RETIREMENT INSIGHTS

Guide to Retirement℠

2020 Edition

J.P.Morgan
Asset Management

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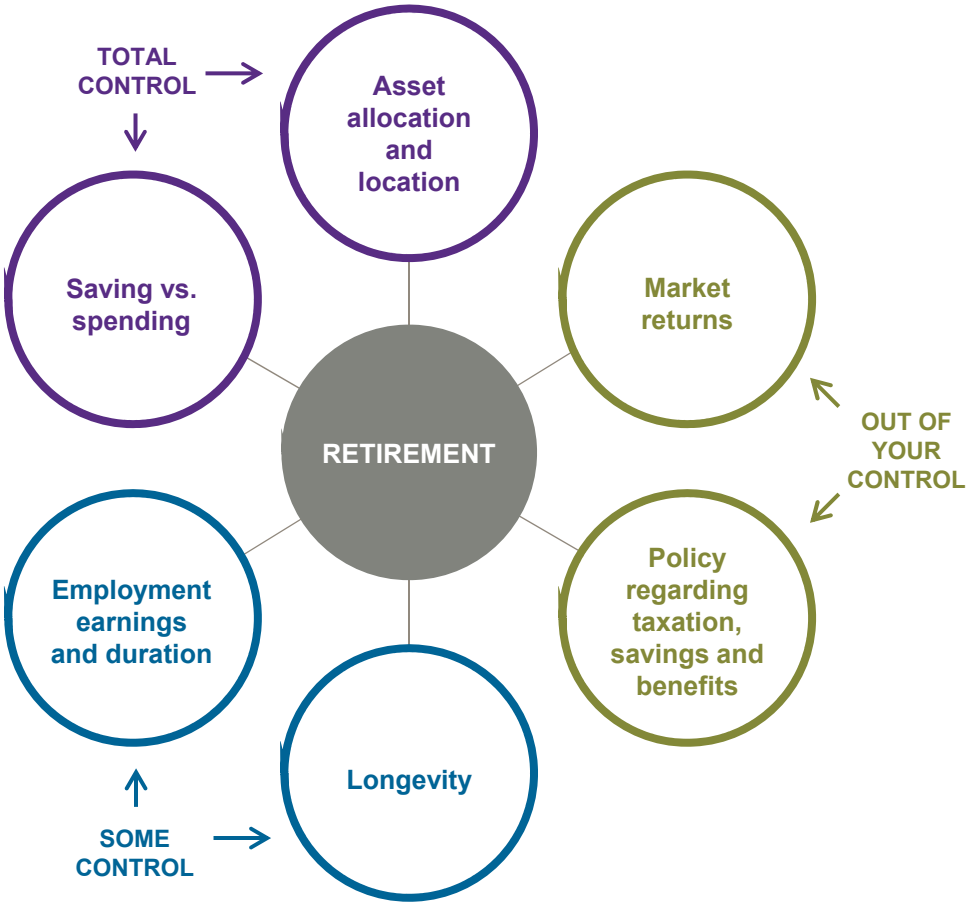
The retirement equation



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: The Importance of Being Earnest, J.P. Morgan Asset Management, 2013.

Setting Every Community Up for Retirement Enhancement Act of 2019

Revisit your plan: changes as a result of the SECURE Act may require action.

Individuals

- Eliminates stretch IRA option for most non-spouse beneficiaries – full withdrawal required within 10 years of account owner's death
- Increase in the Required Minimum Distribution starting age to age 72[1]
- Penalty-free withdrawals for birth or adoption ($5,000 per person, within one year of birth or finalized adoption)[2]
- Eliminates age cap on traditional IRA contributions (earned income required)

Small Business Owners
(≤100 Employees)

- Tax Credits to establish a qualified retirement plan, SEP or SIMPLE plan (up to $5,000)
- Tax Credits to add auto escalation to a 401(k) or SIMPLE IRA plan ($500 per year for three years)

Plan Sponsors

- Fiduciary safe harbor for selecting insurer to provide lifetime income
- Portability of lifetime income options
- Increase in the automatic escalation cap in the automatic enrollment safe harbor from 10% to 15% for 401(k) plans
- Simplification of the rules for non-elective safe harbor 401(k) plans

After 2020

- Open Multiple Employer Plans (MEPs): permits a "pooled plan provider" to offer a "pooled employer plan" (defined contribution) to unrelated employers
- Lifetime income disclosure required on participant statements[3]
- Enables 401(k) participation by long-term part-time employees[4]

HIGHLIGHTS

The SECURE Act included several provisions intended to increase access to an employer-provided retirement plan and savings rates as well as access to lifetime retirement income (i.e., protected income).

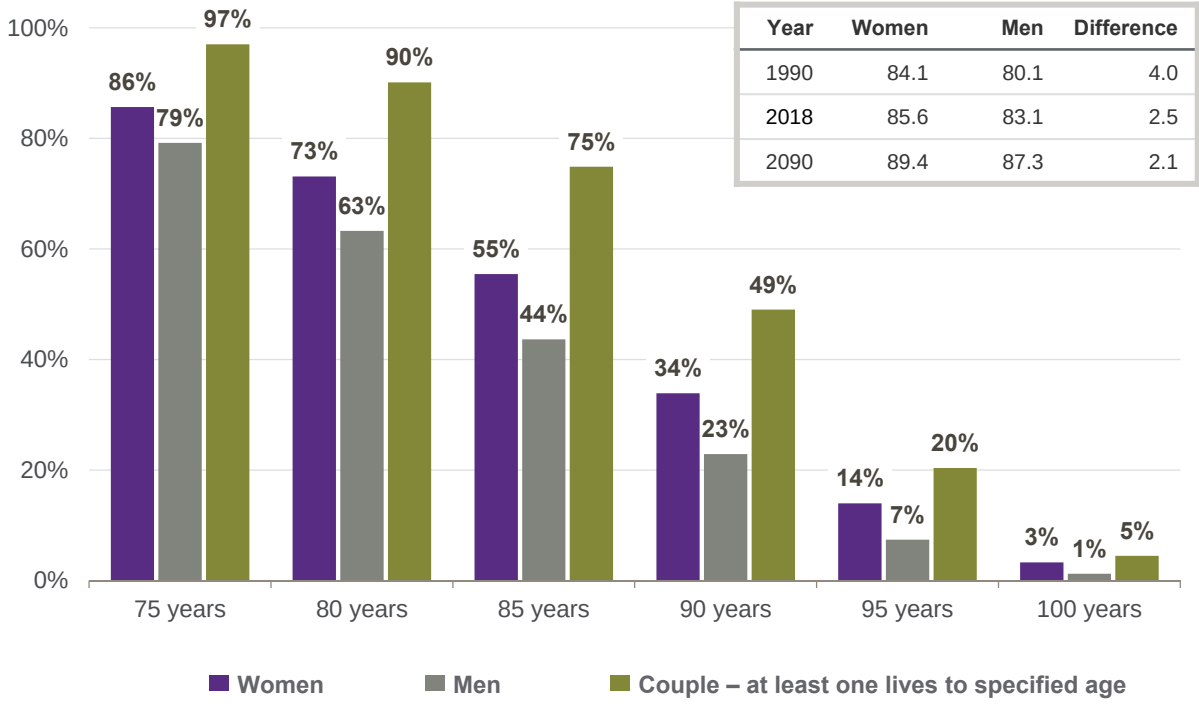
Certain changes such as the elimination of the stretch IRA and the increase in the required minimum distribution starting age should be carefully considered and may require you to update your retirement and estate plans.

Source: "The Setting Every Community Up for Retirement Enhancement Act of 2019, H.R. 1865". Unless specified, change is in effect after 2019.

1. Qualified defined contribution plans, traditional IRAs, 403(b) and 457(b) plans.
2. IRAs and qualified defined contribution plans and 403(b) plans if the plan sponsor chooses to offer this option.
3. 12 months after the Department of Labor provides guidance.
4. Applies to employees who work at least 500 hours in 3 consecutive years, but years before 2021 are ignored.

Life expectancy probabilities

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



Average life expectancy at age 65

Year	Women	Men	Difference
1990	84.1	80.1	4.0
2018	85.6	83.1	2.5
2090	89.4	87.3	2.1

PLAN FOR LONGEVITY

Average life expectancy continues to increase and is a mid-point not an end-point. You may need to plan on the probability of living much longer – perhaps 30+ years in retirement – and invest a portion of your portfolio for growth to maintain your purchasing power over time.

Chart: Social Security Administration, Period Life Table, 2016 (published in 2019), J.P. Morgan Asset Management.
Table: Social Security Administration 2019 OASDI Trustees Report.
Probability at least one member of a same-sex female couple lives to age 90 is 56% and a same-sex male couple is 41%.

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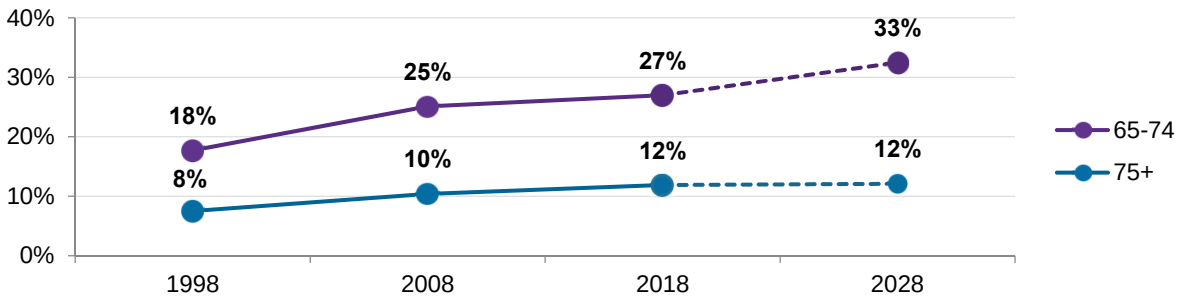
Older Americans in the workforce

Percent of people in the civilian labor force 1998-2028

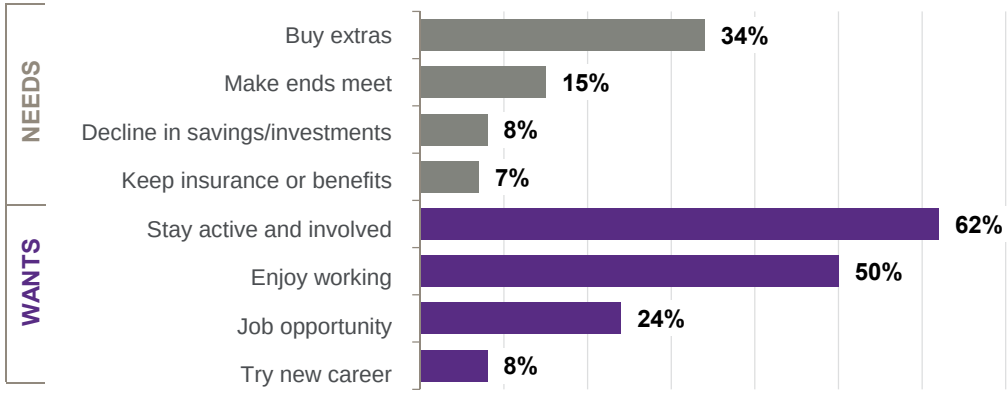


Total civilian population 65+	32mm	37mm	51mm	69mm

IT'S STILL OFF TO WORK I GO

More people are working later in life, motivated by the desire to do so.

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 2018 and projection to 2028. Civilian population age 65+ is non-institutionalized population.

Source (bottom chart): Employee Benefit Research Institute, Mathew Greenwald & Associates, Inc., 2019 Retirement Confidence Survey. Data as of October 25, 2019. Latest available data through December 31, 2019. People may have given more than one answer.

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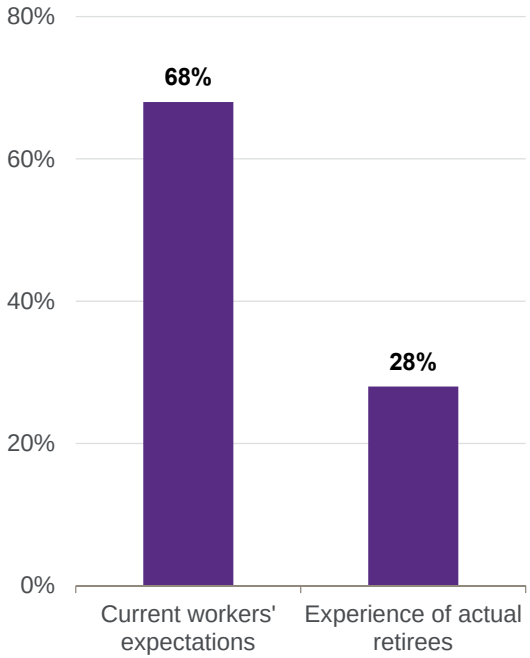
Managing expectations of ability to work

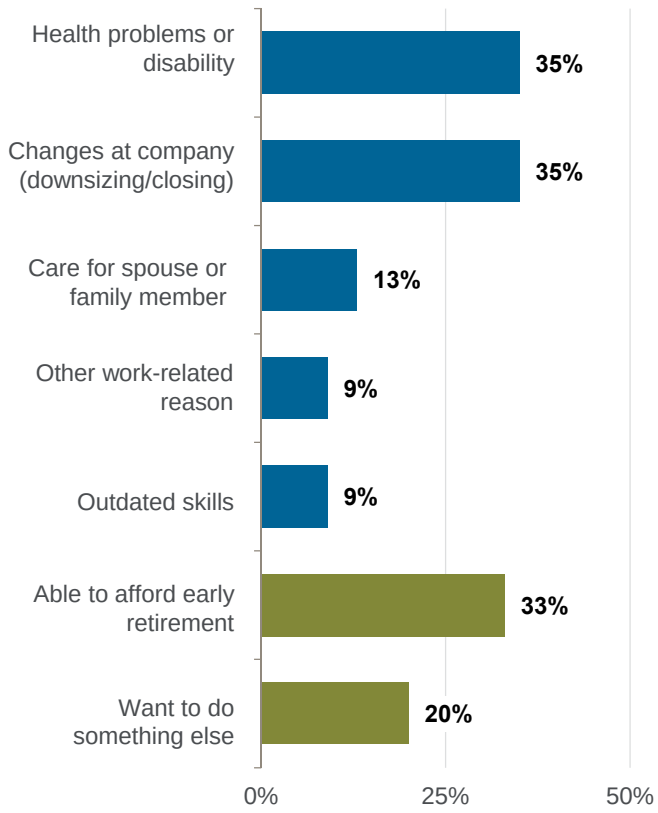
Expectations of workers vs. retirees
To retire at age 65 or older



Median retirement age

Expected:	65
Actual:	62

Reasons cited for retiring earlier than planned



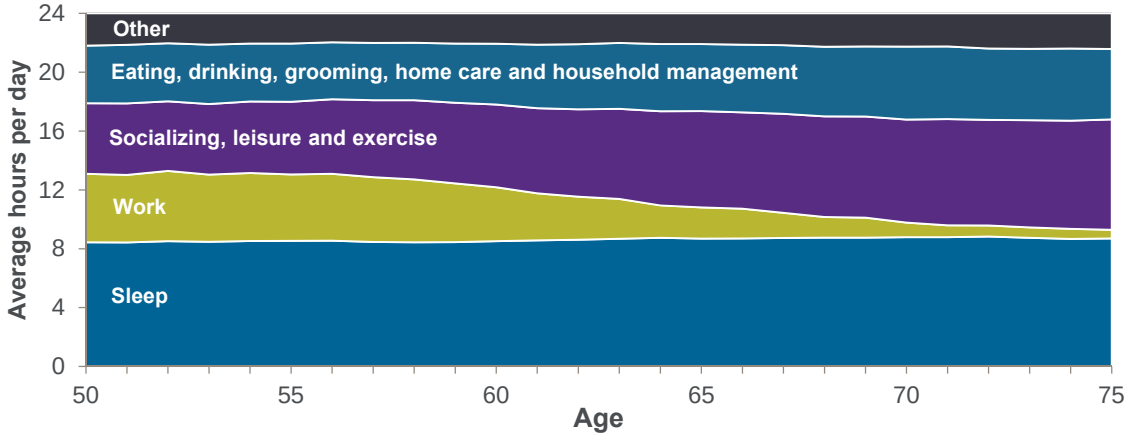
EARLY RETIREMENT

You may not have complete control over when you retire, so you should consider having a back-up plan. You may have to draw income earlier and make your portfolio last longer than you anticipate.

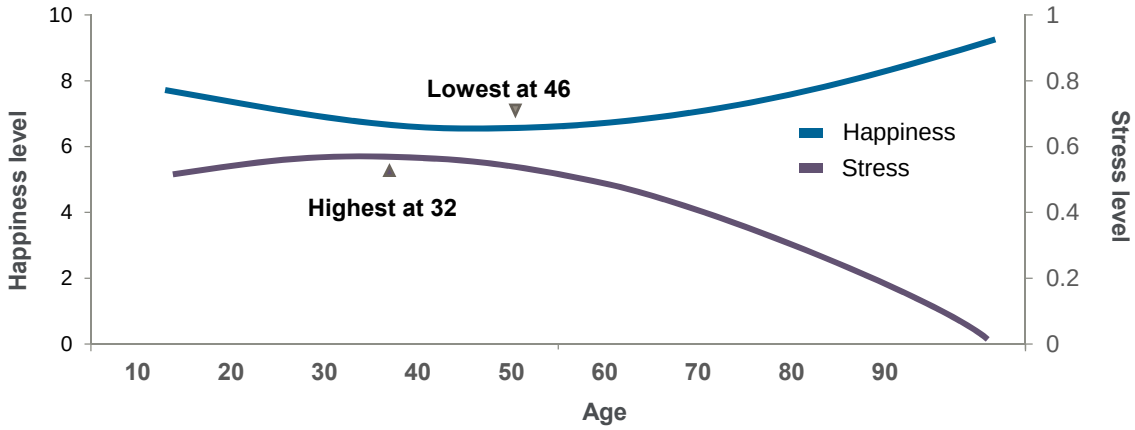
Source: Employee Benefit Research Institute, Mathew Greenwald & Associates, Inc., 2019 Retirement Confidence Survey. Data as of October 22, 2019. Individuals may have given more than one answer (right chart).

Changes in lifestyle

Amount of daily hours spent per activity by age



Levels of happiness and stress by age



SPEND TIME PLANNING YOUR TIME

Retirement offers the gift of time to do the things that matter most to you. While our happiest years may be in retirement, the transition isn't always a walk on the beach. Knowing what activities and social connections are fulfilling prior to retiring can ease the stress often associated with this new life stage.

