DETAILED METHODOLOGY

Fidelity Planning & Guidance Center
Retirement Analysis
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1. OVERVIEW

The primary objective of the Planning & Guidance Center Retirement Analysis (the “Tool”) is to provide you with education about your current savings, estimated future contributions, and the potential impact they may have on your estimated income in retirement. The Tool allows you to explore hypothetical what-if scenarios to potentially improve your retirement planning strategy.

This analysis is provided to you for informational purposes only by either Fidelity Brokerage Services LLC, a registered broker-dealer, or its affiliate, Fidelity Personal and Workplace Advisors LLC, a registered investment adviser, depending on your relationship with Fidelity Investments. Each Tool session is a one-time, nondiscretionary service, which means that it is up to you to implement your planning strategy if, and as, you choose. We suggest that you revisit the Tool periodically and, in particular, when your financial circumstances change. Please consult your tax advisor or investment professional, if applicable.

IMPORTANT: The projections or other information generated by the Tool regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Results may vary with each use and over time.

Limitations of the Tool

The Tool does not make predictions of future market conditions, or attempt to provide predictions as to the actual market performance of the specific investments or holdings in your selected accounts. Instead, the Tool uses historical returns (based primarily on index performance rather than on the performance on any one security), market volatility data, and correlation characteristics (i.e., standard deviation) to estimate potential income in retirement. Past performance is no guarantee of future results. Also, it is not possible to invest directly in an index. Performance returns for actual investments will generally be reduced by fees and expenses not reflected in the hypothetical illustrations.

All calculations and results are purely hypothetical in nature and will not affect your actual accounts. You are responsible for your own investment and planning decisions, and you may accept, reject, or modify any results obtained through the Tool.

Fidelity may incorporate certain personal or financial information into the Tool, which you and/or your workplace savings plan sponsor or a third party, such as another financial institution, have previously provided to Fidelity or its affiliates. You should verify the continued accuracy of any such information.

Keep in mind that the illustrations reflected in the Tool are current as of the date provided, based in part on data obtained from multiple sources, including third-party sources. Any results provided are based on certain quotes and other pricing data that the Tool obtains from Fidelity and third parties on a periodic basis. Results are also based on the value of your accounts and other income sources. The estimate of potential Social Security income is based, in large part, on your reported compensation. Because these values change over time, your results may change if you use the Tool more than once. If you model changes to your plan but do not implement those changes soon after leaving the Tool, you should recalculate your Retirement Analysis if you decide to put your modeled changes into action. It is important to remember that the asset and income amounts that the Tool calculates are approximate, as is much of the information entered into the Tool. Much of this information is based on what you know today, but also reflects assumptions regarding how the situation may change in the future. These assumptions cover future market returns, inflation, income, asset growth, tax assumptions, and certain assumptions about your personal situation.

The Tool may overstate or understate the impact of taxation on your withdrawals as a result of the Tool’s assumptions. For example, the Tool treats initial non-Roth after-tax balances in tax-deferred accounts subject to ordinary income tax upon withdrawal, thereby overstating taxes and understating available income. Additional details are available below.

Who Should Not Use the Tool

The Tool takes into account certain tax rules that are primarily based on the assumption that a person has only a U.S. tax liability. It also assumes that information about any spousal relationship will continue until the death of that person.

There may be situations where you should consider creating separate plans for each individual. The Tool assumes that you and the "spouse/planning partner" can file a federal tax return as “Married Filing Jointly.” It also assumes that you and the "spouse/planning partner” qualify for certain Social Security benefits, transfer-tax marital deductions, and other benefits to which only individuals qualifying as “spouses” under federal tax or other law may be entitled. These assumptions may not be appropriate in the context of planning with “planning partners,” and the Tool results may therefore not be appropriate if “planning partner” rather than “spouse” information is entered. The following tax circumstances are some, but not all, of the reasons you may want to consult your tax advisor or a Fidelity Representative before using the Tool. The outputs may not be applicable if you:

• Have a significant amount of margin debt
• Have a foreign tax liability
• Are subject to alternative minimum tax (AMT)
• Are in court/legal proceedings (divorce, probate, etc.) where final asset amounts are in question
2. USER PROFILE INFORMATION

The Tool leverages user profile data for display purposes and for inputs into calculations and analysis. The data may originate from recordkeeping systems and/or be manually entered by the user. New users will have certain data input fields (see below) prefilled. All data inputs should be validated for accuracy and completeness.

Time Horizon Data
The Tool defines your retirement time horizon as the years between your retirement age and your planning age. If you are planning with a spouse or planning partner, retirement starts in the earlier retirement year and continues until the later planning year. If one of you is not working, but you don’t consider your household retired, you should select the “Neither” option when prompted for retirement status.

• **Retirement Age:** For new Tool users, the Retirement Age field is prefilled with the age the user is eligible for a full Social Security payment (referred to as a person’s “Full Retirement Age” by the Social Security Administration).

• **Planning Age:** Fidelity estimates longevity using date of birth, gender, and the Retirement Plans (RP) mortality tables most recently published by the Society of Actuaries. These tables are based on the mortality experience of U.S. pension plans. Among the most recent set of tables, identified as RP-2014, we use the Healthy Annuities table, updated periodically to reflect mortality rate improvements. Our longevity estimates are not tailored to a specific individual or situation, do not reflect additional factors that could increase or decrease your life expectancy (such as your health, lifestyle, and family history), and should not be considered definitive.

If you provided gender information, we use it for you and your spouse/planning partner (if applicable) to estimate the appropriate longevity. If we do not have gender information, or if the gender information in our records is recorded as female, nonbinary, or blank, we use the estimated longevity for females. The estimated longevity for females is generally longer than for males. Your “planning age” (or above-average lifespan) is the age to which you have an estimated 25% chance of surviving (that is, there is a 75% chance that you will die before this age).

**Expenses**
The amount which you’ve selected for your expenses plays an important role in the analysis of the Tool. The Tool’s analysis is based primarily on your ability to cover your expense amount throughout your plan’s time horizon. Expenses can be entered at the estimated level, or at the expense category level using detailed expenses. For users more than five years from retirement, there may be an option within the Tool to use the default expense amount described in the next section. Unless you’re using detailed expenses, the Tool will assume 15% of the amount of your total retirement expenses are health care expenses. Further, the Tool will assume the amount you enter remains constant throughout your plan, changing only for cost-of-living adjustments (COLA) based on the Tool’s general inflation rate of 2.5% for non-health care expenses and the inflation rate for health care expenses as described under "Health Care Expense Inflation Assumption." If you expect your expenses to fluctuate throughout your retirement, you can model the variance using the budget worksheet.

Default Expense Amount Calculation:
**Step 1:** Determine an expense amount that replaces 85% of the user’s estimated preretirement compensation. We take your current income (which includes salary, commission, and bonus, as applicable) and grow it at a rate of 1.5% over inflation from now until retirement. The value at retirement is multiplied by 85% and taxes are subtracted. This value is reverted to today's dollars and divided by 12 to get the monthly value of estimated expenses at retirement.

**Step 2:** Apply an adjustment factor to the value calculated in step 1. Adjustment factors are based on household income, and use an assumption that spending patterns in retirement vary by preretirement income. For example, households with significantly higher preretirement income may not need to replace 85% of their income, and in this case the adjustment factor would reduce their target to a rate below 85%. The Tool provides the ability to reduce or increase this amount based on your expected spending habits in retirement.

**Health Care Expense Inflation Assumption**
The Tool makes the following inflation assumption and does not allow you to change this inflation rate.

• **Health Care Costs:** The default inflation rate of health care costs is a schedule of rates, which start at 4.9% for some time and slowly decrease to general inflation, based on Fidelity research.

**Income Sources**
Income sources are used within the Tool for the purpose of analyzing your retirement goal. The amounts may be prepopulated from recordkeeping systems or entered manually, and all inputs should be validated. Fidelity is not able to verify the accuracy, timeliness, or completeness of the data reflected for any manually added retirement income sources. Fidelity is not responsible for the accuracy of any values provided by your employer.

**Compensation Income**
Compensation Income in the Tool is divided between Salary, Bonus, and Commission. Compensation data entered into the Tool is used for estimating retirement income, and for default value for estimates of tax rates and retirement expenses. For new users of workplace plans recordkept at Fidelity, your compensation data may be prepopulated. Once you have used the Tool, your compensation data is saved and will no longer be prepopulated. If your compensation changes, you should update the Tool.

**Salary Growth Rate**
The Tool defaults to a salary growth rate that equals the Tool’s inflation rate plus 1.5%. The salary growth rate is applied to your salary plus any applicable bonus and commissions you enter. This figure is derived from data from the Department of Labor and the U.S. Census Bureau. Please see the “Dollar Values: Future vs. Current” section for additional details on the current inflation rate used in the Tool.

**Social Security Benefits**
The estimate of Social Security benefits is based on your date of birth, the most recent earned income amount you provided, and the retirement age and Social Security start age you enter (the Old-Age and Survivor’s Insurance [OASI] program retirement benefits’ commencement age may be no earlier than age 62 and no later than age 70). The feature uses rules from the Social Security Administration (SSA), annual employment data, and Fidelity’s assumptions. If you experience a different earnings history, or the
future national average wage growth and inflation are different from what the feature assumes, the Social Security benefit may be different. You can override your estimated Social Security benefit (e.g., if you have obtained an estimate of benefits directly from the Social Security Administration) and can also choose to omit Social Security from your plan.

If the retirement age is not provided, we use the lesser of your current age and age 60 as your retirement age and the social security start age you provide to estimate and project your benefit. Surviving spouses can start taking early Social Security by the age of 60. Surviving spouses who are also disabled can begin taking early Social Security by the age of 50, but only if the recipient qualifies for disability payments. Social Security retirement benefits are adjusted by the application of a COLA increase defined in a federal legislative enactment. The feature assumes increasing future Social Security retirement benefits using the feature’s default inflation rate, which is updated from time to time.

Notes:

• If the anticipated Social Security start age you enter is older than the Full Retirement Age as defined by the SSA, the Full Retirement Benefit is adjusted upward to acknowledge a delayed benefit start date. Benefits can be deferred up to age 70 for individuals with Full Retirement Ages of 65, 66, or 67. Up to age 70, the later a benefit start date is from the Full Retirement Age, the greater the benefit. Deferring benefits beyond age 70, however, will not increase the benefit anymore.

• If you earn income while receiving Social Security benefits and you are under your Full Retirement Age, your benefits may be temporarily reduced. After you reach your Full Retirement Age, earned income should not reduce your benefits. For more information, visit the Social Security Administration website at www.ssa.gov. Please consult your tax advisor if you have any questions regarding the taxability of Social Security income. See also “Section 3. Tax Calculations and Assumptions” for additional details on material tax assumptions related to Social Security income and how the feature calculates estimated income taxes on Social Security income.

Work in Retirement/Recurring Income Source

The Tool assumes all such income is taxed at ordinary income tax rates in the year it is earned. This income, after taxes are withheld, is assumed to be invested in a hypothetical taxable account and made available to pay retirement expenses (see “Section 4. Monte Carlo Simulations” for information as to how this income is assumed to be invested).

