-plan-can-impact-retirement-readiness; statistics on 401(k) participants: Defined Contribution Plan Participant Survey Findings, 2024 https://am.jpmorgan.com/us/en/asset-management/adv/insights/retirement-insights/plan-participant-survey/

Liquidity needs peak at mid-life

Percentage of people with 401(k) loans or credit card debt peaks at mid-life



Be prepared

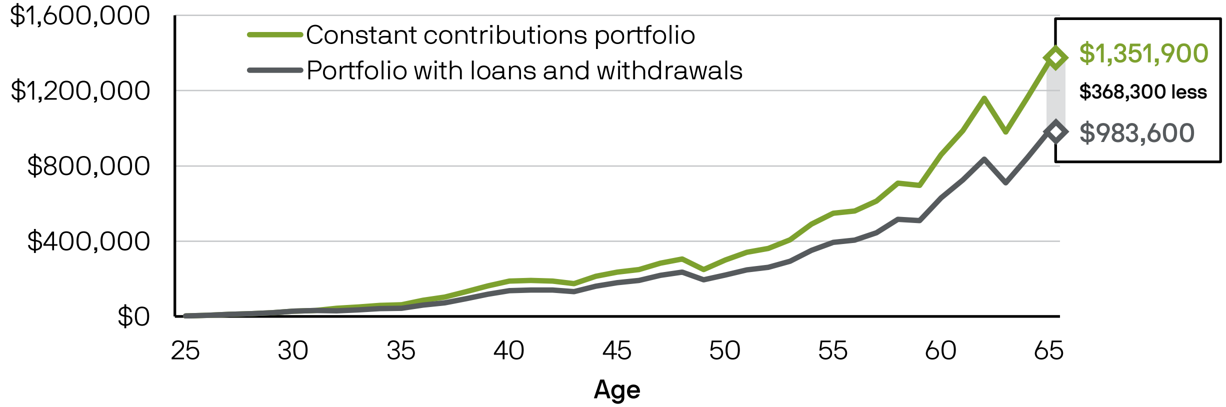
Personal and family related expenses may peak at mid-life.

Saving early and emergency savings can help manage unexpected expenses.

Source: J.P. Morgan retirement research, percentage of people with 401(k) loan is based on 2021 Retirement by the Numbers study (2018-2019 trends); J.P. Morgan Asset Management, percentage of people with credit card revolving debt is based on 2016-2024 internal select credit card data from JPMorgan Chase Bank, N.A. and its affiliates (collectively "Chase"). Information that would have allowed identification of specific customers was removed prior to the analysis.

The toxic effect of loans and withdrawals

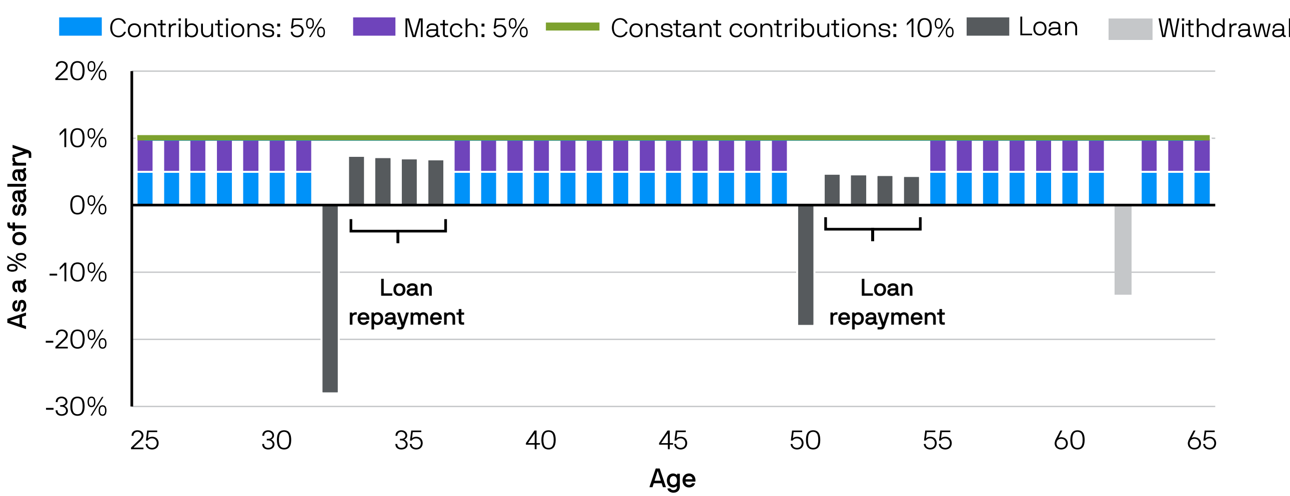
Growth of 401(k) investment



Mitigate the effects of loans

If taking a loan from your 401(k) is unavoidable, try to mitigate the impact by continuing contributions while repaying the loan. It is especially important to ensure you continue to receive an employer match, if available.

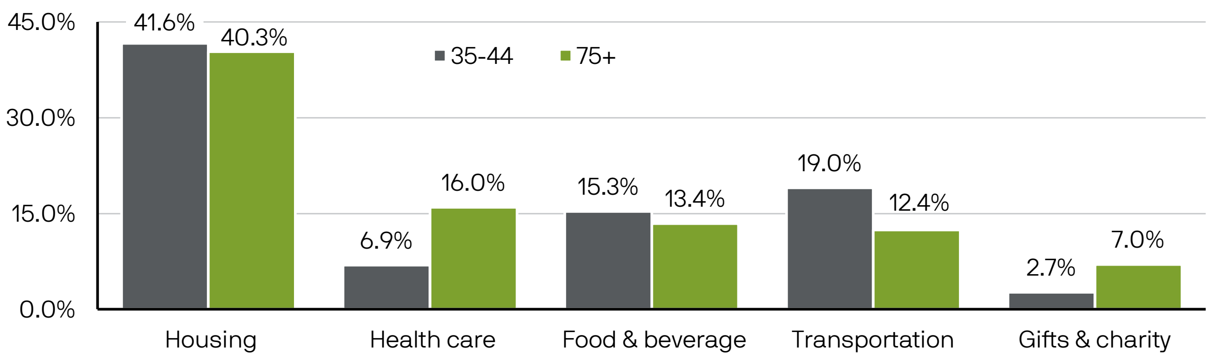
Assumed cash flows: 401(k) contributions, loans and withdrawals



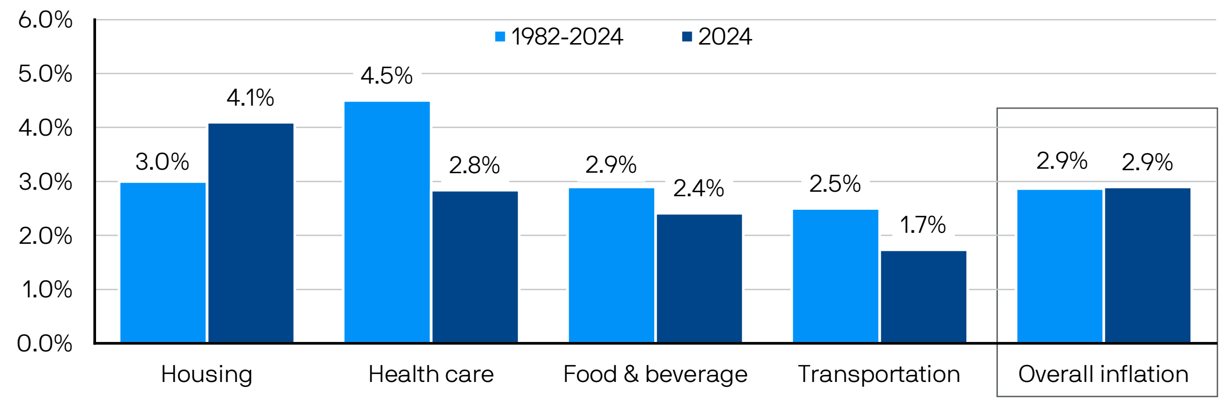
Source: J.P. Morgan Asset Management. For illustrative purposes only. Hypothetical portfolio is assumed to be invested 60% in the S&P 500 and 40% in the Bloomberg Capital U.S. Aggregate Index from 1984-2024. Starting salary of $30,000 increases by 2.4% each year. Loan and withdrawal amounts are assumed to be $10,000. Loan interest rate is assumed to be 7.5% and is paid off over 4 years.

Spending and inflation

Average annual spending by age and category 2017-2023



Annual average inflation by spending category



Take a long-term view

Households may benefit from a long-term view of inflation and how spending may change over time.

As a percentage of their spending, older households purchase more health care and gifts, but less on food and transportation.

The spending categories shown are 89% of spending for households age 75+.

Source (top chart): Bureau of Labor Statistics (BLS), 2017-2023 annual average Consumer Expenditure Survey, adjusted to December 2024 dollars. Housing inflation includes imputed rent (the amount a household would pay to rent the house they own). Housing spending includes mortgage payments, rent, property taxes, maintenance, utilities and furnishings. Those who own their home outright or have low fixed mortgages may have a hedge against inflation. Additional spending categories for age 35-44 and 75+, respectively: entertainment 6% and 4%; other 4% and 4%; apparel 3% and 2%; education 2% and 1%.
Source (bottom chart): BLS, Consumer Price Index (all urban consumers, seasonally adjusted), J.P. Morgan Asset Management.

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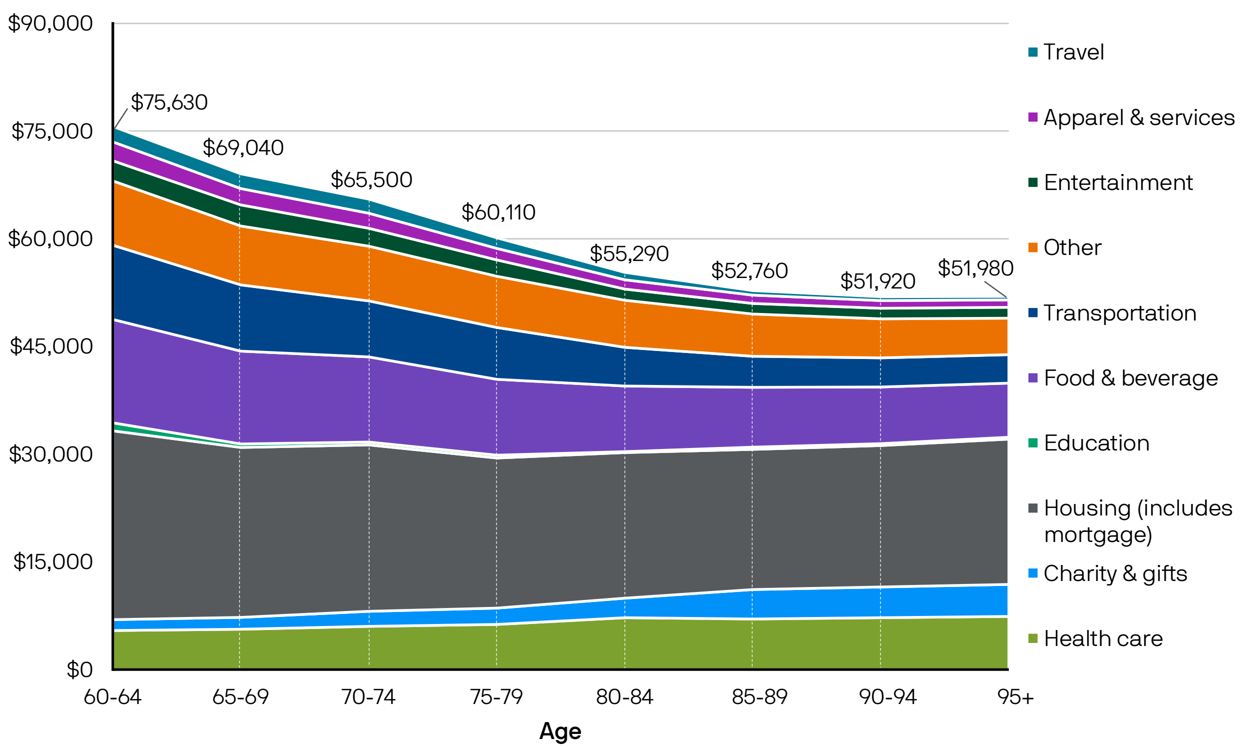
Changes in spending

Partially- and fully-retired households
$250k-$750k investable wealth

Annual average household spending by age



What to expect

Average spending declines from the early part of retirement, then tends to flatten out. Those at older ages tend to spend less on all categories except health care and charitable contributions.

Those who live to the oldest ages may have costs related to long-term care.

Source: J.P. Morgan Asset Management, based on internal select data from JPMorgan Chase Bank, N.A. and its affiliates (collectively "Chase") including select Chase check, credit and debit card and electronic payment transactions from January 1, 2017 to November 30, 2024. Check and cash distribution: 2021 CE Survey; J.P. Morgan Asset Management. Information that would have allowed identification of specific customers was removed prior to the analysis. Other includes: tax payments, insurance, gambling, personal care and uncategorized items. Asset estimates for de-identified and aggregated households supplied by IXI, an Equifax Company for data from 2017-2023 and Windfall for data from 2024. Estimates include all investable assets except employer-sponsored plans, home equity and other non-portable assets. Additional information on J.P Morgan Asset Management's data privacy standards available at https://am.jpmorgan.com/us/en/asset-management/mod/insights/retirement-insights/gtr-privdisc/. Retired households receive retirement income only, including Social Security, pension and/or annuity payments.