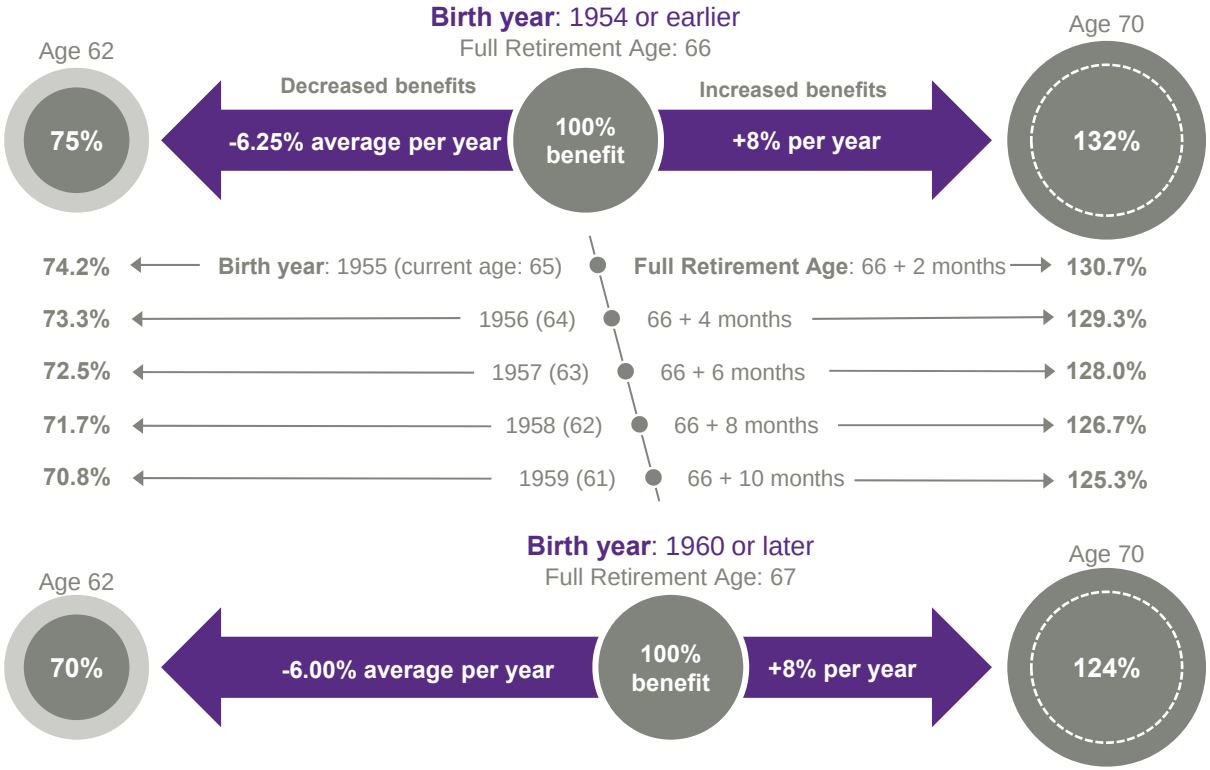
Values include people who do and do not participate in the activities. Values are weighted by the age and then averaged across rolling five-year age groups. Each category includes time spent traveling to and from the activity if applicable.

Source (top chart): Bureau of Labor Statistics American Time Use Survey 2016, J.P. Morgan Asset Management analysis.

Source (bottom chart): Carol Graham & Julia Ruiz Pozuelo, 2017. "Happiness, stress and age: how the U curve varies across people and places," Journal of Population Economics, 256. Values are for married Americans.

Social Security timing tradeoffs

Benefits differ by birth year and claim age
Full Retirement Age = 100% benefit



Cost of living increase for benefits received in 2020	**1.6%**
Average cost of living adjustment (1985-2020)	**2.6%**

UNDERSTAND THE TRADEOFFS

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.

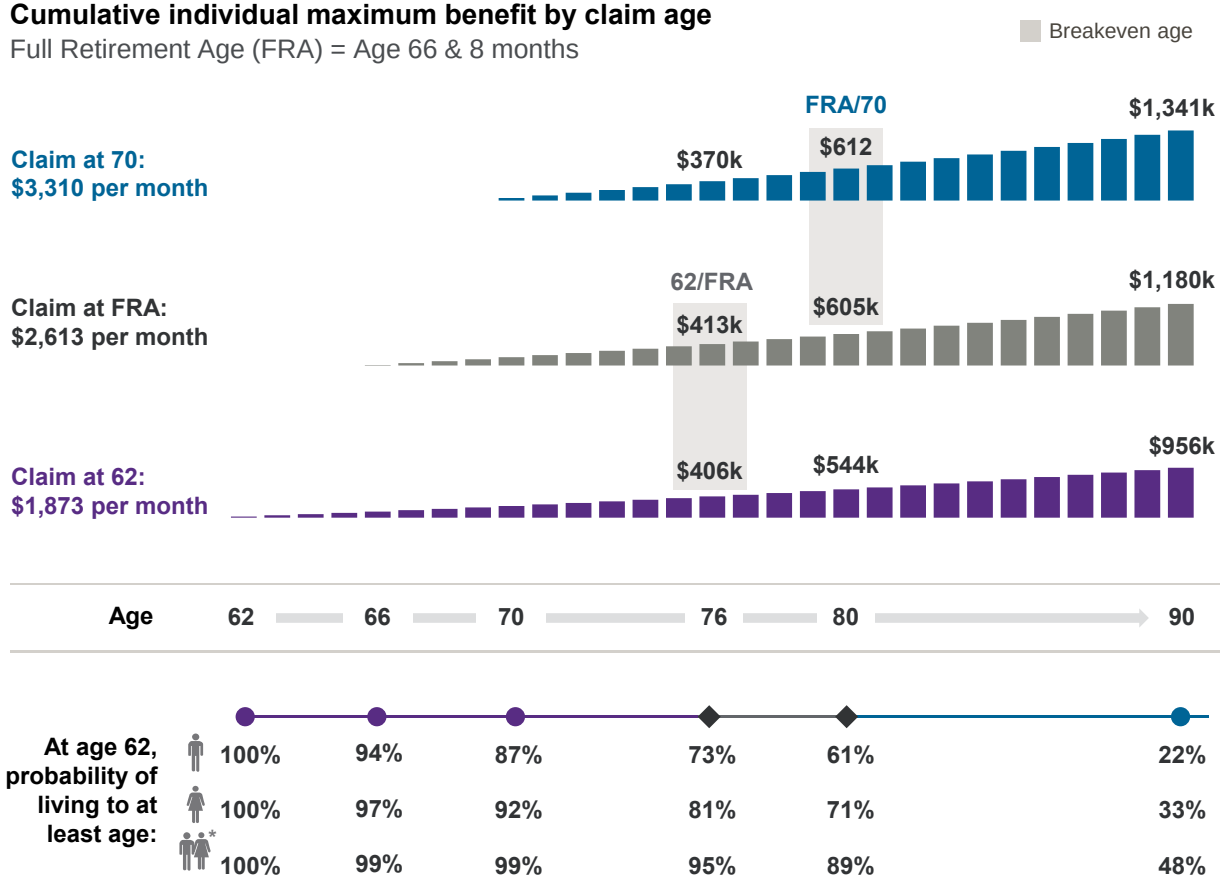
For illustrative purposes only. The Social Security Amendments Act of 1983 increased FRA from 65 to 67 over a 40-year period. The first phase of transition increased FRA from 65 to 66 for individuals turning 62 between 2000 and 2005. After an 11-year hiatus, the transition from 66 to 67 (2017-2022) will complete the move.

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

Maximizing Social Security benefits – average earner

Cumulative individual maximum benefit by claim age

Full Retirement Age (FRA) = Age 66 & 8 months



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.

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

*Couple assumes at least one lives to the specified age or beyond. Breakeven assumes the same individual, born in 1958, earns $70k in the year before retirement, retires at the end of age 61 and claims at 62 & 1 month, 66 & 8 months and 70, respectively. Benefits are assumed to increase each year based on the Social Security Administration 2019 Trustee's Report "intermediate" estimates (annual benefit increase of 2.6%). Monthly amounts with the cost of living adjustments (not shown on the chart) are: $1,873 at age 62; $2,898 at FRA; and $4,068 at age 70. Exact breakeven ages are 76 & 6 months and 80 & 5 months.

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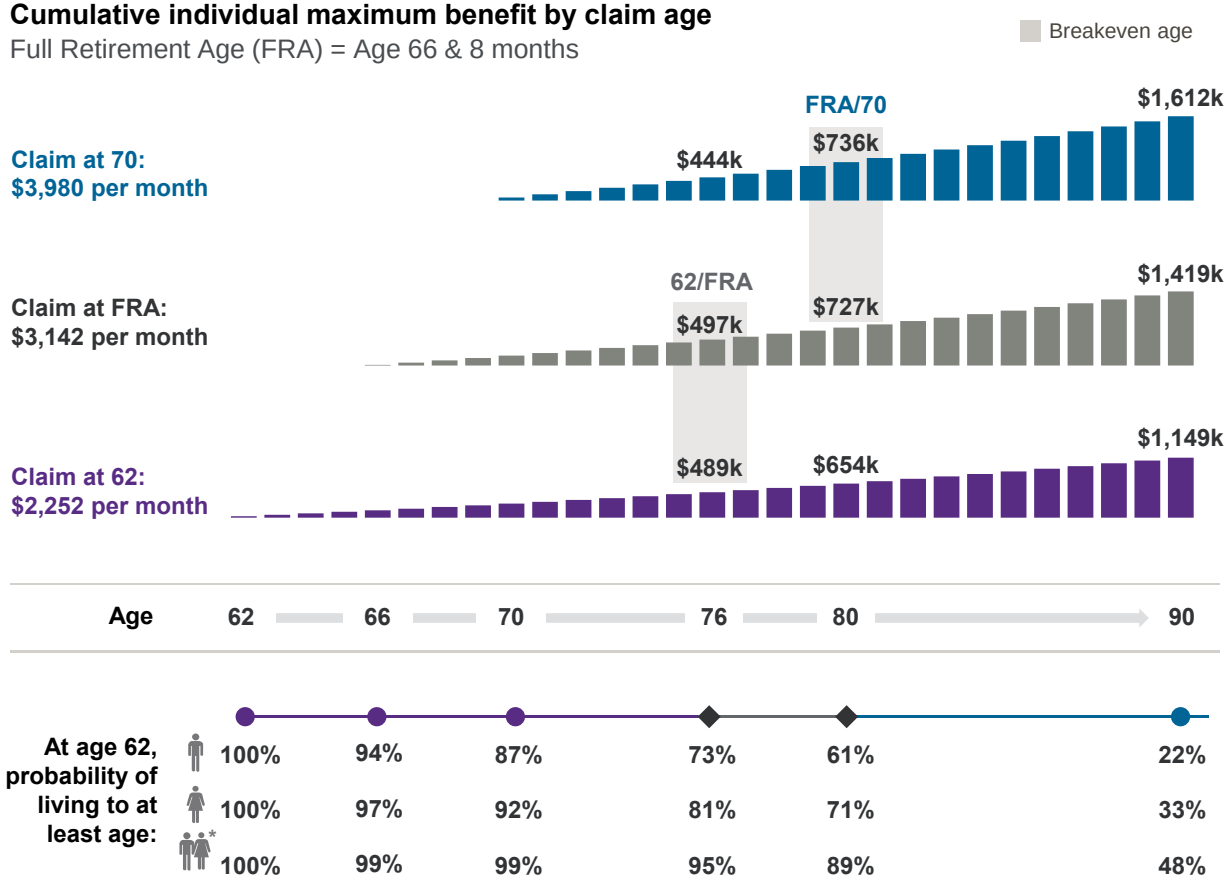
Maximizing Social Security benefits – maximum earner

Cumulative individual maximum benefit by claim age

Full Retirement Age (FRA) = Age 66 & 8 months



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.

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

*Couple assumes at least one lives to the specified age or beyond. Breakeven assumes the same individual, born in 1958, earns the maximum wage base each year, retires at the end of age 61 and claims at 62 & 1 month, 66 & 8 months and 70, respectively. Benefits are assumed to increase each year based on the Social Security Administration 2019 Trustee's Report "intermediate" estimates (annual benefit increase of 2.6%). Monthly amounts with the cost of living adjustments (not shown on the chart) are: $2,252 at age 62; $3,485 at FRA; and $4,891 at age 70. Exact breakeven ages are 76 & 5 months and 80 & 5 months.

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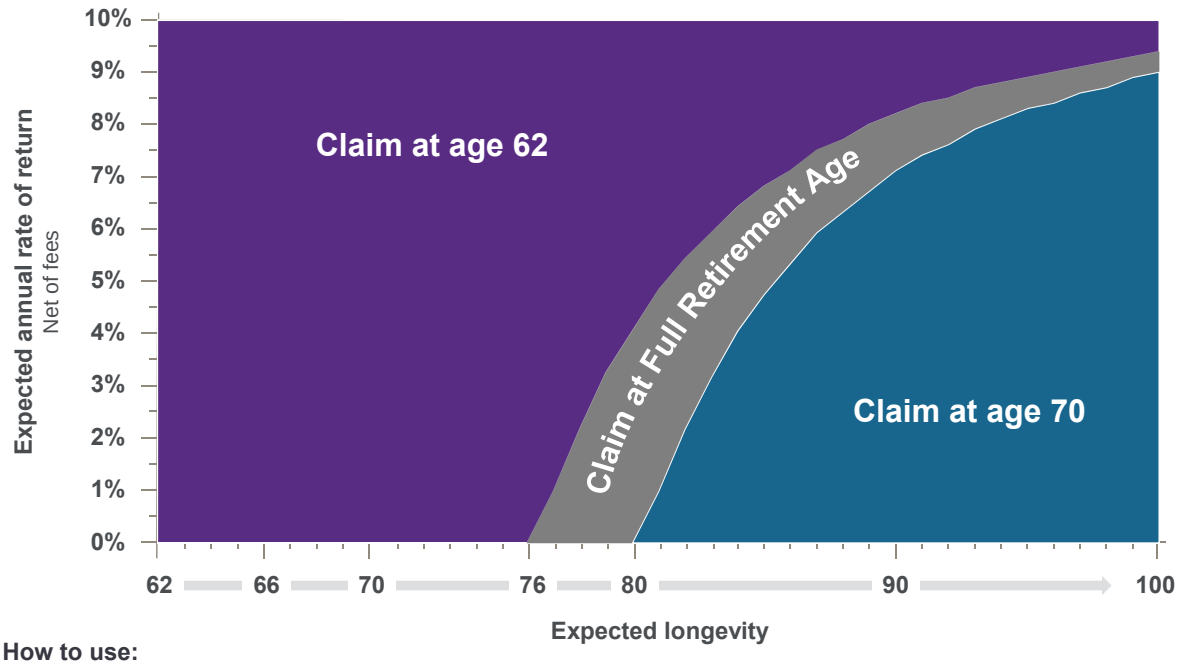
Social Security benefit claiming considerations

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



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.

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 Social Security benefits over the course of one's life – given the three options of age 62, Full Retirement Age (age 66 & 8 months) and age 70.
- Example: For an individual with a consistent expected rate of return of 5% net of fees and average expected female longevity (age 86) = Claim at age 70.

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

Source (longevity at age 62): Social Security Administration, Period Life Table, 2016 (published in 2019), J.P. Morgan Asset Management.

Source (expected returns): J.P. Morgan Asset Management Long-Term Capital Market Assumptions.

Assumes the same individual, born in 1958, retires at the end of age 61 and claims at 62 & 1 month, 66 & 8 months and 70, respectively. Benefits are assumed to increase each year based on the Social Security Administration 2019 Trustee's Report "intermediate" estimates (annual benefit increase of 2.6%). Expected rate of return is deterministic, in nominal terms, and net of fees.

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Retirement savings checkpoints

Household Income <$90k
Annual Savings Rate: 5%

	$30,000	$40,000	$50,000	$60,000	$70,000	$80,000	$90,000
Current age	**Checkpoint (x current household income)**						
25	0.4	0.4	0.5	0.6	0.8	0.9	1.1
30	0.7	0.8	0.9	1.0	1.2	1.4	1.5
35	1.1	1.2	1.3	1.5	1.7	2.0	2.1
40	1.6	1.8	1.9	2.0	2.4	2.6	2.9
45	2.2	2.4	2.5	2.7	3.1	3.5	3.7
50	3.0	3.2	3.3	3.6	4.1	4.5	4.8
55	3.9	4.1	4.3	4.6	5.2	5.7	6.1
60	4.9	5.2	5.5	5.8	6.6	7.2	7.6
65	6.4	6.8	7.0	7.5	8.4	9.1	9.7

How to use:

- 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).
- Go to the intersection of your current age and your closest current household income.
- Multiply your salary by the checkpoint shown. This is the amount you should have saved today, assuming you continue contributions of 5% going forward.
- Example: For a 40-year-old with a household income of $50,000: $50,000 x 1.9 = $95,000

MODEL ASSUMPTIONS

Annual gross savings rate: **5%***

Pre-retirement investment return: **6.0%**

Post-retirement investment return: **5.0%**

Inflation rate: **2.0%**

Retirement age –
- Primary earner: **65**
- Spouse: **62**

Years in retirement: **30**

*5% is approximately the U.S. average annual savings rate

This chart is for illustrative purposes only and must not be relied upon to make investment decisions. J.P. Morgan's model is based on J.P. Morgan Asset Management's (JPMAM) proprietary Long-Term Capital Market Assumptions (10-15 years) and an 80% confidence level. Household income replacement rates are derived from an inflation-adjusted analysis of: Consumer Expenditure Survey (BLS) data (2013-2016); Social Security benefits using modified scaled earnings in 2019 for a single wage earner at age 65 and a spousal benefit at age 62 reduced by Medicare Part B premiums. For more details, see slide 15.

Consult with a financial advisor for a more personalized assessment. Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward tradeoffs 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.

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Retirement savings checkpoints

Household Income >$100k
Annual Savings Rate: 10%

	$100,000	125,000	$150,000	$175,000	$200,000	$250,000	$300,000
Current age	**Checkpoint (x current household income)**						
25	0.2	0.3	0.5	0.7	0.8	1.0	1.2
30	0.7	0.9	1.2	1.4	1.5	1.8	2.0
35	1.4	1.6	1.9	2.2	2.4	2.7	2.9
40	2.2	2.5	2.9	3.2	3.4	3.8	4.1
45	3.2	3.6	4.0	4.4	4.7	5.2	5.4
50	4.4	4.8	5.4	5.9	6.2	6.8	7.1
55	5.9	6.4	7.1	7.7	8.1	8.7	9.2
60	7.7	8.3	9.1	9.8	10.3	11.1	11.7
65	10.1	10.8	11.8	12.7	13.3	14.3	14.9

How to use:

- 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).
- Go to the intersection of your current age and your closest current household income.
- Multiply your salary by the checkpoint shown. This is the amount you should have saved today, assuming you continue contributions of 10% going forward.
- Example: For a 40-year-old with a household income of $100,000: $100,000 x 2.2 = $220,000.

