

The Platinum 401(k) Retirement Savings Plan

Qualified Default Investment Alternative (QDIA)

Required Annual Employee Notice

We are dedicated to helping you plan and prepare for retirement. The purpose of this notice is to explain how your 401(k) account is invested if you do not provide investment instructions for the investment of your account.

This Qualified Default Investment Alternative (QDIA) Employee Notice:

- 1) Describes when the QDIA is used;
- 2) Provided details regarding the QDIA selected;
- 3) Outlines your right to direct the investment of your plan dollars to other investments available in the Plan or to elect not to have contributions withheld from your pay, if applicable; and
- 4) Explains how you can obtain additional information regarding those additional investment alternatives.

What will happen to my account?

As a participant or beneficiary in the Plan, you have the right to decide how to invest your account. If you do not provide investment instructions, your assets will be invested in the Plan's qualified default investment alternative (QDIA).

Effective January 1, 2020, the Plan's QDIA is the American Funds Target Date Retirement Portfolio. Attached are fund sheets describing the investment objectives, risk and return characteristics and fees and expenses of the QDIA.

If John Hancock has been provided with your date of birth, the QDIA that will be used for your account balance will be the American Funds Target Date Retirement Portfolio that most closely corresponds to your birth year, in accordance with the following table:

<u>Birth Year</u>	<u>American Funds Portfolio</u>
1991 or later	American Funds 2060 Target Date Portfolio
1986 - 1990	American Funds 2055 Target Date Portfolio
1981 - 1985	American Funds 2050 Target Date Portfolio
1976 - 1980	American Funds 2045 Target Date Portfolio
1971 - 1975	American Funds 2040 Target Date Portfolio
1966 - 1970	American Funds 2035 Target Date Portfolio
1961 - 1965	American Funds 2030 Target Date Portfolio
1956 - 1960	American Funds 2025 Target Date Portfolio
1951 - 1955	American Funds 2020 Target Date Portfolio
1946 - 1950	American Funds 2015 Target Date Portfolio
1945 or earlier	American Funds 2010 Target Date Portfolio

If John Hancock has not been provided with your date of birth, the QDIA that is used for your default investment is the American Funds 2010 Portfolio.

What if I don't want my 401(k) money to remain invested in the QDIA?

You do not have to leave your money in the QDIA. If you decide that you want to invest your account differently, you may move all or any part of your account balance to other investment options offered under the Plan.

Your transfer will not be subject to any restrictions, fees or expenses (including redemption fees and similar expenses) during the first 90 days of your first investment in the QDIA or within the period of time it takes to complete your transfer.

After such time period, your transfer from the QDIA will be subject to the same restrictions, fees and expenses as are applicable to other participants who affirmatively elect to invest in the QDIA. Information about these restrictions, fees and expenses are described on the attached fund sheets.

Who can I contact for more information?

To obtain information about the other investment options that are available under your plan, please visit John Hancock's participant website at <https://www.jhancockpensions.com> or call 1-800-395-1113. You can also refer to the "What investment options make up your account" section of your John Hancock participant statement.

For information on how to change your contribution amount or the investment of your account (including transferring out of the QDIA), please contact your employer's Human Resources or payroll department.

W. Michael Montgomery
Investment Manager
Fidelis Fiduciary Management, LLC
14502 N. Dale Mabry Highway, Suite 328
Tampa, Florida 33618
813.909.9305

John Hancock USA

All financial obligations under the group annuity contract are the sole obligation of John Hancock Life Insurance Company (U.S.A.).

- ▶ John Hancock is a division of Manulife Financial Corporation, a leading international financial services group that helps people achieve their dreams and aspirations by putting customers' needs first and providing the right advice and solutions. We operate as John Hancock in the United States, and Manulife elsewhere. We provide financial advice, insurance and wealth and asset management solutions for individuals, groups and institutions. Assets under management and administration by Manulife and its subsidiaries were over CAD \$1.1 trillion (US\$877 billion) as of June 30, 2019. Manulife Financial Corporation trades as MFC on the TSX, NYSE, and PSE, and under 945 on the SEHK. Additional information about Manulife can be found at manulife.com.
- ▶ One of the largest life insurers in the United States, John Hancock supports approximately 10 million Americans with a broad range of financial products, including life insurance, annuities, investments, 401(k) plans, college savings plans, and certain forms of business insurance. Additional information about John Hancock may be found at johnhancock.com.