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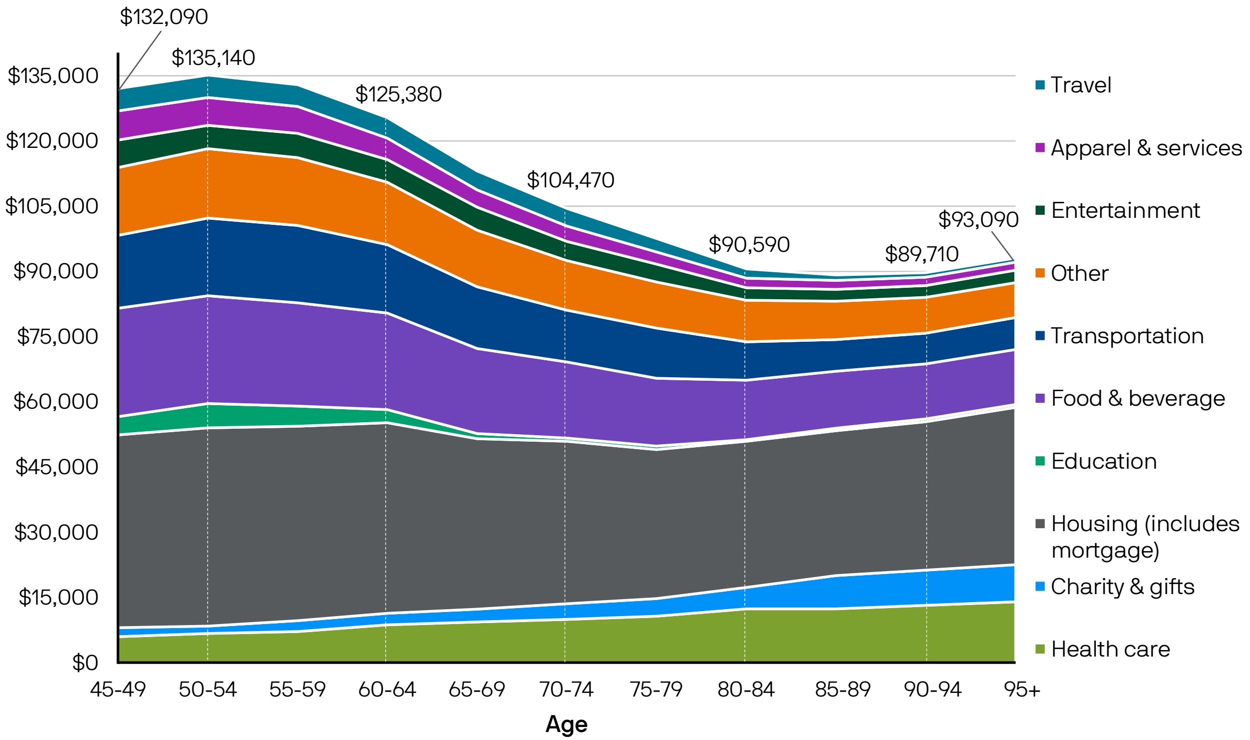
Changes in spending

All households
$1m-$3m investable wealth

Annual average household spending by age



What to expect

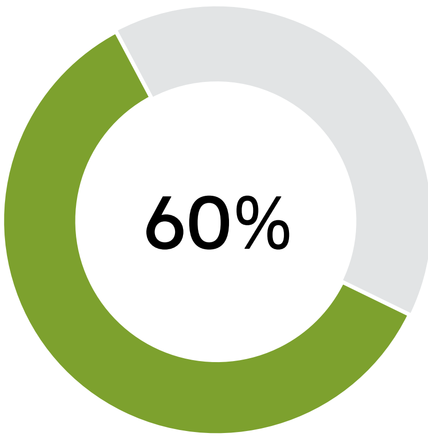
Average spending is highest at mid-life. Those at older ages tend to spend less on all categories except health care and charitable contributions.

Those who live to the oldest ages may have costs related to long-term care.

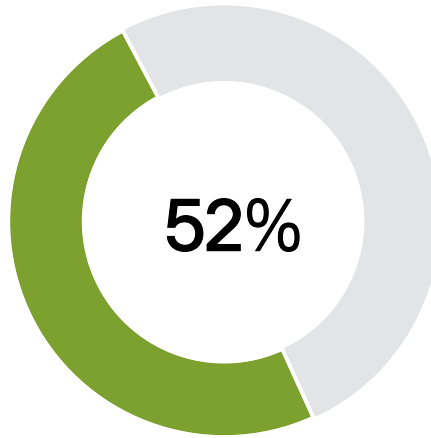
Source: J.P. Morgan Asset Management, based on internal select data from JPMorgan Chase Bank, N.A. and its affiliates (collectively "Chase") including select Chase check, credit and debit card and electronic payment transactions from January 1, 2017 to November 30, 2024. Check and cash distribution: 2021 CE Survey; J.P. Morgan Asset Management. Information that would have allowed identification of specific customers was removed prior to the analysis. Other includes: tax payments, insurance, gambling, personal care and uncategorized items. Asset estimates for de-identified and aggregated households supplied by IXI, an Equifax Company for data from 2017-2023 and Windfall for data from 2024. Estimates include all investable assets except employer-sponsored plans, home equity and other non-portable assets. Additional information on J.P. Morgan Asset Management's data privacy standards available at https://am.jpmorgan.com/us/en/asset-management/mod/insights/retirement-insights/gtr-privdisc/

Spending volatility in retirement

Spending fluctuates more than 20% per year for a significant number of retirees



Compared to the year before retirement, 6 in 10 new retirees experience spending volatility in the first three years of retirement...



...and this continues throughout retirement with half of those age 75-80 experiencing spending volatility from year to year

Prepare for spending fluctuations

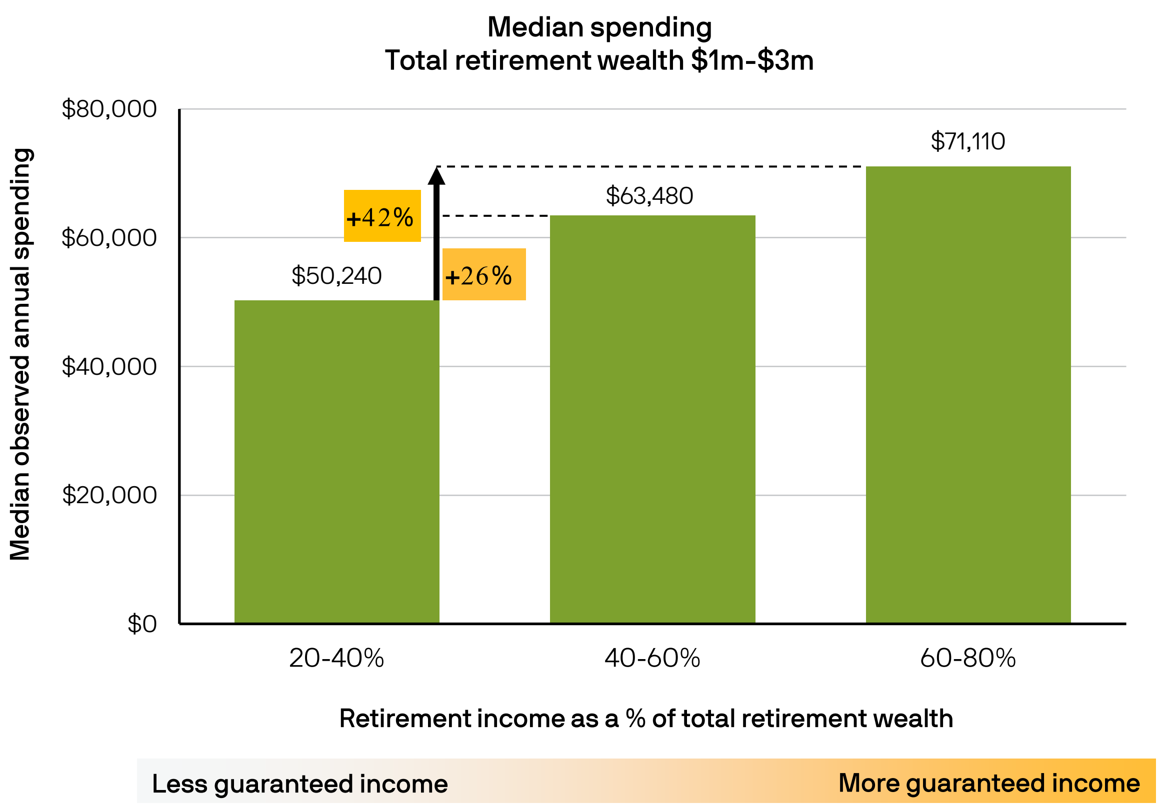
Even though spending tends to decrease starting at mid-life, there is significant variation from year to year for many retirees.

Recent retirees will need to prepare for sequence of return risk near retirement and have flexibility for variable spending as they age.

For retirement income starting age 60-69. 2013-2019 (pre-pandemic) results are similar with 55% on the left chart and 51% on the right chart.
Source: J.P. Morgan Asset Management, based on internal select data from JPMorgan Chase Bank, N.A. and its affiliates (collectively "Chase") including select Chase check, credit and debit card and electronic payment transactions from 2013 to 2022. Inflation-adjusted to April 2023. Information that would have allowed identification of specific customers was removed prior to the analysis. Additional information on J.P. Morgan Asset Management's data privacy standards available at https://am.jpmorgan.com/us/en/asset-management/mod/insights/retirement-insights/gtr-privdisc/

More guaranteed income = less fear of spending

Retirement Accounts + Guaranteed Income = Total Retirement Wealth[1]



Guaranteed income can give you confidence to spend

After building up their account values over their lifetimes many individuals are reluctant to see their balances go down.

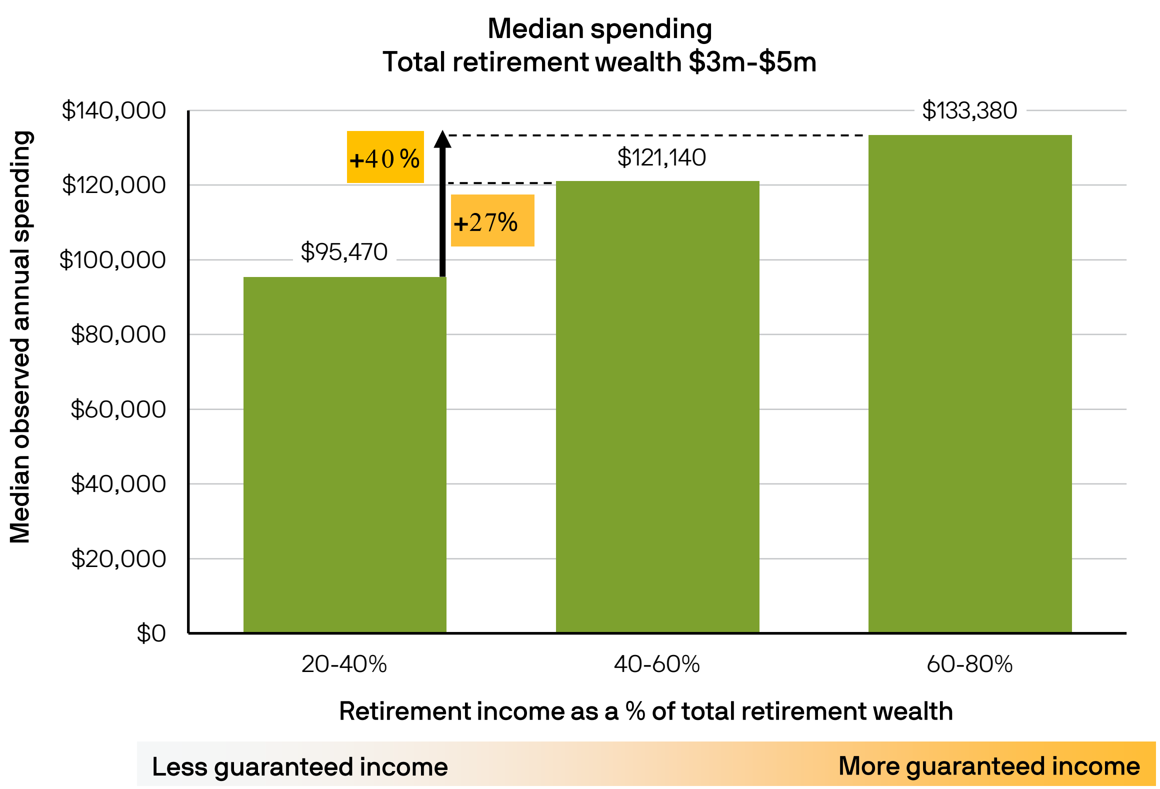
This can result in people with similar total wealth spending differently depending on how much guaranteed income they have.

[1]Total retirement is wealth in retirement accounts and the present value of future guaranteed income payments.
Source: Chase data including select Chase credit and debit card, electronic payment, ATM withdrawal and check transactions in 2023. Information that would have allowed identification of specific customers was removed prior to the analysis. Asset estimates for de-identified and aggregated households supplied by IXI/Equifax, Inc. Total retirement wealth is the sum of investable wealth and the present value of observed retirement income sources including Social Security (inflated), pensions and annuities (both not inflated) until age 90. Inflation rate assumption is 2.5%. Observed retirement income sources are adjusted to pre-tax values to be consistent with investable wealth.

More guaranteed income = less fear of spending

Total retirement wealth $3m-$5m

Retirement Accounts + Guaranteed Income = Total Retirement Wealth[1]



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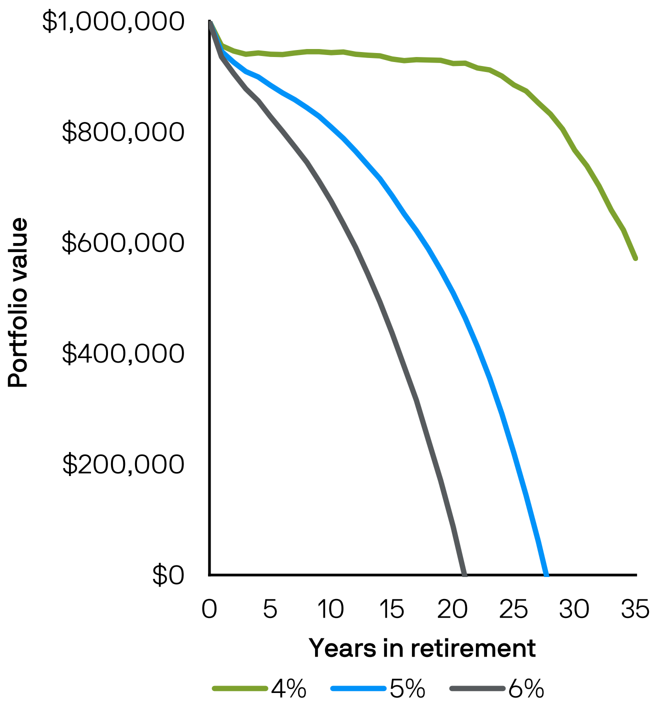
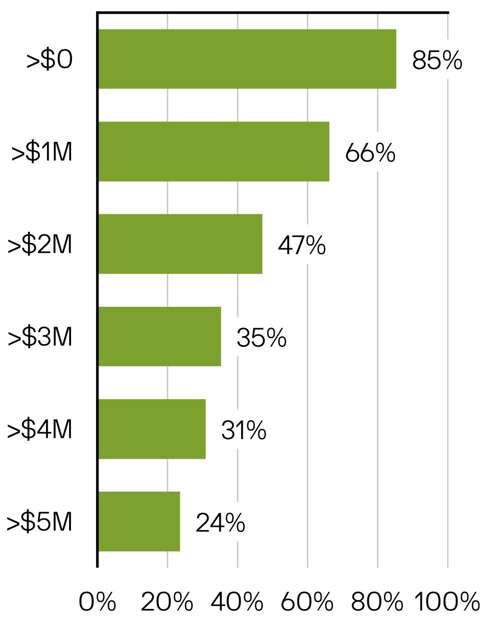
The 4% rule: projected outcomes vs. historical experience

40/60 portfolio at various initial withdrawal rates
Projected nominal outcomes, 80th percentile



Historical ending wealth at 4% initial withdrawal rate (1928-2024)
68 rolling 30-year periods



Good in theory, poor in practice

The 4% rule is the maximum initial withdrawal percentage that has a high likelihood of not running out of money after 30 years. With current life expectancies, a 35-year view is more appropriate.