MODEL ASSUMPTIONS

Annual gross savings rate: **10%***

Pre-retirement investment return: **6.0%**

Post-retirement investment return: **5.0%**

Inflation rate: **2.0%**

Retirement age –
- Primary earner: **65**
- Spouse: **62**

Years in retirement: **30**

*10% is approximately twice the U.S. average annual savings rate

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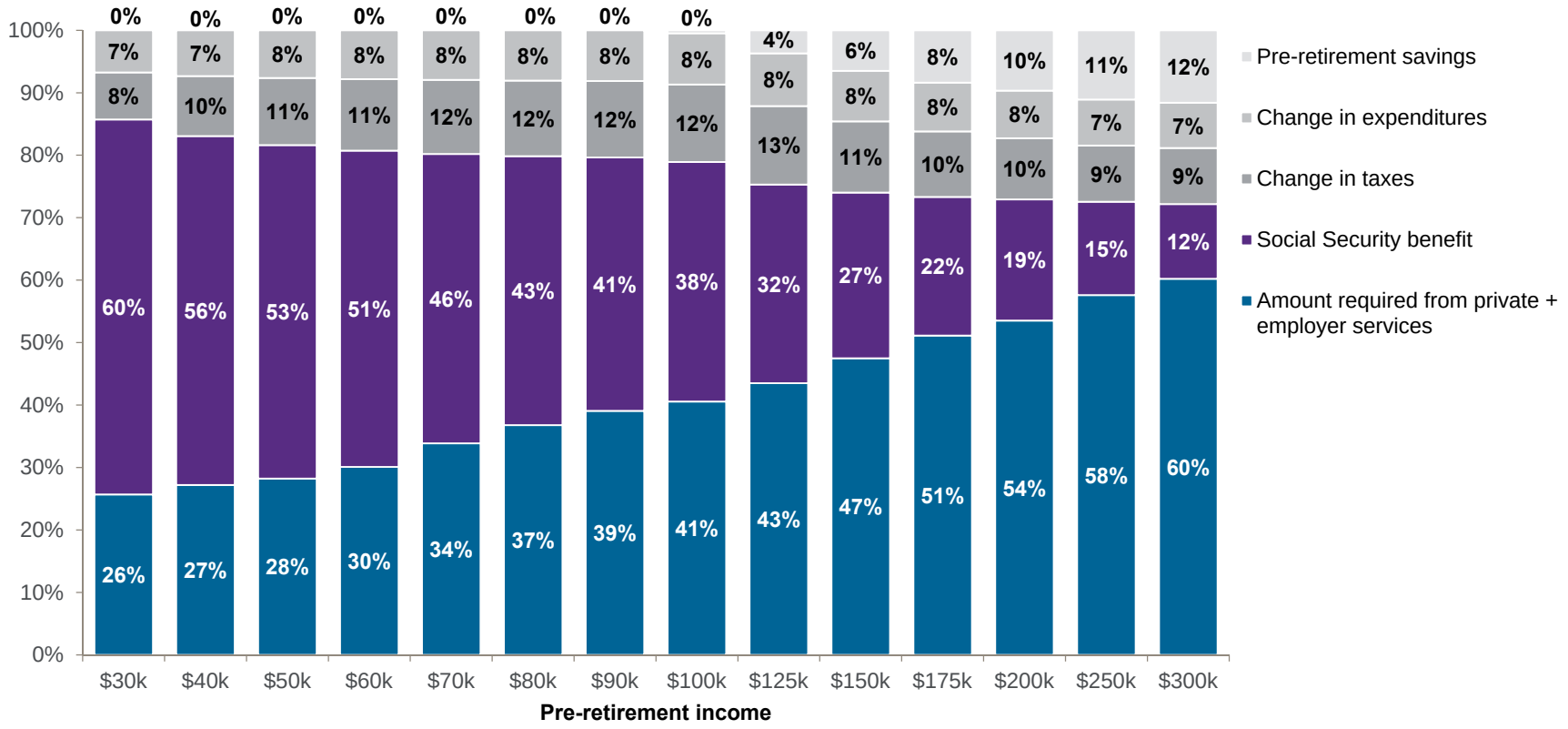
Income replacement needs vary by household income

Replacement rate detail by household income



Source: J.P. Morgan Asset Management analysis, 2019. Household income replacement rates are derived from an inflation-adjusted analysis of: Consumer Expenditure Survey (BLS) data (2013-2016); Social Security benefits using modified scaled earnings in 2019 for a single wage earner at age 65 and a spousal benefit at age 62 reduced by Medicare Part B premiums. The income replacement needs may be lower for households in which both spouses are working and the second spouse's individual benefits are greater than their spousal benefit. Single household income replacement needs may vary as spending is typically less than a two-spouse household; however, the loss of the Social Security spousal benefit may offset the spending reduction. Percentages and values may not sum due to rounding.

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Annual savings needed if starting today

Saving

	$30,000	$40,000	$50,000	$60,000	$70,000	$80,000	$90,000
Start saving age	**Savings rate (x current household income)**						
25	7%	7%	8%	8%	9%	10%	10%
30	9%	9%	10%	10%	12%	13%	13%
35	12%	12%	13%	13%	15%	16%	18%
40	15%	16%	17%	18%	20%	22%	24%
45	22%	23%	24%	25%	28%	31%	33%
50	32%	34%	35%	38%	42%	46%	49%

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 you should 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 17% every year until retirement.

Important things you need to know:

- Modest forward-looking returns may require higher savings going forward.
- Values assume you would like to maintain an equivalent lifestyle in retirement.
- Household income is assumed to be gross income (before taxes and savings).

MODEL ASSUMPTIONS

Pre-retirement investment return: **6.0%**

Post-retirement investment return: **5.0%**

Inflation rate: **2.0%**

Retirement age:
- Primary earner: **65**
- Spouse: **62**

Years in retirement: **30**

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Annual savings needed if starting today

	$100,000	$125,000	$150,000	$175,000	$200,000	$250,000	$300,000
Start saving age	**Savings rate (x current household income)**						
25	11%	12%	13%	14%	14%	15%	16%
30	14%	15%	16%	18%	18%	20%	21%
35	18%	20%	21%	23%	24%	26%	27%
40	24%	26%	29%	31%	32%	35%	36%
45	34%	37%	40%	43%	45%	48%	51%
50	51%	54%	59%	64%	67%	72%	75%

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 you should 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 24% every year until retirement.

Important things you need to know:

- Modest forward-looking returns may require higher savings going forward.
- Values assume you would like to maintain an equivalent lifestyle in retirement.
- Household income is assumed to be gross income (before taxes and savings).

MODEL ASSUMPTIONS

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Years in retirement: **30**

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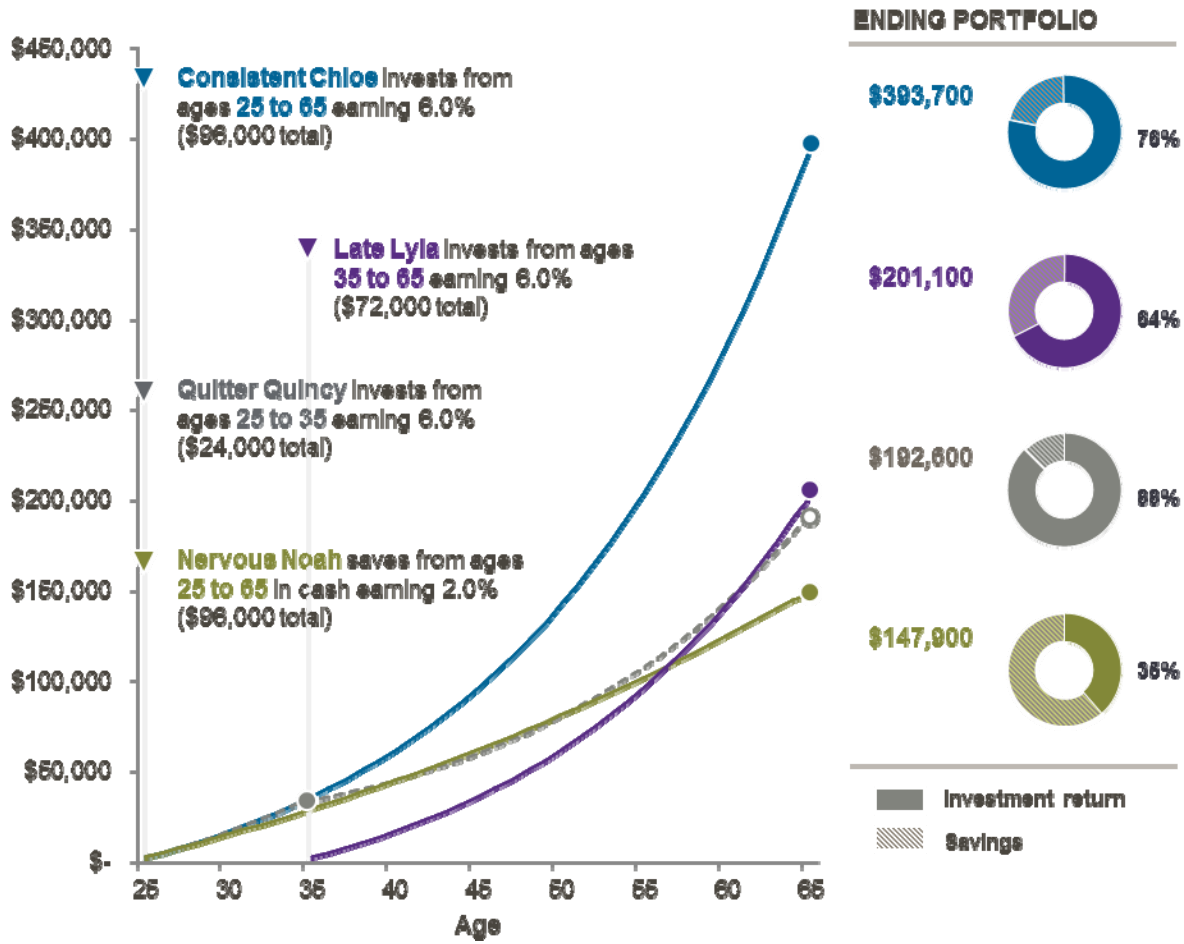
Consult with a financial advisor for a more personalized assessment. Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward tradeoffs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting 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



SAVING FUNDAMENTALS

Saving early and often, and investing what you save, are some of the keys to a successful retirement due to the power of compounding over the long term.

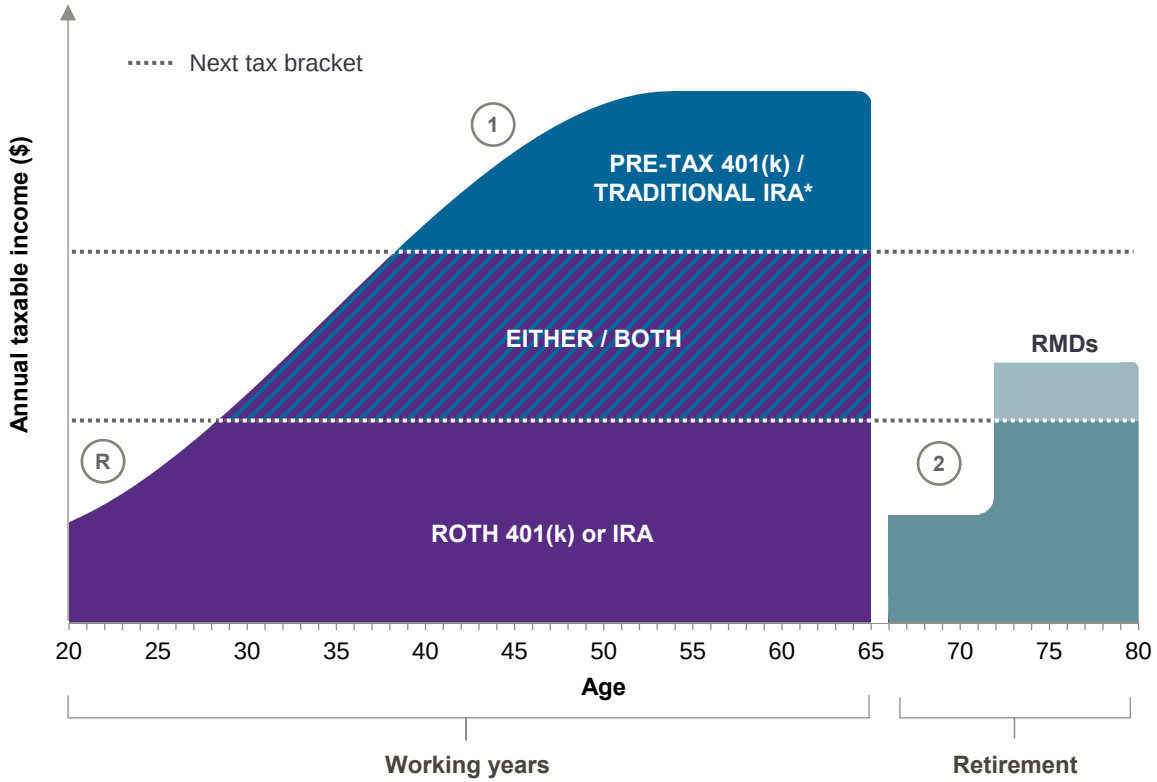
The above example is for illustrative purposes only and not indicative of any investment. Account value in this example assumes a 6.0% annual return and cash assumes a 2.0% annual return.

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.

J.P.Morgan Asset Management

Evaluate a Roth at different life stages

Changes in lifetime taxable income
Hypothetical wage curve



TAX DIVERSIFICATION

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

Rule: Contributing to a Roth early in your career and shifting as your income increases.

1. Roth 401(k) contributions in peak earning years if wealth is concentrated in tax-deferred accounts.

2. Proactive Roth conversions in lower income retirement years if RMDs are likely to push you into a higher bracket.

*If eligible to make a deductible contribution (based on your MAGI). The illustration reflects savings options into Traditional and Roth IRA accounts, as well as into pre-tax and Roth 401(k) accounts. RMD = Required Minimum Distributions, which are typically due no later than April 1 following the year the owner turns 72 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. Employer contributions are typically pre-tax and are subject to tax upon distribution.

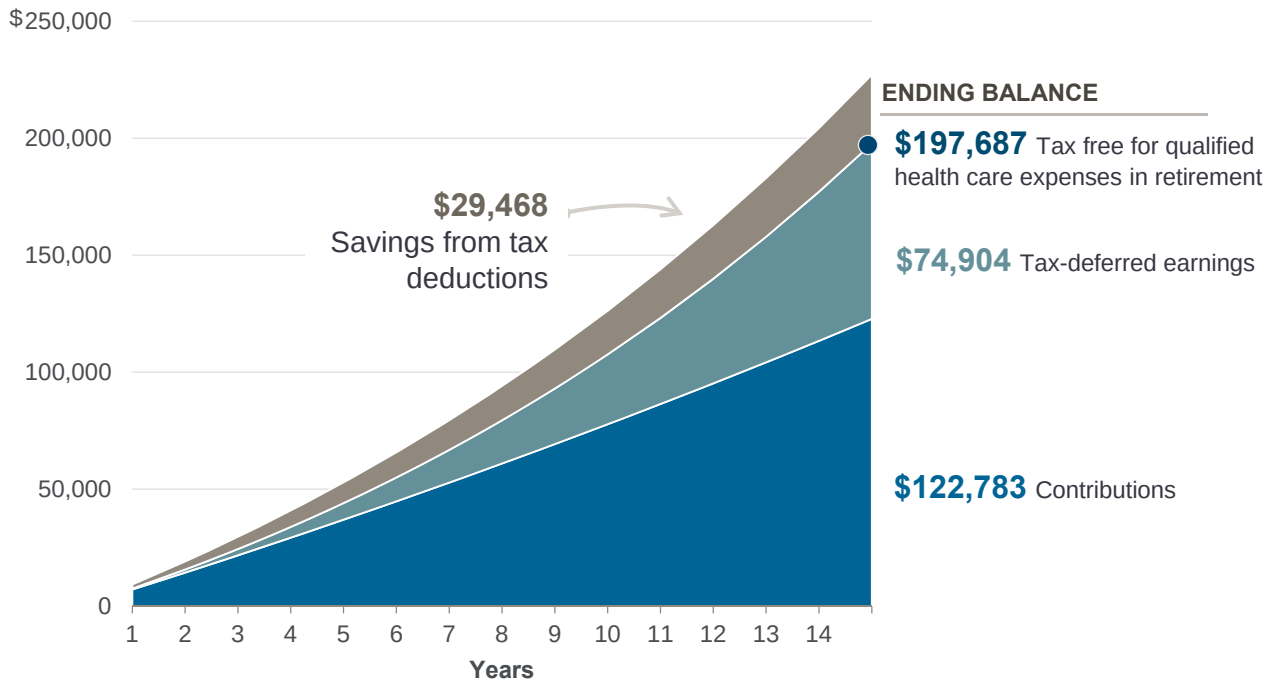
The above example is for illustrative purposes only.

Source: J.P. Morgan Asset Management.

J.P.Morgan Asset Management

Maximizing an HSA for health care expenses in retirement

Health Savings Account (HSA) savings are triple tax advantaged[1]
Maximum annual family contributions, 6% return and 24% marginal tax rate



MAKE THE MOST OF IT

If you are enrolled in a qualified high-deductible health plan and are eligible to contribute to a Health Savings Account, be sure to open and fund your HSA.

Investing your HSA contributions for the long term and paying for current health care expenses out of income or short-term savings can provide significant tax-free funds for health care expenses in retirement.

[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. Some health insurance premiums may be qualified expenses such as COBRA coverage, coverage while receiving state or Federal unemployment compensation, Medicare Part B and D premiums and qualified long-term care insurance premiums up to certain limits, but excludes Medigap / Medicare supplement policies and most long-term care policies that include annuity income or life insurance. See IRS Publications 969 and 502. This is not intended to be individual tax advice; consult your tax advisor.

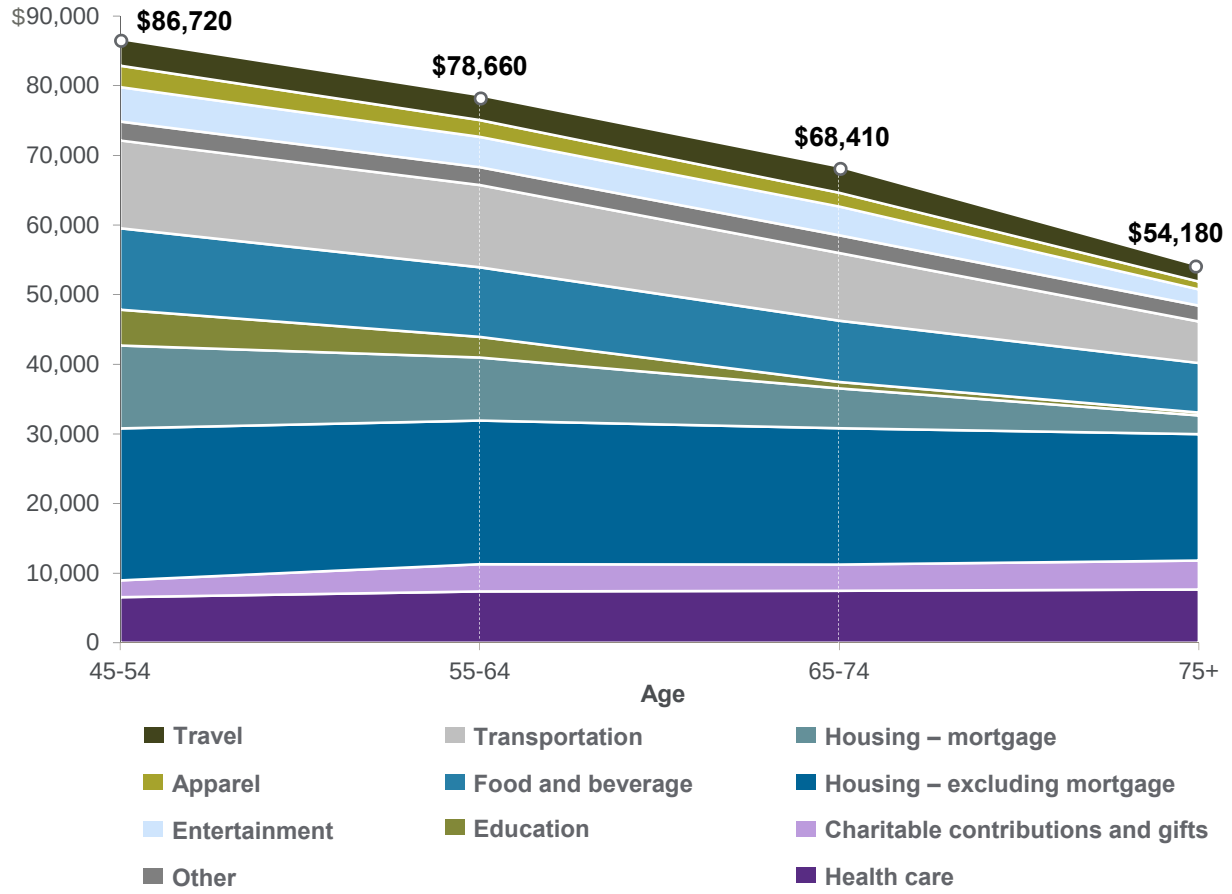
The above example is for illustrative purposes only and not indicative of any investment. Does not include account fees. Present value of illustrated HSA after 15 years is $146,885. Estimated savings from tax deductions at a 37% marginal rate are $45,430. Assumes cash or income used for health care expenses is not withdrawn from an account with a tax liability. The example assumes the HSA is fully invested; if $2,000 was held in a cash account, the illustrated cumulative HSA account value would be $192,894. 2020 family contribution limit is $7,100 adjusted for inflation of 2.0% for 30 years. Individual 2020 contribution limit is $3,550. $197,687 is projected to be enough to fund about 13 years of projected average qualified Medicare-related health care expenses for a couple.