American Funds

- ▶ American Funds, part of Capital GroupSM, has helped investors pursue long-term investment success since 1931. Its consistent approach — in combination with The Capital SystemSM — seeks to achieve superior results over time.
- ▶ The Capital System combines individual accountability with teamwork. Each fund is divided into portions that are managed independently by investment professionals with diverse backgrounds, ages and approaches. An extensive global research effort is the backbone of our system. Investment decisions are based on a long-term perspective, which American Funds believes aligns with the interests of investors.

Allocating assets to only one or a small number of the investment options (other than the Target Date 'Lifecycle' or Target Risk 'Lifestyle' options) should not be considered a balanced investment program. In particular, allocating assets to a small number of options concentrated in particular business or market sectors will subject your account to increased risk and volatility. Examples of business or market sectors where this risk may be particularly high include: a) technology-related businesses, including Internet-related businesses, b) small-cap securities and c) foreign securities. John Hancock does not provide advice regarding appropriate investment allocations.

Risks Applicable to All Funds

Merger and Replacement Transition Risk for Sub-Account. Once the plan fiduciary has been notified and unless they elect otherwise, in the case of Fund mergers and replacements, the affected Funds that are being merged or replaced may implement the redemption of your interest by payment in cash or by distributing assets in kind. In either case, the redemption of your interest by the affected Fund, as well as the investment of the redemption proceeds by the "new" Fund, may result in transaction costs to the Funds because the affected Funds may find it necessary to sell securities and the "new" Funds will find it necessary to invest the redemption proceeds. Also, the redemption and reinvestment processes, including any transition period that may be involved in completing such mergers and replacements, could be subject to market gains or losses, including those from currency exchange rates. The transaction costs and potential market gains or losses could have an impact on the value of your investment in the affected Fund and in the "new" Fund, and such market gains or losses could also have an impact on the value of any existing investment that you or other investors may have in the "new" Fund. Although there can be no assurances that all risks can be eliminated, John Hancock will use its best efforts to manage and minimize such risks and costs.

Where the redemption of your interest is implemented through a distribution of assets in kind, the effective date of the merger or replacement may vary from the target date due to the transition period, commencing either before or after the date that is required to liquidate or transition the assets for investment in the "new" Fund.

Risk of increase in expenses for Sub-Account. Your actual costs of investing in the fund may be higher than the expenses shown in "Annual fund operating expenses" for a variety of reasons. For example, expense ratios may be higher than those shown if a fee limitation is changed or terminated or if average net assets decrease. Net assets are more likely to decrease and fund expense ratios are more likely to increase when markets are volatile.

Risk Disclosures: Additional Risks

Active Management The investment is actively managed and subject to the risk that the advisor's usage of investment techniques and risk analyses to make investment decisions fails to perform as expected, which may cause the portfolio to lose value or underperform investments with similar objectives and strategies or the market in general.

Derivatives Investments in derivatives may be subject to the risk that the advisor does not correctly predict the movement of the underlying security, interest rate, market index, or other financial asset, or that the value of the derivative does not correlate perfectly with either the overall market or the underlying asset from which the derivative's value is derived. Because derivatives usually involve a small investment relative to the magnitude of liquidity and other risks assumed, the resulting gain or loss from the transaction will be disproportionately magnified. These investments may

result in a loss if the counterparty to the transaction does not perform as promised.

Emerging Markets Investments in emerging- and frontier-markets securities may be subject to greater market, credit, currency, liquidity, legal, political, and other risks compared with assets invested in developed foreign countries.

Equity Securities The value of equity securities, which include common, preferred, and convertible preferred stocks, will fluctuate based on changes in their issuers' financial conditions, as well as overall market and economic conditions, and can decline in the event of deteriorating issuer, market, or economic conditions.

Fixed-Income Securities The value of fixed-income or debt securities may be susceptible to general movements in the bond market and are subject to interest-rate and credit risk.