The outcomes are sensitive to forward-looking return assumptions and the rule is not guidance on how to efficiently use your wealth.

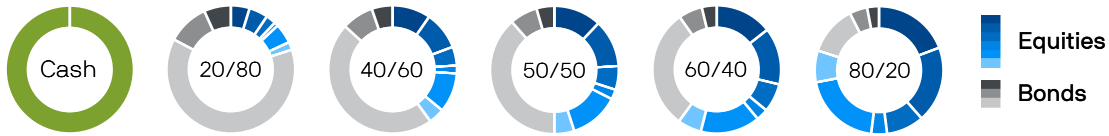
You may want to consider a dynamic approach that adjusts over time to more effectively use your retirement savings.

Source: These charts are for illustrative purposes only and must not be used, or relied upon, to make investment decisions. Portfolios are described as equity/bond percentages (e.g., a 40/60 portfolio is 40% equities and 60% bonds).
Right chart: The portfolio returns for the historical analysis are calculated based on 40% S&P 500 Total Return and 60% Bloomberg U.S. Aggregate Total Return. Each portfolio's starting value is set at $1,000,000. Withdrawals are increased annually by CPI (CPI NSA Index). Ending wealth at the end of each 30-year rolling period is in nominal terms.
Left chart: The hypothetical portfolio assumes All Country World Equity and U.S. Aggregate Bonds. J.P. Morgan Asset Management's (JPMAM) model is based on proprietary Long-Term Capital Market Assumptions (first 15 years) and equilibrium returns (20 years). The resulting projections include only the benchmark return associated with the portfolio and do not include alpha from the underlying product strategies within each asset class. The yearly withdrawal amount is set as a fixed percentage of the initial amount of $1,000,000 and is then inflation adjusted over the period (2.4%). Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve.

Effects of withdrawal rates and portfolio allocations

Likelihood of success after 35 years in retirement

Various initial withdrawal rates and diversified asset allocations



Initial withdrawal rate	Cash	20/80	40/60	50/50	60/40	80/20
1%	95-100	95-100	95-100	95-100	95-100	95-100
2%	95-100	95-100	95-100	95-100	95-100	95-100
3%	95-100	95-100	95-100	95-100	95-100	95-100
4%	0-5	85-90	90-95	90-95	85-90	85-90
5%	0-5	45-50	60-65	65-70	65-70	70-75
6%	0-5	10-15	30-35	35-40	40-45	50-55
7%	0-5	0-5	10-15	15-20	20-25	30-35
8%	0-5	0-5	0-5	5-10	10-15	20-25
9%	0-5	0-5	0-5	0-5	5-10	10-15
10%	0-5	0-5	0-5	0-5	0-5	5-10

High Confidence

Medium Confidence

Low Confidence

Find your balance

At both the highest and the lowest confidence levels, you may want to consider adjusting your spending and/or asset allocation.

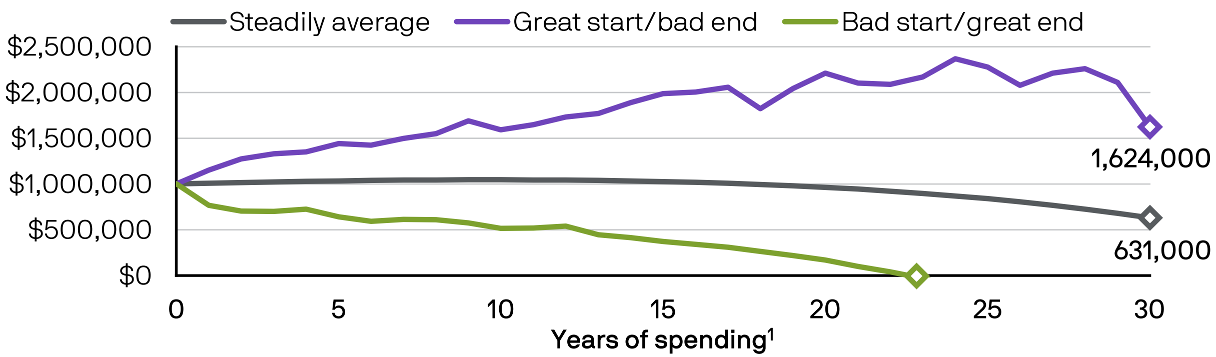
An overly conservative withdrawal rate may require unnecessary lifestyle sacrifices. While a more equity-heavy portfolio may lead to higher likelihoods of success, the magnitude of the failures may be greater due to increased volatility.

A well-diversified portfolio with a dynamic withdrawal strategy is typically optimal.

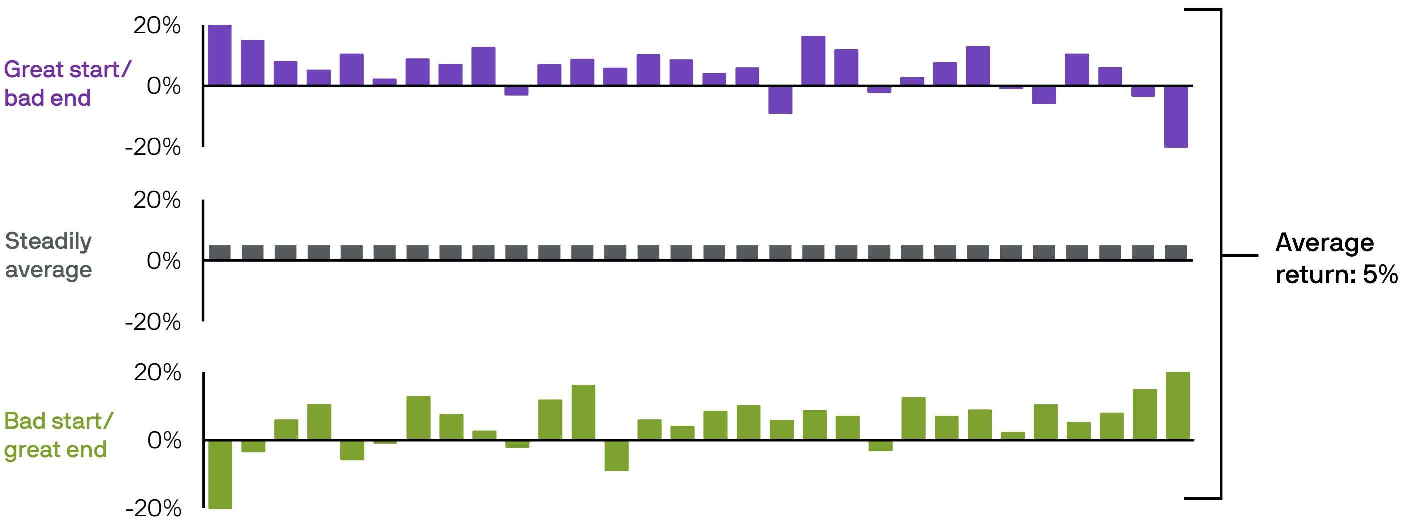
Source: This chart is for illustrative purposes only and must not be used, or relied upon, to make investment decisions. Portfolios are described using equity/bonds. For asset allocation details, see “Model Portfolio Details” on the Disclosure page. J.P. Morgan Asset Management’s (JPMAM) model is based on proprietary Long-Term Capital Market Assumptions (first 15 years) and equilibrium returns (20 years). The resulting projections include only the benchmark return associated with the portfolio and do not include alpha from the underlying product strategies within each asset class. The yearly withdrawal amount (1% to 10%) is set as a fixed percentage of the initial amount of $1,000,000 and is then inflation adjusted over the period (2.4%). The percentile outcomes represent the percentage of simulated results with an account balance greater than $0 after 35 years (e.g., “95-100” means that 95-100% of simulations had account balances greater than $0 after 35 years). Overlap percentiles are included in the lower bracket (e.g., 80 is included in “75-80”; 85 is included in “80-85”). Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve.

Sequence of return risk: retirement spending

Spending: portfolio values assuming various return sequence scenarios



Annual returns by scenario



The greatest risk is when wealth is greatest

When saving for retirement, the return experienced in the early years has little effect compared to growth achieved through regularly saving. However, the rates of return just before and after retirement – when wealth is greatest – can have a significant impact on retirement outcomes.

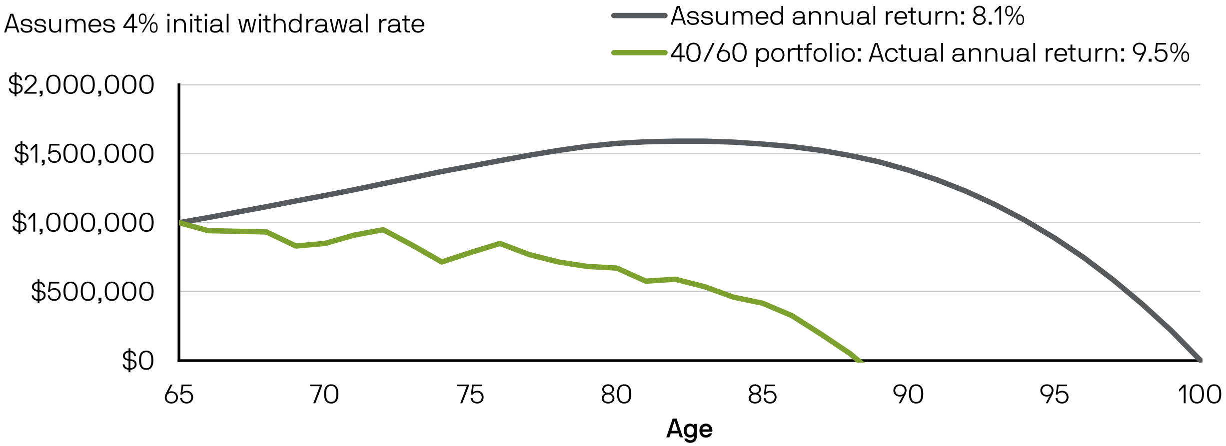
Source: J.P. Morgan Asset Management. Hypothetical return scenarios are for illustrative purposes only and are not meant to represent an actual asset allocation. [1]Years of spending assumes an initial $1,000,000 and a 4% withdrawal adjusted annually for 2.4% inflation.

Spending

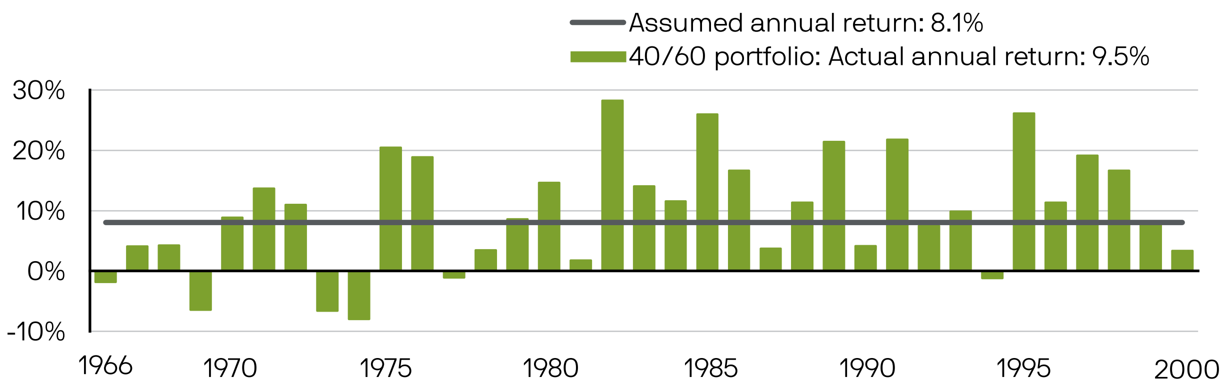
Dollar cost ravaging: timing risk of withdrawals

Portfolio value over time 1966-2000

Assumes 4% initial withdrawal rate



Rate of return: actual vs. average 1966-2000



Sequence of return risk

Withdrawing assets in a volatile market early in retirement can ravage a portfolio. Consider investment solutions that incorporate downside protection such as:

- Balanced risk and diversification at the beginning of retirement
- Annuities with guarantees and/or protection features
- Investments that use options strategies for defensive purposes

Assumptions (top chart): Retire at age 65 with $1,000,000 and withdraw 4% of the initial portfolio value ($40,000). Withdrawal amount increased by historical inflation (CPI-U) each year. Returns are based on a hypothetical portfolio, which is assumed to be invested 40% in the S&P 500 Total Return Index and 60% in the Bloomberg Capital U.S. Aggregate Index. The assumptions are presented for illustrative purposes only. They must not be used, or relied upon, to make investment decisions. There is no direct correlation between a hypothetical investment and the anticipated future return of an index. Past performance does not guarantee future results.
Annual inflation (CPI-U) increased from 2.4% in 1966 to 6.3% in 1970; 10-year U.S. Treasury rate increased from 4.93% in 1966 to 7.35% in 1970.
Source: Department of the Treasury, U.S. Bureau of Labor Statistics, J.P. Morgan Asset Management.