J.P.Morgan Asset Management

Spending

Average household spending patterns by various age groups

For those with a bachelor's degree or higher



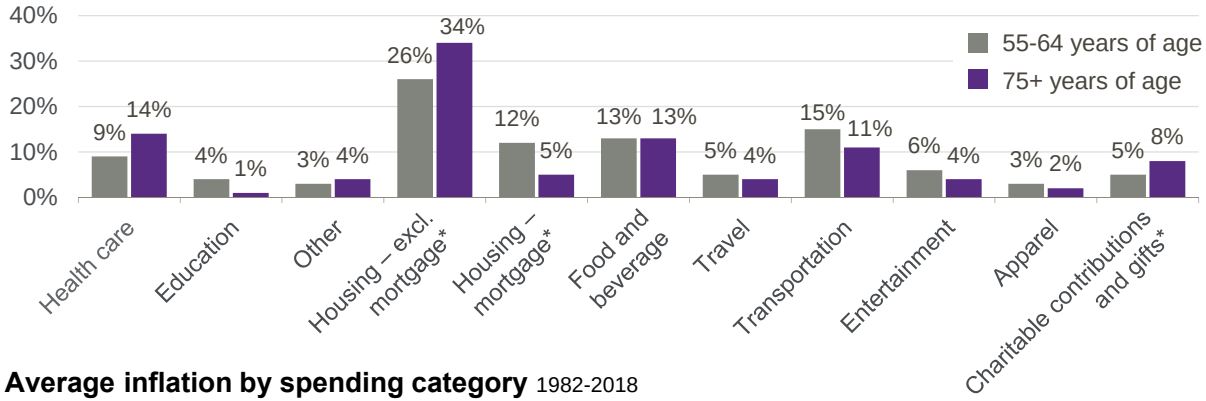
WHAT TO EXPECT

Household spending peaks at the age of 45, after which spending declines in all categories but health care and charitable contributions and gifts. Housing is the largest expense, even at older ages.

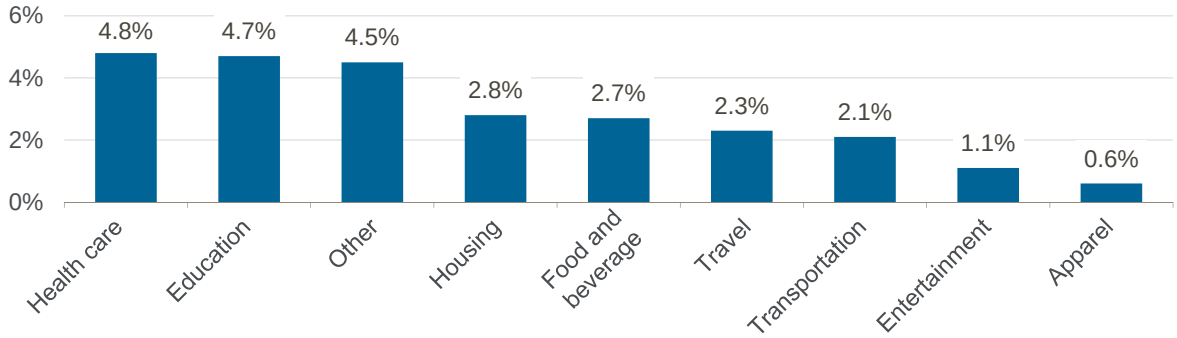
Source: J.P. Morgan Asset Management. Estimates based on average consumer expenditure from 2016 to 2018. Consumer Expenditure Surveys (BLS) for each age group excluding pension contributions. Population includes households where a bachelor's degree or higher is achieved by any member. Average household size for age 45–54 is 3.0, age 55–64 is 2.4, age 65–74 is 2.0 and age 75+ is 1.8.

J.P.Morgan Asset Management

Spending by age and category



Average inflation by spending category 1982-2018



LOSING GROUND

Inflation can disproportionately affect older Americans due to differences in spending habits and price increases in those categories.

*There are no individual inflation measures for these specific subcategories.

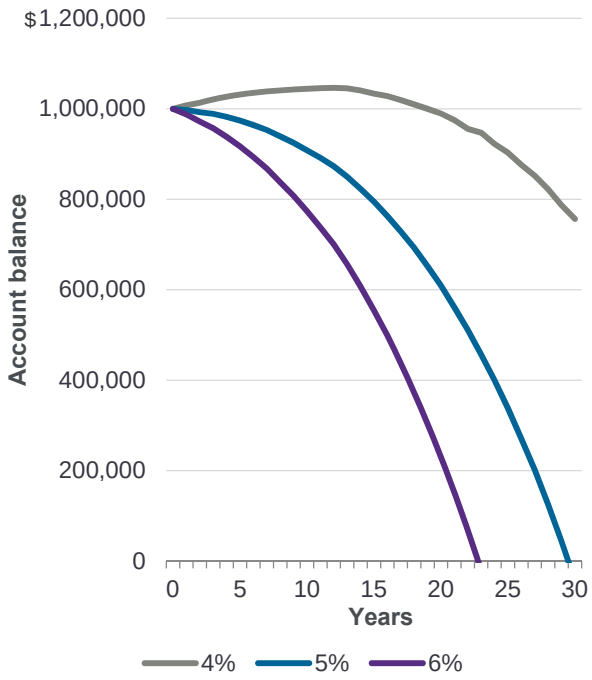
Source (top chart): BLS, 2016-2018 average Consumer Expenditure Survey for households where at least one member has a bachelor's degree. Charitable contributions include gifts to religious, educational and political organizations, and other cash gifts. Spending percentages may not equal 100% due to rounding.

Source (bottom chart): BLS, Consumer Price Index, J.P. Morgan Asset Management. Data represent annual percentage increase from December 1981 through December 2019 with the exception of entertainment and education, which date back to 1993, and travel, which dates back to 2001. The inflation rate for the Other category is derived from personal care products and tobacco. Tobacco has experienced 7% inflation since 1986.

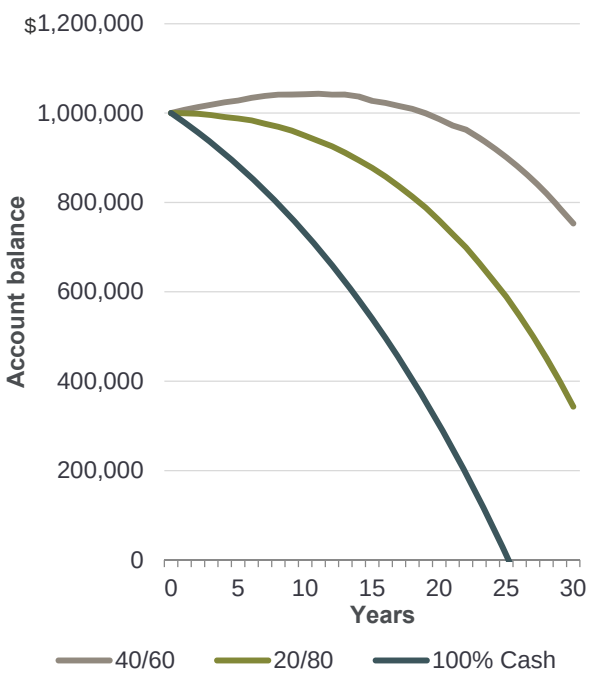
J.P.Morgan Asset Management

Effects of withdrawal rates and portfolio allocations

40/60 portfolio at various initial withdrawal rates
Projected nominal outcomes, 50th percentile



Various portfolios at 4% initial withdrawal rate
Projected nominal outcomes, 50th percentile



ONE SIZE DOES NOT FIT ALL

Higher initial withdrawal rates or overly conservative portfolios can put your retirement at risk. However, setting your spending at retirement too low and not adjusting along the way may require unnecessary lifestyle sacrifices in retirement. You may want to consider a dynamic approach that adjusts over time to more effectively use your retirement savings

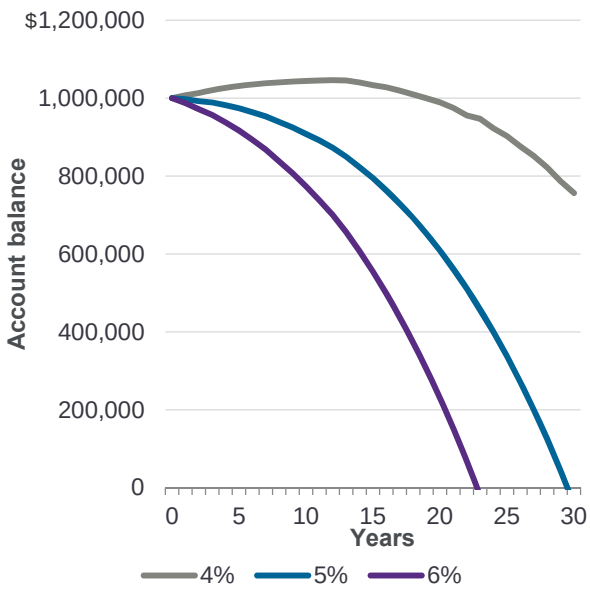
Ending value of the 4% initial withdrawal rate and 40/60 portfolio value is $752,999 ($415,709 in today's dollars) and the 20/80 portfolio value is $343,022 ($189,373 in today's dollars).

These charts are for illustrative purposes only and must not be used, or relied upon, to make investment decisions. Portfolios are described using equity/bond denotation (e.g. a 40/60 portfolio is 40% equities and 60% bonds). Hypothetical portfolios are composed of All Country World Equity, US Aggregate Bonds and US Cash, with compound returns projected to be 6.5%, 3.1% and 1.9%, respectively. J.P. Morgan's model is based on J.P. Morgan Asset Management's (JPMAM) proprietary Long-Term Capital Market Assumptions (10–15 years). The resulting projections include only the benchmark return associated with the portfolio and does 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 (2.0%). Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward tradeoffs 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.

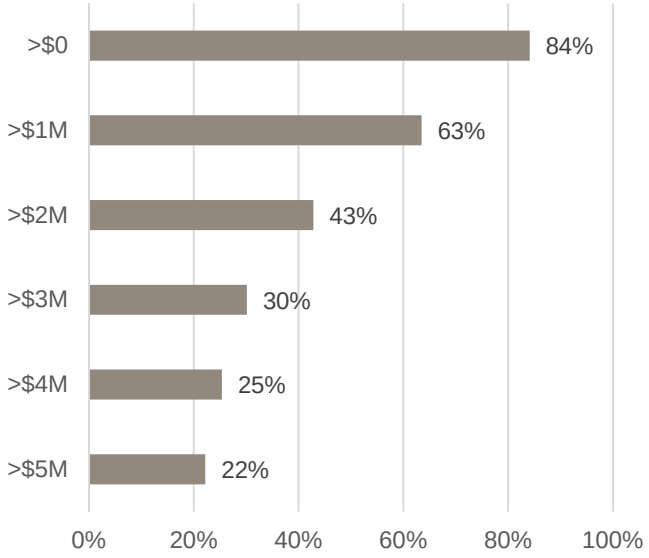
J.P.Morgan
Asset Management

The 4% rule – projected outcomes vs. historical experience

40/60 portfolio at various initial withdrawal rates
Projected nominal outcomes, 50th percentile



Historical ending wealth at 4% initial withdrawal rate
63 rolling 30-year periods



GOOD IN THEORY, POOR IN PRACTICE

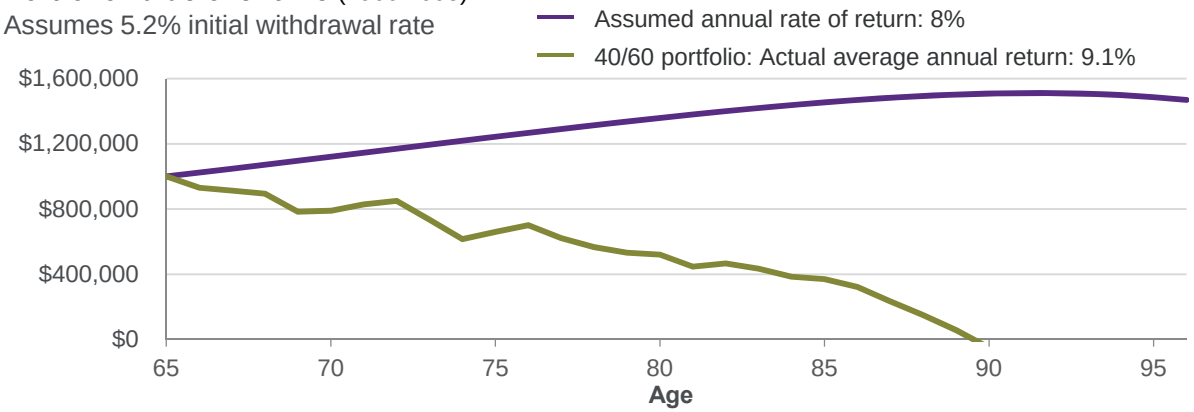
The 4% rule is the maximum initial withdrawal percentage that has a high likelihood of not running out of money after 30 years. It is not guidance on how to efficiently use your wealth to support your retirement lifestyle as illustrated by the range of outcomes observed in the past.

The portfolio returns for the historical analysis are calculated based on 40% S&P 500 Total Return and 60% Bloomberg Barclays US 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.

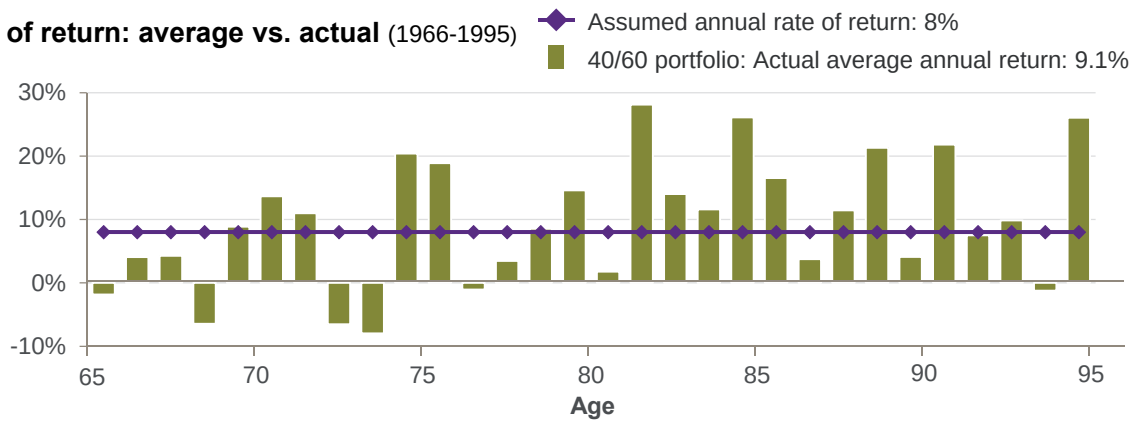
These charts are for illustrative purposes only and must not be used, or relied upon, to make investment decisions. Portfolios are described using equity/bond denotation (e.g. a 40/60 portfolio is 40% equities and 60% bonds). The hypothetical portfolio for the left chart is composed of All Country World Equity, US Aggregate Bonds and US Cash, with compound returns projected to be 6.5%, 3.1% and 1.9%, respectively. J.P. Morgan's model is based on J.P. Morgan Asset Management's (JPMAM) proprietary Long-Term Capital Market Assumptions (10–15 years). The resulting projections include only the benchmark return associated with the portfolio and does 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 (2.0%). Allocations, assumptions and expected returns are not meant to represent JPMAM performance. Given the complex risk/reward tradeoffs 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.

Dollar cost ravaging – timing risk of withdrawals

Portfolio value over time (1966-1995)
Assumes 5.2% initial withdrawal rate



Rate of return: average vs. actual (1966-1995)



SEQUENCE OF RETURN RISK

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

- Greater diversification among non-correlated asset classes
- Investments that use options strategies for defensive purposes
- Annuities with guarantees and/or protection features

Assumptions (top chart): Retire at age 65 with $1,000 000 and withdraw 5.2% of the initial portfolio value ($52,000). Increase dollar amount of withdrawal by 3.0% inflation each year (lower than the average inflation rate of the period between 1966-1995).

Source: J.P. Morgan Asset Management. 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 Barclays 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.