One-Time Event

The One-Time Event income source within the Tool is used to model an amount that you are expecting to receive as a lump sum (e.g., inheritance, proceeds from the sale of real estate). The Tool provides the ability to designate whether the amount will be taxed in the year it is received, or if withdrawals will be tax-exempt. There is also the option to specify an annual growth rate for the entered amount. If a growth rate is entered, the amount will be compounded annually until the specified age, and will not be reduced for inflation. If the growth rate is not entered, the income amount at the specified age will equal the current balance. This income is assumed to be invested in a hypothetical taxable account and made available to pay retirement expenses.

Defined Benefit Pension Plans

Any defined benefit pension plans recordkept by Fidelity or aggregated through a third-party provider are automatically included in the Tool as retirement income, provided that you also have a Fidelity 401(k), 403(b), or 457(b) account. The benefit listed initially defaults to the amount you would receive if your plan sponsor continued the plan under current provisions until retirement, you were fully vested, worked at the company offering the benefit until the plan’s normal retirement age, and received a salary increase each year of 3%. This may not reflect your actual experience.

For Single Life Annuity and Joint and Survivor pension options, the Tool assumes the benefit will continue for your or your survivor’s life. Please consult your tax advisor if you have any questions regarding the taxability of your pension benefit. See “Section 3. Tax Calculations and Assumptions” for additional details on material tax assumptions related to pension benefits and how the Tool calculates estimated income taxes on pension benefits.

For purposes of estimating the effect of federal, state, and local income taxes, the Tool uses the following assumptions for qualified and nonqualified defined benefit pension plans:

• All pensions recordkept at Fidelity or aggregated through a third-party provider are assumed to be fully taxable upon distribution.

• FICA tax withholding on nonqualified pension plan payments is not reflected. FICA tax is normally withheld on nonqualified pension plan payments, so if you are receiving or might receive nonqualified plan payments, the Tool might overstate net amounts available for your retirement income.

• Any lump-sum values reflected will be treated as having been rolled over from a qualified plan to an IRA for purposes of estimating your retirement income in the Tool, notwithstanding that the lump sum may be a nonqualified pension plan payment. Payments under nonqualified pension plans cannot be rolled over to a tax-deferred account.

Estimates of future pension benefits are not adjusted for the Tool’s inflation rate. Any lump-sum values reflected will be treated as an account in the “Asset Allocation” section for purposes of calculating your retirement income in the Tool. Please consult your tax advisor if you have any questions regarding the taxability of your pension benefit.

Income Annuities

Certain income annuities you currently hold that were purchased through Fidelity Insurance Agency, Inc., may be automatically assigned to your retirement goal and hypothetical future income amounts illustrated in your analysis. Income received from other income annuities you currently hold must be manually entered by you.

It is important to note that when an income annuity you currently hold is assigned to your retirement goal (by you or the Tool), the Tool makes certain assumptions that may not be accurate for your specific annuity contract. This may have a significant impact on the analysis the Tool conducts and the results it displays about your retirement preparedness. For example:

• In illustrating future income payments from an annuity that is currently paying or will pay income entirely on a fixed basis (as opposed to variable), the Tool does not factor in a COLA. Instead, the Tool assumes that future payments will equal the last payment received, or if payments have not yet started, the first expected payment. To the extent that your annuity has a COLA, this will result in the Tool underestimating the amount of income you may receive.
• In illustrating future income payments from an annuity that is making payments entirely on a variable basis, the Tool takes the last payment made and estimates future payments by comparing (i) the performance of an asset mix similar to the current asset mix of the accounts assigned to your retirement goal or of another asset mix that you select for modeling purposes (see "Section 4. Monte Carlo Simulations" for more details), to (ii) a 3.5% annuity benchmark rate of return. The Tool illustrates annuity income as (i) increasing from one income annuity date to the next if the annualized asset mix return is greater than the assumed 3.5% benchmark rate of return, and (ii) decreasing if the annualized asset mix return is less than the assumed 3.5% benchmark rate of return. The Tool assumes that your annuity has a 3.5% benchmark rate of return and a 0.6% annual annuity charge. Your annuity contract’s actual benchmark rate of return and annuity charge may be higher, and, if so, the Tool’s income projections will be overstated. Finally, the asset mix the Tool assumes for modeling purposes (see above) may differ significantly from the asset mix of the fund you have actually chosen within your annuity; in fact, it may not be possible to select a fund within your annuity contract that has an asset mix similar to the asset mix the Tool uses for modeling purposes.
• In illustrating future income payments from an annuity that is making payments on a combination fixed and variable basis, the Tool takes the last payments made and assumes all future payments will be based entirely on a variable basis, using the above methodology. This may result in the Tool significantly understating or overstating your potential future income.
• For all income annuities, the Tool does not factor in any guarantee periods or other death benefits; instead, the Tool assumes no income or assets are payable to beneficiaries other than your spouse at the end of your plan. To the extent that your annuity has a guarantee period or other death benefit, this may result in the Tool underestimating the amount of assets left at the end of your plan.

For details on the features and terms of your annuity, please refer to your annuity contract.

**Deferred Annuities**

Information on certain deferred annuities you currently hold that were purchased through Fidelity Insurance Agency, Inc., may be automatically imported into the Tool. Depending on the specific annuity, it is either defaulted by the Tool as "Assigned" or "Unassigned" to your retirement goal in your Planning Profile. You have the option of changing the Tool’s default assignment. It is important to note that when a deferred annuity is assigned to your retirement goal (by you or the Tool), the Tool’s analysis does not take into account the annuity’s:
• Insurance features — for example, guaranteed rates of return, guaranteed living benefits (i.e., guaranteed accumulation benefit or guaranteed withdrawal benefit), and guaranteed death benefits; or
• Fees — for example, mortality and expense risk fees, surrender charges, and market value adjustments.

This may have a significant impact on the analysis the Tool conducts and the results it displays about your retirement preparedness. For example:
• The Tool may illustrate withdrawals from your annuity that would have adverse consequences, such as surrender charges and reductions in a guaranteed withdrawal amount or guaranteed accumulation amount. The Tool will not factor in these consequences nor will the Tool’s output disclose them to you.
• By not taking into account a guaranteed withdrawal benefit of a deferred variable annuity (to the extent applicable), the Tool may show income stopping from the annuity when the contract value is depleted, when in fact it would continue.
• By not taking into account a guaranteed death benefit (to the extent applicable), the Tool may underestimate the amount of assets left at the end of your plan.
• The Tool will not recognize if you have already started taking guaranteed withdrawals, and will not draw down the account balance in its projections in anticipation of future guaranteed withdrawals. If you are currently taking or planning to take annual withdrawals from an annuity (or if you plan to annuitize an annuity), instead of assigning the annuity as an account to your retirement goal in your Planning Profile, you may want to manually add the income in the Tool under “Additional Income Sources”—if you do so, you should select “Fixed Income Annuity.” Keep in mind that the Tool’s analysis will treat the income as a fixed payment that will not change, and will not take into account the living/death benefit features or surrender charges.
• The Tool will classify fixed deferred annuity assets as bonds, and will not recognize in its analysis your annuity’s guaranteed rate of return or guarantee period (meaning it will classify a fixed deferred annuity’s assets as bonds in perpetuity). This may result in the Tool significantly overestimating or underestimating your potential future contract value.

For details on the features and terms of your annuity, please refer to your annuity contract.

### Accounts

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<tr>
<th>Accounts at Fidelity</th>
<th>Accounts excluded from the Tool experience:</th>
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<tr>
<td>Accounts included in the Tool experience:</td>
<td>• 457(f) Plans</td>
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<tr>
<td>• Taxable Accounts</td>
<td>• Fidelity Advisor IRAs and Other IRAs (such as small business)</td>
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<tr>
<td>• Traditional IRAs*</td>
<td>• SDCBs (Self-Directed Cash Balances)*</td>
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<td>• Roth IRAs*</td>
<td>• 501(c)(9) (Voluntary Employee Beneficiary Association)</td>
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<td>• 401(k) Plans (including Roth sources)*</td>
<td>• 671 Grantor Trusts</td>
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<td>• 403(b) Plans (including Roth sources)*</td>
<td>• RMBAs (Retirement Medical Benefits Accounts)</td>
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<td>• 457(b) Plans (including Roth sources)*</td>
<td>• 529 Plans</td>
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<td>• 401(a) Qualified Plans*</td>
<td>• Starter 401(k) Plan</td>
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<td>• Defined Benefit Pension Plan Payments (Joint and Survivor, Lump Sum and Periodic)*</td>
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<td>• Nonqualified Deferred Compensation Plans*</td>
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<td>• Health Savings Accounts</td>
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<td>• SEP IRAs*</td>
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<td>• SIMPLE IRAs*</td>
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<td>• Keogh Plans*</td>
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<td>• Certain Income Annuities*</td>
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<td>• Certain Deferred Annuities*</td>
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<td>• Full View® Accounts</td>
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<td>• Manually Added Income Sources</td>
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<td>• Brokerage Accounts</td>
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<td>• Equity Compensation</td>
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is available directly through the financial institutions. The “refresh” date may not be the same as the “as of” date, which the refresh from the institution is otherwise not accurate or current. The most recent update and may not be timely or accurate if an update balances of accounts aggregated using Full View represent the this information for accuracy, timeliness, and completeness. Please consult your account statement and any statements from the respective financial institution for accounts included in the Tool. Unsettled transactions pending in any of your selected accounts, margin balances, and short positions at the time of your Tool interaction may materially impact the value of that account included in your analysis. For an unsettled equity purchase, the value may be materially overstated (and the investment risk understated due to cash remaining in the account), and for an unsettled equity sale, the value may be materially understated (and the investment risk overstated). Depending on the size and scope of such balances or transactions, you may want to exclude the affected account(s) from your analysis or, if included, consider the reliability of the Tool’s results. Authorized Accounts Accounts that have been authorized to be associated with your Social Security number will also appear in the Tool. An authorized account is an account for which you have been provided inquiry (or higher) authorization by the account owner. The person who has provided authorization to you is either an individual (not a corporation, trust, or other entity) or an owner, trustee, custodian, fiduciary, or a joint or beneficial owner of a Fidelity mutual fund or brokerage account otherwise accessible through Fidelity. Note: It may not be appropriate to include an authorized account in your retirement income plan if you have no ownership interest in that account. For security purposes, Fidelity accounts held by a spouse are not automatically included. Full View® Accounts A Full View® account (if this service is available to you) is an online account held at another institution from which you have authorized Fidelity to import your account data electronically. The Full View service is provided by Fidelity for your convenience. Fidelity controls which account types offered by the Full View service will be used with the Tool. The supported types may change over time. Fidelity is not responsible for the validity, legality, copyright compliance, or appropriateness of content gathered by the Full View service. Fidelity does not prepare, edit, endorse, or warrant, and makes no representations concerning the accuracy, timeliness, or completeness of information and data collected from third-party sources. Fidelity does not audit, confirm, or verify the information you provide or the information that you permit to be obtained through Full View. You are responsible for checking and updating this information for accuracy, timeliness, and completeness. Balances of accounts aggregated using Full View represent the most recent update and may not be timely or accurate if an update was not successfully completed or the information obtained during the refresh from the institution is otherwise not accurate or current. The “refresh” date may not be the same as the “as of” date, which is available directly through the financial institutions.