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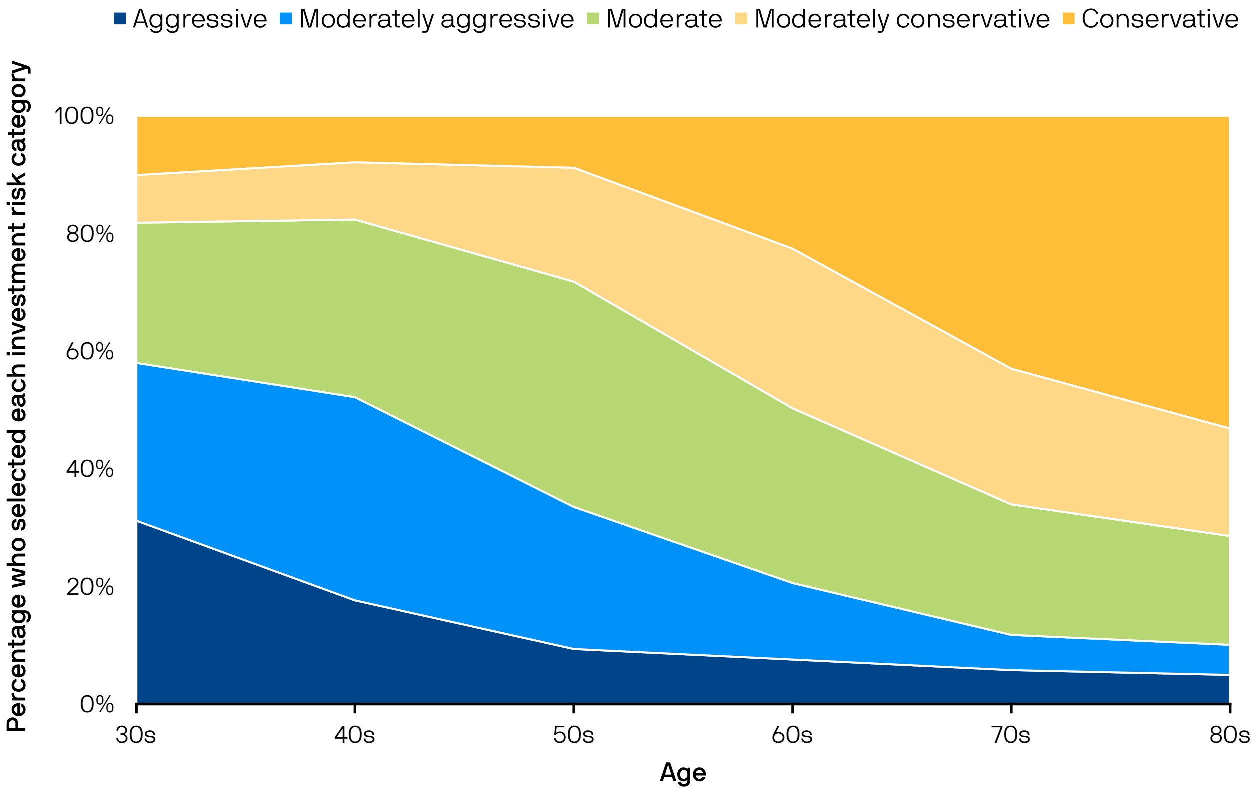
Taking risk gets harder with age

Participants' risk tolerance preferences decrease as they near retirement

"How would you describe your investment risk tolerance at these different points in time?"[1]



Assess your investment strategy as you near retirement

78% of 401(k) plan participants are concerned about the value of their assets going down just before they retire and 76% are worried about a decline in the markets in the first few years in retirement.

To manage this, consider:

- A target date fund that will automatically adjust as you get older
- A guaranteed income solution
- Working with a financial professional on your plan

Source: J.P. Morgan Asset Management Plan Participant Research, 2024. [1]Question abridged from original and includes participants' view of their future self.

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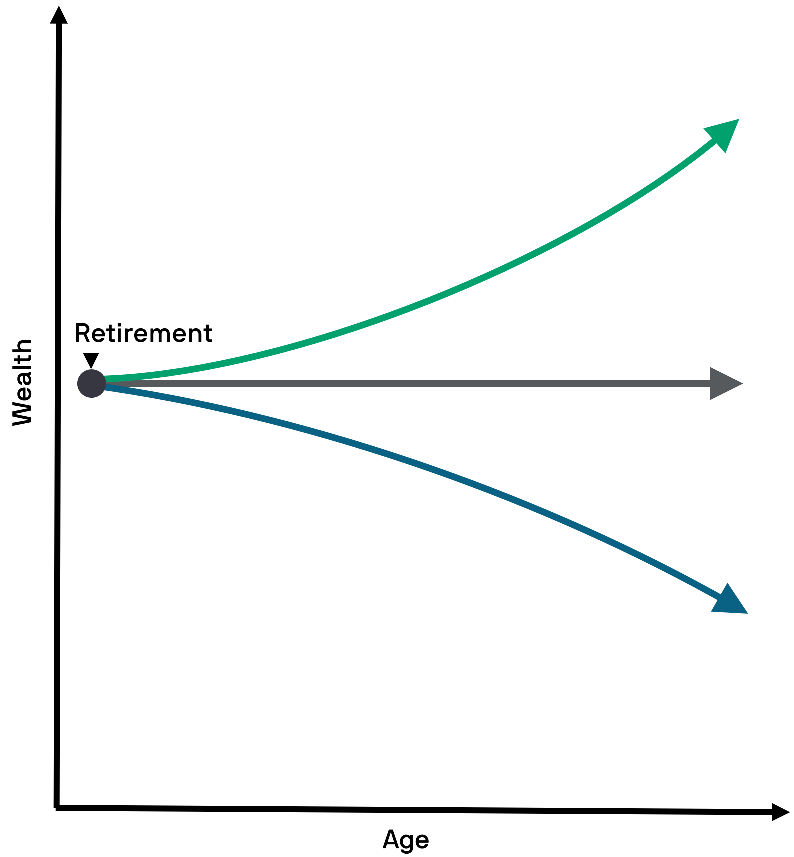
Consider how to fund your retirement goals

Retirement portfolio priorities



Increase Wealth:
Investment return exceeds spending needs
Priority: Total return

Preserve Principal:
Spend investment return only (income and/or appreciation)
Priority: Generate income

Spend Principal:
Spend investment return and a portion of your principal
Priority: Sustainable spending
- **Protected lifetime income**
- **A dynamic withdrawal strategy**
- **A combination of both**

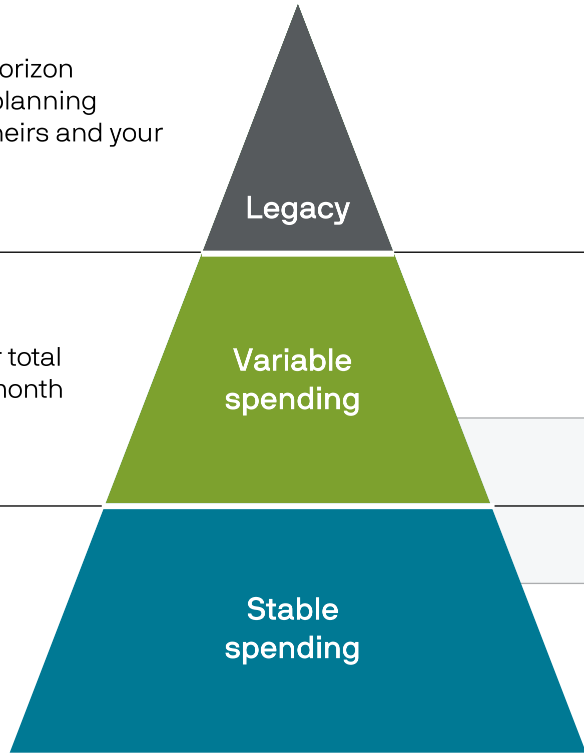
Align your portfolio with your goals

Once you determine how you want to fund your goals, make the necessary adjustments in your investment and spending strategies.

You may also choose a combination of priorities and decide if you want to have a legacy goal.

Source: J.P. Morgan Asset Management.

Structuring a portfolio to match investor goals in retirement



Considerations

What is the time horizon and appropriate planning strategy for your heirs and your estate goals?

How much of your total spending **varies** month to month?

How much do you **regularly spend** each month?

Potential solutions

Legacy:
- Growth-oriented portfolios
- Capital preservation strategies
- Alternatives[1]

Variable spending:
- Cash & cash equivalents

Income distributed from:
- Dividend-paying stocks/funds
- Fixed income securities/funds
- Multi-asset solutions

Stable spending:
- Protected lifetime income
- Pension
- Social Security

Building your plan

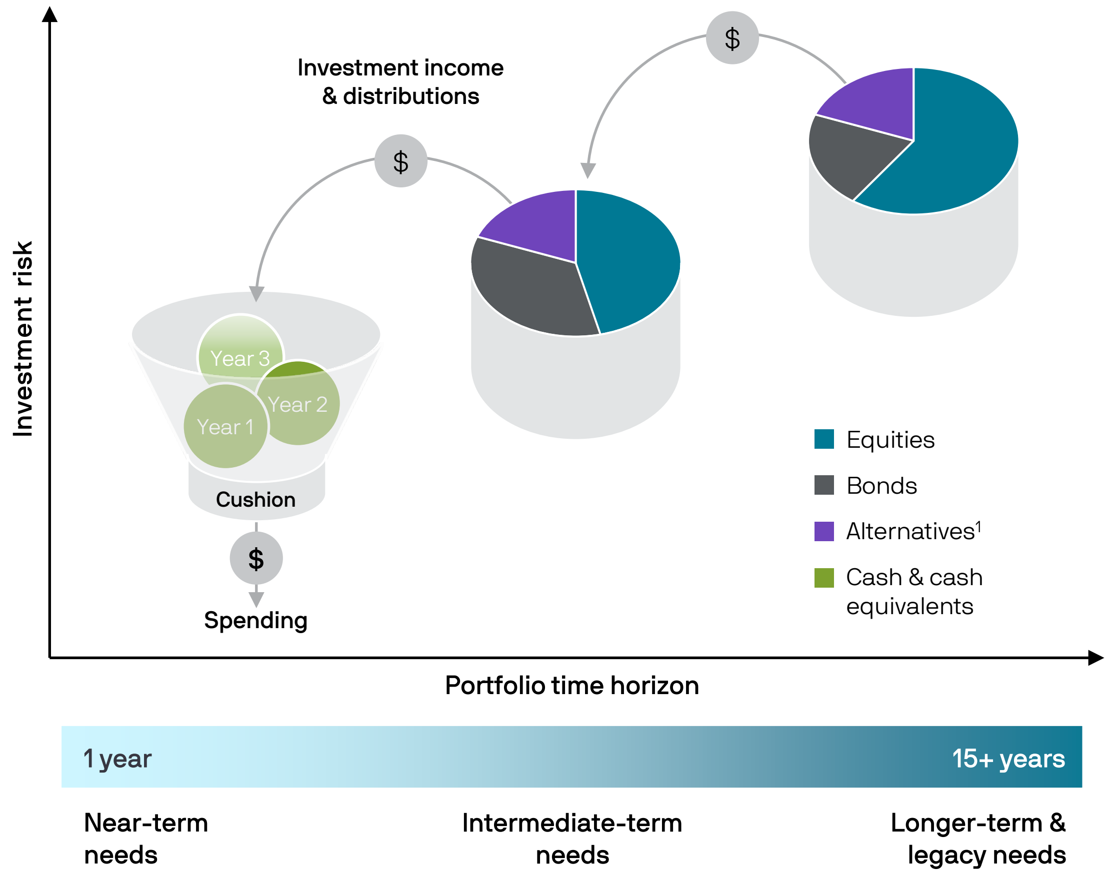
It may be useful to match dependable income sources with regular retirement spending, while coordinating income-oriented solutions and a cash reserve to meet more variable expenses.

For illustrative purposes only. Fixed income is subject to interest rate risk. Fixed income prices generally fall when interest rates rise. The price of equity securities may rise or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. Investing in alternative assets involves higher risks than traditional investments and is suitable only for the long term. They are not tax efficient and have higher fees than traditional investments. They may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain.

[1] Equity, fixed income and cash are considered "traditional" asset classes. The term "alternative" describes all non-traditional asset classes. They include private and public equity, venture capital, hedge funds, real estate, commodities, distressed debt and more.

Source: J.P. Morgan Asset Management.

Structuring a portfolio in retirement: the bucket strategy



Time-based segmentation

Aligning your time horizon with an investment approach may help you to be more comfortable with maintaining diversified portfolio allocations in retirement.

For the near-term portfolio, consider maintaining:

- Funds to cover 1-3 years of the gap between your income and spending needs
- A cushion for unexpected expenses

Source: For illustrative purposes only. Bonds are subject to interest rate risks. Bond prices generally fall when interest rates rise. The price of equity securities may rise or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. Equity securities are subject to stock market risk, meaning that stock prices in general may decline over short or extended periods of time. Investing in alternative assets involves higher risks than traditional investments and is suitable only for the long term. They are not tax efficient and have higher fees than traditional investments. They may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain.

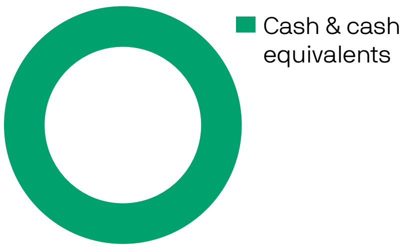
[1]Equity, fixed income and cash are considered traditional asset classes. The term "alternative" describes all non-traditional asset classes. They include private and public equity, venture capital, hedge funds, real estate, commodities, distressed debt and more. J.P. Morgan Asset Management.

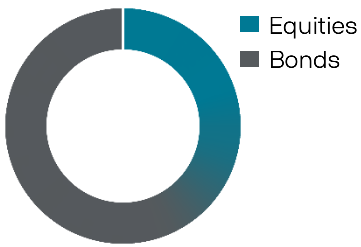
Goals-based wealth management

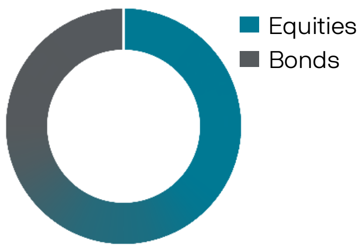
Short-term goals
Includes an emergency reserve

Medium-term goals
5-10 years, e.g., college, home

Long-term goals
15+ years, e.g., retirement





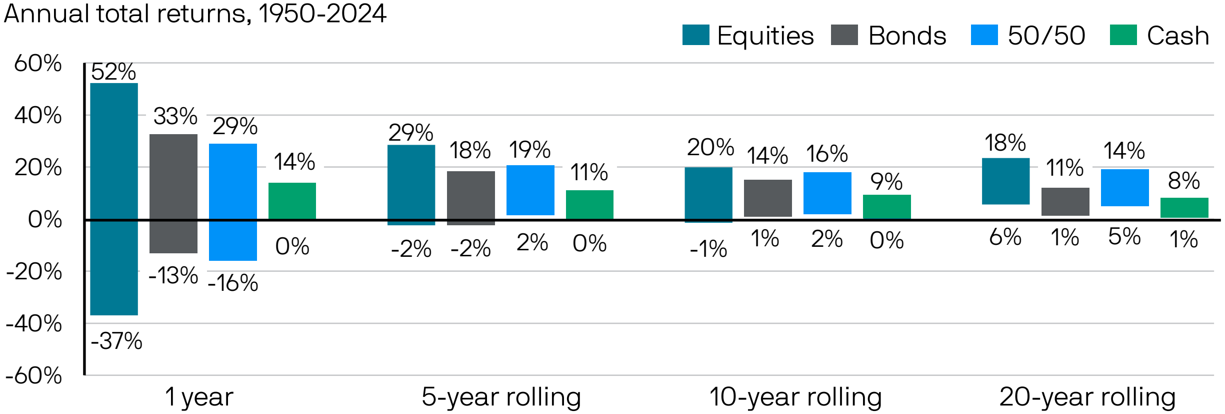


Divide and conquer

Aligning your investment strategy by goal can help you take different levels of risk based on varying time horizons and make sure you are saving enough to accomplish your goals – not just the ones that occur first.