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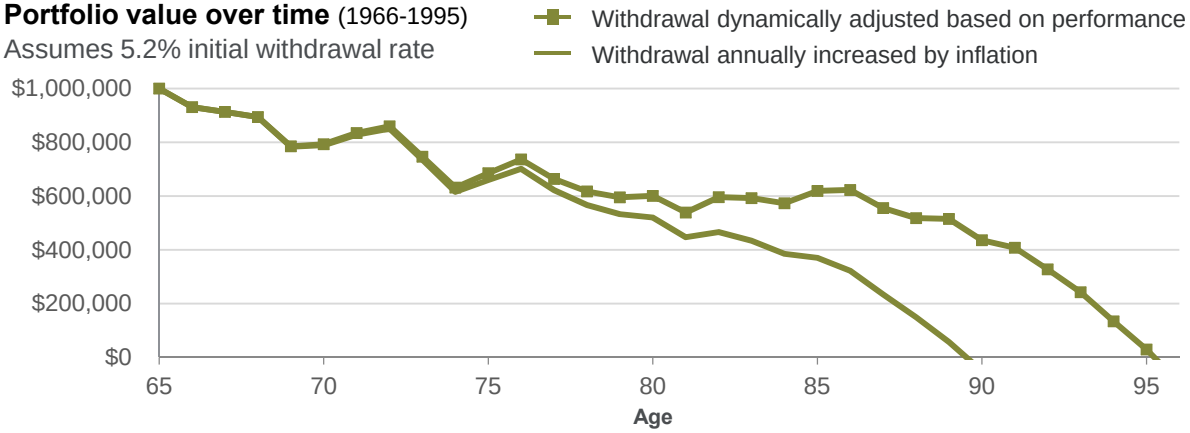
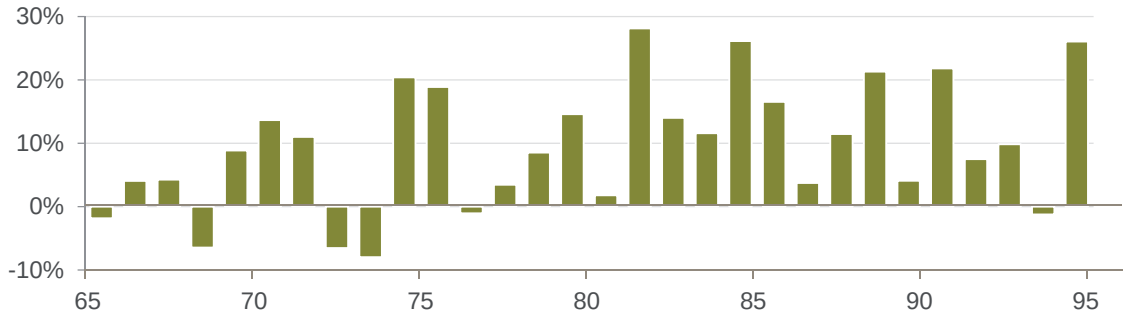
Mitigating dollar cost ravaging – dynamic spending

Portfolio value over time (1966-1995)
Assumes 5.2% initial withdrawal rate



Rate of return: 40% equity/60% bond portfolio (1966-1995)



BE FLEXIBLE

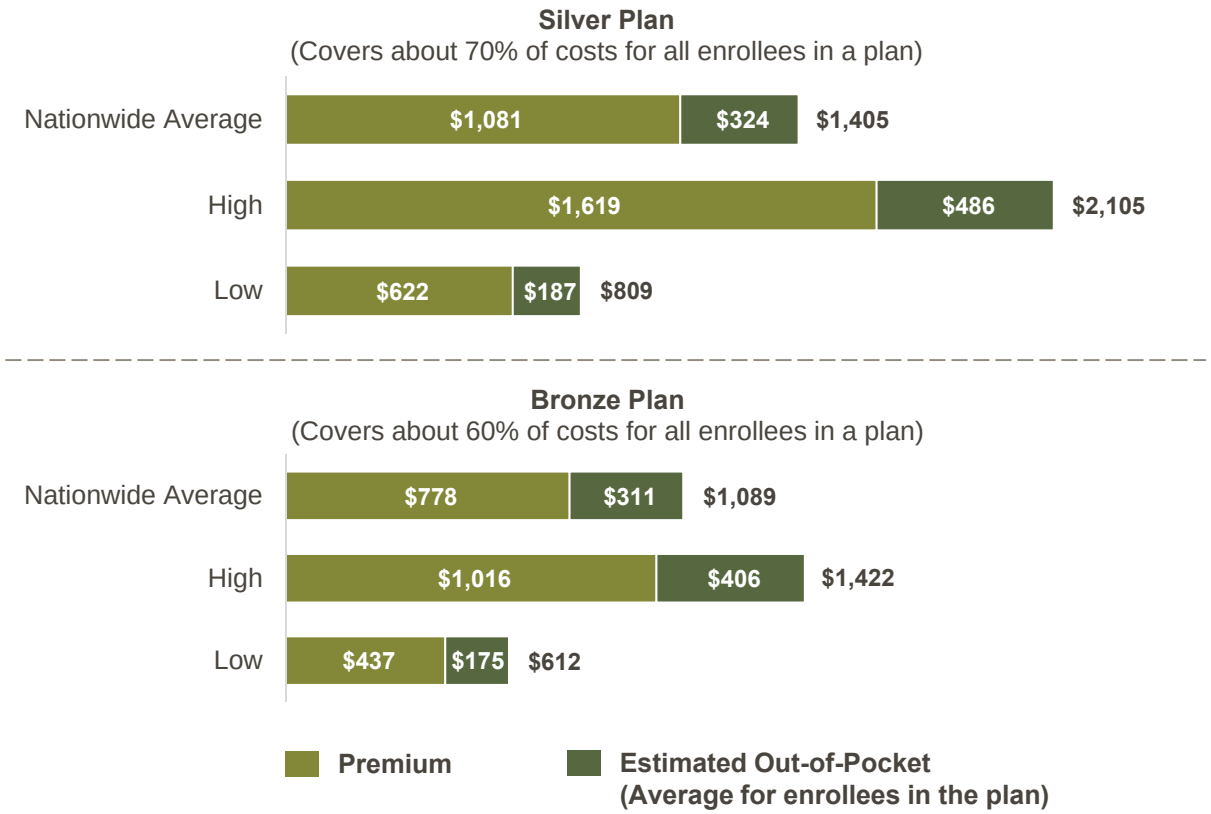
Spending the same amount in retirement grown by inflation regardless of how your portfolio is performing can result in an unsuccessful outcome. Consider adjusting your spending strategy based on market conditions to help make your money last and provide more total spending through your retirement years.

Assumptions (top chart): Retire at age 65 with $1,000,000 and withdraw 5.2% of the initial portfolio value ($52,000). "Withdrawal annually increased each year by inflation" assumes 3% inflation rate. Dynamic withdrawal scenario assumes that if the annual rate of return on portfolio is: 1) less than 3%, withdrawal remains the same as the prior year; 2) between 3% and 15%, withdrawal is increased by inflation (3%); 3) greater than 15%, withdrawal is increased by 4%. While the dynamic withdrawal scenario during this historical period provided 14% more total spending in today's dollars, it is for illustrative purposes only and may not be successful during other time periods.

Source: J.P. Morgan Asset Management. 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 Barclays 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.

Spending

2020 Marketplace[1] plan monthly cost estimate for one person: non-smoker, age 64



COST WILL VARY BY GEOGRAPHY, AGE AND OTHER FACTORS. FOR YOUR ESTIMATE, SEE: https://www.kff.org/interactive/subsidy-calculator/

Enrollees in Bronze plans may be healthier than those in Silver plans. For any specific individual, out-of-pocket expenses will likely be higher in a Bronze plan. Regardless of which plan type you choose, deductibles and co-payments will vary from plan to plan.

Premium tax credits and cost-sharing subsidies may be available to some individuals with Modified Adjusted Gross Income below $49,960 for an individual or $67,640 for a couple in most states.

[1]Health insurance plans available through Healthcare.gov.
This is not meant to be personal advice. Those with incomes below $17,236 for an individual or $23,336 for a couple may not be eligible for a subsidy in some states; other states have lower limits. A qualifying plan will allow you to make contributions to a Health Savings Account (HSA). When searching for a qualifying plan on the Marketplace website, look for the HSA eligible flag in the upper left-hand corner or use the filter option in the right-hand corner. Qualifying plans may provide less coverage; be sure to evaluate tradeoffs, especially if you are eligible for a premium subsidy.
Source: Healthcare.gov; Kaiser Family Foundation subsidy calculator as of December 16, 2019; https://www.kff.org/interactive/subsidy-calculator/. Low costs shown above are for zip code 11217 in Brooklyn, New York and high costs are for zip code 32320 in Apalachicola, Florida.

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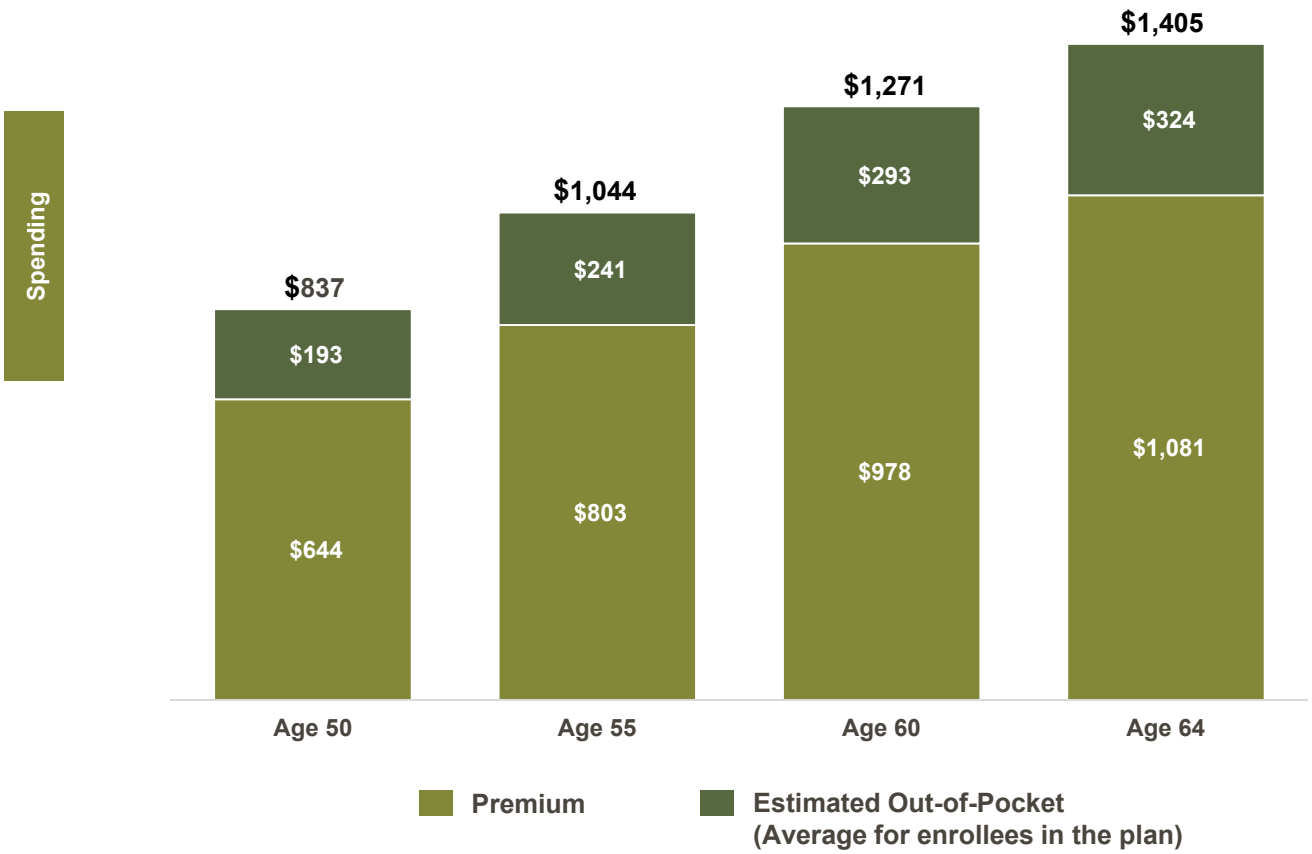
Marketplace plan costs usually increase with age

2020 Marketplace plan monthly cost estimate for one person: non-smoker, national average



UNDERSTAND COSTS SPECIFIC TO YOUR SITUATION

Marketplace plan insurers typically charge older individuals more than younger ones.

To account for age-related increases plus inflation, use an annual cost increase of **6.0%** for health care costs prior to Medicare eligibility.

Cost trends and increases due to age vary by geography. For more information see: https://www.kff.org/interactive/subsidy-calculator/

This is not meant to be personal advice. For information about your options, go to Healthcare.gov

Source: Healthcare.gov; Kaiser Family Foundation subsidy calculator as of December 16, 2019; https://www.kff.org/interactive/subsidy-calculator/

J.P.Morgan Asset Management

Three steps for Medicare coverage

1 Sign up for Part 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

	Insurance for out-of-pocket expenses related to Parts A & B	Drug coverage	Vision, dental and hearing coverage & other benefits
Option 1 **Original Medicare** accepted by all Medicare providers	✓ Sign up for Medigap (also called "supplemental")	✓ Choose a Part D plan	X Not included. You may buy a separate policy
Option 2 **Medicare Advantage/ Part C** limited to a network of providers	X Not included. Be prepared for variable costs	✓ Usually included	✓ Check details: benefits vary by plan

3 Prepare for additional expenses

- **Out-of-pocket drug expenses aren't covered**
  - Need income or savings for these costs; costs can change as your health changes
- **Medicare does not cover most long-term care costs**
  - Custodial care for activities of daily living is not covered
  - Medicaid may pay for long-term care if you have few assets and low income[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

Individuals who have paid Medicare taxes for 10 years (and their spouses who are age 65 or older) are eligible for Medicare at age 65.

Enroll during your Initial Enrollment Period (3 months before and 3 months after your 65th birthday month) or face lifetime penalties.

Sign up the month before the month you turn 65 to avoid coverage gaps.

Reevaluate your choice during open enrollment October 15th – Dec 7th each year.

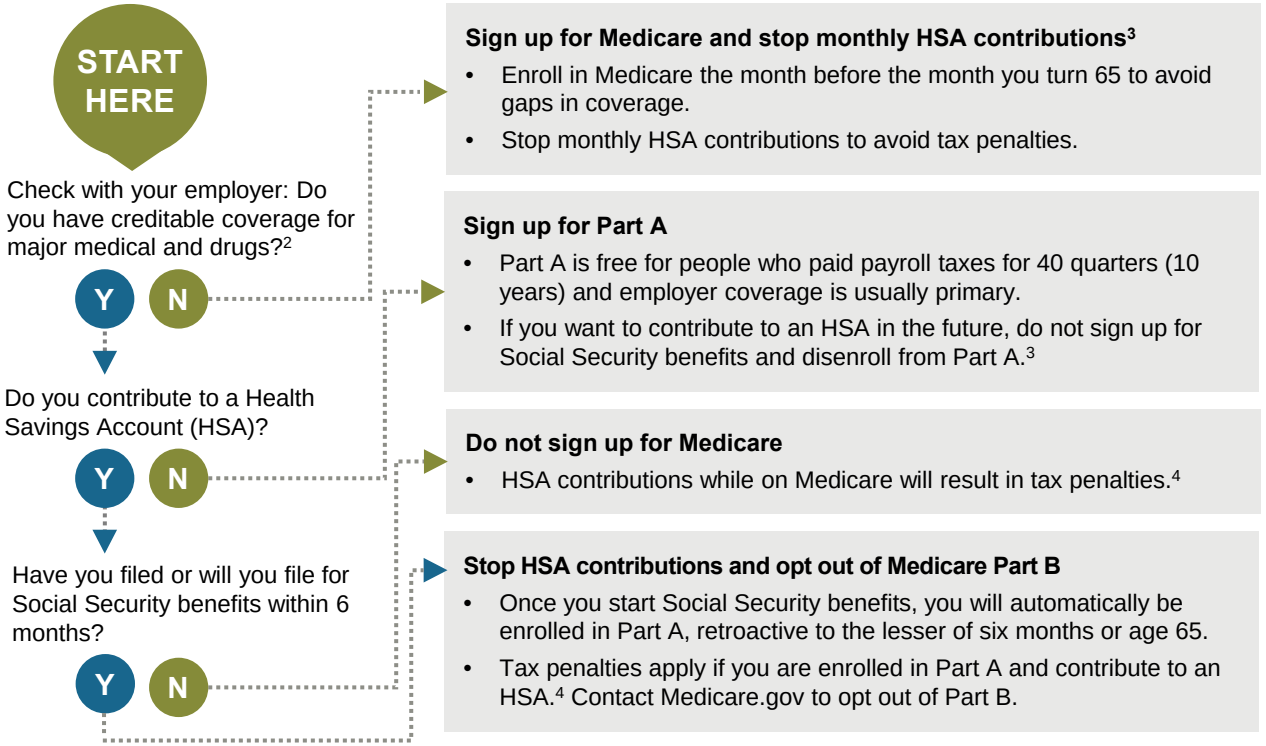
[1] Medicare does pay for medically necessary skilled nursing facility or home health care with strict requirements that are difficult to meet on a limited basis and for some hospice care. If you transfer assets to others there is a five-year "look back" where the government will recover the assets transferred if you go on Medicaid. This is not personal advice; consult an eldercare attorney if you have questions.

Source: Medicare.gov as of January 23, 2019; J.P. Morgan analysis.

J.P.Morgan Asset Management

Spending

Assumes adequate employer coverage and qualification for Medicare at age 65[1]



AVOID COVERAGE GAPS AND PENALTIES

Creditable coverage is key: late enrollment penalties will apply if you don't have creditable coverage and don't sign up in your enrollment window (3 months before to 3 months after your 65th birthday month).

COBRA coverage (a temporary extension of major medical employer coverage when work stops) is not creditable, although some extended prescription coverage may be creditable (ask for documentation).

[1] Assumes Part A is no cost (generally for people who paid payroll taxes for 40+ quarters or are married to a beneficiary who did so). Some individuals may choose to sign up for Part A and Part B earlier than shown if they want additional coverage.

[2] Ask your employer for documentation of creditable coverage for major medical and for drug coverage. Employer coverage for <20 people is usually not creditable and will end at age 65 or become secondary after Medicare has paid.

[3] To disenroll you must have an interview with the Social Security Administration and use form CMS 1763. When you sign up for Part A again or sign up for Social Security, coverage may be retroactive for up to 6 months. You will be unable to disenroll if you are taking Social Security.

[4] Total HSA contributions for the year in excess of the maximum contribution for the year / 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 individual tax advice; consult your tax advisor.

For more information, see www.mymedicarematters.org/enrollment/am-i-eligible, sponsored by the National Council on Aging.

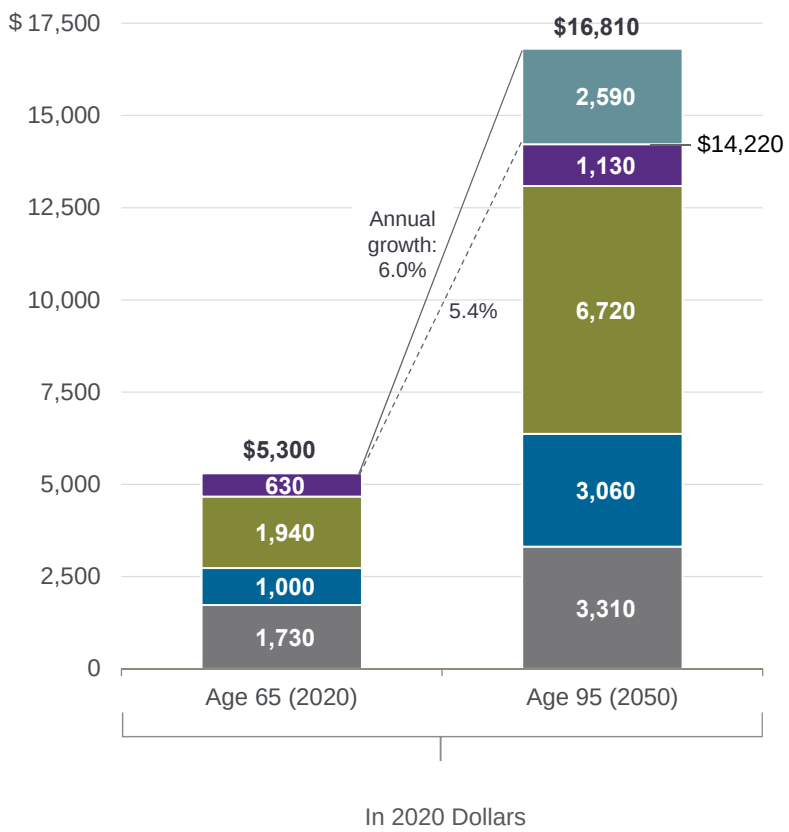
Source: IRS Publication 969, National Council on Aging and Medicare.gov websites as of January 23, 2019; JPM analysis.

J.P.Morgan Asset Management

Rising annual health care costs in retirement

Spending

Original Medicare costs in retirement (in 2020 dollars)



- **Uncertainties** (health care inflation variability, Medicare solvency issues)
- **Vision, dental & hearing**
- **Medigap Plan G and the $189 Part B deductible** (G covers Parts A and B co-pays and the Part A deductible)
- **Part D premiums and prescription out-of-pocket costs** (may vary widely)
- **Part B** (doctors, tests & outpatient hospital insurance)

A GROWING CONCERN

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.