Manually Entered/Other Accounts The Tool will display accounts and other income sources you have manually entered during a previous planning tool interaction, and also allows you to manually add an account or other income source, and, as appropriate, assign the account to your retirement income goal, provide general asset allocation information, assign a balance or market value (as appropriate) to the account or other income source, and include it in your analysis. Note that manually added account balances do not automatically update. You should review these balances with each Tool use to ensure that the most up-to-date values and information are used in your analysis. Equity Compensation The Tool can illustrate various types of equity compensation awards that may be included as part of a user’s plan. The equity compensation awards supported generally include option awards (Incentive Stock Options, Non-Qualified Stock Options and Stock Appreciation Rights) and share awards (Restricted Share Awards, Restricted Share Units and Performance Share Units). The Tool does not currently support qualifying disposition of Incentive Stock Options or Internal Revenue Code (IRC) Section 83(b) elections on Restricted Share Awards. Users planning a qualifying disposition or an IRC Section 83(b) election should consider the impact of such decisions on the results presented. All projected, hypothetical income generated from equity compensation awards is treated as wage income and taxed upon receipt in accordance with the tax treatment of other income sources (See Section 3, Tax Calculations and Assumptions, below). The Tool does not consider these assets as a potential income source until an “income event” occurs. An “income event” occurs at the time the underlying equity award of shares is sold. This sale is assumed to take place simultaneously with the exercise of an option or the vesting of shares. At the time of the income event, the proceeds (if any) from the sale of the shares associated with the exercise of an option or as shares vested are treated as income to the plan and then become available to pay expenses. If this income is not immediately used to pay expenses, it is assumed to be invested consistent with the goal-level asset allocation of the overall plan. Options are exercised (and underlying shares assumed to be sold) on a date between the last vesting date and the expiration of the option as selected by the user; the hypothetical income which flows to the plan is equal to the in the money value given the simulated underlying security price and the provided strike/grant price (i.e., a cashless exercise is assumed). Share awards vest (and are simultaneously assumed to be sold) according to the provided vesting schedule and income flows to the plan with each vesting period. Any expenses which may be incurred in connection with the sale of the underlying security are not considered by the Tool. In order to project the potential value of the income source at the time of an income event, the Tool uses Monte Carlo analysis to simulate the potential values of the underlying security upon which these equity compensation awards derive their value. To accomplish this, the Tool considers the current market price of the security, the volatility of the stock based on the previous year of returns, and the trailing 12-month dividend yield. Given the security specific volatility, a stream of 250 random total annual returns are generated; the dividend yield is then subtracted from these annual returns to arrive at the price return which drives the price appreciation of the underlying security from which the equity compensation values are derived. If the volatility or dividend rate is unavailable, market average defaults are used. From here, the price of the underlying security can be projected and compared against the
facts of the equity compensation in order to determine the actual
income flow, if any, at the time of the anticipated sale.

Nonqualified Deferred Compensation Plans
If you participate in any nonqualified deferred compensation plans
recordkept at Fidelity, the Tool automatically includes any amounts
or positions credited to you under the plan. Any contribution elec-
tions you have made in your plan are not automatically included
for planning purposes. The Tool uses any contribution amounts
you enter in the Tool for yourself and/or your employer. If you do
not enter contributions, a value of $0 is used for contributions.
No contribution limits are applied. The Tool assumes that there
are no predefined rules or elections for taking distributions from
your nonqualified deferred compensation plans. The tool permits
distributions from nonqualified plans at any time, and never forces
distributions to occur. There are no required minimum distributions
(RMDs) and no penalties for withdrawals before the scheduled
distribution date (i.e., before age 59½). All distributions from non-
qualified plans are assumed to be fully taxable. The tool assumes
investment returns are applied to your balances based on your
retirement plan asset mix. No specific plan rules for investment
returns (such as fixed return rates) are considered. The tool also
assumes FICA taxes are not due at retirement (or at any time of
distribution), but are paid on an ongoing basis.

For your nonqualified deferred compensation plans that are record-
kept at Fidelity, the actual value of your plan benefit at any point
in the future is determined by any plan activity and any investment
increases or losses that may occur. Any defined contribution plan
amounts or positions reflect an unsecured promise your employer
has made to you to pay notional investment increases sometime
in the future. If your employer becomes insolvent, you may not
receive any money under these plans. Please refer to your plan
materials for more details, including any distribution elections
you may have made that may not be reflected in the Tool. (See
“Section 3. Tax Calculations and Assumptions” for additional details
on how the Tool calculates estimated income taxes on nonqualified
plan account assets.)

Updating Account Data
In the Tool, market values, account balances, and account positions
for employer-sponsored workplace savings plans (e.g., 401(k),
403(b), and 457(b) plans) and personal investing accounts you hold
at Fidelity will be automatically updated. Non-Fidelity accounts that
are aggregated using Full View (if you have this service available
to you) will also be automatically updated in accordance with the
terms of that service. You are responsible for updating the data for
any other accounts or income sources.

Contribution Limit Handler
When considering your retirement plan strategy and, more
specifically, when deciding how much to contribute to a retirement
account, consider plan rules, IRS limits, your individual situation,
and any other future sources of income. Keep in mind that, generally,
you can increase or decrease the amount of your contribution according
to plan rules and IRS limits. You can request that contributions be
stopped at any time. Employer contributions, if applicable, are
subject to the plan’s vesting schedule. Please see your plan rules for
specific details on any nonqualified deferred compensation plans.
Each retirement account type has a set dollar-amount contribution
limit, as specified in the charts to the right. You cannot contribute
more than an account’s contribution limit, as established by the
Internal Revenue Code (IRC) and your plan’s rules, if applicable. To
address this, the Tool uses annual IRC contribution limits to check
that all contributions are within the specified limit for that account.
Limits used within the Tool may be subject to change by the IRS.
Limit changes will be incorporated into the Tool; however, due to
timing issues there may be instances when Tool limits and IRS limits
differ. The Tool may also apply plan limits or contribution information
applicable to your plan, if such information has been supplied by
your workplace plan sponsor. Please consult your tax advisor for
assistance. Tax-advantaged account assumptions are included below.

Account Contributions
- For qualified plans, the Tool assumes that your employer
will contribute to your plan on your behalf. IRS limits on after-tax employee
contributions to employer-sponsored accounts are not considered
by the Tool. Employer-sponsored plan rules and limits are not
considered by the Tool when not provided by the plan sponsor.
Please contact your plan sponsor for details. Contributions are
assumed to stop at the indicated retirement age or when no
longer permitted, whichever occurs earlier.

**Contribution Limits for 401(k), 403(b), 401(a), and 457(b) plans**
- If you are age 50 or older, the Tool considers catch-up contributions
allowed under the Economic Growth and Tax Relief Reconciliation
Act of 2001 (EGTRRA) for applicable accounts. However, the Tool
does not consider the last three years’ contributions to 457(b) plan
accounts or 15+ years-of-service contributions to 403(b) plan
accounts. Additionally, the Tool does not consider the additional
catch-up provision for those ages 60–63 under the SECURE Act 2.0
of 2022. Employee elective deferral limits, including employee
401(k), 401(a), Roth 457(b), and 403(b) contributions, are as follows
if you are contributing to multiple 401(k), 401(a), and 403(b) plans,
the Tool aggregates your contributions and applies a single limit:

<table>
<thead>
<tr>
<th>Tax Year</th>
<th>If You’re under Age 50</th>
<th>If You’re Age 50 or Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>2024</td>
<td>$23,000</td>
<td>$30,500</td>
</tr>
</tbody>
</table>

- Employer/employee combined contribution limits cannot exceed
the lesser of 100% of compensation or $69,000 in 2024 (effectively
$76,500 when catch-up contributions are considered), indexed for
inflation thereafter. For purposes of the nonelective contribution,
anual compensation for 401(k) and 403(b) plans is limited to
$345,000 in 2024. This compensation limit also applies to the
determination of the accrued benefit in a defined benefit plan.
- Note that if your 401(k) plan includes a retirement medical benefit
account (R MBA), the Tool does not distinguish these assets and
assumes all assets to be regular plan contributions.
- Note that if your 401(k) plan includes a cash balance plan, the
Tool does not distinguish these assets and assumes all assets are
subject to investment returns related to the associated asset
allocations, with no fixed returns or credited amounts.
- Note that if your 401(k) plan includes an emergency savings
account balance, the Tool does not distinguish between these
assets and assumes all assets are subject to investment returns
related to the associated asset allocations.
- The Tool assumes potential cost-of-living increases to applicable
contribution limits after 2024, which will be indexed for inflation.
in $500 increments. These contribution limits are inflation adjusted in accordance with specific rules outlined by the Internal Revenue Code, assuming the Tool's default inflation rate.

**Warning:** While the Tool allows you to enter your own annual contribution amounts and, where applicable, employer contribution limits (excluding pensions), please remember that the outcome of the Tool is less meaningful if you enter unrealistic contribution amounts. The Tool will not permit modeling of contribution amounts in excess of IRC limits applicable to the selected account or, to the extent provided by your workplace plan sponsor, applicable plan limits.

- All contributions, whether made by you or your employer, to all tax-advantaged accounts are assumed to be immediately owned by you (immediate vesting).
- All employer contributions are assumed to be pretax.

### Contribution Limits for IRAs and Health Savings Accounts (HSAs)

#### Traditional and Roth IRA Annual Contribution Limits

<table>
<thead>
<tr>
<th>Tax Year</th>
<th>If You’re Under Age 50</th>
<th>If You’re Age 50 or Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>2024</td>
<td>$7,000</td>
<td>$8,000</td>
</tr>
</tbody>
</table>

For IRAs, the Tool assumes potential cost-of-living increases to applicable contribution limits after 2024, which will be indexed for inflation in $500 increments. Catch-up contribution limits for those age 50 or older will be indexed for inflation in $100 increments.

#### HSA Contribution Limits

<table>
<thead>
<tr>
<th>Tax Year</th>
<th>If You’re Under Age 55</th>
<th>If You’re Age 55 or Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>2024</td>
<td>$8,300</td>
<td>$9,300</td>
</tr>
<tr>
<td>2024</td>
<td>$4,150</td>
<td>$5,150</td>
</tr>
</tbody>
</table>

For HSAs, contributions are pretax and permitted until you enroll in Medicare. The Tool assumes potential cost-of-living increases to applicable contribution limits after 2024. For calculation purposes, unless provided by you, the Tool will assume the family limit as the maximum allowed contribution, which may not be permitted if your HSA is for single coverage.

### 3. TAX CALCULATIONS AND ASSUMPTIONS

Taxes can play an important role in how money grows over time. Given the same investments in the same proportions, assets in tax-advantaged accounts have the potential to grow faster than assets in taxable accounts, as the earnings in tax-advantaged accounts are not taxed until withdrawal, and, in some cases, not at all. However, while distributions from tax-advantaged accounts are often taxed at ordinary income tax rates, earnings on taxable accounts may be taxed at lower rates applicable to long-term capital gains, qualified dividends, and certain other types of income.

The Tool estimates federal, state, and local individual income taxes on, among other things, investment earnings, distributions from tax-exempt and tax-deferred retirement plans, Social Security, and any earned income or salary. It does not calculate actual tax liabilities or benefits and, therefore, should not be used for tax-planning or tax-reporting purposes. Rather, the tax calculations for any particular year are estimates based on information provided by you, tax rate data supplied by third parties, and projected inflation adjustments to tax brackets, among other things. Any tax estimates and tax information provided are not, and should not be construed as legal or tax advice. While reasonable efforts are made to use and maintain the most current rates, income tax brackets, and other tax rules for estimating taxes, there may be a delay between when new actual tax rates, brackets, and other rules become effective and when the Tool is updated to reflect them. Current rates, income tax brackets, and other tax rules are modeled and adjusted for inflation as appropriate for your planning period. The Tool does not model the expiration of any tax laws. For tax reporting, you should rely on the official tax forms mailed to you each year and your tax advisor's calculations for tax-reporting purposes. Consult your tax advisor regarding questions specific to your tax situation.