Range of stock, bond and blended total returns

Annual total returns, 1950-2024

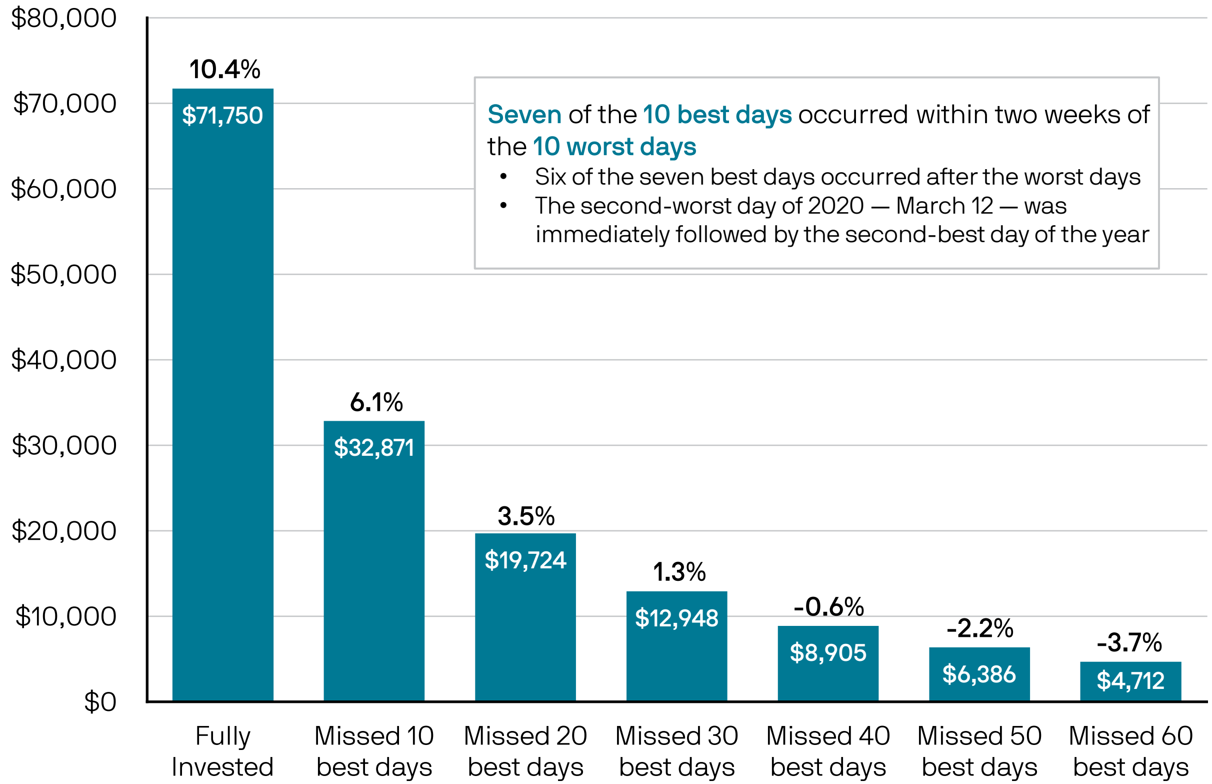


Source (top chart): J.P. Morgan Asset Management.
Source (bottom chart): Bloomberg, FactSet, Federal Reserve, Morningstar, Strategas/Ibbotson, J.P. Morgan Asset Management.
Returns shown are based on calendar year returns from 1950 to 2024. Stocks represent the S&P 500 Total Return Index and Bonds represent Strategas/Ibbotson for periods prior to 1976 and the Bloomberg Aggregate thereafter. Cash represents the U.S. 90 Day Treasury Bill Total Return.
Portfolio allocations are hypothetical and are for illustrative purposes only. They were created to illustrate different risk/return profiles and are not meant to represent actual asset allocation.

Impact of being out of the market

Returns of the S&P 500

Performance of a $10,000 investment between January 3, 2005 and December 31, 2024



Plan to stay invested

Losses hurt more than gains feel good. Market lows can result in emotional decision making.

Taking "control" by selling out of the market after the worst days is likely to result in missing the best days that follow. Investing for the long term in a well-diversified portfolio can result in a better retirement outcome.

Source: J.P. Morgan Asset Management using data from Bloomberg. Returns are based on the S&P 500 Total Return Index, an unmanaged, capitalization-weighted index that measures the performance of 500 large capitalization domestic stocks representing all major industries. Indices do not include fees or operating expenses and are not available for actual investment. The hypothetical performance calculations are shown for illustrative purposes only and are not meant to be representative of actual results while investing over the time periods shown. The hypothetical performance calculations are shown gross of fees. If fees were included, returns would be lower. Hypothetical performance returns reflect the reinvestment of all dividends. The hypothetical performance results have certain inherent limitations. Unlike an actual performance record, they do not reflect actual trading, liquidity constraints, fees and other costs. Also, since the trades have not actually been executed, the results may have under- or overcompensated for the impact of certain market factors such as lack of liquidity. Simulated trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. Returns will fluctuate and an investment upon redemption may be worth more or less than its original value. Past performance is not indicative of future returns. An individual cannot invest directly in an index. Data as of December 31, 2024.

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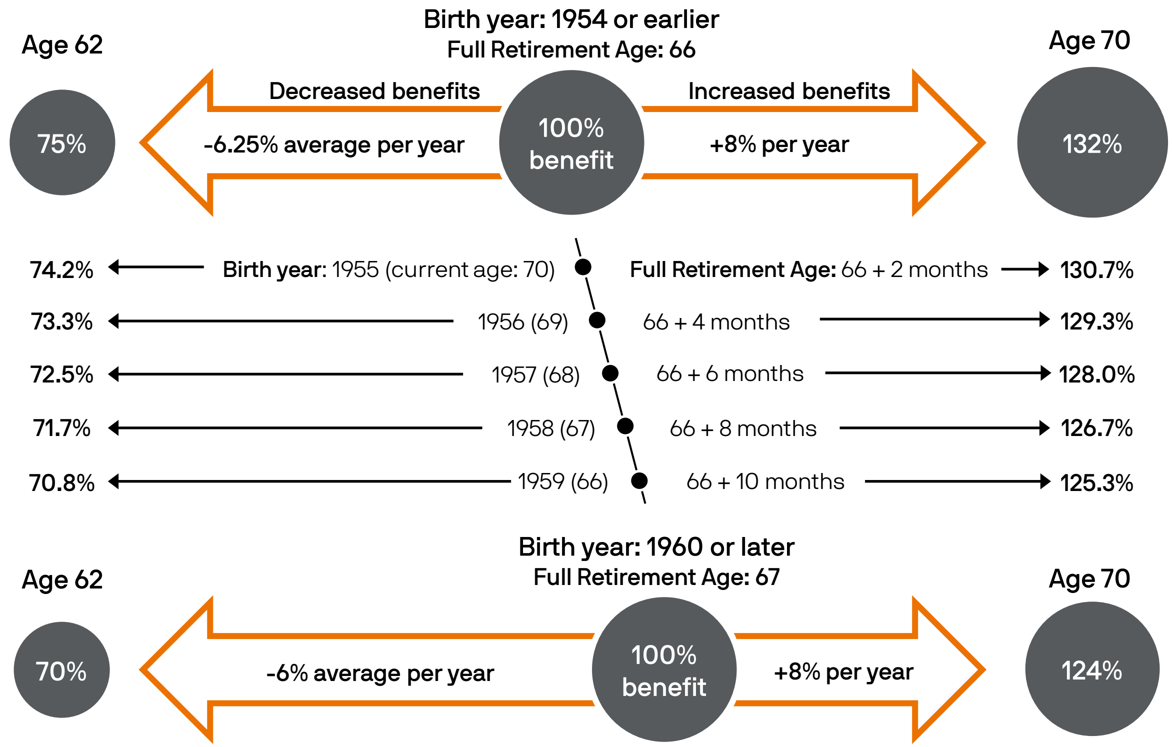
Social Security timing trade-offs

Benefits differ by birth year and claim age

Full Retirement Age (FRA) = 100% benefit



Cost of living increase for benefits received in 2025:	2.5%
Average cost of living increase 1985-2024:	2.8%

Understand the trade-offs

Deciding when to claim benefits will have a permanent impact on the benefit you receive. Claiming before your full retirement age can significantly reduce your benefit, while delaying increases it.

In 2017, full retirement age began transitioning from 66 to 67 by adding two months each year for six years. This makes claiming early even more of a benefit reduction.

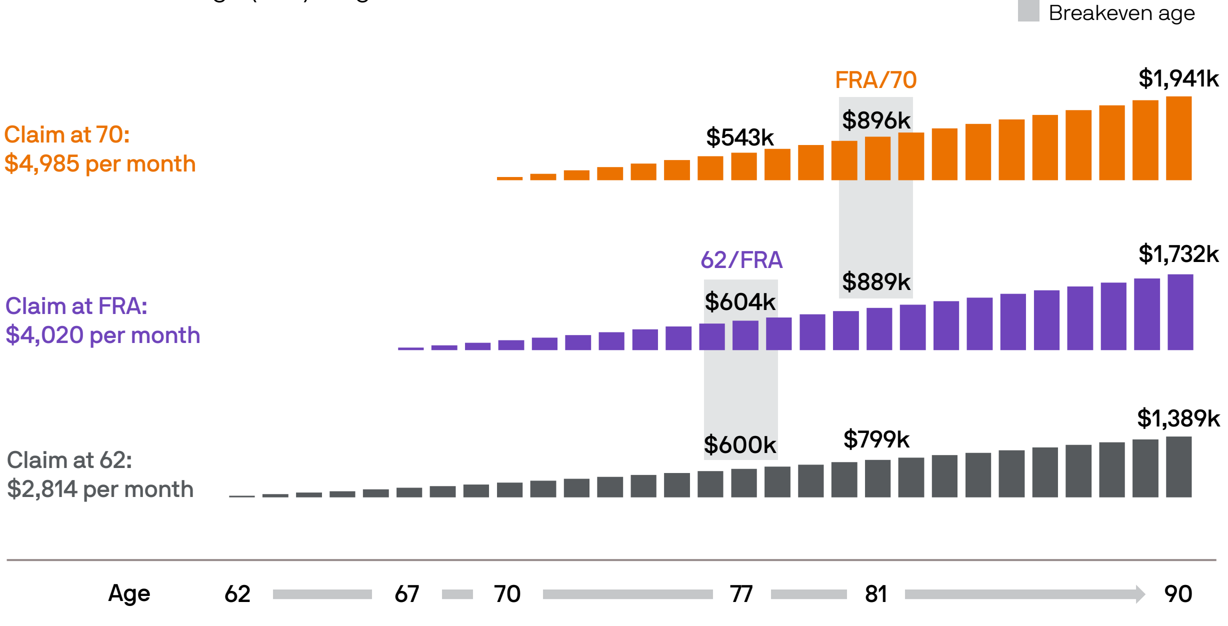
For illustrative purposes only. The Social Security Amendments Act of 1983 increased FRA from 65 to 67 over a 40-year period. The first phase of transition increased FRA from 65 to 66 for individuals turning 62 between 2000 and 2005. After an 11-year hiatus, the transition from 66 to 67 (2017-2022) is complete. This material should be regarded as educational information on Social Security and is not intended to provide specific advice. If you have questions regarding your situation, you should contact the Social Security Administration and/or your legal or tax professional.

Source: Social Security Administration, J.P. Morgan Asset Management.

Maximizing Social Security benefits: maximum earner

Cumulative individual maximum benefit by claim age

Full Retirement Age (FRA) = Age 67



At age 62, probability of living to at least age:	62	67	70	77	81	90
Male	100%	91%	85%	66%	52%	18%
Female	100%	94%	90%	76%	65%	30%
Couple[1]	100%	99%	98%	92%	83%	43%

Planning opportunity

Delaying benefits means increased Social Security income later in life, but your portfolio may need to bridge the gap and provide income until delayed benefits are received.

[1]Couple assumes at least one lives to the specified age or beyond. Breakeven assumes the same individual, born in 1963, earns the maximum wage base each year ($176,100 in 2025), retires at the end of age 61 and claims at 62 & 1 month, 67 and 70, respectively. Benefits are assumed to increase each year based on the Social Security Administration 2024 OASDI Trustee's Report intermediate estimates (annual benefit increase of 2.2% in 2026 and 2.4% in 2027 and thereafter). Monthly amounts with the cost-of-living adjustments (not shown on the chart) are: $4,517 at FRA and $6,014 at age 70. Exact breakeven ages are 76 years & 10 months and 80 years & 8 months.

Source: Social Security Administration, J.P. Morgan Asset Management.