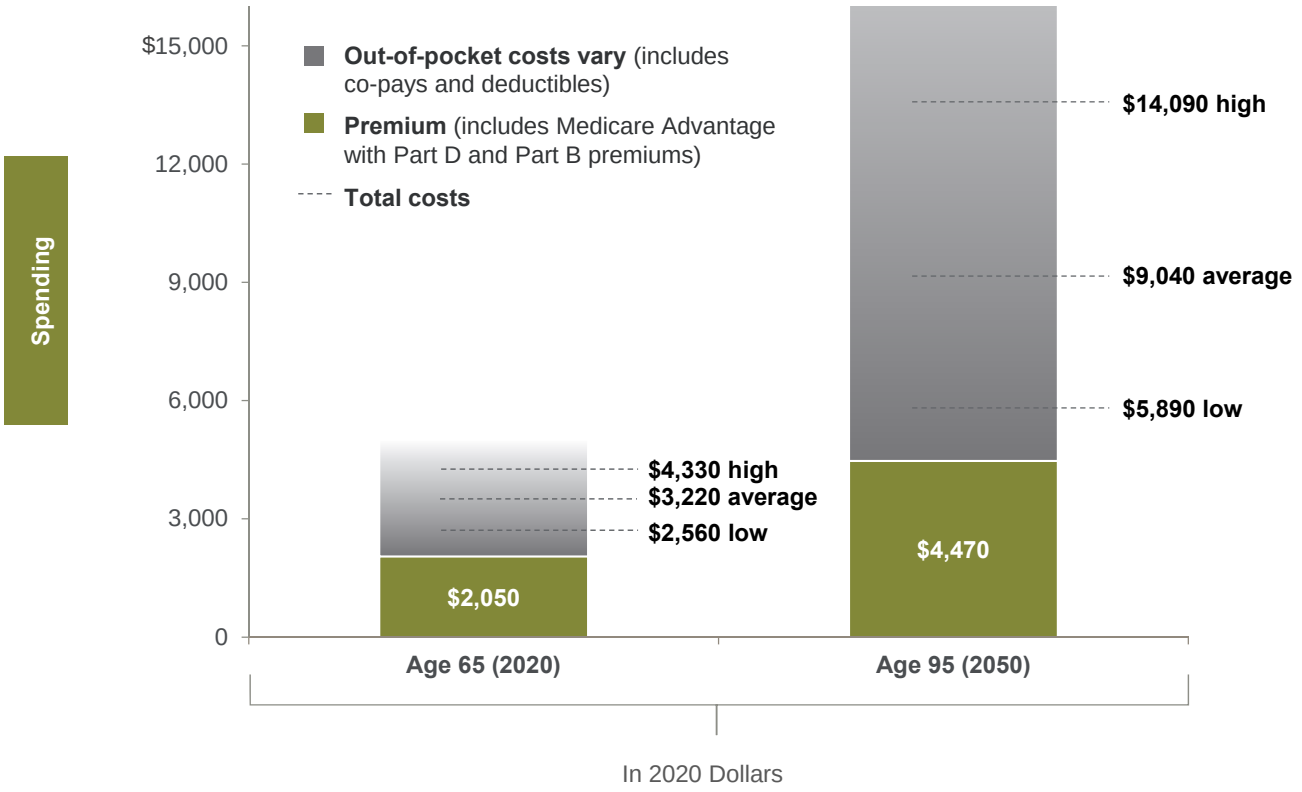
Notes: Future value age 95 estimated total median cost is $30,380. Medigap premiums increase due to age, in addition to annual inflation, except for the following states: AR, CT, MA, ME, MN, NY, VT, WA. In addition, most policies sold in these states may not increase due to age: AZ. , FL, GA, ID, NH and MO. If Plan G is not available, analysis includes the most comprehensive plan available.

Source: Employee Benefit Research Institute (EBRI) as of January 25, 2020; SelectQuote as of January 25, 2020; Milliman as of January 25, 2020; CMS website as of January 25, 2020; Consumer Expenditure Survey as of January 25, 2020; Healthinsurance.org as of February 3, 2020; J.P. Morgan analysis.

J.P.Morgan Asset Management

Variation in Medicare Advantage costs

Estimated Medicare Advantage with Part D and out-of-pocket expenses
Annual 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 for those with relatively low costs (average for those in the lowest third of the cost distribution), average costs and high costs (average for those in the highest third of the cost distribution).

Future value age 95 estimated total median cost is $16,380. Cost estimates above include increased use of medical care at older ages. Since plans are sold by private companies, premiums will vary based on plan characteristics. Out-of-pocket expenses, including out-of-pocket prescription costs, will vary by plan and include co-pays and deductibles.

Source: Employee Benefit Research Institute (EBRI) data as of January 28, 2020; SelectQuote data as of January 28, 2020; Milliman as of January 28, 2020; J.P. Morgan analysis

J.P.Morgan Asset Management

Annual Medicare surcharges

The surcharge 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 (2 Years Prior)		Additional Annual Premium Amount Per Person Parts B & D in 2020
FILING SINGLE	FILING JOINTLY	
$87,000 - $109,000	$174,000 - $218,000	**$840**
$109,001 - $136,000	$218,001 - $272,000	**$2,101**
$136,001 - $163,000	$272,001 - $326,000	**$3,385**
$163,001 - $499,999	$326,001 - $749,000	**$4,657**
$500,000 or more	>$750,000 or more	**$5,081**

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.

Couples are less likely to be affected unless they have significant pensions, work or rental income.

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

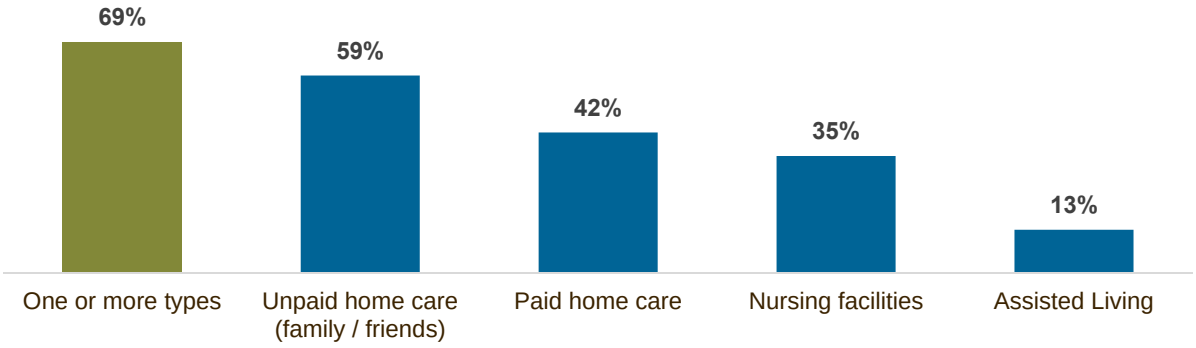
Source: Medicare.gov as of January 23, 2020; Kaiser Family Foundation website as of Feb 3, 2020

Notes: This is not meant to be personal tax advice. Please consult your tax advisor for specifics for your situation. Modified Adjusted Gross Income (MAGI) is AGI plus: untaxed foreign income, tax-exempt interest, and non-taxable Social Security benefits. Surcharges are indexed for inflation each year. In general, the latest tax return is used, which is two years prior to the surcharge assessment.

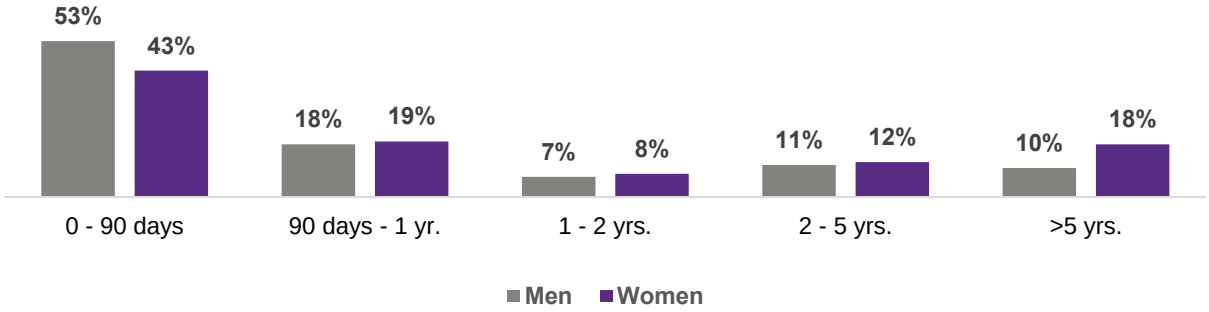
J.P.Morgan Asset Management

Long-term care planning

Lifetime probability of needing long-term care (LTC) services by type



Lifetime distribution and duration of need for significant LTC at age 65



CONSIDER THE RANGE OF POSSIBLE CARE NEEDS

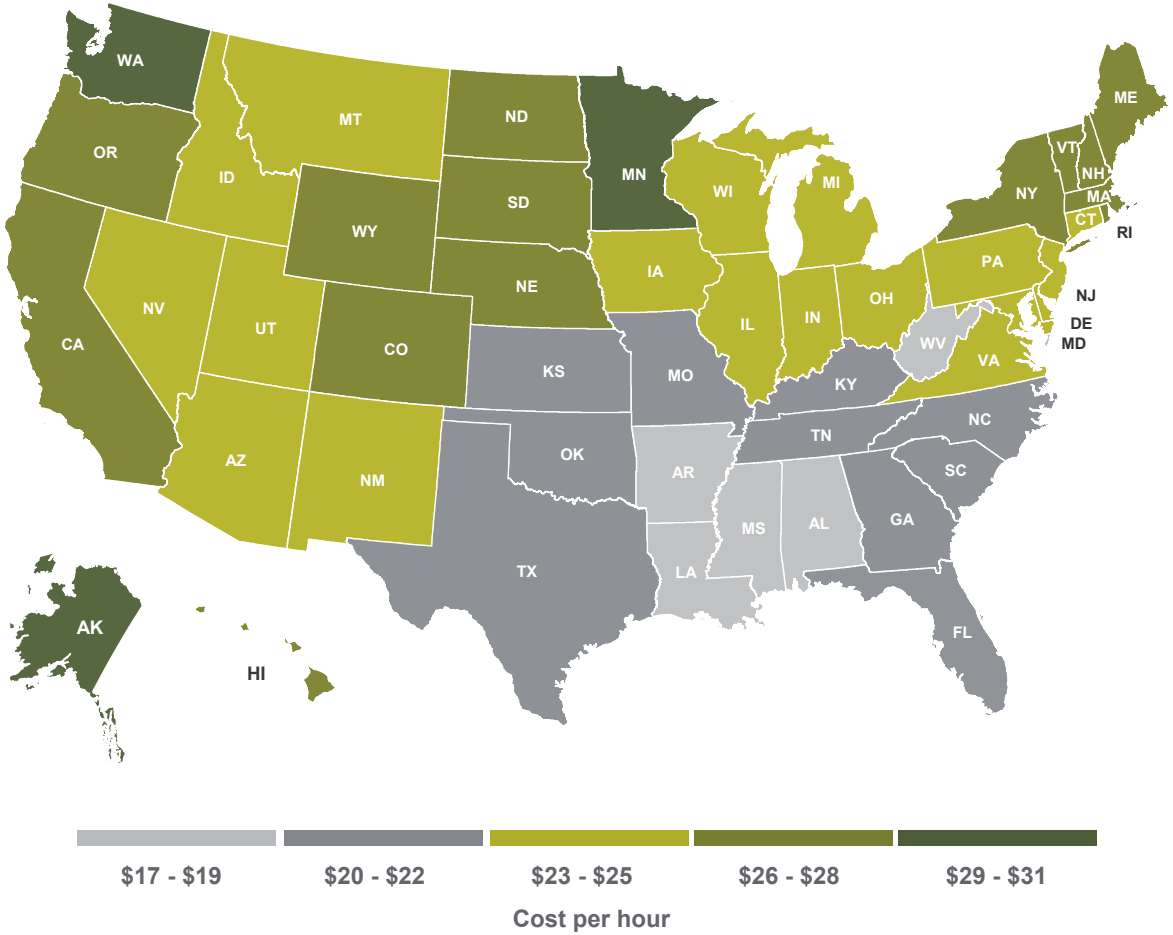
There is a high likelihood of needing care. This often starts at home before progressing to other settings.

While considering the range of possibilities, take into account that 1 in 10 men and nearly 2 in 10 women are projected to have a significant care need for more than 5 years.

Top chart: Includes all types of care including managing finances, taking medications, shopping, using transportation and food preparation, as well as more significant care needs. Bottom chart: Significant care needs includes two or more activities of daily living such as eating, dressing, bathing, transferring and toileting or severe cognitive impairment. Those who meet the cognitive impairment criteria who require care for less than 90 days are included in the 90 days – 1 year category.

Source: Top chart: U.S. Department of Health and Human Services, ASPE Issue Brief, Revised February 2016, Table 1. Bottom chart: U.S. Department of Health and Human Services, Administration on Aging statistics last updated October 10, 2017. Most recent data available as of January 28, 2020.

Median hourly cost of a home health aide by state



THE COST OF CARE

The median cost for a home health aide is $23 an hour but can vary widely. While the most common starting point for care is at home, it may progress to other settings.

The national annual median cost for a private room in a nursing home is $102,200. These costs are commonly between $85,000 and $120,000 but may be lower or higher. For costs specific to your area see: **www.genworth.com/costofcare**

Notes: Costs also vary within states by county and city. Median values are rounded to the nearest dollar. For more information on cost of care in your location see the Genworth website at: www.genworth.com/costofcare

Source: Genworth Cost of Care Survey 2019, conducted by CareScout®, June 2019. © 2019 Genworth Financial, Inc. All rights reserved.
Methodology document: https://pro.genworth.com/riiproweb/productinfo/pdf/131168.pdf

Long-term care planning solutions

Consider utilizing more than one solution

FAMILY
Family and friends may provide some assistance or help coordinate care

SAVINGS
Savings may fund paid care – and some other expenses such as travel may go down

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

CONTINUING CARE RETIREMENT COMMUNITIES
Known as CCRCs, these are communities where people start living on their own and as care needs develop additional services or facilities are provided (costs and services vary)[2]

HOME EQUITY
Second homes may be sold; the home equity in your primary residence may be used if your other options are limited; credit availability and home values 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

- Will you want to move closer to your family?
- If insurance affordability is an issue, is it feasible to buy less coverage and combine it with other solutions?
- Are you saving in a Health Savings Account (HSA)? HSAs may be used tax free for qualified expenses or after tax without penalty after age 65 for non-qualified expenses.[3]
- If you want care at home, consider how you will remain socially connected and the potential costs of doing so.

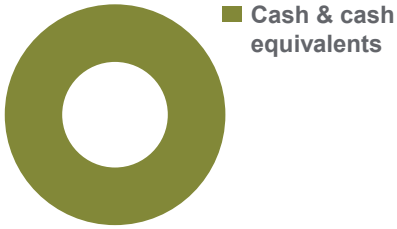
[1] If you transfer assets to others there is a five-year "look back" where the government will recover the assets transferred if you go on Medicaid. This is not personal advice; consult an Eldercare attorney if you have questions about Medicaid, Medicaid qualification and look-back rules.

[2] There are about 2,000 CCRCs in the United States. Mylifesite.net has information about Continuing Care Retirement Communities (CCRCs).

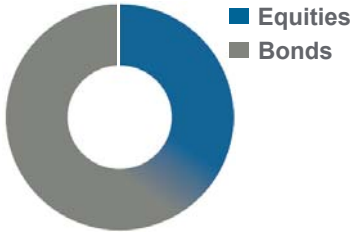
[3] HSAs may be used to fund qualified traditional long-term care policy premiums up to certain limits. Necessary home improvements may qualify if they don't improve the value of your home. Services for chronically ill individuals who are unable to perform two or more activities of daily living or who 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 advisor; this is not meant to be personal tax advice.

Source: J.P. Morgan Asset Management and Mylifesite.net as of October 28, 2019 (statistic on approximate number of CCRCs.)

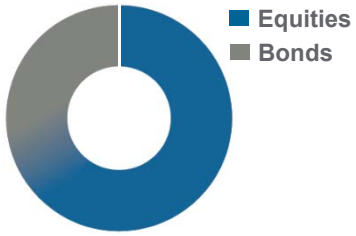
Short-term goals
Includes emergency reserve fund of total spending needs for 3-6 months



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



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

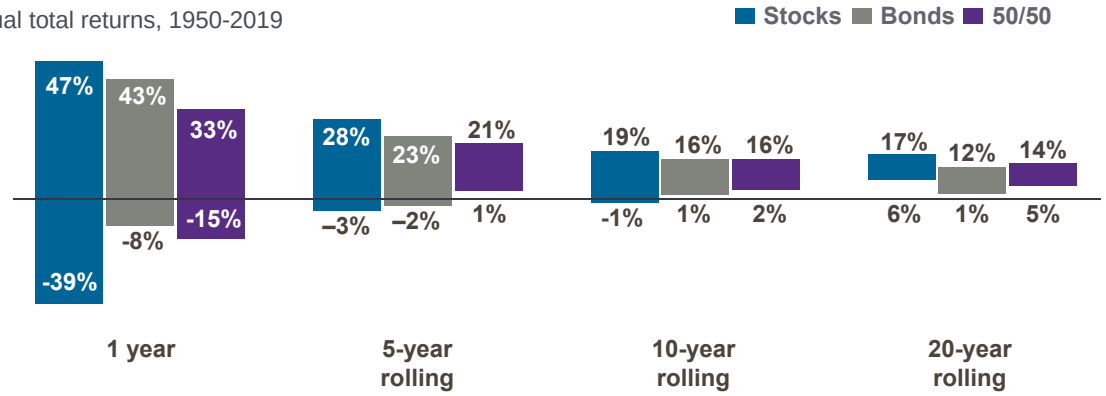


DIVIDE AND CONQUER

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 all of your goals – not just the ones that occur first.

Investing

Range of stock, bond and blended total returns
Annual total returns, 1950-2019



Source (top chart): J.P. Morgan Asset Management.

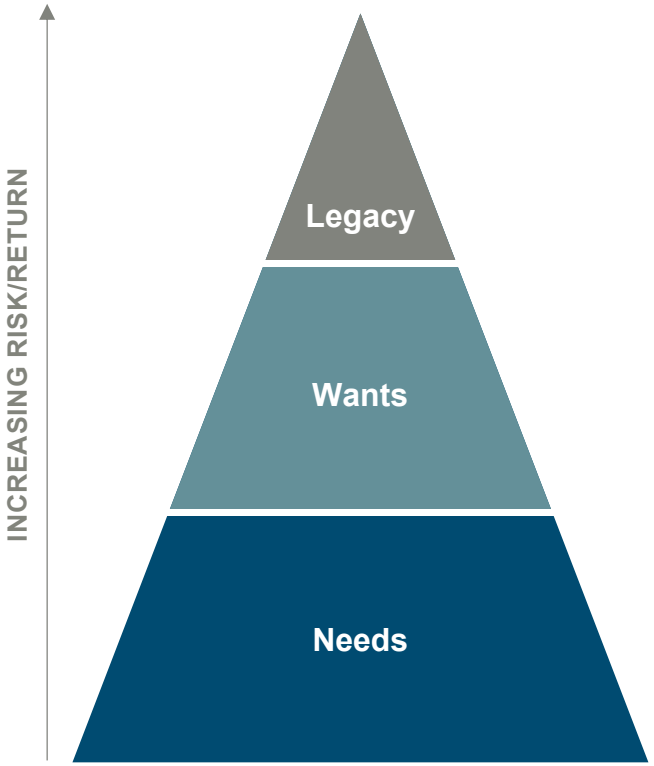
Source (bottom chart): Barclays, Bloomberg, FactSet, Federal Reserve, Robert Shiller, Strategas/Ibbotson, J.P. Morgan Asset Management. Returns shown are based on calendar year returns from 1950 to 2019. Stocks represent the S&P 500 Shiller Composite and Bonds represent Strategas/Ibbotson for periods from 1950 to 2010 and Bloomberg Barclays Aggregate thereafter.