The Tool makes certain tax assumptions based on the types of income, accounts, or other information entered. For each year of the projection of your financial plan, the Tool estimates your effective tax rate based on projected taxable income. The effective tax rate includes an estimation of your total deductions by using Statistics of Income data provided by the Internal Revenue Service.

#### Taxable Account Assumptions

For federal, state, and local income tax purposes, the Tool uses the following assumptions for taxable brokerage and mutual fund account assets (excluding self-directed brokerage accounts held within a tax-advantaged plan, such as a 401(k)):

- All realized capital gains are long-term capital gains.
- Realized gains and losses, interest income, dividend income, and other investment income are taxed annually. Losses are fully applied in the year they are incurred. The Tool does not assume a limit on applying net losses against income.
- The Tool assumes a 10% turnover of assets each year, pro rata across all asset classes, so that each year, 10% of previously unrealized gains or losses become realized. Net losses due to turnover do not offset income.
- The Tool may overstate or understate the amount of after-tax proceeds available from sales of securities in taxable accounts because it assumes that the tax basis for each security is the fair market value of the security on the date the Tool is used. The actual adjusted tax basis of the securities in your taxable account often will be different from the fair market value of those securities on any given day. For example, if you have highly appreciated securities in your taxable account, the adjusted tax basis actually will be much lower than the fair market value, and you will be subject to capital gains tax on your net gain. Because the Tool assumes that the adjusted tax basis is equal to fair market value, however, its calculations would show that there was no taxable gain and that 100% of the sale proceeds were available to you. Conversely, if your taxable account holds securities that are currently in a loss position, the Tool will not take into account any tax benefit that may be generated upon a sale of those securities. The Tool does not consider any cost basis on company stock held in employer-sponsored plans.
- The portion of assets classified as domestic stocks by the Tool are assumed to pay an annual dividend of 2%. The portion of assets classified as foreign stocks by the Tool are assumed to pay an annual dividend of 3%. All dividends are assumed to be qualified dividends.
- Potential applicability of five-year capital gains and foreign tax credit rules is not reflected.
- All cash and bond return is assumed to be income.

#### Tax-Deferred/Tax-Exempt Account Assumptions

**Account Contributions**

- For workplace savings plans that are recordkept at Fidelity (excluding nonqualified deferred compensation plans), your plan deferral
information will be automatically imported into the Tool, including any employee pretax, Roth, non-Roth after-tax, and catch-up contributions. The Tool applies IRS annual employee elective deferral limits based on the type of account, and these will be included in the Tool’s calculations. In some cases, the plan sponsor has also provided plan rule information including matching, mandatory, and profit-sharing contributions, as well as plan minimum and maximum contribution limits, and these will be included in the Tool’s calculations. Check the “Contribution Details” page of the account to see if your workplace savings plan has this information included.

- For individuals who enter annual tax-advantaged account contributions, the Tool applies IRS annual contribution limitations based on the type of account (see the “Contribution Limit Handler” section). Limits are tested for each account individually as you enter data in the Tool. The additional 10% employer nonelective contribution for SIMPLE IRAs is not considered. Except as provided above, any amount you enter in excess of the applicable IRS limit is not included in the Tool’s calculations. The Tool considers any IRS limits that may apply to amounts you indicated that your employer will contribute to the plan on your behalf (regardless of whether or not your plan is recordkept by Fidelity). IRS limits on after-tax employee contributions to employer-sponsored accounts are also considered by the Tool. Employer-sponsored plan rules and limits are not considered by the Tool when not provided by the plan sponsor; please contact your plan sponsor for details. Contributions are assumed to stop at the indicated retirement age.

- If you are age 50 or older, the Tool supports catch-up contributions. However, the Tool does not consider the last three years’ contributions to 401(k) plan accounts or 15+ years-of-service contributions to 403(b) plan accounts. Additionally, the Tool does not consider the additional catch up provision for those ages 60–63 under the SECURE Act 2.0 of 2022.

- Note that if your 401(k) plan includes an RMBA, the Tool does not distinguish these assets and assumes all assets to be regular plan contributions.

- Note that if your 401(k) plan includes a Cash Balance plan, the Tool does not distinguish these assets and assumes all assets to be regular plan contributions.

- Note that if your plan allows for employer matching contributions on student loans and emergency savings account contributions, the Tool does not calculate the match amount.

The Tool assumes the following classifications:

<table>
<thead>
<tr>
<th>Taxable Accounts</th>
<th>Tax-Deferred Accounts/Plans and Annuities</th>
<th>Federal Tax–Exempt Accounts or Events</th>
<th>Other Taxable Income or Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brokerage Account</td>
<td>401(k) Plans (including SIMPLE 401(k) Plans and BrokerageLink® accounts within such plans)</td>
<td>529 College Savings Plan Account</td>
<td>Social Security Benefits</td>
</tr>
<tr>
<td>Mutual Fund Account</td>
<td>403(b) Plans</td>
<td>Roth IRAs¹</td>
<td>Work in Retirement/Recurring Income Source</td>
</tr>
<tr>
<td>Checking Account</td>
<td>457(b) Plans²</td>
<td>Roth Source in a 401(k) Plan³</td>
<td>One-Time Events (taxable)</td>
</tr>
<tr>
<td>Savings Account</td>
<td>Profit Sharing Plans</td>
<td>Roth Source in a 403(b) Plan³</td>
<td>Equity Compensation</td>
</tr>
<tr>
<td>Equity Compensation Account</td>
<td>Traditional IRA</td>
<td>One-Time Events (tax-exempt)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rollover IRA</td>
<td>Health Savings Accounts (HSA)⁴</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SEP-IRA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SIMPLE IRA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>401(a) Plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Keogh Plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Money Purchase Plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Defined Benefit Plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nonqualified Deferred Compensation Plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Qualified Annuity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nonqualified Annuity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manually Added Self-Employed Plan</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹A qualified distribution from a Roth IRA is federal tax–exempt and penalty free, provided the five-year aging requirement has been satisfied and one of the following conditions is met: age 59½, disability, qualified first-time home purchase, or death. Nonqualified distribution of earnings will be taxable and may also be subject to penalties. You should check with your state of residence for applicable state tax rules.

²457(b) plans include both governmental and nongovernmental 457(b) plans. 457(f) plans are not supported within the Tool.

³Roth 401(k), Roth 403(b), and Roth 457(b) sources are part of a 401(k), 403(b), or 457(b) account. The Tool assumes the workplace savings plan rules allow for withdrawals by source.

⁴You should check with your state of residence for applicable state tax rules on distributions that do not require tax withholding at the federal level.
• Note that repayment of early withdrawals, when allowed, and loans are not considered in the Tool.

**Distributions/Withdrawals from Defined Contribution Plans, HSAs, and IRAs**

Withdrawals from tax-advantaged retirement accounts are subject to the applicable provisions of the IRC and/or plan rules. Be sure you understand the implications and tax consequences of any withdrawal prior to initiating such transactions. Please consult your tax advisor, if applicable.

Distributions/withdrawals from tax-deferred accounts are assumed to be fully taxable as ordinary income. Note that if information relating to significant tax-deferred accounts to which nondeductible or after-tax contributions have previously been made is entered into the Tool, the tax analysis performed by the Tool may not be as meaningful as it would otherwise be.

The Tool applies early withdrawal penalties from tax-deferred account balances. Distributions taken before age 59½ from traditional IRAs, Roth IRAs, and employer-sponsored savings accounts [e.g., 401(k), 401(a), and 403(b) plans] may be subject to a 10% early withdrawal penalty. Withdrawals from certain employer-sponsored savings accounts are penalty free when the account owner leaves the employer in the year he or she turns age 55 or older. This age 55 exception does not apply to any type of IRA. The Tool assumes no early withdrawal penalty if you plan to separate from service with your current employer after age 55 or older. The Tool assumes no early withdrawal penalty after age 59½ for all other workplace savings plan assets. Note that for Roth sources in a workplace savings plan recordkept at Fidelity, the early withdrawal penalty is applicable to the earnings only on any Roth sources. Note that for Roth sources, you can get your Roth IRA contribution(s) out anytime without incurring a 10% penalty. If you indicate you are retiring at age 55 or older and your current employer’s plan is a 401(k), 401(a), or 403(b) plan recordkept by Fidelity, the Tool will not assume a 10% penalty on any distributions taken in the year in which you turn 55 or older. For all other plans and accounts, the Tool assumes a 10% penalty unless the distribution is taken after you turn age 59½. Note that there are other applicable special exceptions to the 10% early withdrawal penalty that the Tool does not consider in its calculations. You may want to consult a tax advisor to learn more about withdrawal requirements.

- Distributions of pretax contributions from a tax-advantaged 401(k) or 403(b) workplace savings plan account or from a traditional IRA are generally taxable.

- The Tool assumes that all qualified distributions of Roth assets will not be taxed at the state level. A qualified distribution from a Roth IRA is federal tax-exempt and penalty free, provided the five-year aging requirement has been satisfied and one of the following conditions is met: age 59½, disability, qualified first-time home purchase, or death. The Tool assumes that the workplace savings plan rules allow for withdrawal by source. Roth distributions that do not qualify for tax-exempt treatment may be subject to income taxes and may also be subject to a 10% penalty. The Tool does apply early withdrawal penalties and income taxes. The Tool assumes the five-year holding period requirements have been met.

- For tax-deferred accounts that may hold both pretax and after-tax (deductible and nondeductible) contributions, the Tool assumes the balances in such accounts at the beginning of your planning period consist of all pretax assets. To the extent distributions of initial balances constitute a return of after-tax or nondeductible contributions, the Tool will underestimate your after-tax income. For example, an IRA may have an initial account value of $100,000, of which $50,000 constitutes nondeductible (or already taxed) contributions. The Tool will assume that any amount distributed from the initial balance of the retirement account or source (in the case of a workplace savings plan) is taxable as ordinary income.

- The Tool assumes that, unless you are still working after age 73, or age 75 if you were born in 1960 or later, you and your spouse will be required to withdraw the IRS required minimum distribution (RMD) annually from your traditional IRA, rollover IRA, SEP-IRA, SIMPLE IRA, Keogh, and employer-sponsored savings plan accounts [e.g., 401(k), 401(a), 403(b), and 457(b) plans]. The Tool does not enforce the greater than 5% ownership rule on starting RMDs. The Tool does not apply any RMD rules to deferred annuities. It is assumed in the Tool that income annuities purchased with pretax money will satisfy the RMD rules for the portion of your assets used to buy the income annuity and any excess does not impact the RMD on remaining assets. For each year beginning in the year you or your spouse reaches age 73, or age 75 if you were born in 1960 or later, the Tool calculates an estimated RMD amount needed to comply with the IRS requirements (for applicable retirement accounts indicated, or those accounts for which you have entered data).

- For Roth 401(k), 403(b), and 457(b) sources, the Tool assumes RMDs do not apply. In most cases, the Tool calculates your RMD under the uniform distribution method relying on the Uniform Lifetime Table, which uses the joint life expectancy of you and a beneficiary deemed to be 10 years younger than you for each year until the end of your planning age.