Foreign Securities Investments in foreign securities may be subject to increased volatility as the value of these securities can change more rapidly and extremely than can the value of U.S. securities. Foreign securities are subject to increased issuer risk because foreign issuers may not experience the same degree of regulation as U.S. issuers do and are held to different reporting, accounting, and auditing standards. In addition, foreign securities are subject to increased costs because there are generally higher commission rates on transactions, transfer taxes, higher custodial costs, and the potential for foreign tax charges on dividend and interest payments. Many foreign markets are relatively small, and securities issued in less-developed countries face the risks of nationalization, expropriation or confiscatory taxation, and adverse changes in investment or exchange control regulations, including suspension of the ability to transfer currency from a country. Economic, political, social, or diplomatic developments can also negatively impact performance.

Futures Investments in futures contracts and options on futures contracts may increase volatility and be subject to additional market, active management, interest, currency, and other risks if the contract cannot be closed when desired.

High-Yield Securities Investments in below-investment-grade debt securities and unrated securities of similar credit quality, commonly known as "junk bonds" or "high-yield securities," may be subject to increased interest, credit, and liquidity risks.

Issuer A stake in any individual security is subject to the risk that the issuer of that security performs poorly, resulting in a decline in the security's value. Issuer-related declines may be caused by poor management decisions, competitive pressures, technological breakthroughs, reliance on suppliers, labor problems or shortages, corporate restructurings, fraudulent disclosures, or other factors. Additionally, certain issuers may be more sensitive to adverse issuer, political, regulatory, market, or economic developments.

Long-Term Outlook and Projections The investment is intended to be held for a substantial period of time, and investors should tolerate fluctuations in their investment's value.

Loss of Money Because the investment's market value may fluctuate up and down, an investor may lose money, including part of the principal, when he or she buys or sells the investment.

Management Performance is subject to the risk that the advisor's asset allocation and investment strategies do not perform as expected, which may cause the portfolio to underperform its benchmark, other investments with similar objectives, or the market in general. The investment is subject to the risk of loss of income and capital invested, and the advisor does not guarantee its value, performance, or any particular rate of return.

Market/Market Volatility The market value of the portfolio's securities may fall rapidly or unpredictably because of changing economic, political, or market conditions, which may reduce the value of the portfolio.

Mortgage-Backed and Asset-Backed Securities Investments in mortgage-backed and asset-backed securities may be subject to increased price volatility because of changes in interest rates, issuer information availability, credit quality of the underlying assets, market perception of the issuer, availability of credit enhancement, and prepayment of principal. The value of ABS and MBS may be adversely affected if the underlying borrower fails to pay the loan included in the security.

Not FDIC Insured The investment is not a deposit or obligation of, or guaranteed or endorsed by, any bank and is not insured by the Federal Deposit Insurance Corporation, the Federal Reserve Board, or any other U.S. governmental agency.

Restricted/Illiquid Securities Restricted and illiquid securities may fall in price because of an inability to sell the securities when desired. Investing in restricted securities may subject the portfolio to higher costs and liquidity risk.

Small Cap Concentrating assets in small-capitalization stocks may subject the portfolio to the risk that those stocks underperform other capitalizations or the market as a whole. Smaller, less-seasoned companies may be subject to increased liquidity risk compared with mid- and large-cap companies and may experience greater price volatility than do those securities because of limited product lines, management experience, market share, or financial resources, among other factors.

Target Date Portfolio Risk. A Target Date Portfolio is an investment option comprised of "fund of funds" which allocate their investments among multiple asset classes which can include U.S. and foreign equity and fixed income securities. The "target date" in a target date portfolio is the approximate date an investor plans to start withdrawing money. The Portfolio's ability to achieve its investment objective will depend largely on the ability of the sub-adviser to select the appropriate mix of underlying funds and on the underlying funds' ability to meet their investment objectives. The portfolio managers control security selection and asset allocation. There can be no assurance that either a Fund or the underlying funds will achieve their investment objectives. An investor should examine the asset allocation of the fund to ensure it is consistent with their own risk tolerance.