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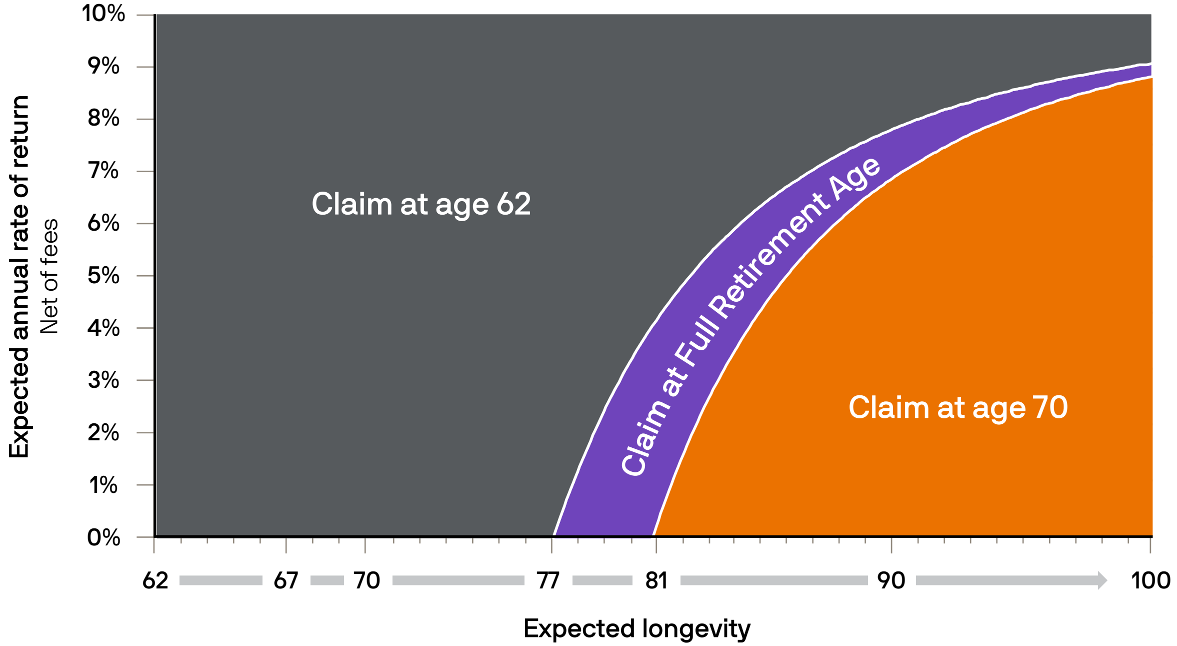
Social Security benefit claiming considerations

Comparison of claim age based on an individual's expected rate of return and longevity

Color represents the claim age with the highest expected lifetime benefits



How to use:

- Go to the intersection of your expected rate of return and your expected longevity.
- The color at this intersection represents the Social Security claim age that maximizes total wealth (cumulative Social Security benefit and investment portfolio) given three claiming options: age 62, Full Retirement Age (age 67) and age 70.
- **Example: For a woman with an expected consistent 5.5% rate of return (net of fees) and life expectancy of 88: consider claiming at age 70.**

Consider portfolio returns and your life expectancy

The lower your expected long-term investment return and the longer your life expectancy, the more it pays to wait to take your benefit.

Assumes the same individual, born in 1963, retires at the end of age 61 and claims at 62 & 1 month, 67 and 70, respectively. Benefits are assumed to increase each year based on the Social Security Administration 2024 OASDI Trustee's Report intermediate estimates (annual benefit increase of 2.2% in 2026 and 2.4% in 2027 and thereafter). Analysis is based on a maximum earner (all earnings profiles yield similar results). Expected rate of return is deterministic, in nominal terms, and net of fees.
Source (chart): Social Security Administration, J.P. Morgan Asset Management.
Source (longevity): Social Security Administration 2024 OASDI Trustees Report.

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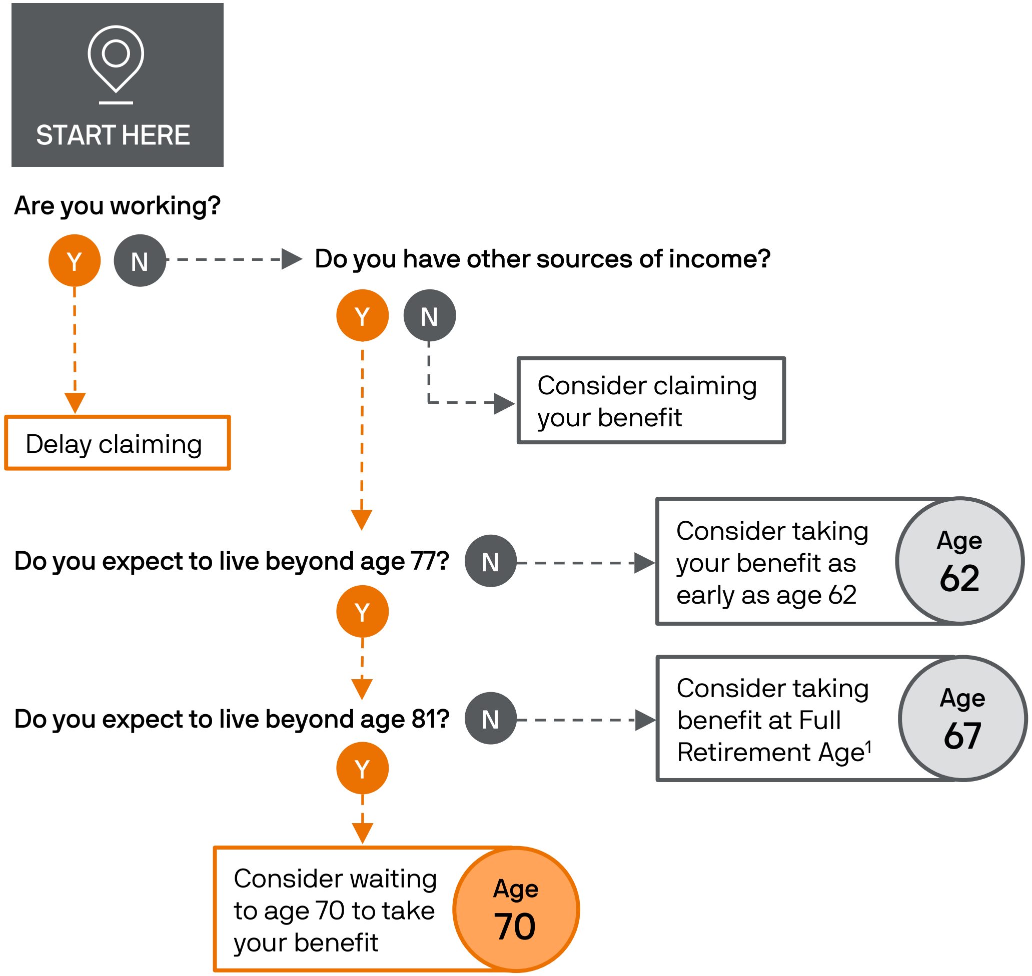
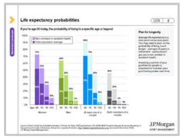
Claiming Social Security: decision tree



Additional considerations:

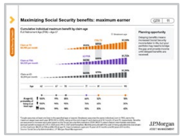
Consider health status and current age when estimating life expectancy

Page 4 and 5: Life expectancy probabilities



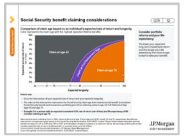
Understand what you may be leaving on the table at older ages

Page 42: Maximizing Social Security benefits



Take your expected rate of return on your portfolio into account

Page 43: Social Security benefit claiming considerations



This material should be regarded as educational information on Social Security and is not intended to provide specific advice. If you have questions regarding your situation, you should contact the Social Security Administration and/or your legal or tax professionals.

[1]Full Retirement Age (FRA) of 67 is for individuals born 1960 or later. This decision tree is also appropriate for other FRAs.

Source: Social Security Administration, J.P. Morgan Asset Management.

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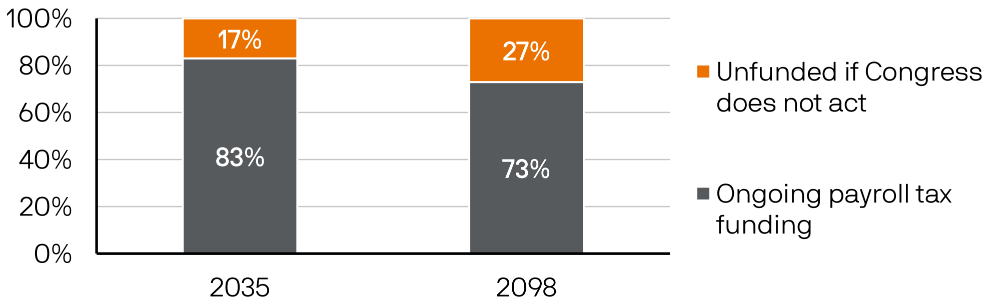
Debunking Social Security solvency myths

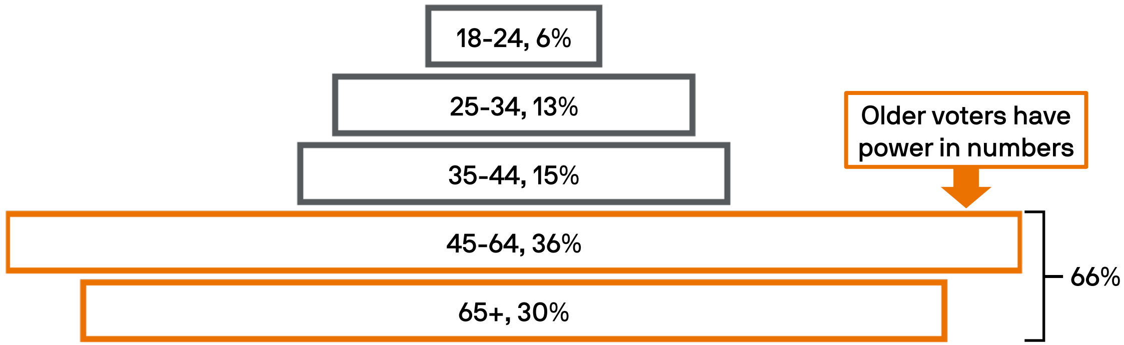
1 Myth: "Young workers will get nothing from Social Security."

Funded status of the combined Old-Age Survivor and Disability (OASDI) Trust Funds



2 Myth: "I should take my benefit now because it might be cut later."

Age of voters in 2022



Younger, higher earners are likely to experience some changes

Taxes and benefits cuts are unpopular, so Congress may put off addressing the issue until closer to 2035, when the combined trust fund is projected to be depleted.[1]

- Workers with earnings above the payroll tax cap may pay more in taxes.
- For young workers, there will still be payroll taxes to fund most of your benefits, but high-income workers are most likely to see gradual changes if there are benefit cuts.

[1] The Social Security Old Age and Survivor Trust Fund is projected to be depleted in 2033, but combined with the Disability Trust Fund the projected depletion date is 2035. This material should be regarded as general information and is not intended to provide advice. If you have questions, contact the Social Security Administration and/or your legal or tax professional. Source (top chart): 2024 Social Security Trustees Report. Source (bottom chart): Kaiser Family Foundation, number of voters as a share of the voting population by age.

Three steps for Medicare coverage

1 Sign up for Parts A and B on Medicare.gov

Part A (inpatient hospital insurance)	+	Part B (insurance that covers doctor visits, tests and outpatient hospital visits)

2 Choose your plan

Option 1

Original Medicare accepted by all Medicare providers

- **Medigap** (covers gaps in Parts A & B; also called supplemental)
- **Part D drug coverage** (will have co-pays and deductibles)
- **Vision, dental and hearing** (must buy separate policies if want coverage)

Option 2

Medicare Advantage/ Part C limited to a network of providers

Includes Part D drug coverage
May cover some vision, dental, hearing and other expenses
(will have co-pays and deductibles for medical and drug expenses)

3 Prepare for additional expenses: Medicare does not cover most long-term care costs[1]

For help, visit the Medicare Rights Center at www.medicarerights.org or your State Health Insurance Assistance Program (SHIP) at www.shiptacenter.org.

Medicare details

Sign up for all parts of Medicare the month before the month you turn age 65 to avoid coverage gaps unless your employer has confirmed you have creditable coverage.

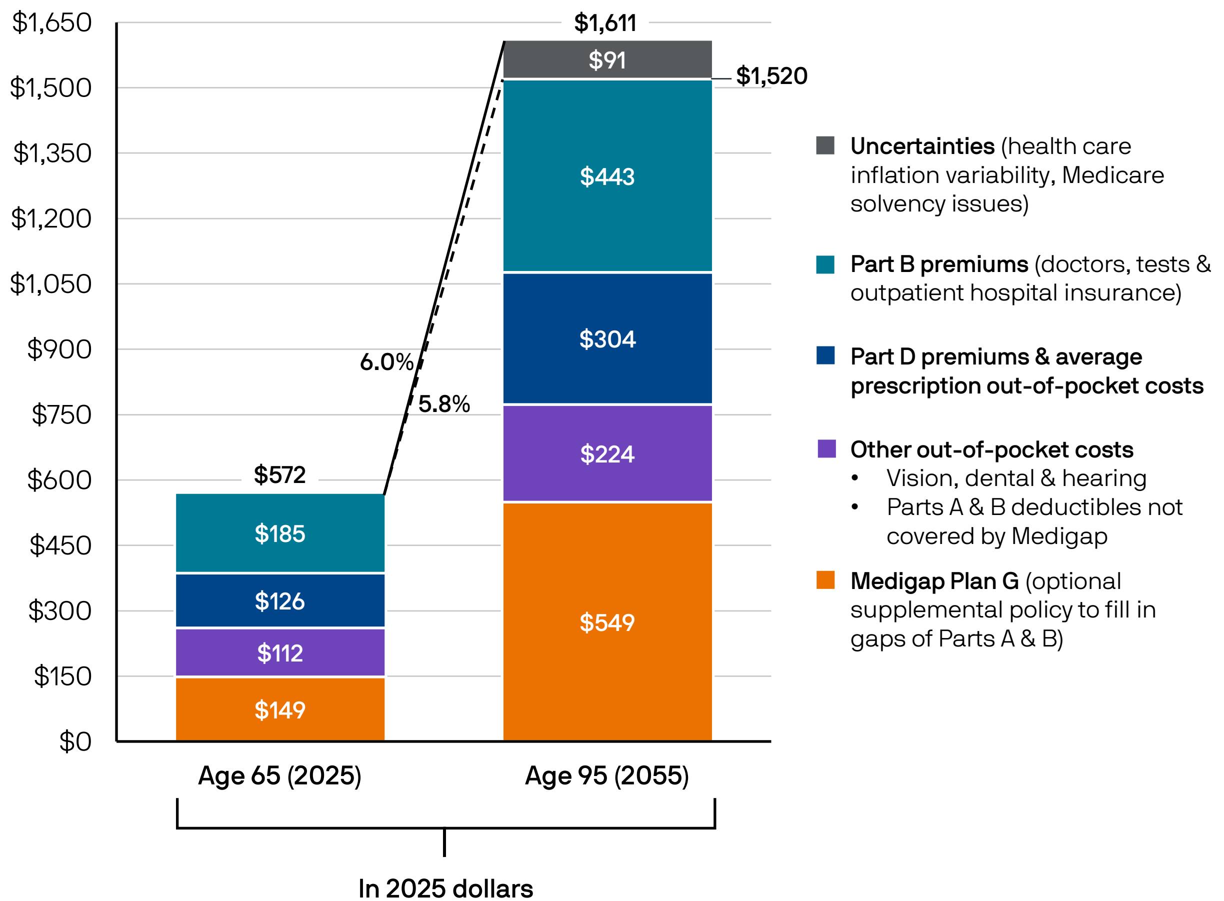
Re-evaluate your choices each year.