- One exception to the above RMD calculation method occurs when you indicate that you are married and your spouse is more than 10 years younger than you. The Tool then assumes that your spouse will be your sole beneficiary each year for the entire year and, as a result, it will then estimate your RMD under the spousal exception method, which uses the life expectancy of you and your spouse as reflected in the Joint and Last Survivor Table. If your spouse’s planning age ends before your own, the uniform distribution method will then be used until the end of your planning age. The Tool uses the same methodology to calculate RMDs on your spouse’s retirement accounts, where applicable.

- For tax-deferred accounts that are inherited before 2020, the Tool estimates RMDs by assuming that you are eligible to take such distributions over your own life expectancy and using a distribution factor in the IRS’s Single Life Expectancy Table based on your projected age each year. The Tool can handle the changes to RMDs on some inherited accounts due to the SECURE Act. Any accounts inherited by the spouse are projected as the spouse taking ownership and the RMDs will follow the spouse’s schedule. Certain accounts inherited by a non-spouse from a deceased individual who passed after December 31, 2019 will be liquidated over a 10-year period (specifically, 1/10th in the first year, 1/9th in the second year, and so on). In order to determine if this 10-year schedule is applicable, the Tool has been updated to optionally allow for entry of relationship to original owner, original owner date of birth, original owner date of death, and liquidation date. If these inputs indicate that the 10-year schedule is applicable, then the 10-year schedule will be followed, unless a liquidation date within 10 years of the date of death of the original owner is entered. In that case, all assets will be liquidated on that date and the 10-year schedule will not be followed. If these fields are missing, relationship to the original owner is assumed to be a non-spouse, original owner date of birth is

- The Tool assumes that, unless the five-year holding period requirements have been met, any amount distributed from...
assumed to be greater than 10 years before the new owner, the original owner’s date of death is assumed to be prior to 2020 if not provided, and, if there is no liquidation date, then the Tool assumes you take distributions over the eligible 10-year period. The Tool assumes that the new owner of the account is not a minor child of the decedent, disabled, or chronically ill; if these were the case, then the 10-year liquidation rule would not apply. The calculation of RMDs for inherited accounts is highly specific to your individual situation. If you have such an account, you should consider consulting an advisor for more details.

• After RMD amounts are withdrawn from retirement accounts (excluding pension plans), the Tool assumes these savings are redeposited in a hypothetical taxable account and are available to meet retirement goal expenses. You should consult your tax or financial advisor for assistance with your specific circumstances. For plans recordkept at Fidelity, the Tool does not automatically consider any pre-1987 balances.

• The Tool does not consider the possibility of electing Net Unrealized Appreciation (NUA) tax treatment on company stock distributed from a workplace savings plan.

• The Tool assumes that distributions from HSAs used for health care expenses are qualified distributions and are tax-exempt. Withdrawals taken for non-health care expenses before age 65 are subject to income taxes and a 20% penalty. Withdrawals taken for non-health care expenses for those age 65 and older are subject to income taxes but no penalty. Contributions, investment earnings, and distributions are tax-exempt for federal tax purposes if used to pay for qualified medical expenses, and may or may not be subject to state taxation. For additional information, see IRS Publication 969. The administration of an HSA is an individual responsibility; see a tax professional for more information.

• If you choose to manually create an account by selecting the type “Self-Employed Plan,” the Tool will treat this account as tax deferred and use the contribution limits of a SEP-IRA.

Taxation of Annuities

• For tax-deferred annuities that may hold both pretax and after-tax (deductible and nondeductible) contributions, the Tool assumes the balances in such accounts at the beginning of the planning period consist of all pretax assets. Annuity distributions will be considered taxable by the Tool and taxed at ordinary income tax rates.

• Some states charge a state tax premium either on the purchase amount of a deferred annuity or on its value at the time it is annuitized (i.e., converted to an income annuity). The Tool does not take those premium taxes into account.

• For payments from an income annuity, the Tool assumes a portion of each withdrawal is a return of your after-tax investment in the contract (if any was assumed by the Tool) and a portion is taxable income. Once all your investment in the contract is returned to you, the Tool assumes all payments are taxable income. The breakdown between return of investment contract and income is done using an exclusion formula similar to that required by tax regulations.

Substantially Equal Periodic Payments

The Internal Revenue Code states that the 10% premature distribution tax penalty generally applicable to withdrawals from tax-deferred assets in IRAs and qualified retirement plans before the individual reaches age 59½ will not apply to distributions that are part of a series of substantially equal periodic payments. The Tool does not provide the ability to model substantially equal periodic payments. If you are considering this distribution strategy, you may want to consult an advisor.

Retirement Medical Benefit Account

If your plan offers RMBAs within the workplace savings plan, the Tool does not distinguish these assets from the other assets in the plan. The Tool's tax assumptions for these accounts are, therefore, the same as for the workplace savings plan of which they are a part. For purposes of the Tool, the limitations on withdrawals of RMBA assets are disregarded and such assets may be applied to any retirement expenses. Please check your plan rules for specific details of limitations on withdrawals of RMBA assets.

Defined Benefit Plan Tax Assumptions

For federal, state, and local income tax purposes, the Tool uses the following assumptions for qualified and nonqualified defined benefit pension plans:

• All pensions recordkept at Fidelity or aggregated through a third-party provider are assumed to be fully taxable upon distribution.

• FICA tax withholding on nonqualified pension plan payments is not reflected. FICA tax must normally be withheld on nonqualified pension plan payments received. If you are receiving or are set to receive payments from a nonqualified plan, the Tool will overstate net amounts available to you to apply toward your retirement expenses.

• Any lump-sum values reflected will be treated as having been rolled over from a qualified plan to an IRA for purposes of calculating your retirement income in the Tool, notwithstanding that the lump sum may come from a nonqualified pension plan. Payments from nonqualified pension plans cannot usually be rolled over to a tax-deferred account.

• Imposition of RMD rules are not reflected. RMD rules normally apply.

• Other pension payment amounts are based on information you enter about the annual benefit you expect to receive. You may want to contact your employer for a personalized pension projection. Be sure that the benefits amount reflects the provisions of any Qualified Domestic Relations Order that provides benefits to alternate payees.

• Estimates of future pension benefits are not adjusted for the Tool’s inflation rate. However, pension benefit amounts may include a salary growth rate. This growth rate will be provided by you or your company’s pension plan (if Fidelity recordkeeps the pension). If applicable, the salary growth rate may be applied to the remaining years of service with an assumed retirement age of 65. Any lump-sum values reflected will be treated as an account in the Assets section for purposes of calculating your retirement income in the Tool. This may account for any changes in represented value between lifetime income and investment income shown. Please consult your tax advisor if you have any questions regarding the taxability of your pension benefit.

Federal Income Tax Calculations

Estimated federal income taxes are automatically calculated for you by the Tool based on the information you provide and hypothetical account activity in each simulation. An estimate of taxable income is calculated for a given year and is then taxed based on federal income tax rates, capital gains tax rates, and certain other items, such as those listed below, projected to then be in effect at that time. The Tool assumes that the tax rates, tax credits, and other
limits set forth below will be in effect to the end of your plan. If this assumption is incorrect, it may result in understated estimated tax liabilities and, therefore, overstated after-tax income available for future expenses.

- **Tax rates** — **Ordinary Income**: The Tool assumes ordinary income tax rates of 10%, 12%, 22%, 24%, 32%, 35%, and 37%.
- **Tax rates** — **Long-Term Capital Gains**: The Tool assumes capital gains tax rates of 0%, 15%, and 20%.
- **Tax rates** — **Qualified Dividend Income**: The Tool assumes qualified dividend income is taxed at the applicable long-term capital gains tax rates described above. Fidelity will update following any updates to rates and/or other code changes, although certain updates may not be possible because of technical limitations.

**State and Local Income Tax Calculations**

You will need to enter your state at time of retirement and local income tax rate information (if applicable). We assume your state at time of retirement and state of residence are the same. The Tool is updated annually with the tax rates for each state, but local taxes are your responsibility to enter. While reasonable efforts are made to use and maintain the most current rates, income tax brackets, and other tax rules for estimating taxes, there may be a delay between when new actual tax rates, brackets, and other rules become effective and when the Tool is updated to reflect them. Current rates, income tax brackets, and other tax rules are modeled and adjusted for inflation as appropriate for your planning period.

The Tool does not model the expiration of any tax laws. Once the local income tax rate is entered, local taxes are calculated based on state taxable income. If no local income tax rate is entered, the Tool assumes that there is no local income tax. State tax calculations are intended to provide a reasonable approximation of state taxes for any given year. With the exception of income tax rates and income tax brackets, state taxes are calculated based on assumed identical state tax.

Note that each state has specific rules and special deductions, credits, and additional taxes and adjustments. The Tool does not reflect all such state-specific rules and should therefore not be used for purposes of calculating actual state tax liabilities or benefits. The Tool assumes that all qualified distributions of Roth and HSA assets will not be taxed at the state level. You should check your state of residence for applicable state tax rules.

**Other Tax Assumptions**

For federal, state, and local income tax purposes, the Tool uses the following other assumptions:

- Tax brackets, standard deduction amounts, and personal exemption amounts are indexed each year for inflation.
- Potential applicability of alternative minimum tax (AMT) rules is not reflected.
- Potential applicability of the 3.8% Medicare surtax on net investment income is not reflected.
- Potential applicability of transfer (estate, gift, and generation-skipping) tax rules is not reflected.
- Assets at end of plan have not been reduced by applicable federal and/or state transfer or inheritance taxes that may be due at death or upon transfer.
- Assets at end of plan have not been reduced by applicable income taxes that may be due at a later date.
- Future earnings on assets at end of plan are reduced by applicable income taxes.

**4. MONTE CARLO SIMULATIONS**

The Tool uses Monte Carlo simulations to project a range of hypothetical market return scenarios. Simulations are based on a historical performance analysis of asset class returns, including a range of potential returns for each asset class, volatility, and correlation, reviewed each year. Asset classes are represented by benchmark return data from Morningstar, Inc., not actual investments.

- Domestic equities are represented by the S&P 500® Index from the year 1926 through 1986 and the Dow Jones U.S. Total Market IndexSM from 1987 on.
- Foreign equities are represented by the S&P 500® Index from 1926 through 1969, the MSCI EAFE Index from 1970 through 2000, and the MSCI ACWI Ex USA Index from 2001 on.
- Bonds are represented by U.S. intermediate-term bonds from 1926 through 1975 and the Bloomberg U.S. Aggregate Bond Index from 1976 on.
- Short-Term investments are represented by 30-day U.S. Treasury bill rates from 1926 on.

Indexes are unmanaged and it is not possible to invest directly in an index. Annual returns assume the reinvestment of interest income and dividends, no transaction costs, no management or servicing fees (except for a variable annuity fees), and the rebalancing of the portfolio every year. Performance returns for actual investments will generally be reduced by fees and expenses not reflected in these hypothetical illustrations.