A Fund is subject to the same risks as the underlying funds in which it invests. Because target date funds are managed to specific retirement dates, investors may be taking on greater risk if the actual year of retirement differs dramatically from the original estimated date. Target date funds generally shift to a more conservative investment mix over time. While this may help to manage risk, it does not guarantee earnings growth nor is the fund's principal value guaranteed at any time including at the target date. An investment in a target-date fund is not guaranteed, and you may experience losses, including losses near, at, or after the target date. There is no guarantee that the fund will provide adequate income at and through retirement. Consider the investment objectives, risks, charges, and expenses of the fund carefully before investing.

For a more complete description of these and other risks, please review the fund's prospectus.

U.S. Government Obligations Investments in U.S. government obligations are subject to varying levels of government support. In the event of default, some U.S. government securities, including U.S. Treasury obligations and Ginnie Mae securities, are issued and guaranteed as to principal and interest by the full faith and credit of the U.S. government. Other securities are

obligations of U.S. government-sponsored entities but are neither issued nor guaranteed by the U.S. government.

Underlying Fund/Fund of Funds A portfolio's risks are closely associated with the risks of the securities and other investments held by the underlying or subsidiary funds, and the ability of the portfolio to meet its investment objective likewise depends on the ability of the underlying funds to meet their objectives. Investment in other funds may subject the portfolio to higher costs than owning the underlying securities directly because of their management fees.

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	5.68%	5.13%	5.58%
3 year	5.68%	5.81%	5.38%
5 year	5.05%	5.02%	4.65%
10 year	7.11%	6.74%	6.24%

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.33%
Cost Per \$1,000	\$3.30

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: February 1, 2007

¥See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2010.¹⁹⁸

The peer group is Target-Date 2000-2010.¹⁹⁵

Principal risks include: long-term outlook and projections, management, foreign securities, issuer, futures, derivatives, not FDIC insured, emerging markets, underlying fund/fund of funds, high-yield securities, equity securities, mortgage-backed and asset-backed securities, active management, Target Date portfolio, loss of money, fixed-income securities, U.S. government obligations, merger and replacement, small cap, restricted/illiquid securities, market/market volatility and risk of increase expenses. For more details, see Risk Disclosures section of this booklet



American Funds 2010 Target Date Retirement Fund

Investing solely in American Funds 2010 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol*: RFTTX

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)α

American Funds Interm Bd Fd of Amer R6	13.4%
American Funds Capital Income Bldr R6	12.0%
American Funds Income Fund of Amer R6	12.0%
American Funds Bond Fund of Amer R6	8.0%
American Funds Inflation Linked Bd R6	6.9%
American Funds Mortgage R6	6.0%
American Funds American Mutual R6	5.1%
American Funds American High-Inc R6	5.0%
American Funds Capital World Bond R6	5.0%
American Funds ST Bd Fd of Amer R6	4.5%

Totals 77.9% of assets

Asset Allocation (as of 9-30-19)α

US Bond	45.7%
US Stock	27.4%
Non US Stock	11.8%
Non US Bond	7.5%
Cash	7.3%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)α

United States	73.1%
United Kingdom	4.4%
Canada	1.8%
Japan	1.7%
Switzerland	1.3%
France	1.1%
Netherlands	1.1%
Germany	0.6%
Italy	0.6%
China	0.5%

Top Sector Weightings (as of 9-30-19)α

Technology	6.5%
Healthcare	5.6%
Financial Services	4.9%
Consumer Defensive	4.2%
Energy	3.7%
Industrials	3.4%
Consumer Cyclical	3.2%
Utilities	2.0%
Real Estate	1.9%
Basic Materials	1.8%
Communication Services	1.8%

Key Statistics (as of 9-30-19 unless noted^β)α

- ▶ **Number of Holdings:** 18
- ▶ **Sharpe Ratio:** 0.90
- ▶ **Beta:** 0.88 (S&P Target Date Through 2010 TR)
- ▶ **R²:** 95.90 (S&P Target Date Through 2010 TR)
- ▶ **Turnover (annualized)^γ:** 8.00
- ▶ **Net Assets:** \$3.5 billion
- ▶ **Underlying fund expense ratios:**
 - Gross^δ 0.33%
 - Net^δ 0.33%
- ▶ **Market Cap (millions):** 84336.20