Note: 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.

J.P.Morgan Asset Management

Structuring a portfolio to match investor goals in retirement

Investing



Considerations	Potential solutions
What is the time horizon and appropriate planning vehicle for your heirs and your estate goals?	Equities Alternatives*
What are your desires/wants? How much risk are you willing to take?	Equities Extended sector bonds Multi-asset solutions
What are your basic needs? What income sources do you have or will you need to create?	Social Security Pension Protected income High-quality bonds Cash and cash alternatives

BUILDING YOUR PLAN

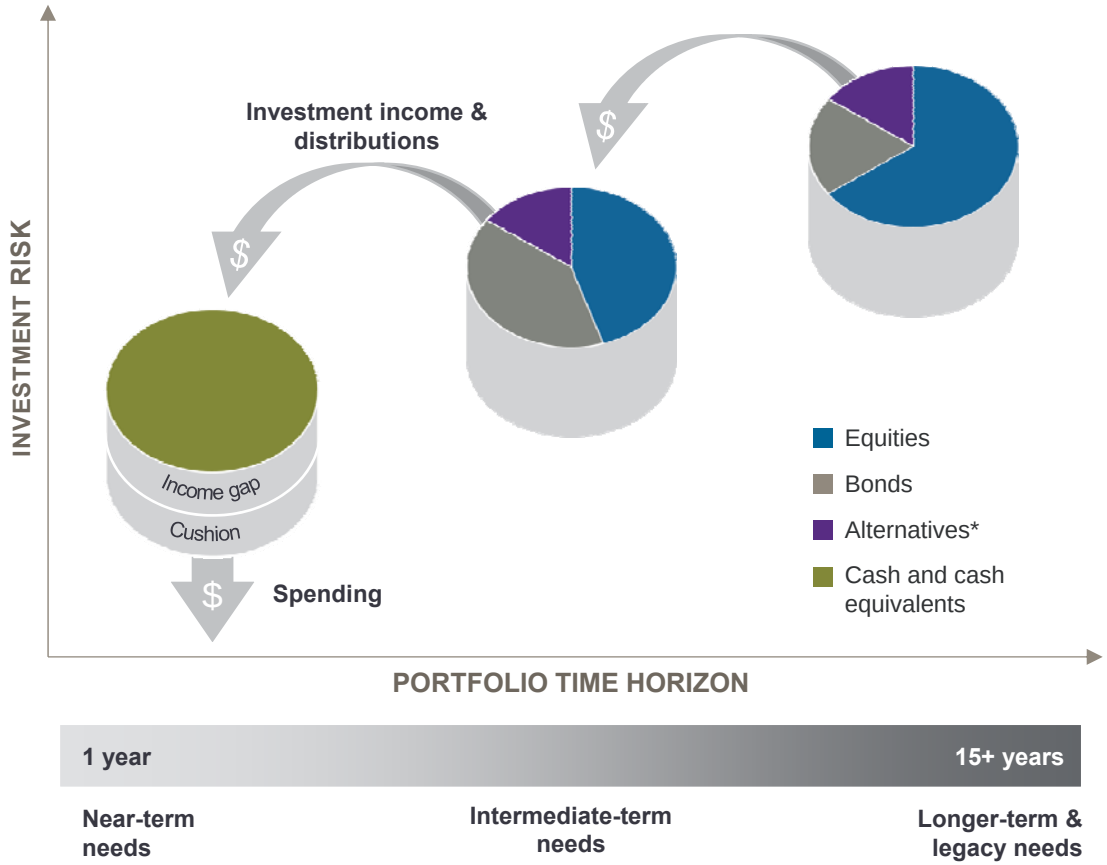
It may be useful to match dependable income sources with fixed retirement expenses, while coordinating other investments with more discretionary expenses.

For illustrative purposes only. Source: J.P. Morgan Asset Management. 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.

*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

Structuring a portfolio in retirement – the bucket strategy



TIME-BASED SEGMENTATION

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

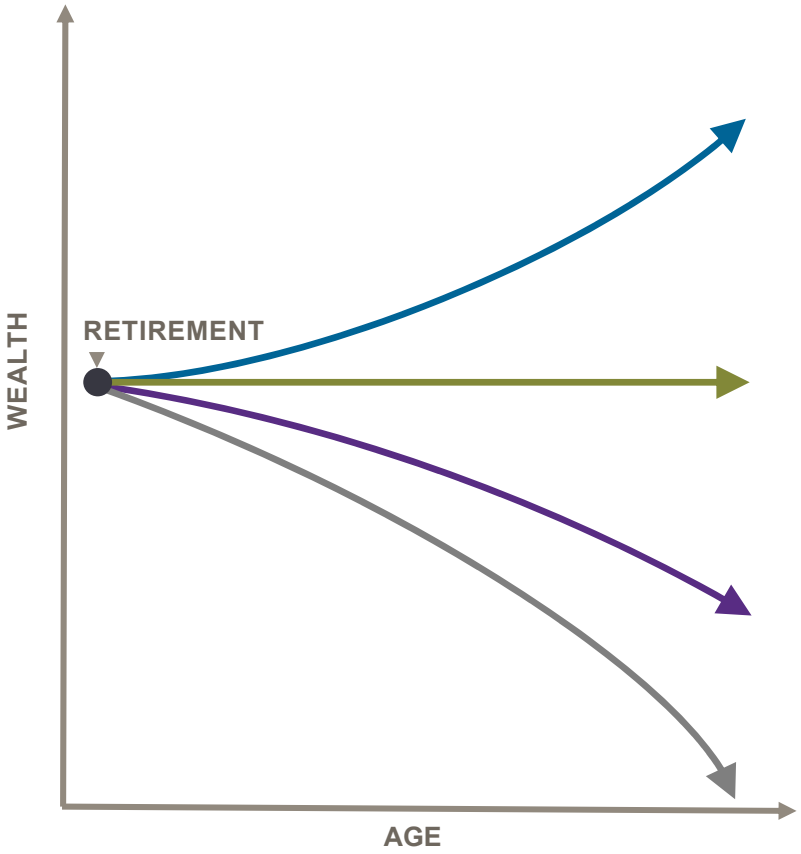
For the near-term portfolio, consider maintaining:

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

For illustrative purposes only. Source: J.P. Morgan Asset Management. 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.

*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.

Retirement investable wealth profiles and diversified portfolio priorities



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

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

Partial drawdown:
Access both investment return and some principal
Priority: Dynamic withdrawal strategy

Total Drawdown:
Lifestyle consumes all wealth
Priority: Protected income

ALIGN YOUR OBJECTIVE WITH YOUR OUTCOME

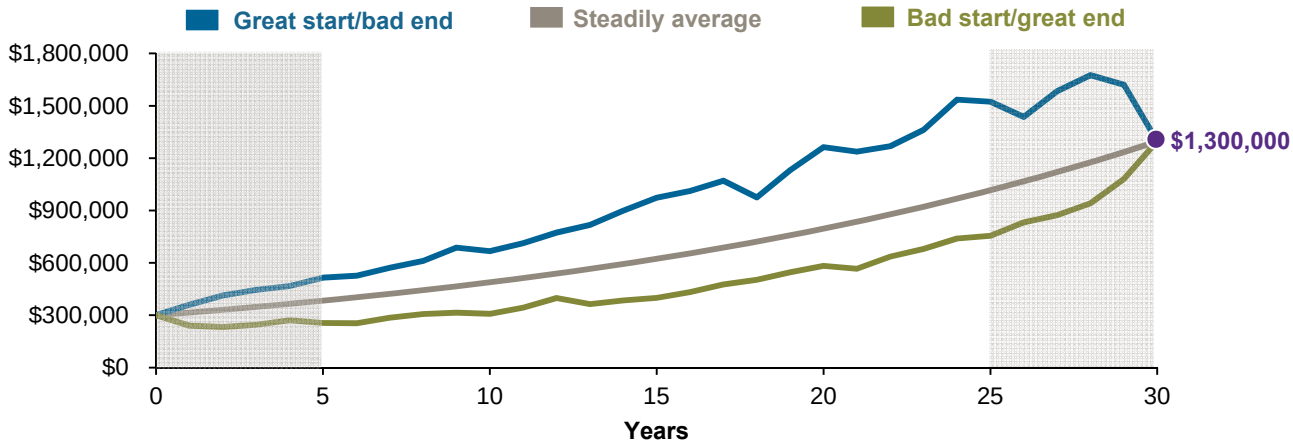
Retirement can mean several goals for your portfolio – current income, growth, sustainable withdrawals and/or protected income. To find the right balance, your projected outcome from your retirement plan can help you identify which of these to consider making a priority for your diversified portfolio.

Source: Minney, Aaron. "Adding Direction to the Consumption Rate in Retirement." Journal of Retirement, Summer 2017 page 108; J.P. Morgan Asset Management.

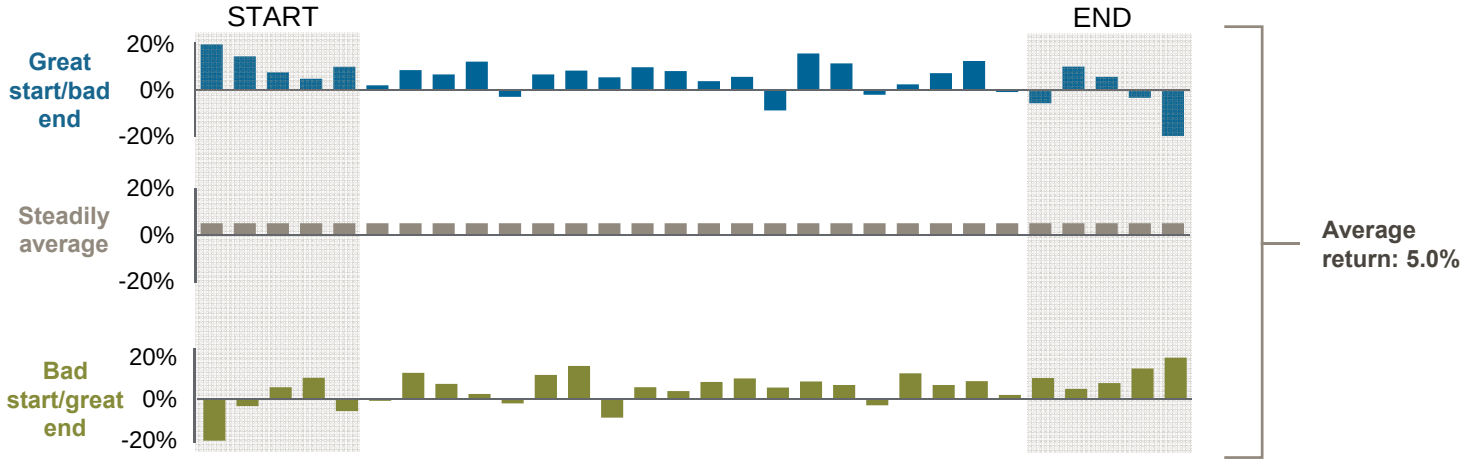
Sequence of return risk – lump sum investment

Value of three portfolios with the same average return

$300,000 lump sum investment with an average return of 5.0%



Annual returns by scenario



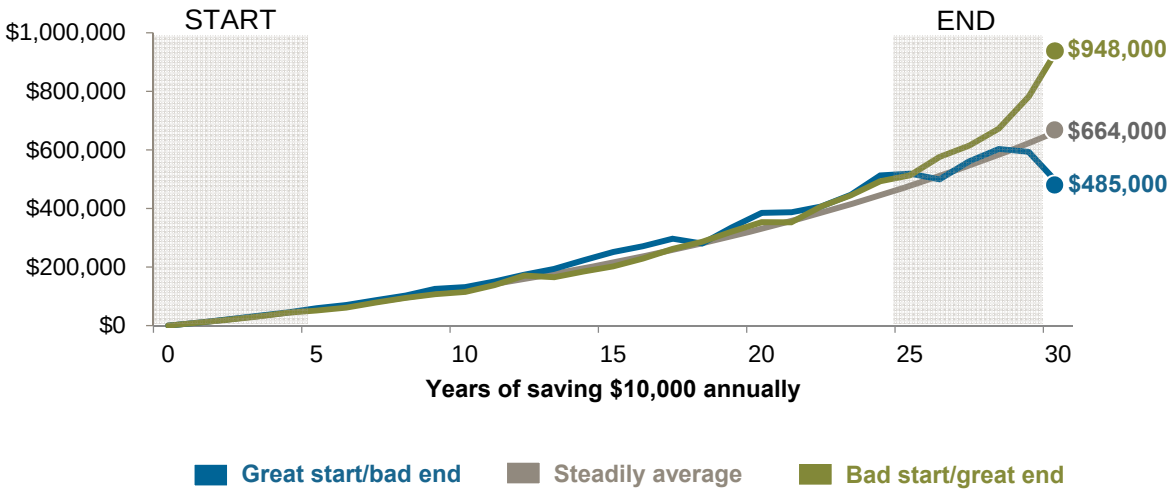
GET INVESTED AND STAY INVESTED

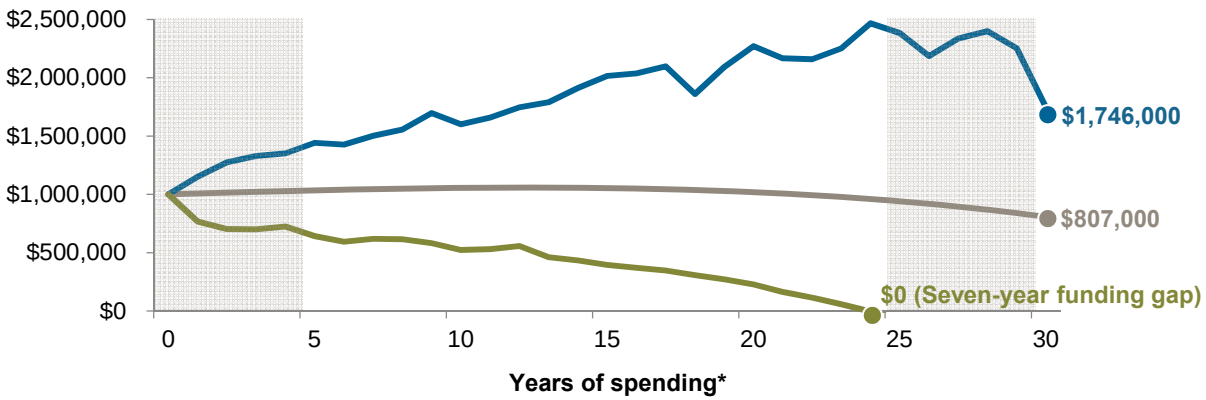
When making a one-time long-term investment, your average annual return will determine your outcome, regardless of the sequence in which the return is experienced.

Note: Hypothetical return scenarios are for illustrative purposes only and are not meant to represent an actual asset allocation.
Source: J.P. Morgan Asset Management.

J.P.Morgan Asset Management

Portfolio values assuming various return sequence scenarios





THE GREATEST RISK IS WHEN WEALTH IS GREATEST

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

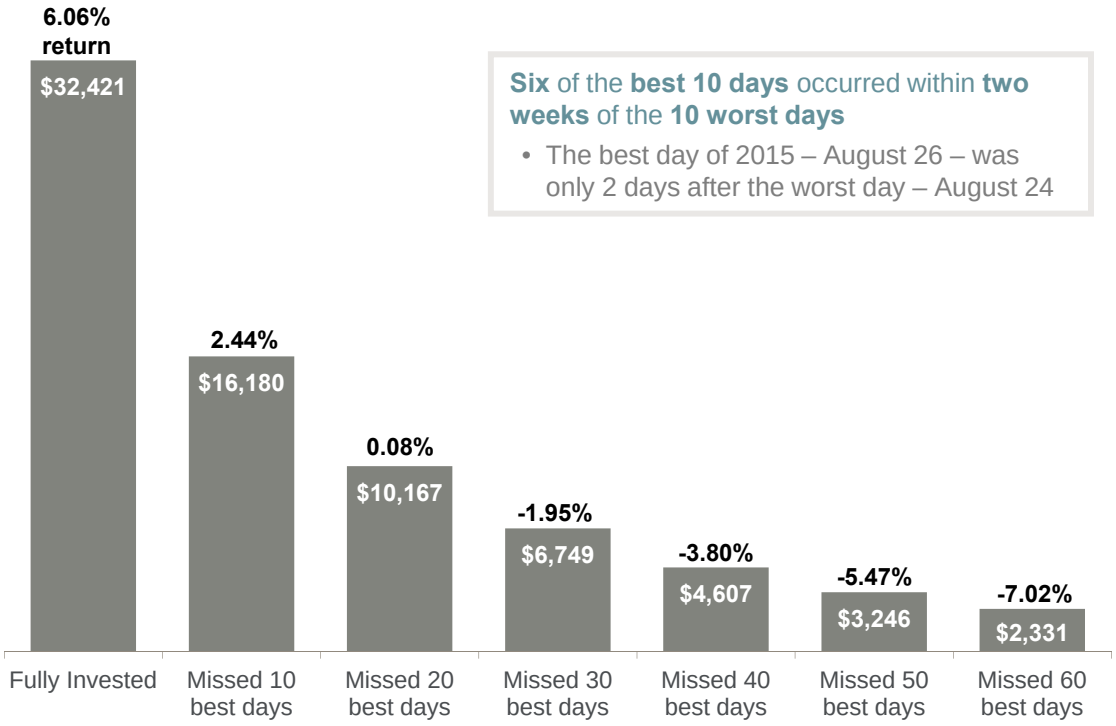
For return sequence scenarios, see page 41. Hypothetical return scenarios are for illustrative purposes only and are not meant to represent an actual asset allocation. *Spending in retirement chart assumes an initial $1,000,000 and a 4% withdrawal adjusted annually for inflation of 2%.
Source: J.P. Morgan Asset Management.

Impact of being out of the market

Investing

Returns of the S&P 500

Performance of a $10,000 investment between January 3, 2000 and December 31, 2019



Six of the **best 10 days** occurred within **two weeks** of the **10 worst days**

- The best day of 2015 – August 26 – was only 2 days after the worst day – August 24

PLAN TO STAY INVESTED

Trying to time the market is extremely difficult to do. Market lows often result in emotional decision making. Investing for the long term while managing volatility can result in a better retirement outcome.

Source: J.P. Morgan Asset Management analysis 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 for the respective strategies 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, 2019.

J.P.Morgan Asset Management

Tax implications for retirement savings by account type

	Tax-Deductible Contributions / Investments[1]	Tax-Deferred Account Growth	Tax-Free Withdrawals	
Pre-tax 401(k) / Traditional IRA	●	●	—	**Taxable** (ordinary income tax)
Roth 401(k) / IRA	—	●	●	**For qualified withdrawals**
After-tax 401(k) / Non-deductible Traditional IRA	—	●	—	**Taxable investment returns** (ordinary income tax)
Health Savings Account (HSAs)[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]

DC

Federal taxes; states may differ. This is not intended to be individual tax advice. Consult your tax advisor.

[1] Income and other restrictions may apply to contributions. Non-tax deductible may also be referred to as after-tax 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. Cosmetic procedures, such as teeth whitening, and general health improvement, such as gym memberships and vitamins, are not qualified expenses. 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.