The Tool graphs results based on how an asset mix may have performed, given your inputs and assumptions in the Tool, in a certain percentage of the simulated market scenarios. The Tool uses the same simulated market scenarios each visit, unless otherwise updated. These percentages are called “confidence levels.” For example, the default confidence level is 90%, which we consider “very conservative” market performance. This means that in 90% of the historical market scenarios run, a particular asset mix performed...
at least as well as the results shown. Conversely, in only 10% of the historical market scenarios run, a particular asset mix failed to reach the results shown. The Tool uses this 90% figure so as to err on the side of a more conservative estimation of future market performance. Results are available for viewing at the 50%, 75%, and 90% confidence levels as described in the following chart:

<table>
<thead>
<tr>
<th>Market Conditions</th>
<th>Performance Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>if markets perform significantly lower than historical averages</td>
<td>Fail: 10 out of 100 times</td>
</tr>
<tr>
<td>If markets perform lower than historical averages</td>
<td>25 out of 100 times</td>
</tr>
<tr>
<td>if market averages continue</td>
<td>50 out of 100 times</td>
</tr>
</tbody>
</table>

Although past performance does not guarantee future results, it may be useful in comparing investment strategies over the long term. Average annual returns are hypothetical, and, if achieved annually, would have produced the same cumulative total return if performance had been constant over the entire period. Average annual total returns simply smooth out variation in performance; they are not the same as actual year-by-year results.

For the projection of equity compensation the same concept is used. Indices are created representing a variety of volatility levels and the equity compensation projections use the returns from the class which most closely matches its previous year’s volatility.

5. ASSET MIX FOR SIMULATIONS

Within the Tool, you have the option to either view simulations based on either your current account asset mix (Look-through Analysis) or from a selection of nine model target asset mixes.

If you choose simulations based on your current account asset mix, the Tool categorizes the portfolio based on the value and type of assets held in each within each underlying holding. Assets classified by asset class (i.e., Domestic Equities, Foreign Equities, Bonds, Short-Term, and Other). Holdings that cannot be identified are categorized as Unknown. Assets classified as Other or Unknown are normalized to reflect your current allocation to stocks, bonds, and short-term categories and then reflected in those asset allocation percentages for purposes of the Tool’s analysis.

Significant weighting categorized as Other or Unknown, short positions in selected accounts, as well as margin balances at the time of the interaction, may materially impact the analytical information presented during this interaction and render the interaction unreliable. Uninvested or unexercised equity compensation is not included in the current asset mix determined by the tool.

The Tool also enables you to select different target asset mixes for modeling purposes. Within the Tool, the slider defaults to a target asset mix that most closely aligns with an asset mix based on your current age and estimated retirement age. This value should be considered merely a starting point for you to model various asset mixes in an account. The default may be a more aggressive target asset mix than your current asset mix for the selected accounts, and you should consider your own personal situation before making any investment decisions.

A target asset mix is a model asset mix among equities (domestic and foreign), bonds, and short-term investments. The Tool offers nine significantly different mixes intended for different investor profiles with different investment objectives, risk tolerance, and the time horizon. The nine different target asset mixes available in the Tool are described in the following chart:

<table>
<thead>
<tr>
<th>Target Asset Mix</th>
<th>Domestic Stock</th>
<th>Foreign Stock</th>
<th>Bonds</th>
<th>Short-Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-Term</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Conservative</td>
<td>14%</td>
<td>6%</td>
<td>50%</td>
<td>30%</td>
</tr>
<tr>
<td>Moderate with Income</td>
<td>21%</td>
<td>9%</td>
<td>50%</td>
<td>20%</td>
</tr>
<tr>
<td>Moderate</td>
<td>28%</td>
<td>12%</td>
<td>45%</td>
<td>15%</td>
</tr>
<tr>
<td>Balanced</td>
<td>35%</td>
<td>15%</td>
<td>40%</td>
<td>10%</td>
</tr>
<tr>
<td>Growth with Income</td>
<td>42%</td>
<td>18%</td>
<td>35%</td>
<td>5%</td>
</tr>
<tr>
<td>Growth</td>
<td>49%</td>
<td>21%</td>
<td>25%</td>
<td>5%</td>
</tr>
<tr>
<td>Aggressive Growth</td>
<td>60%</td>
<td>25%</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>Most Aggressive</td>
<td>70%</td>
<td>30%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

- **Short-Term**: This target asset mix may be appropriate for investors who want to preserve their capital and can accept the lowest returns in exchange for price stability.
- **Conservative**: This target asset mix may be appropriate for investors who want to minimize fluctuations in market value by taking an income-oriented approach with some potential for capital appreciation.
- **Moderate with Income**: This target asset mix may be appropriate for investors who seek income and the potential for capital appreciation, with a slight priority on income, and who can withstand moderate fluctuations in market values.
- **Moderate**: This target asset mix may be appropriate for investors who seek income and the potential for capital appreciation, with a slight priority on capital appreciation, and who can withstand moderate fluctuations in market values.
- **Balanced**: This target asset mix may be appropriate for investors who want the potential for capital appreciation and some growth, and who can withstand moderate fluctuations in market value.
- **Growth with Income**: This target asset mix may be appropriate for investors who seek moderate growth and income and who can withstand moderate fluctuations in market value.
- **Growth**: This target asset mix may be appropriate for investors who have a preference for growth and who can withstand significant fluctuations in market value.
• **Aggressive Growth**: This target asset mix may be appropriate for investors who seek aggressive growth and who can tolerate wide fluctuations in market value, especially over the short term.

• **Most Aggressive**: This target asset mix may be appropriate for investors who seek very aggressive growth and who can tolerate very wide fluctuations in market value, especially over the short term.

Keep in mind that different asset classes tend to offer different balances of risk and reward. Generally, the greater the potential for long-term returns, the greater the risk of volatility, especially over the short term. A more aggressive portfolio (one with a higher stock allocation) could represent higher risk, especially in the short term, but higher potential long-term returns. Conversely, a less aggressive portfolio (with a lower allocation to stocks and higher allocation to bonds or short-term investments) could represent less short-term risk, but potentially lower long-term returns.

While past performance does not guarantee future results, history has shown that diversifying assets among different asset classes, industries, and countries can generally improve the long-term performance of a portfolio. Diversification relies heavily on the concept of correlation. Correlation is a measurement of how the returns of two investments move together. If two investments are highly correlated and one moves higher, generally, the second investment will move higher as well. Conversely, if there is a low correlation between the investments, they would be expected to move in the opposite direction. When you put assets that have low correlations together in a portfolio, you may be able to get more return while taking on the same level of risk, or the same returns with less risk. The less correlated the assets are in your portfolio, the more efficient the trade-off between risk and return. With a portfolio of assets with low correlation, even if a portion of the portfolio is declining, the rest of the portfolio is designed to be growing. Thus, you can potentially offset the impact of poor market performance on the overall portfolio. However, it is important to remember that certain asset types involve greater risk than others do. For example, foreign investments can involve greater risk than U.S. investments. Diversifying your investments across asset classes, industry sectors, and nations may help minimize your overall exposure to sudden market swings that may cause sudden changes in the price of investments. However, it does not ensure a profit or guarantee against loss.

**Holdings Data**

Holdings data used to classify mutual funds and other financial assets is provided by Fidelity Investments. Holdings data for publicly available mutual funds is obtained monthly from an independent third-party vendor, Morningstar, Inc. Data is only as current as the holdings information supplied to Morningstar by third parties and may be up to 12 months old. In some cases (e.g., newer funds), the third-party vendor may not have holdings information and therefore such funds are classified as Unknown. In some other cases, the third-party vendor may not recognize all the holdings within a mutual fund. In these cases, the third-party vendor provides analysis only on the recognized portion of the fund. Therefore, the underlying holdings may not be fully classified, as the unrecognized holdings will not be categorized. The unrecognized holdings are then classified as Unknown. For proprietary mutual funds and other pooled investment options unique to certain retirement plans (e.g., commingled pools or separate accounts), the Tool relies on underlying holdings provided quarterly by Fidelity affiliates, plan sponsors, and external money managers. In the event that current quarterly holdings are not available, the latest available data will be used. Holdings data provided to Fidelity is not based on contemporaneous information, but, rather, on third-party data. No Fidelity Investments company is responsible for the accuracy of data provided by third parties.

**Short Positions in Your Accounts**

The Tool may reflect both long and short positions in your account, whether held individually or as underlying investments in a mutual fund in which you hold an interest. With respect to your mutual fund holdings, please refer to the funds’ prospectuses for more information. If you require further assistance, please contact your advisor.

Note that trades initiated within a money market fund pending settlement at the close of a calendar month may present as a short position or negative allocation and inadvertently impact the analysis set forth above.

Projections in the Tool are based strictly on the net holdings within each asset class, and asset classes are netted out such that no asset class has a negative value when modeled. Please be advised: If an asset class has a net negative value, the normalized asset mix of the account for modeling purposes may have a materially different level of risk and return than that of your actual account.

**6. INCOME STRATEGY**

An income strategy is a plan for how your retirement savings could be used to cover estimated retirement expenses. To help analyze potential adjustments to your retirement plan, the Tool helps model an allocation of current retirement savings to hypothetical income-generating product categories. Since annuities tend to be irrevocable in nature and may provide limited or no liquidity, annuitization within the Tool is limited to at most 50% of retirement and other assets (this limit is 25% for period certain annuities). For the purposes of the Tool, allocations are based on an annuity purchase hierarchy (see below), and it is assumed that your identified asset mix or selected target asset mix remains constant over time.

Assumptions, product categories, and default product features used by the Tool are not recommendations of either specific securities, annuities, or an investment strategy involving securities or annuities.

Allocations are modeled by reducing the total value of your assigned accounts based on the following annuity purchase hierarchy of sources (i.e., exhausting all sources within a given category before moving to the next category):

1. Using assets accumulated in tax-deferred annuity accounts
2. Using assets distributed from tax-deferred accounts
3. Using after-tax proceeds generated by the liquidation of taxable account assets
4. Using assets distributed from tax-exempt accounts

Note that when tax-deferred annuity accounts or tax-deferred accounts are used, the assets are not taxed at the time of the annuity purchase. Once the annuity starts paying income, that income is subject to taxation. If less than 100% of an account type’s funds are needed, the Tool will proportionally reduce the same percentage from each account within that account type. Please note that tax-deferred annuities held at Fidelity will be considered in this hierarchy, but tax-deferred annuities held elsewhere will not be considered. Additional accounts that will not be considered in this hierarchy include inherited IRAs, equity compensation accounts, and HSAs.

The Tool may overstate or understate the amount of after-tax proceeds available. For taxable accounts, it is assumed that the tax basis for the account is the same as the currently identified account
value. The actual adjusted tax basis of the securities in your taxable account often will be different from the fair market value of those securities on any given day. You may need to liquidate assets in your taxable account to generate cash to purchase an annuity. Any taxes attributable to that liquidation are not considered within the Tool. Payments from annuities funded from taxable accounts will be considered by the Tool to be partially a return of principal and partially taxable income. For workplace savings plan accounts and non-Roth IRAs, it is assumed that the entire value of these accounts is subject to ordinary income taxation upon distribution. For tax-deferred annuities that may hold both pretax and after-tax (deductible and nondeductible) contributions, the Tool assumes the balances in such accounts at the beginning of the planning period consist of all pretax assets. Payments from annuities funded from tax-deferred accounts will be considered by the Tool to be fully taxable and taxed at ordinary income tax rates. Payments from annuities funded from Roth workplace savings plan accounts and Roth IRAs will be considered by the Tool to be nontaxable.