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^Δ

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	5.65%	4.68%	5.36%
3 year	6.05%	6.56%	5.88%
5 year	5.35%	5.56%	4.91%
10 year	7.52%	7.46%	6.75%

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.33%
Cost Per \$1,000	\$3.30

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: February 1, 2007

¥See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2015.¹⁹⁷

The peer group is Target-Date 2015.⁹³⁶

Principal risks include: high-yield securities, not FDIC insured, restricted/illiquid securities, small cap, loss of money, long-term outlook and projections, U.S. government obligations, foreign securities, active management, underlying fund/fund of funds, equity securities, issuer, management, Target Date portfolio, futures, market/market volatility, derivatives, risk of increase expenses, mortgage-backed and asset-backed securities, emerging markets, fixed-income securities and merger and replacement. For more details, see Risk Disclosures section of this booklet



American Funds 2015 Target Date Retirement Fund

Investing solely in American Funds 2015 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol*: **RFJTX**

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)α

American Funds Capital Income Bldr R6	11.7%
American Funds Income Fund of Amer R6	11.7%
American Funds Intern Bd Fd of Amer R6	9.0%
American Funds Bond Fund of Amer R6	8.0%
American Funds Inflation Linked Bd R6	7.0%
American Funds Mortgage R6	6.0%
American Funds American Mutual R6	6.0%
American Funds Invmt Co of Amer R6	5.0%
American Funds Washington Mutual R6	5.0%
American Funds Capital World Bond R6	5.0%

Totals 74.4% of assets

Asset Allocation (as of 9-30-19)α

US Bond	42.6%
US Stock	30.4%
Non US Stock	13.0%
Cash	7.0%
Non US Bond	6.6%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)α

United States	73.0%
United Kingdom	4.6%
Canada	1.9%
Japan	1.7%
Switzerland	1.4%
France	1.1%
Netherlands	1.1%
Italy	0.6%
China	0.6%
Germany	0.5%

Top Sector Weightings (as of 9-30-19)α

Technology	7.3%
Healthcare	6.3%
Financial Services	5.5%
Consumer Defensive	4.5%
Energy	4.1%
Industrials	3.9%
Consumer Cyclical	3.7%
Utilities	2.1%
Communication Services	2.0%
Basic Materials	2.0%
Real Estate	1.9%

Key Statistics (as of 9-30-19 unless noted^β)α

- ▶ **Number of Holdings:** 20
- ▶ **Sharpe Ratio:** 0.90
- ▶ **Beta:** 0.85 (S&P Target Date Through 2015 TR)
- ▶ **R²:** 96.52 (S&P Target Date Through 2015 TR)
- ▶ **Turnover (annualized)^γ:** 7.00
- ▶ **Net Assets:** \$5.2 billion
- ▶ **Underlying fund expense ratios:**
 - Gross^δ 0.33%
 - Net^δ 0.33%
- ▶ **Market Cap (millions):** 84591.41

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^Δ

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	5.18%	4.04%	5.02%
3 year	6.66%	7.18%	6.20%
5 year	5.79%	6.00%	5.07%
10 year	8.16%	8.05%	6.91%

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.34%
Cost Per \$1,000	\$3.40

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: February 1, 2007

¥See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2020.¹¹⁹⁶

The peer group is Target-Date 2020.¹³⁷

Principal risks include: not FDIC insured, foreign securities, management, U.S. government obligations, high-yield securities, issuer, small cap, market/market volatility, active management, underlying fund/fund of funds, futures, long-term outlook and projections, fixed-income securities, Target Date portfolio, mortgage-backed and asset-backed securities, restricted/illiquid securities, loss of money, risk of increase expenses, emerging markets, derivatives, equity securities and merger and replacement. For more details, see Risk Disclosures section of this booklet



American Funds 2020 Target Date Retirement Fund

Investing solely in American Funds 2020 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol*: RRCTX