J.P.Morgan Asset Management

Prioritizing long-term retirement savings

DC

Prioritizing goals

	9	**Taxable account**
	8	**IRA[3]**
	7	**Additional payments on lower interest loans** **(such as student loans with interest <6%)[2]**
	6	**Additional Defined Contribution savings** **(up to the maximum contribution)**
	5	**Additional Health Savings (HSA)[1]**
	4	**Additional payments on higher interest loans** **(credit card debt / student loans with interest >6%)[2]**
	3	**Defined Contribution savings to maximize employer match** **(if available)**
	2	**HSA (Health Savings Account) if eligible for match[1]**
Start here	1	**Emergency reserve (3 – 6 months of living expenses)**

GETTING STARTED

Start with emergency savings and make sure to take advantage of employer matching funds if they are available.

If long-term retirement savings are your objective, leave HSA funds in your account to grow while you fund current health care expenses from other accounts.

- Savings accounts and taxable brokerage accounts
- Tax-advantaged retirement savings accounts
- Additional loan payments / debt reduction
- Tax-advantaged savings for health care expenses

[1] 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 advisor.

[2] This assumes investment in a diversified portfolio may earn 6% 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.

[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 advisor.

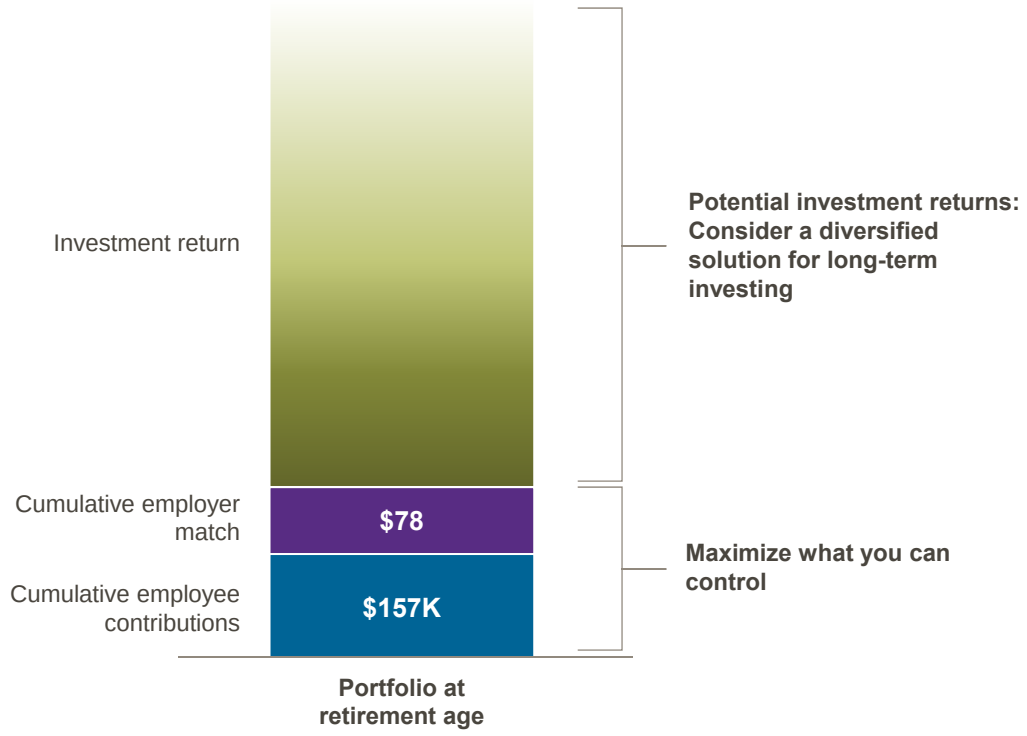
Source: J.P. Morgan analysis; not intended to be a personal financial plan.

J.P.Morgan Asset Management

A little goes a long way

Cumulative growth attributed to contributions, employer match and investment returns

Assumes a long-term, diversified investment portfolio



OPPORTUNITY IS KNOCKING

Open the door by taking advantage of your employer match if available, and consider contributing even more to build your portfolio.

MODEL ASSUMPTIONS

Start age: **25**

Retirement age: **65**

Starting salary: **$50,000**

Employee contribution: **5.0%**

Employer match: **2.5%**

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First year employee contribution amount is $2,500 with an employer match of $1,250. Inflation and wage growth is 2.0%. Individual is assumed to retire at the end of age 65. Growth of portfolio is tax deferred. Investment return is based on 10,000 simulations of a hypothetical portfolio with an average 6% return over the 40-year time period.

The above example is for illustrative purposes only and not indicative of any investment.

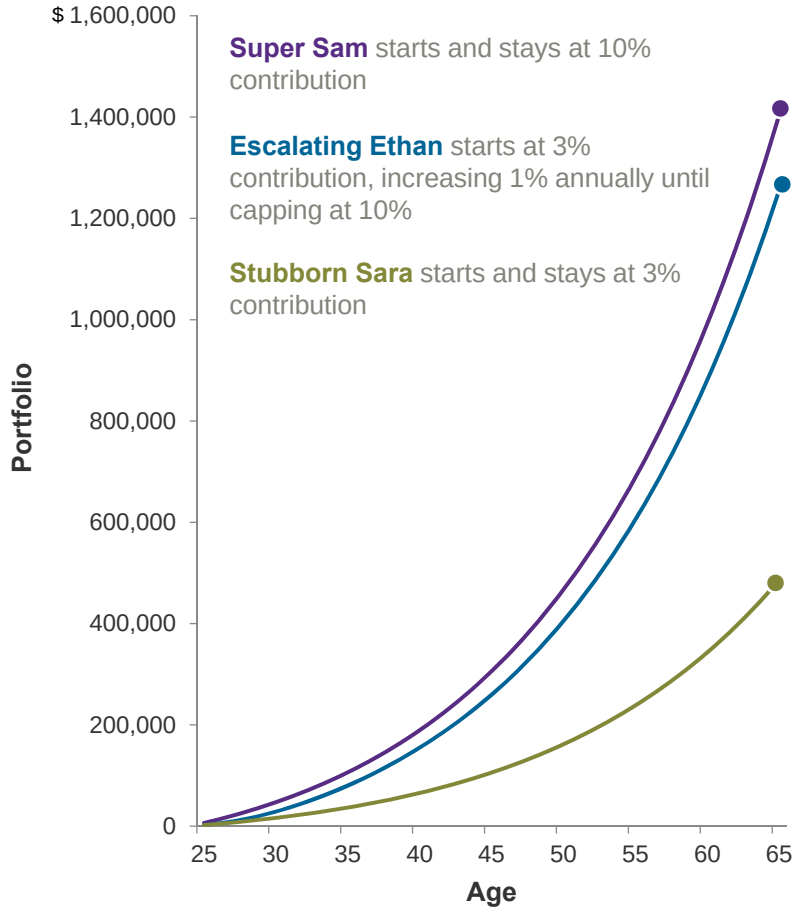
Source: J.P. Morgan Asset Management, Long-Term Capital Market Assumptions.

J.P.Morgan Asset Management

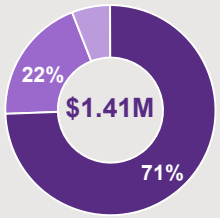
The benefits of auto-escalation

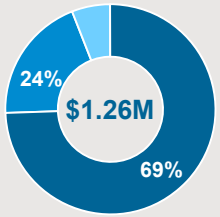
DC

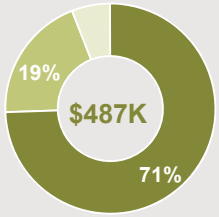
Account growth of auto-escalate vs. a static contribution



Ending portfolio







Return
Contribution
Employer match

MODEL ASSUMPTIONS

Start age: **25**

Retirement age: **65**

Starting wages: **$50,000**

Wage growth: **2.0%**

Assumed annual employer match: **50% of contribution, capped at 3%**

Investment return: **6.0%**

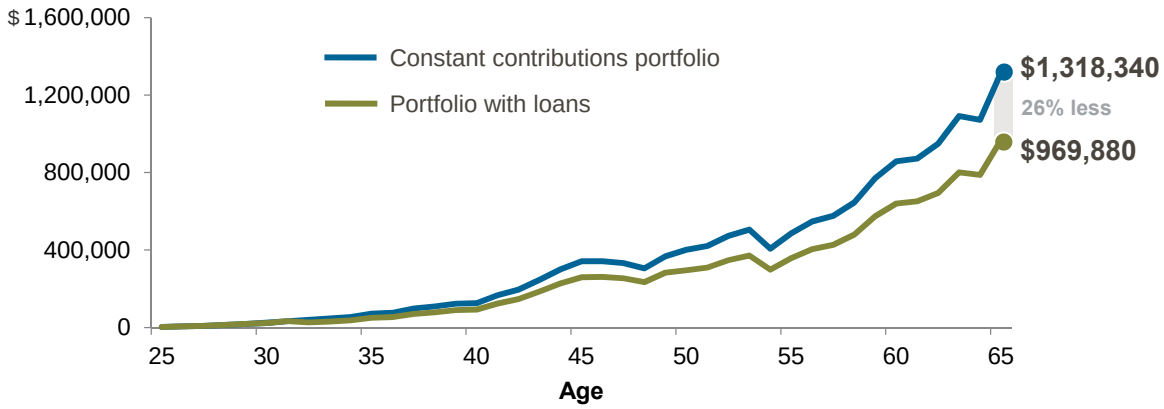
Individual is assumed to retire at the end of age 65. Growth of portfolio is tax deferred; ending portfolio may be subject to tax. The above example is for illustrative purposes only and not indicative of any investment.

Source: J.P. Morgan Asset Management, Long-Term Capital Market Assumptions.

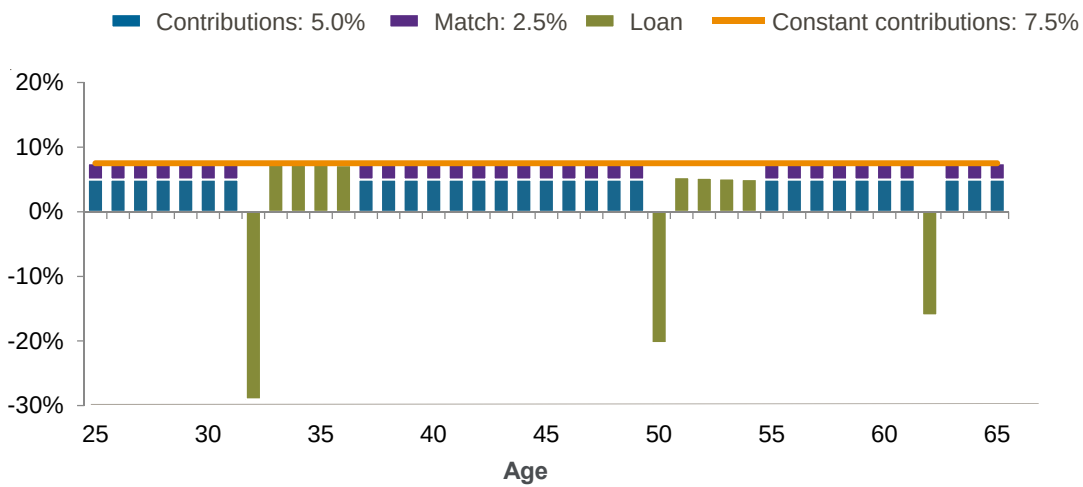
J.P.Morgan Asset Management

The toxic effect of loans and withdrawals

Growth of 401(k) investment



Assumed 401(k) contributions



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.

DC

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 Barclays Capital U.S. Aggregate Index from 1979 to 2019. Starting salary of $30,000 increasing by 2.0% each year.

J.P.Morgan Asset Management

A closer look at tax rates – 2020

Federal income tax rates applicable to taxable income

Tax rate	Single filers	Married filing jointly	Capital gains & dividends	Medicare tax on earned income	Medicare tax on investment income	Limits to itemized deductions
10%	Up to $9,875	Up to $19,750	0% [up to $40,000 (single) / $80,000 (married)]	1.45% (employee portion, employers also pay 1.45%)	0%	-Medical expenses greater than 7.5% of AGI deductible -SALT (state and local taxes) deduction capped at $10,000 -Mortgage interest deduction limited to primary/secondary homes with up to $750,000 new debt. Deduction is allowed on new home equity debt that is used to repair, build or improve upon home. -Cash charitable gifts deductible up to 60% of AGI
12%	$9,875-$40,125	$19,750-$80,250				
22%	$40,125-$85,525	$80,250-$171,050	15% [up to $441,050 (single) / $496,600 (married)]			
24%	$85,525-$163,300	$171,050-$326,600				
32%	$163,300-$207,350	$326,600-$414,700				
35%	$207,350-$518,400	$414,700-$622,050		2.35% (includes 1.45% employee tax referenced above plus additional 0.90% tax for earned income above MAGI* $200,000/$250,000 threshold)	3.80% (additional tax will be levied on lesser of i) net investment income or ii) excess MAGI above $200,000/$250,000 threshold)	
37%	$518,400 or more	$622,050 or more	20%			

The personal exemption has been repealed and individual tax rates and personal deductions sunset after 2025 as per the TCJA 2017.
*Modified adjusted gross income (MAGI) is AGI plus amount excluded from income as foreign earned income, tax-exempt interest and Social Security benefit.

Top/tax rates for ordinary income, capital gains and dividend income

Type of gain	Maximum rate
Top rate for ordinary income & non-qualified dividends	37%/40.8%*
Short-term capital gains (assets held 12 months or less)	37%/40.8%*
Long-term capital gains (assets held more than 12 months) & qualified dividends	20%/23.8%*

Alternative minimum tax (AMT) exemption**

Filing status	Exemption	Exemption phase-out range
Single/Head of Household	$72,900	$518,400-$810,000
Married filing jointly	$113,400	$1,036,800-$1,490,400

*Includes top tax rate plus 3.8% Medicare tax on the lessor of net investment income or excess of MAGI over threshold (single threshold $200,000; married filing jointly $250,000).
**The exemption amount is reduced .25 for every $1 of AMTI (income) above the threshold amount for the taxpayer's filing status. For AMTI above the top range the exemption will be $0.

Federal estate, generation-skipping transfer (GST) tax & gift tax exemption

Top federal estate tax rate	40%
Federal estate, GST & gift tax exemption	$11.58 million per individual/$23.16 million per couple*
Annual gift tax exclusion	$15,000 per donor, per donee ($30,000 per couple)

*Increased levels expire after 2025.

The presenter of this slide is not a tax or legal advisor. This slide is for informational purposes only and should not be relied on as tax or legal advice. Clients should consult their tax or legal advisor before making any tax- or legal-related investment decisions.
Source: IRS.gov

Reference

J.P.Morgan Asset Management

Traditional IRAs vs. Roth IRAs – 2019/2020

	Traditional IRA	Roth IRA	Roth IRA conversion
Maximum contribution 2020	• $6,000 (earned income) • $7,000 (age 50 and over)[1] • Reduced by Roth IRA contributions	• $6,000 (earned income) • $7,000 (age 50 and over)[1] • Reduced by Traditional IRA contributions	No limit on conversions of Traditional IRAs, SEP IRAs, SIMPLE IRAs (if open 2+ years)
Income phase-out ranges for contribution deductibility	**2019** Single: $64,000-$74,000[2] Married: $103,000-$123,000[2] **2020** Single: $65,000-$75,000[2] Married: $104,000-$124,000[2]	All contributions are non-deductible	N/A
Phase-out ranges for Roth contribution eligibility	N/A	**2019** Single: $122,000-$137,000 Married: $193,000-$203,000 **2020** Single: $124,000-$139,000 Married: $196,000-$206,000	N/A
Federal tax treatment	• Investment growth is tax deferred and contributions may be tax deductible. Deductible contributions and investment gains are taxed as ordinary income upon withdrawal. • If non-deductible contributions have been made, each withdrawal is taxed proportionately on a pro-rata basis, taking into consideration all contributions made to all Traditional IRAs owned.	• Taxes are due upon conversion of account balances not yet taxed. • Qualified withdrawals of contributions at any time are tax free and IRS penalty free; converted amounts may be withdrawn tax free.[3] • Qualified withdrawals of earnings are tax free and IRS penalty free if taken after five years have passed since the account was initially funded and the account owner is age 59½ or older (other exceptions may be applicable). • Multiple Roth IRAs are considered one Roth IRA for withdrawal purposes and distributions MUST be withdrawn in a specific order deemed by the IRS that applies regardless of which Roth IRA is used to take that distribution.	
Early withdrawals	Early withdrawals before age 59½ are generally subject to a 10% IRS penalty unless certain exceptions apply.		
Mandatory withdrawals	By April 1 of the year after turning 72 (70½ for those born prior to 7/1/49).	None for account owner	None for account owner
Deadline to contribute	**2019:** April 15, 2020 **2020:** April 15, 2021	**2019:** April 15, 2020 **2020:** April 15, 2021	N/A

[1] Must be age 50 or older by December 31 of the contribution year. IRS Publication 590.

[2] Assumes participation in an employer's retirement plan. No income limits apply when investors and spouses are not covered by a retirement plan at work. Income limits based on MAGI. For the definition of MAGI, please see slide 49.

[3] Distributions from a conversion amount must satisfy a five-year investment period to avoid the 10% penalty. This pertains only to the conversion amount that was treated as income for tax purposes. The presenter of this slide is not a tax or legal advisor. Clients should consult a personal tax or legal advisor prior to making any tax- or legal-related investment decisions. IRS Publication 590.

Source: IRS.gov

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Retirement plan contribution and deferral limits – 2019/2020

Type of Retirement Account	Specifics	2019	2020
401(k), 403(b), 457(b)	401(k) elective deferral limit/catch-up contribution (age 50 and over)	$19,000 /$25,000	$19,500 /$25,500
	Annual defined contribution limit	$56,000	$57,000
	Annual compensation limit	$280,000	$285,000
	Highly compensated employees	$120,000	$125,000
	403(b)/457 elective deferrals/catch-up contribution (age 50 and over)	$19,000 /$25,000	$19,500 /$25,500
SIMPLE IRA	SIMPLE employee deferrals/catch-up deferral (age 50 and over)[1]	$13,000 /$16,000	$13,500 /$16,500
SEP IRA	Maximum contribution[2]	$56,000	$57,000
	SEP minimum compensation	$600	$600
	SEP annual compensation limit	$280,000	$280,000
Health Savings Accounts (HSAs)	Maximum contribution amount/over age 55	**Single:** $3,500 /$4,500 **Family:** $7,000 /$8,000	**Single:** $3,550 /$4,550 **Family:** $7,100 /$8,100[3]
	Minimum deductible	**Single:** $1,350 **Family:** $2,700	**Single:** $1,400 **Family:** $2,800
	Maximum out-of-pocket expenses	**Single:** $6,750 **Family:** $13,500	**Single:** $6,900 **Family:** $13,800
Social Security	Wage base	$132,900	$137,700
	Maximum earnings test exempt amounts under FRA for entire calendar year/during year of FRA[4]	$17,640 /year $46,920 /year	$18,240 /year $48,600 /year
	Maximum Social Security benefit at FRA	$2,861 /month	$3,011 /month
Defined benefit – Maximum annual benefit at retirement		$225,000	$230,000

[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 $285,000 (2020). IRS Pub. 560 and Notice 2019-59.

[2] Employer contributions may not exceed $57,000 or 25% of compensation (2019). Other rules apply for self-employed individuals. IRS Pub. 560.

[3] Internal Revenue Procedure 2018-30, May 10, 2018 and Internal Revenue Procedure 2019-22, May 28, 2019.

[4] 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. SSA.gov as of November 19, 2019.

Source: IRS.gov

Reference

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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.

Indexes 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.

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