Please note that the product categories included in the income strategy modeling options may not be available in Fidelity record-kept workplace savings plans and, as a result, the Tool effectively assumes that assets allocated from such a plan would be rolled over to an IRA in order to obtain access to such products, if desired and appropriate, and if the plan terms allow for rollovers (assuming the participant is still actively employed).

Please note that when rolling out of your current workplace savings plan, you may lose access to company stock purchase plans, institutionally priced funds, custom funds, in-plan annuity offerings, and other options. You are encouraged to speak with a tax advisor prior to making any decisions regarding company stock holdings. Be aware that IRAs and annuity accounts do not offer the same protection from creditors that is available in an employer-sponsored plan. Distribution options are subject to plan rules.

You should make sure that you are aware of all the implications of rolling out of your current workplace savings plan before making your decision to rollover workplace savings plan assets. When reviewing available investment options, be sure to also consider any associated fees to help you in your determination. A number of financial services providers offer IRAs and annuities. You should pick the financial services provider that best suits your personal needs and investment objectives. Neither your employer nor Fidelity endorse any provider of personal investment accounts, including IRAs and annuities.

Fidelity may provide you with various types of investment assistance, including financial planning, investment education, and/or best interest or fiduciary investment recommendations. To implement investment changes, you need to consider which of your assets to use, including any assets you may have in a workplace retirement plan or IRA. Whether to rollover retirement assets to implement investment changes is a separate decision, and any investment decision assistance we provide to you is not itself a recommendation to rollover retirement assets. A Fidelity representative can review with you various factors to consider in your distribution or rollover decision. For information on how Fidelity makes best interest recommendations or provides information and/or recommendations for certain retirement plan distributions, see the Fidelity Brokerage Services LLC Products, Services, and Conflicts of Interest Disclosure and its Retirement Account Supplement.

You and your planning partner’s current age, retirement age, and gender may be used when retrieving quotes. Purchase price is estimated using the best quote available from among the annuities distributed by Fidelity Insurance Agency, Inc., for the income strategy selected. Rates may vary daily. Annuities used to generate estimated purchase prices for modeling are issued by third-party insurance companies, which are not affiliated with any Fidelity Investments company. The Hypothetical Income Strategy and Alternative Hypothetical Income Strategy’s annuity allocation considers minimum purchase amounts for specific annuity providers.

Before investing in any annuity, ensure that it is appropriate for your personal financial situation. There are other types of annuities that provide guaranteed lifetime income that the Tool does not consider and that may be more appropriate for you. Annuity guarantees are subject to product terms, exclusions, and limitations and the claims-paying ability of the issuing insurance company. The purchase of an annuity may involve sales commissions. Quotes provided by Fidelity Insurance Agency, Inc., used in the Tool include sales commissions and applicable fees.

**Hypothetical Income Strategy**

The Hypothetical Income Strategy (the “Hypothetical Strategy”) is a starting point for creating your personalized income strategy, and you must make your own determination whether a specific investment is appropriate for you. The Hypothetical Strategy uses a hypothetical fixed income annuity to attempt to cover estimated essential lifetime retirement expenses in excess of your estimated existing lifetime after-tax income. Existing lifetime income includes existing predictable income and other income received over the course of your plan. Withdrawals from your portfolio and estimated required minimum distributions (RMDs) from workplace savings plan accounts or IRAs are not included in lifetime income. Essential expenses are your basic living expenses and are determined once despite the potential for some expenses, such as estimated taxes on earnings in taxable accounts, to change based on market conditions or if the Alternative Hypothetical Income Strategy (described below) is selected. For incomes dependent on market conditions, such as variable annuities, a projected income is used based on significantly below average market conditions. The hypothetical fixed income annuity could be either an immediate fixed income annuity or deferred income annuity, depending on when you plan to retire. A deferred income annuity is used; payments are assumed to start at the beginning of the year that you and/or your partner retire(s). The Tool will display a Hypothetical Strategy for your analysis and potential selection for further consideration.

For each strategy, the Tool starts by estimating the after-tax income needed to help cover your estimated essential expenses throughout the course of your plan. The gap between income and expenses, if any, is considered part of the annual need in a given year. The Hypothetical Strategy attempts to cover your average lifetime income need based on the annual needs adjusted for inflation.

The tax rate from the middle year of your retirement plan is used to determine the amount of pretax income from a hypothetical fixed income annuity that is required to generate sufficient after-tax income to cover your average lifetime income need, adjusted for inflation. The resulting income from the hypothetical fixed income annuity will be displayed pretax with the option to toggle to after-tax using this tax rate.

Depending on the information you provide, the allocation to hypothetical fixed income annuities in the Hypothetical Strategy may not provide the identified additional income needed to cover your average lifetime income need. This may be due to insufficient assets to purchase, the 50% allocation limit previously described, or product minimums of the modeled hypothetical annuity.
Hypothetical fixed income annuities are assumed to be purchased for either a single life or joint lives (if planning with a partner) and with the following features: fixed payments with no cost-of-living adjustment (COLA); 100% survivor benefit (if planning with a partner); and beneficiary protection in the form of a cash refund, which guarantees that upon the death of the last surviving annuitant, beneficiaries will be refunded any difference between the investment made into the annuity versus the payments received.

Alternative Hypothetical Income Strategy (the “Alternative Strategy”)

The Tool may also provide you with the ability to choose to view an Alternative Strategy. The Alternative Strategy uses a hypothetical fixed deferred annuity with a Guaranteed Lifetime Withdrawal Benefit (GLWB), as opposed to a hypothetical fixed income annuity, to attempt to cover estimated essential retirement expenses in excess of your estimated existing lifetime after-tax income. Other than this, the Tool's methodology for creating the Hypothetical Income Strategy (see "Hypothetical Strategy" above) also applies to the Alternative Strategy.

A fixed deferred annuity with a GLWB provides a guaranteed withdrawal benefit for either a single life or joint lives (if planning with a partner), starting on a date selected by the owner. The hypothetical fixed deferred annuity with a GLWB used by the Tool is assumed to have the following features:

- **Initial Withdrawal Rate:** This rate is set at purchase.
- **Deferral Credit:** This is a predetermined percentage that is added to the initial withdrawal rate for every full year of deferral.
- **Final Withdrawal Rate:** This rate is locked in when the owner chooses to start income payments: \[ \text{Final Withdrawal Rate} = \text{Initial Withdrawal Rate} + \text{Deferral Credits} \]

The GLWB amount is determined by multiplying the Final Withdrawal Rate by the Premium. The Tool assumes the age of first withdrawal to be the age of the youngest annuitant on the income start date selected within the Tool. It is assumed no withdrawals in excess of the GLWB amount are taken, which would result in a reduction of future GLWB amounts. State variations to product features may apply.

The Tool does not display the accumulation or drawdown of assets and may not appropriately model accumulation or liquidity benefits of a fixed deferred annuity with a GLWB. These benefits are substantial differentiators between a fixed deferred annuity with a GLWB and a fixed income annuity.

**Income Mix Modeling**

Income mix modeling is a representative-assisted option where you can use a lifetime income modeling slider and income start year option to illustrate the potential impact of converting retirement savings to lifetime income using sample allocations of 10%, 20%, 30%, 40%, or 50% of the total value of your assets identified for your retirement plan.

Depending on the start date you select, the Tool will model lifetime income using either hypothetical immediate fixed income annuities or deferred income annuities. Allocation percentages, other modeling options, assumptions, and product category selections are not recommendations of either specific securities or an investment strategy involving securities. You must determine whether an income strategy, including lifetime income is appropriate for you.

7. **RETIREMENT ANALYSIS**

The Tool provides different methods for analyzing the potential income, preparedness, and risks of a retirement goal. The analysis uses your planning profile data as inputs into all calculations (see “Section 2. User Profile Information” for a description of profile data). The data may be held at or recordkept by Fidelity, imported from an outside source at your direction, or manually entered by you within the Tool or another Fidelity planning tool. You should review all data for accuracy and completeness. Data can be reviewed either from the Planning Profile, or directly within the Retirement Analysis section. Accounts, future contributions, and expense assumptions are detailed in “Section 2. User Profile Information.” Taxes are estimated according to the rules outlined in “Section 3. Tax Calculations and Assumptions.” Hypothetical growth of each source of income for retirement goal analysis is calculated using the financial planning engine, as described in “Section 4. Monte Carlo Simulations.” The asset mix used is based on either your current asset mix as identified through a normalized assessment of the accounts assigned to your retirement plan, or a target asset mix that you selected for modeling purposes. See “Section 5. Asset Mix for Simulations” for more details.

The system follows event-driven logic and in any given year processes events in the following order: a full year of market returns is taken into account, contributions are deposited in any accounts that receive contributions, withdrawals are then made and, finally, at the end of the year, accounts are rebalanced to the goal asset allocation. Taxes on income are factored out before being deposited to any accounts, and any taxes or penalties on withdrawals occur at the time of withdrawal. Expenses are paid for in retirement by withdrawing from the assigned accounts in a predetermined order. All income is deposited to a taxable account, and this account, which receives the income, is the first used to pay expenses. After the income is exhausted, withdrawals are sourced according to the standard approach using the traditional withdrawal strategy (see “Section 8. Withdrawals from Savings”).

**Fidelity Retirement Score (FRS)**

The Fidelity Retirement Score estimates the percentage of a retirement income goal that a user or household is estimated to replace in significantly below average market conditions (see “Section 4. Monte Carlo Simulations” for detailed information on market conditions). The retirement income goal being measured is either a retirement goal set up within the Tool, or an existing retirement goal created using a different Fidelity retirement planning tool. The Fidelity Retirement Score is calculated using key household planning profile information, including retirement time horizon, estimated tax rate(s), estimated retirement expenses,* accounts assigned to retirement, assumed future contributions, sources of income, and either your current or modeled asset allocation. The Fidelity Retirement Score is the amount of monthly income estimated to be available at retirement, divided by the amount of monthly income required to meet a household’s retirement goal (see “Basic Income Analysis” below for information on how the Tool calculates a household’s estimated monthly income). The score displayed within the Tool is recalculated after any change(s) are made to input data. The Fidelity Retirement Score is visually displayed within a dial, which is segmented by Fidelity’s assessment of the score.

*If your expenses vary significantly throughout your retirement time horizon, your calculated Fidelity Retirement Score will be a less accurate measurement of your retirement preparedness than if your inflation-adjusted expenses remain reasonably constant.
The Tool displays a graphical and tabular view of the estimated Projected Asset Analysis current year until the year in which your plan ends. The view is available analysis includes your estimated monthly retirement expenses and a calculation of a potential gap or surplus. To calculate your potential monthly retirement income amount, we look at your sources of income and calculate whether you can meet your expenditures. If you've approximated your retirement expenses, your goal amount is the total of your essential and discretionary expenses. If you've used the budget worksheet, your goal amount is an estimate of your average monthly expenses in retirement. A leveling process is used to smooth out any expense variability. Because of the leveling process required to show a point-in-time retirement view (see “Section 9. Other Considerations and Additional Rules” for a description of leveling), it is possible for the chart to indicate a gap/surplus and for the actual year-by-year data to indicate otherwise. The point-in-time value represents an average expense need and income potential for the retirement time horizon.

### Projected Asset Analysis
The Tool displays a graphical and tabular view of the estimated assets from accounts included in the retirement goal from the current year until the year in which your plan ends.