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)α

American Funds Interm Bd Fd of Amer R6	8.9%
American Funds Income Fund of Amer R6	8.4%
American Funds Capital Income Bldr R6	8.4%
American Funds Bond Fund of Amer R6	7.6%
American Funds Inflation Linked Bd R6	6.7%
American Funds American Mutual R6	6.0%
American Funds Mortgage R6	5.8%
American Funds Washington Mutual R6	5.2%
American Funds Invmt Co of Amer R6	5.1%
American Funds US Government Sec R6	5.0%
Totals	67.1% of assets

Asset Allocation (as of 9-30-19)α

US Bond	40.4%
US Stock	32.5%
Non US Stock	13.3%
Cash	7.1%
Non US Bond	6.5%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)α

United States	72.9%
United Kingdom	4.3%
Japan	1.9%
Canada	1.8%
Switzerland	1.3%
Netherlands	1.2%
France	1.2%
China	0.7%
Italy	0.6%
Taiwan	0.6%

Top Sector Weightings (as of 9-30-19)α

Technology	8.5%
Healthcare	6.8%
Financial Services	5.7%
Consumer Cyclical	4.4%
Consumer Defensive	4.4%
Energy	4.2%
Industrials	4.2%
Basic Materials	2.1%
Communication Services	1.9%
Utilities	1.9%
Real Estate	1.6%

Key Statistics (as of 9-30-19 unless noted^β)α

- ▶ **Number of Holdings:** 21
- ▶ **Sharpe Ratio:** 0.93
- ▶ **Beta:** 0.78 (S&P Target Date Through 2020 TR)
- ▶ **R²:** 96.37 (S&P Target Date Through 2020 TR)
- ▶ **Turnover (annualized)^γ:** 2.00
- ▶ **Net Assets:** \$15.9 billion
- ▶ **Underlying fund expense ratios:**
 - Gross^δ 0.34%
 - Net^δ 0.34%
- ▶ **Market Cap (millions):** 85041.17

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^Δ

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	4.50%	3.43%	4.54%
3 year	7.52%	7.78%	7.01%
5 year	6.33%	6.46%	5.57%
10 year	9.08%	8.61%	7.66%

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.36%
Cost Per \$1,000	\$3.60

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: February 1, 2007

¥See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2025.¹⁹⁵

The peer group is Target-Date 2025.⁹³⁸

Principal risks include: foreign securities, issuer, small cap, fixed-income securities, U.S. government obligations, underlying fund/fund of funds, equity securities, mortgage-backed and asset-backed securities, not FDIC insured, futures, restricted/illiquid securities, derivatives, loss of money, Target Date portfolio, active management, high-yield securities, market/market volatility, risk of increase expenses, management, long-term outlook and projections, emerging markets and merger and replacement. For more details, see Risk Disclosures section of this booklet



American Funds 2025 Target Date Retirement Fund^{114,185}

Investing solely in American Funds 2025 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol*: RFDTX

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)α

American Funds Interm Bd Fd of Amer R6	8.5%
American Funds Washington Mutual R6	6.2%
American Funds Invmt Co of Amer R6	6.1%
American Funds US Government Sec R6	6.1%
American Funds Global Balanced R6	6.0%
American Funds American Mutual R6	6.0%
American Funds American Balanced R6	6.0%
American Funds Fundamental Invs R6	5.2%
American Funds Capital World Gr&Inc R6	5.0%
American Funds Mortgage R6	5.0%
Totals 60.1% of assets	

Asset Allocation (as of 9-30-19)α

US Stock	37.6%
US Bond	31.4%
Non US Stock	17.9%
Cash	7.0%
Non US Bond	5.9%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)α

United States	69.0%
United Kingdom	4.5%
Japan	2.6%
Canada	1.7%
France	1.6%
Switzerland	1.5%
Netherlands	1.4%
China	1.2%
India	0.7%
Hong Kong	0.7%

Top Sector Weightings (as of 9-30-19)α

Technology	11.4%
Healthcare	8.3%
Financial Services	7.1%
Consumer Cyclical	6.0%
Industrials	5.3%
Consumer Defensive	4.8%
Energy	4.8%
Basic Materials	2.6%
Communication Services	1.9%
Utilities	1.8%
Real Estate	1.4%