[1]Medicare does pay for medically necessary skilled nursing facility or home health care, with strict requirements that are difficult to meet on a limited basis, and for some hospice care. If you transfer assets to others there is a five-year "look back" where the government will recover the assets transferred if you go on Medicaid. This is not personal advice. Consult an elder care attorney if you have questions.
Source: Medicare.gov as of December 31, 2024; J.P. Morgan Asset Management.

Rising health care costs in retirement

Original Medicare costs in retirement (in 2025 dollars)

Monthly amount per person



A growing concern

Annual expenses per person in 2025 are $6,856.

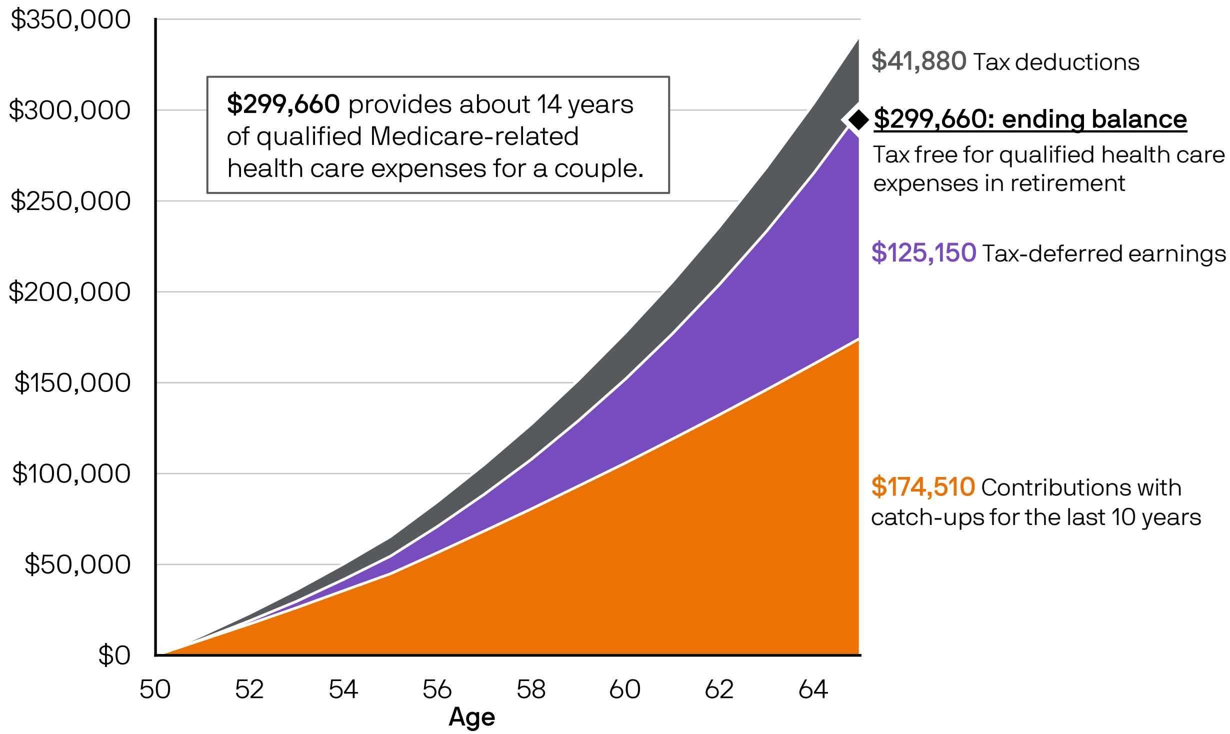
Given variation in health care cost inflation from year to year, it may be prudent to assume an annual health care inflation rate of 6.0%, which may require growth as well as current income from your portfolio in retirement.

Estimated future value total average monthly cost at age 95 is $3,282. Today's dollar calculation used a 2.4% discount rate to account for overall inflation. Medigap premiums typically increase with age after purchase, in addition to inflation, except for the following states: AR, AZ, CT, FL, GA, ID, MA, ME, MN, MO, NY, VT, WA. For local information, contact the State Health Insurance Assistance Program (SHIP) https://www.shiptacenter.org/. Plan G premium is nationwide average for non-smokers. If Plan G is not available, analysis includes the most comprehensive plan available.
Source: HealthView Services, December 2024; Kaiser Family Foundation, Key Facts About Medigap Enrollment, October 2024.

Maximizing an HSA for health care expenses

Health Savings Accounts (HSAs) are triple tax advantaged[1]

Maximum family contribution with catch-ups, 7.25% return and 24% marginal tax rate



Make the most of it

Investing your HSA contributions for the long term and paying for current health care expenses out of other savings can be a very tax-efficient strategy if you are able to do so.

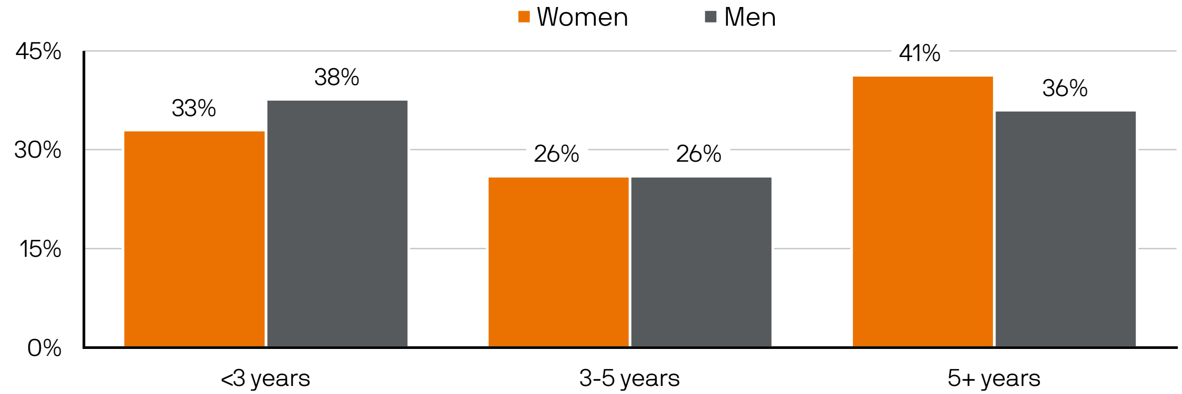
[1]Must have a qualifying high-deductible health plan to make contributions. Funds in the HSA may be withdrawn tax free for qualified medical expenses unless a credit or deduction for medical expenses is claimed. After age 65 funds also may be withdrawn for any reason and taxed as ordinary income without penalty. Some health insurance premiums may be qualified expenses such as COBRA coverage, coverage while receiving state or federal unemployment compensation, Medicare Parts B and D premiums and qualified long-term care (LTC) insurance premiums up to certain limits but excludes Medigap/Medicare supplement policies and most hybrid products that combine LTC with annuities and life insurance. See IRS Publications 969 and 502. This is not intended to be individual tax advice; consult a tax professional.

The above example is for illustrative purposes only and not indicative of any investment. 2025 family contribution limit of $8,550 is adjusted for inflation of 2.4% for 15 years with catch-up contributions of $1,000 per person starting at age 55 in 2030. Does not include account fees. Present value of illustrated HSA is $208,555. Estimated savings from tax deductions at a 37% marginal rate are $64,570. Assumes cash or income used for health care expenses is not withdrawn from an account with a tax liability. Assumes $2,000 was held in a cash account and not earning a return. Individual 2025 contribution limit is $4,300.

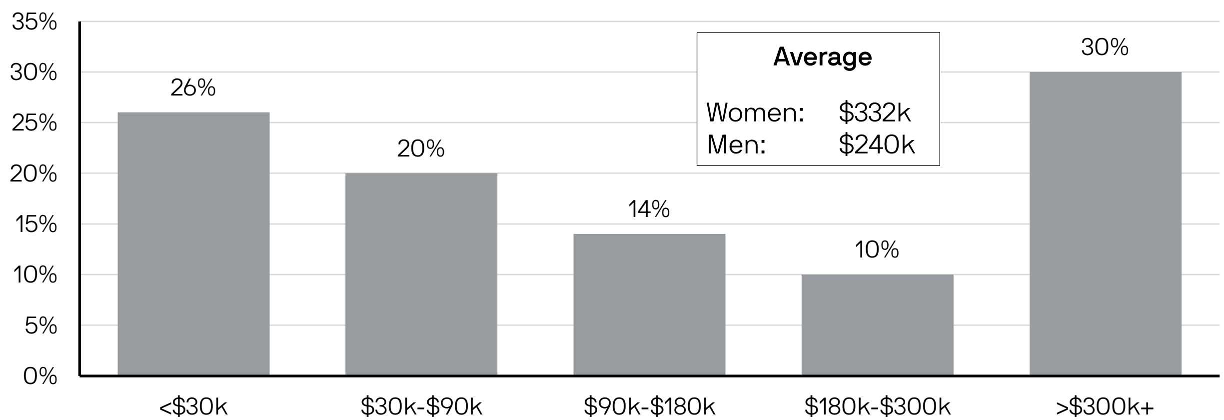
Source: IRS.gov; Medicare.gov; J.P. Morgan Asset Management.

Long-term care planning

Duration of paid care 65+ if paid care is used



Lifetime cost of care 65+ if paid care is used



Create a care plan

The monetary value of care from family and friends is roughly equal to paid care.[1]

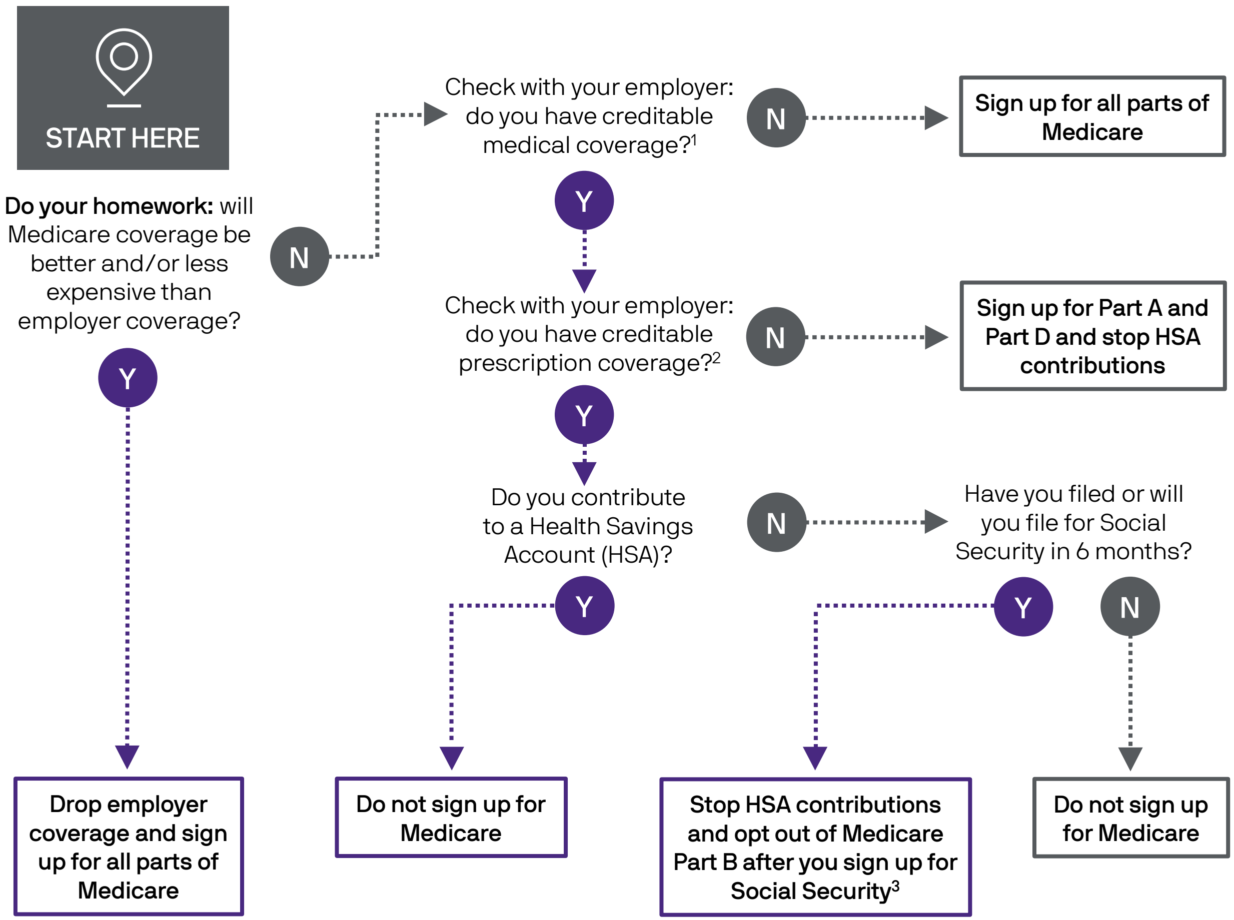
Women are more likely to require care and need more years of paid care if paid care is used.

A care plan may help you:

- Avoid burdening others
- Ensure your family understands your wishes
- Have more control over your care

[1]Average value of unpaid care when unpaid care is used is $249,600 for women and $235,300 for men.
Long-term care includes needing help with two or more activities of daily living such as eating, dressing, bathing, transferring and toileting or severe cognitive impairment. Average of cost is adjusted to January 2024 dollars and includes all payors.
Source: U.S. Department of Health and Human Services, APSE Brief, August 2022, Long-term Services and Supports for Older Americans, Risks and Financing, 2022; J.P. Morgan Asset Management.

65 and working: should I sign up for Medicare?