### Basic Income Analysis
The Basic Income Analysis chart is an estimate of the amount of income potentially available in retirement. The view is available for households with greater than five years until retirement. The analysis includes your estimated monthly retirement expenses and a calculation of a potential gap or surplus. To calculate your potential monthly retirement income amount, we look at your sources of income and calculate whether you can meet your expense needs in a significantly below average, below average, and an average market. If you choose to view your results in a significantly below average market, we solve for an income amount that satisfies your expense needs throughout your retirement in at least 90% of the calculated scenarios. If you choose a below average market, the solver calculates an amount that will meet your expenses 75% of the time. And if you choose an average market, the solver calculates an amount that will meet your expenses 50% of the time. If you've approximated your retirement expenses, your goal amount is the total of your essential and discretionary expenses. If you've used the budget worksheet, your goal amount is an estimate of your average monthly expenses in retirement. A leveling process is used to smooth out any expense variability. Because of the leveling process required to show a point-in-time retirement view (see “Section 9. Other Considerations and Additional Rules” for a description of leveling), it is possible for the chart to indicate a gap/surplus and for the actual year-by-year data to indicate otherwise. The point-in-time value represents an average expense need and income potential for the retirement time horizon.

### Detailed Income Analysis
The Detailed Income Analysis shows how your sources of income change over your retirement time horizon. The chart, which includes an overlay of annual expense needs, demonstrates the estimated income available from the Lifetime Income, Other Income, and Withdrawals from Savings (income available is calculated as outlined in “Section 4. Monte Carlo Simulations”). Lifetime Income is income that is expected to continue until your planning age, and includes Social Security, pensions, and annuities. Other Income does not carry the guarantee that is typically associated with Lifetime Income, and includes sources such as work in retirement and rental income.

Withdrawals from Savings represents income that may be generated from your savings. The tabular view of the chart breaks down the sources of income into more detail, and also includes an estimate of the RMDs from all qualified plans. In all views, the Total Expenses amount includes estimated taxes.

If your income is not estimated to meet your expenses until the end of your plan, the chart will indicate the age(s) at which you are estimated to experience a shortfall.

### Scenario Modeling
The Tool may allow you to create a scenario. Creating a scenario will make a copy of your current inputs. Some inputs in the scenario may be editable. Running analysis for the scenario will use your current inputs unless otherwise edited in the scenario. The Tool may present projected asset and income analysis for comparison between your current inputs and inputs, as edited if applicable, in the scenario. Scenarios do not constitute a recommendation or solicitation of any particular investment, strategy, or action and are provided for educational purposes only.

### Risk Assessment
While you may face numerous risks in retirement, the Tool helps you identify and monitor your retirement income plan against five key retirement risks. These key risks are identified and assessed throughout the Tool based on the information you provide. Key risks are color coded using the following system: red indicates a significant level of risk, yellow indicates some risk, and green indicates that your risk may be accounted for in your plan.

Each of the key risks and how we assess them is described below.

- **Outliving Your Retirement Assets**
  - Green — You (or you and your spouse/planning partner) are planning to a 25% longevity age (the age at which 25% of healthy individuals of your age and gender will still be living).
  - Yellow — You (or you and your spouse/planning partner) are planning to an age within seven years of your 25% longevity age.
  - Red — You (or you and your spouse/planning partner) are planning to an age that is more than seven years younger than your 25% longevity age.

- **Health Care Expenses**
  - Green — By indicating that you have factored in long-term-care insurance and health care insurance, your plan currently accounts for future medical expenses.
  - Yellow — You are planning for either health care expenses or long-term care in retirement.
  - Red — You are not planning for health care expenses or long-term care in retirement.

- **Spending Your Retirement Assets Too Quickly**
  - Green — The historical performance analysis suggests that you may be able to cover your indicated expenses until your planning age in a significantly below average market.
  - Yellow — The historical performance analysis suggests that you may be able to cover your indicated expenses within five years of your planning age in a significantly below average market.
  - Red — The historical performance analysis suggests that you may not be able to cover your indicated expenses for more than five years from your planning age in a significantly below average market.

<table>
<thead>
<tr>
<th>Score</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;65</td>
<td>Needs Attention: Significant adjustments to plan are required to sufficiently cover your estimated retirement expenses in a significantly below average market</td>
</tr>
<tr>
<td>65–80</td>
<td>Fair: Modest adjustments to plan are required to sufficiently cover your estimated retirement expenses in a significantly below average market</td>
</tr>
<tr>
<td>81–95</td>
<td>Good: On target to cover most of your estimated retirement expenses in a significantly below average market</td>
</tr>
<tr>
<td>&gt;95</td>
<td>On Target: On target to cover 95% or more of your estimated expenses, even in a significantly below average market</td>
</tr>
</tbody>
</table>

### The Fidelity Retirement Score assessment breakdown is as follows:

<table>
<thead>
<tr>
<th>Score</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;65</td>
<td>Needs Attention: Significant adjustments to plan are required to sufficiently cover your estimated retirement expenses in a significantly below average market</td>
</tr>
<tr>
<td>65–80</td>
<td>Fair: Modest adjustments to plan are required to sufficiently cover your estimated retirement expenses in a significantly below average market</td>
</tr>
<tr>
<td>81–95</td>
<td>Good: On target to cover most of your estimated retirement expenses in a significantly below average market</td>
</tr>
<tr>
<td>&gt;95</td>
<td>On Target: On target to cover 95% or more of your estimated expenses, even in a significantly below average market</td>
</tr>
</tbody>
</table>

- **Red** indicates a significant level of risk.
- **Yellow** indicates some risk.
- **Green** indicates that your risk may be accounted for in your plan.

**Additional Considerations and Rules**

- **Social Security**: Officially retired age for Social Security benefits.
- **Monthly Expenses**: Estimated monthly expenses for a household.
- **Savings**: Savings, investments, annuities, and other retirement savings.
- **RMDs**: Required Minimum Distributions from retirement accounts.
- **Health Care Expenses**: Estimated costs for health care insurance, long-term care, and prescription medications.
- **Longevity Age**: The age at which 25% of individuals of your age and gender will still be living.
- **Risk Assessment**: Identifies key risks and assesses the level of risk associated with each.
- **Budget Worksheet**: Helps you estimate your income needs and sources of income.
• **Market Performance**  
The Tool provides the capability to model your plan under different market conditions. The assessment uses a significantly below average market as the default for market performance.

  - **Green** — You are running the Tool using significantly below average market conditions.
  - **Yellow** — You are running the Tool under market conditions less conservative than the default, but more conservative than average market conditions.
  - **Red** — You are running the Tool under average market conditions.

### 8. WITHDRAWALS FROM SAVINGS

A withdrawal from savings strategy is a plan for how your withdrawals could be taken from your assigned accounts with different account classifications. Account classifications are defined in “Section 3. Tax Calculations and Assumptions.”

Depending on your situation, the Tool may model two withdrawal strategies. The standard approach is reflected in your plan by default. An alternate approach may be modeled for your consideration.

With either approach, RMDs may appear as a source of withdrawals. RMDs may be from either tax-deferred accounts or inherited Roth accounts, if applicable. Withdrawals from HSAs that are not used for medical expenses may appear as tax-deferred withdrawals.

**Standard Approach**

The standard approach is the traditional withdrawal strategy and assumes withdrawals first from taxable accounts, second from tax-deferred accounts [e.g., a traditional 401(k) or traditional IRA], and third from tax-exempt accounts [e.g., a Roth 401(k) or Roth IRA]. Withdrawals from accounts that incur a penalty are postponed, if possible. However, if such an account is all that is available, then the same withdrawal process as above is applied.

Additionally, HSAs are prioritized to cover health expenses, if available.

This strategy may help maximize tax-advantaged savings but may result in irregular tax bills. Taxes may increase substantially when taxable accounts are depleted or once RMDs begin, if applicable.

**Alternate Approach**

One alternate approach to withdrawals in retirement is to withdraw across a mix of account classifications within a year. We run additional analyses of your plan to determine whether any of the combinations of account classifications we assess could potentially create a more consistent and lower average tax bill across the planning period, as the plan allows. This is known as a target combination. As accounts within a classification are exhausted, the target combination can no longer be realized. As such, the target combination is divided between the remaining account classifications, resulting in an effective combination. Accordingly, each target combination has a path of effective combinations.

Once all the combinations of account classifications we assess are attempted in your plan, the estimated outcomes are compared with the estimated outcome of the standard approach, at the 50%, 75%, and 90% confidence levels (see “Section 4. Monte Carlo Simulations” for detailed information on confidence levels). If a combination of account classifications is estimated to increase end-of-plan assets or estimated to reduce the cumulative shortfall amount, the result is presented as a tax-aware withdrawal strategy. The tax-aware withdrawal strategy has withdrawal combinations by year that are specific to your retirement plan. If no combinations we assess are estimated to increase end-of-plan assets or estimated to reduce the cumulative shortfall amount, a tax-aware withdrawal strategy will not be presented. Additionally, if the assigned accounts (except for HSAs) have the same account classification, then no combinations are available and a tax-aware withdrawal strategy will not be presented. Changes to planning data may result in a different outcome at a different time.

The tax-aware withdrawal strategy may have limited effectiveness in handling variable incomes and expenses. Moreover, the strategy may increase tax liabilities early in the planning period to reduce tax liabilities later in the planning period.

If the Tool displays an alternate strategy, it is to educate you on how withdrawing from a mix of classifications each year could potentially increase the assets remaining at the end of the planning period or decrease the estimated cumulative shortfall amount when compared with the standard strategy. The Tool does not analyze every possible combination of account classifications. To the extent the concept of leveraging a mix of accounts with different account classifications could potentially increase end-of-plan assets given your circumstances and goals, please consult your tax advisor.

### 9. OTHER CONSIDERATIONS AND ADDITIONAL RULES

**Dollar Values: Future vs. Current**

Future dollars and current dollars (also known as "today's dollars") are different ways of viewing values over time. Both ways are correct means of presenting values. Future dollar values illustrate how a current expense would grow over time taking into account the effects of inflation. For example, if something costs $1,000 today, in 10 years the future dollar value is $1,280 ($1,000 plus 10 years of assumed inflation growth at 2.50%). This method is used to estimate the effects of inflation. Note that the Tool always uses your stated retirement date, or the current year if you are already retired, as the date for which this valuation is made on your expected retirement expenses. If you indicated that you are already retired, the Tool will provide a future dollar amount that is equal to today’s value.

**Expense Leveling**

A process called “leveling” is used to show a point-in-time representation of certain expenses. Expenses entered using the detailed budget worksheet may be made level in order to show your average income need at retirement. This amount may not represent your exact income need in your first year of retirement.
Exception Handling and Additional Rules

An income source that pays out before retirement is considered fully taxable, and the asset allocation of your overall portfolio will be applied to these investments. We assume the money will be invested for retirement, rather than spent before reaching retirement. In the case of a lump-sum pension payout occurring before retirement, the payout will be assumed to be rolled over to an IRA and then withdrawn evenly throughout retirement using a systematic withdrawal plan.

If you anticipate using one or more of your income sources differently during your retirement, such as to cover your expenses for a period of time rather than investing it as the Tool assumes, you may wish to explore other tools to see how your choices might affect your retirement income strategies.

Third-Party Data

The Tool depends on third-party data from unaffiliated sources which provide intraday equity pricing, volatility data and dividend yields. Pricing updates are 15 minutes delayed and volatility and dividend data is as of market close on the prior trading day.