Key Statistics (as of 9-30-19 unless noted^β)α

- ▶ Number of Holdings: 22
- ▶ Sharpe Ratio: 0.91
- ▶ Beta: 0.82 (S&P Target Date Through 2025 TR)
- ▶ R²: 96.35 (S&P Target Date Through 2025 TR)
- ▶ Turnover (annualized)^γ: 0.00
- ▶ Net Assets: \$22.1 billion
- ▶ Underlying fund expense ratios:
 - Gross^δ 0.36%
 - Net^δ 0.36%
- ▶ Market Cap (millions): 80000.16

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^Δ

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	3.87%	2.87%	3.85%
3 year	8.68%	8.44%	7.65%
5 year	7.16%	6.87%	6.00%
10 year	9.75%	9.05%	7.99%

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.38%
Cost Per \$1,000	\$3.80

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: February 1, 2007

¥See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2030.¹¹⁹⁴

The peer group is Target-Date 2030.¹¹⁹⁹

Principal risks include: futures, issuer, emerging markets, derivatives, market/market volatility, long-term outlook and projections, mortgage-backed and asset-backed securities, small cap, foreign securities, loss of money, fixed-income securities, equity securities, underlying fund/fund of funds, Target Date portfolio, management, U.S. government obligations, not FDIC insured, risk of increase expenses, restricted/illiquid securities, high-yield securities, active management and merger and replacement. For more details, see Risk Disclosures section of this booklet



American Funds 2030 Target Date Retirement Fund^{114,185}

Investing solely in American Funds 2030 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol*: RFETX

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)α

American Funds Washington Mutual R6	8.0%
American Funds US Government Sec R6	7.1%
American Funds Invmt Co of Amer R6	7.0%
American Funds American Balanced R6	6.0%
American Funds Fundamental Invs R6	6.0%
American Funds Global Balanced R6	6.0%
American Funds American Mutual R6	5.9%
American Funds New Perspective R6	5.1%
American Funds Capital World Gr&Inc R6	5.0%
American Funds Mortgage R6	4.5%
Totals 60.6% of assets	

Asset Allocation (as of 9-30-19)α

US Stock	43.7%
US Bond	23.1%
Non US Stock	21.4%
Cash	7.0%
Non US Bond	4.7%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)α

United States	66.8%
United Kingdom	5.0%
Japan	2.6%
Canada	1.8%
France	1.7%
Switzerland	1.7%
China	1.5%
Netherlands	1.5%
India	1.0%
Hong Kong	0.9%

Top Sector Weightings (as of 9-30-19)α

Technology	13.8%
Healthcare	9.7%
Financial Services	8.4%
Consumer Cyclical	7.2%
Industrials	6.4%
Consumer Defensive	5.5%
Energy	5.4%
Basic Materials	3.1%
Communication Services	2.2%
Utilities	1.9%
Real Estate	1.5%

Key Statistics (as of 9-30-19 unless noted^β)α

- ▶ **Number of Holdings:** 22
- ▶ **Sharpe Ratio:** 0.91
- ▶ **Beta:** 0.86 (S&P Target Date Through 2030 TR)
- ▶ **R²:** 96.53 (S&P Target Date Through 2030 TR)
- ▶ **Turnover (annualized)^γ:** 0.00
- ▶ **Net Assets:** \$24.1 billion
- ▶ **Underlying fund expense ratios:**
 - Gross^δ 0.38%
 - Net^δ 0.38%
- ▶ **Market Cap (millions):** 71926.19

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^Δ

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	3.03%	2.41%	3.09%
3 year	9.62%	8.91%	8.32%
5 year	7.77%	7.19%	6.37%
10 year	10.07%	9.37%	8.57%

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.39%
Cost Per \$1,000	\$3.90

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: February 1, 2007

¥See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2035.¹⁹³

The peer group is Target-Date 2035.¹⁴⁰

Principal risks include: restricted/illiquid securities, not FDIC insured, emerging markets, mortgage-backed and asset-backed securities, loss of money, foreign securities, management, futures, high-yield securities, fixed-income securities, market/market volatility, small cap, derivatives, Target Date portfolio, U.S. government obligations, equity securities, active management, risk of increase expenses, underlying fund/fund of funds, long-term outlook and projections, issuer and merger and replacement. For more details, see Risk Disclosures section of this booklet