Important information:

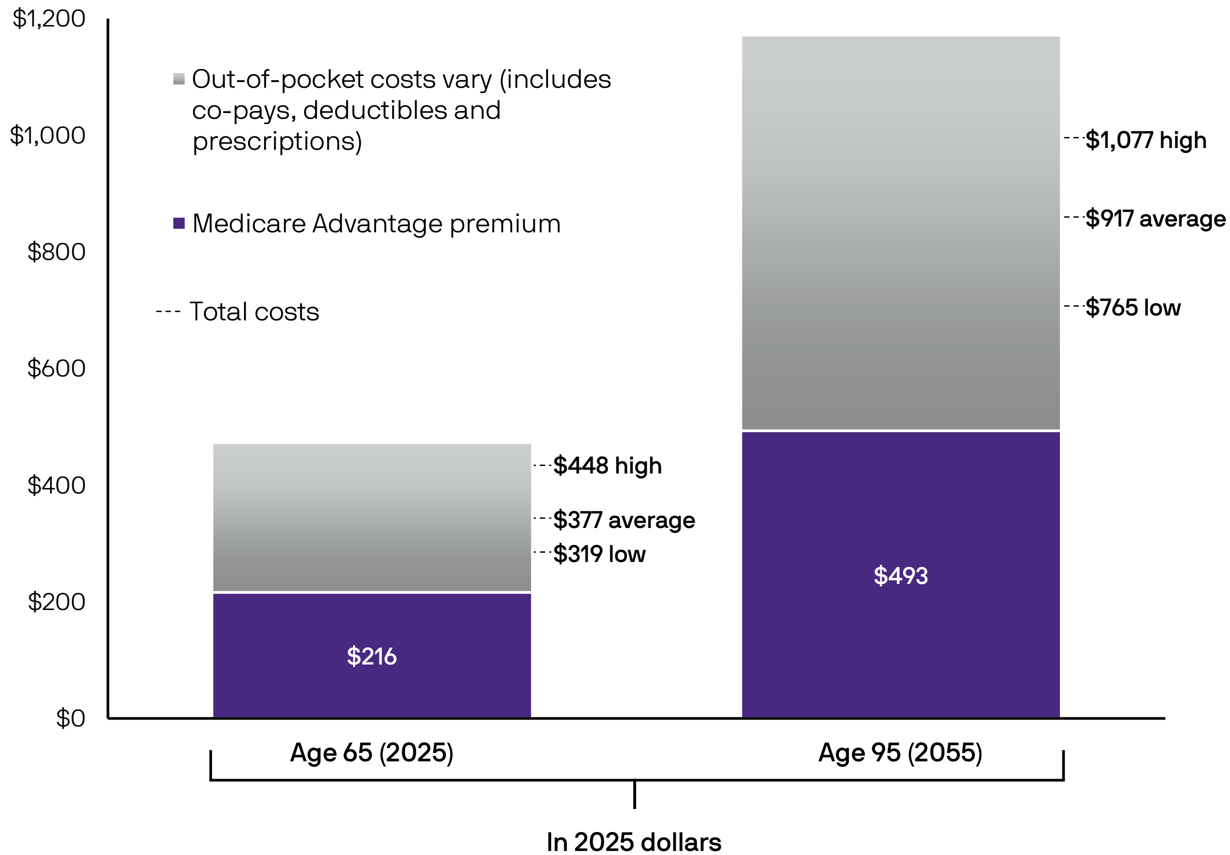
1. Creditable coverage means coverage at least as good as Medicare. Ask for proof of creditable coverage each year.
2. Signing up for Medicare and contributing to a Health Savings Account (HSA) will result in tax penalties.[4]
3. Signing up for Social Security will mean automatic enrollment in Parts A and B. Part A will be retroactive for 6 months (but not before age 65) and you will not be able to opt out of it.

[1]Employer coverage that is not creditable will become secondary after Medicare has paid. If you have creditable employer coverage, Medicare will be secondary after your employer plan has paid. [2]Because Medicare enhanced Part D coverage in 2025, fewer employer drug plans will be creditable than in the past. [3]To disenroll in Part B you must have an interview with the Social Security Administration and use Form CMS 1763. [4]Total HSA contributions for the year in excess of the maximum contribution for the year divided by the number of months you are eligible to make contributions will result in tax penalties (6% of the excess contribution each year). This is not intended to be tax advice; consult your tax professional. For more information, see www.mymedicarematters.org/enrollment/am-i-eligible, sponsored by the National Council on Aging. Source: IRS Publication 969, National Council on Aging and Medicare.gov websites as of December 31, 2024; J.P. Morgan Asset Management.

Variation in Medicare Advantage costs

Estimated Medicare Advantage with Part D and out-of-pocket expenses

Monthly amount per person



Dramatic differences in costs depending on health

Be prepared to pay more for health care in the event you experience a health issue, which becomes more common as one ages.

- Be aware: Although Medicare Advantage plans have out-of-pocket caps, those limits do not include prescriptions.
- Consider maintaining an emergency reserve fund for high out-of-pocket cost periods.

Total costs = annual premium + out-of-pocket costs. High costs: weighted average of medical costs (70th percentile) and prescription costs (65th percentile). Low costs: weighted average for medical costs (25th percentile) and prescription costs (35th percentile). Plans include Part D and exclude those with subsidies for low-income beneficiaries. Today's dollar calculation used a 2.4% discount rate. Estimated future value of total average costs at age 95 is $1,868. Cost estimates include increased use of medical care at older ages and will vary based on plan characteristics.
Source: HealthView Services, December 2024.

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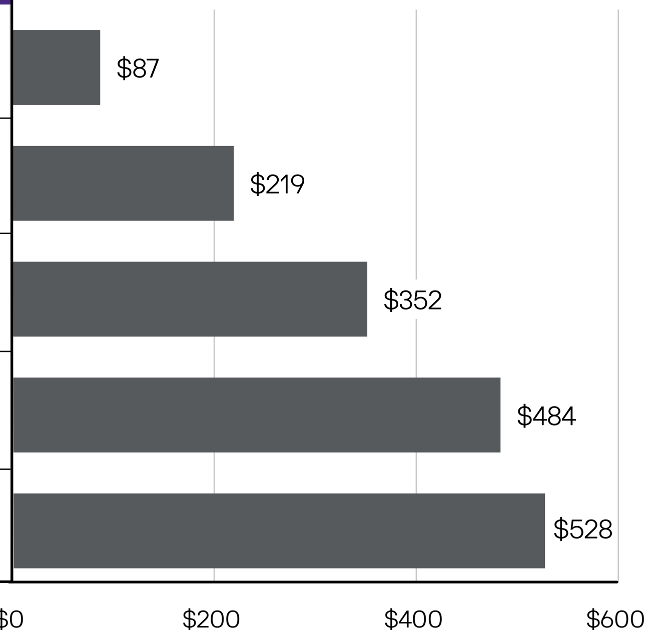
2025 income-related monthly adjustment amounts

The adjustment amount is the same for all income levels within a band

If you go over a threshold, you pay the additional premium for that band

Modified Adjusted Gross Income based on 2023 tax year filing[1]		Additional **monthly** premium amount per person Parts B & D in 2025
Filing single	Filing jointly	
$106,000-$133,000	$212,000-$266,000	$87
$133,000-$167,000	$266,000-$334,000	$219
$167,000-$200,000	$334,000-$400,000	$352
$200,000-$500,000	$400,000-$750,000	$484
$500,000 or more	$750,000 or more	$528



Surcharge details

There may be a bigger impact for singles and surviving spouses: Medicare surcharge thresholds for singles are half of the thresholds for couples.

Filing an appeal?
If you have stopped work or you have lower income due to circumstances outside of your control, you might be eligible for an appeal. See form SSA-44 for details: https://www.ssa.gov/forms/ssa-44-ext.pdf

[1]The Social Security Administration uses the most recent federal return supplied by the IRS. If you amended your return in a way that changes your adjustment amount, you may need to contact your Social Security office.
Source: Medicare.gov as of November 2024.
This is not meant to be personal tax advice. Please consult your tax professional for specifics for your situation. Modified Adjusted Gross Income (MAGI) for purposes of calculating Medicare surcharges is Adjusted Gross Income (AGI) plus tax-exempt interest income. Thresholds increase each year with inflation, except the top threshold, which was added in 2019; this top threshold is set to annually inflate starting in 2028.

Long-term care planning options

Consider utilizing more than one option

Family & friends
Will you want to move closer?

Savings/expense reductions
Some expenses such as travel may go down

Insurance
Options: traditional long-term care insurance, combination life and annuity products, life insurance for a surviving spouse and deferred annuities for income late in life

Life plan communities
Often starts with independent living and offers additional services or facilities when needed.
For more information: https://www.mylifesite.net/

Home equity
Second homes may be sold; the home equity in your primary residence may be used; credit availability and home value may fluctuate

Medicaid:

After exhausting other options

Rules to qualify vary by state but generally you must be low income with few assets to qualify[1]

Start planning early

- Is it feasible to buy less insurance coverage and combine it with other solutions?
- Health Savings Accounts (HSAs) may be used tax free for qualified expenses in retirement.[2]
- Prefer care at home? Consider how you will remain socially connected.

[1]If you transfer assets to others, there is a five-year "look back" where the government will recover the assets transferred if you go on Medicaid. This is not personal advice; consult an elder care attorney if you have questions.
[2]HSAs may be used to fund qualified traditional long-term care policy premiums up to certain limits. Necessary home improvements may qualify if they do not improve the value of your home. Services for chronically ill individuals who are unable to perform two or more activities of daily living or who have severe cognitive impairment may be qualified if they are part of a prescribed plan from a licensed practitioner. For a list of qualified expenses, see IRS Publication 502 or consult your tax professional; this is not meant to be personal tax advice.
Source: J.P. Morgan Asset Management.

Retirement plan contribution and deferral limits: 2024/2025

Type of retirement account	Specifics	2024	2025
401(k), 403(b), 457(b)	401(k) elective deferral limit (with catch-up contribution/special catch-up age 60-63)	$23,000 ($30,500 age 50+)	$23,500 ($31,000 age 50-59 and 64+/$34,750 age 60-63)
	Annual defined contribution limit	$69,000	$70,000
	Annual compensation limit	$345,000	$350,000
	Highly compensated employee threshold	$155,000	$160,000
	403(b)/457 elective deferrals (with catch-up contribution/special catch-up age 60-63)	$23,000 ($30,500 age 50+)	$23,500 ($31,000 age 50-59 and 64+/$34,750 age 60-63)
SIMPLE IRA	SIMPLE employee deferrals (with catch-up deferral)	$16,000 ($19,500 age 50+)	$16,500 ($19,500 age 50-59 and 64+/$21,750 age 60-63)
SEP IRA	Maximum contribution[2]	$69,000	$70,000
	SEP minimum compensation	$750	$750
	SEP annual compensation limit	$345,000	$350,000
Health Savings Account (HSA)	Maximum contribution amount (with catch-up contribution age 55 and over)	**Single:** $4,150 ($5,150) **Family:** $8,300 ($9,300)	**Single:** $4,300 ($5,300) **Family:** $8,550 ($9,550)
	Minimum deductible	**Single:** $1,600 **Family:** $3,200	**Single:** $1,650 **Family:** $3,300
	Maximum out-of-pocket expenses	**Single:** $8,050 **Family:** $16,100	**Single:** $8,300 **Family:** $16,600
Social Security	Wage base	$168,600	$176,100
	Maximum earnings test exempt amounts[3]	$22,320/year (before FRA*) $59,520/year (in year of FRA*)	$23,400/year (before FRA*) $62,100/year (in year of FRA*)
	Maximum Social Security benefit at FRA*	$3,911/month	$4,018/month
Defined benefit – maximum annual benefit at retirement		$275,000	$280,000

*FRA is Full Retirement Age for Social Security. Assumes FRA at age 67.
[1]Employer may either match employee's salary reduction contributions dollar for dollar up to 3% of employee's compensation or make non-elective contributions equal to 2% of compensation up to the annual compensation limit. IRS Publication 560.
[2]Employer contributions may not exceed the annual defined contribution limit or 25% of compensation. Other rules apply for self-employed individuals. IRS Publication 560.
[3]In calendar years before FRA, benefit reduced $1 for every $2 of earned income above the limit; during year of FRA, benefit reduced $1 for every $3 of earned income in months prior to FRA.
Source: IRS.gov; SSA.gov

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Disclosures

Unless otherwise indicated, all illustrations are shown in U.S. dollars.

Past performance is no guarantee of comparable future results.

Diversification does not guarantee investment returns and does not eliminate the risk of loss.

Indices are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. This world-renowned index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the S&P 500 Index focuses on the large cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market. An investor cannot invest directly in an index.

The **Bloomberg Capital U.S. Aggregate Index** represents securities that are SEC-registered, taxable and dollar denominated. The index covers the U.S. investment-grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

Bonds are subject to interest rate risks. Bond prices generally fall when interest rates rise.

The price of **equity** securities may rise or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk," meaning that stock prices in general may decline over short or extended periods of time.

Investing in **alternative assets** involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax professional prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

Opinions and estimates offered constitute our judgment and are subject to change without notice, as are statements of financial market trends, which are based on current market conditions. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. References to future returns are not promises or even estimates of actual returns a client portfolio may achieve.

Asset class	20/80	40/60	50/50	60/40	80/20
U.S. large cap growth	4.5%	8.8%	11.0%	13.3%	17.5%
U.S. large cap value	4.5%	8.8%	11.0%	13.3%	17.5%
U.S. mid/small cap	2.3%	4.5%	5.5%	6.5%	9.0%
U.S. REITs	1.0%	2.0%	2.5%	3.0%	4.0%
Developed market equities	5.5%	11.3%	14.0%	16.8%	22.5%
Emerging market equities	2.3%	4.8%	6.0%	7.3%	9.5%
U.S. investment-grade bonds	61.8%	45.8%	38.0%	30.0%	14.0%
U.S. high yield bonds	12.3%	9.3%	7.5%	6.0%	3.0%
Emerging market debt	4.0%	3.0%	2.5%	2.0%	1.0%
U.S. cash	2.0%	2.0%	2.0%	2.0%	2.0%

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J.P.Morgan
ASSET MANAGEMENT

Privacy standards

- **We're proud to serve nearly half of America's households**
- **Our analysis of spending patterns is based on proprietary data across JPMorgan Chase**
- **All data is aggregated, completely anonymized and kept confidential and secure**

DATA PRIVACY: We have a number of security protocols in place which are designed to ensure all customer data is kept confidential and secure. We use reasonable physical, electronic and procedural safeguards that are designed to comply with federal standards to protect and limit access to personal information. There are several key controls and policies in place which are designed to ensure customer data is safe, secure and anonymous:

(1) Before J.P. Morgan Asset Management (JPMAM) receives the data, all selected data is highly aggregated and all unique identifiable information, including names, account numbers, addresses, dates of birth and Social Security numbers, is removed.

(2) JPMAM has put privacy protocols in place for its researchers. Researchers are obligated to use the data solely for approved research and are obligated not to re-identify any individual represented in the data.

(3) JPMAM does not allow the publication of any information about an individual or entity. Any data point included in any publication based on customer data may only reflect aggregate information.

(4) The data is stored on a secure server and can be accessed only under strict security procedures. Researchers are not permitted to export the data outside of JPMorgan Chase's (JPMC) systems. The system complies with all JPMC Information Technology Risk Management requirements for the monitoring and security of data.

(5) JPMAM provides valuable insights to policymakers, businesses and financial professionals, but these insights cannot come at the expense of consumer privacy. We take every precaution to ensure the confidence and security of our account holders' private information.