American Funds 2035 Target Date Retirement Fund^{114,185}

Investing solely in American Funds 2035 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol[†]: RFFTX

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)α

American Funds Washington Mutual R6	8.0%
American Funds US Government Sec R6	7.7%
American Funds Invmt Co of Amer R6	7.0%
American Funds New Perspective R6	7.0%
American Funds SMALLCAP World R6	6.1%
American Funds AMCAP R6	6.1%
American Funds Growth Fund of Amer R6	6.1%
American Funds Fundamental Invs R6	6.0%
American Funds American Balanced R6	6.0%
American Funds Global Balanced R6	6.0%

Totals 66.0% of assets

Asset Allocation (as of 9-30-19)α

US Stock	51.1%
Non US Stock	26.8%
US Bond	13.5%
Cash	6.7%
Non US Bond	1.7%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)α

United States	64.6%
United Kingdom	5.4%
Japan	2.5%
China	2.1%
Canada	1.9%
France	1.9%
Switzerland	1.9%
Netherlands	1.6%
India	1.4%
Hong Kong	1.2%

Top Sector Weightings (as of 9-30-19)α

Technology	17.2%
Healthcare	11.8%
Financial Services	10.0%
Consumer Cyclical	9.2%
Industrials	7.7%
Consumer Defensive	6.2%
Energy	6.0%
Basic Materials	3.7%
Communication Services	2.3%
Utilities	2.1%
Real Estate	1.7%

Key Statistics (as of 9-30-19 unless noted^β)α

- ▶ **Number of Holdings:** 19
- ▶ **Sharpe Ratio:** 0.88
- ▶ **Beta:** 0.95 (S&P Target Date Through 2035 TR)
- ▶ **R²:** 97.09 (S&P Target Date Through 2035 TR)
- ▶ **Turnover (annualized)^γ:** 0.00
- ▶ **Net Assets:** \$19.2 billion
- ▶ **Underlying fund expense ratios:**
 - Gross^δ 0.39%
 - Net^δ 0.39%
- ▶ **Market Cap (millions):** 63847.75

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^Δ

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	2.70%	1.84%	2.50%
3 year	9.92%	9.26%	8.58%
5 year	7.94%	7.40%	6.56%
10 year	10.21%	9.60%	8.64%

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.40%
Cost Per \$1,000	\$4.00

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: February 1, 2007

¥See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2040.¹⁹²

The peer group is Target-Date 2040.⁹⁴¹

Principal risks include: market/market volatility, issuer, futures, high-yield securities, small cap, not FDIC insured, emerging markets, U.S. government obligations, fixed-income securities, foreign securities, management, loss of money, mortgage-backed and asset-backed securities, Target Date portfolio, long-term outlook and projections, derivatives, restricted/illiquid securities, merger and replacement, underlying fund/fund of funds, equity securities, active management and risk of increase expenses. For more details, see Risk Disclosures section of this booklet



American Funds 2040 Target Date Retirement Fund

Investing solely in American Funds 2040 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol*: RFGTX

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)α

American Funds Washington Mutual R6	8.0%
American Funds Invmt Co of Amer R6	7.1%
American Funds New Perspective R6	7.0%
American Funds AMCAP R6	7.0%
American Funds SMALLCAP World R6	7.0%
American Funds Growth Fund of Amer R6	7.0%
American Funds Fundamental Invs R6	6.1%
American Funds American Mutual R6	6.1%
American Funds American Balanced R6	6.0%
American Funds Global Balanced R6	5.9%

Totals 67.2% of assets

Asset Allocation (as of 9-30-19)α

US Stock	53.8%
Non US Stock	28.3%
US Bond	9.2%
Cash	6.9%
Non US Bond	1.6%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)α

United States	63.1%
United Kingdom	5.5%
Japan	2.6%
China	2.3%
Canada	2.0%
Switzerland	2.0%
France	1.9%
Netherlands	1.7%
India	1.6%
Hong Kong	1.2%

Top Sector Weightings (as of 9-30-19)α

Technology	18.3%
Healthcare	12.6%
Financial Services	10.6%
Consumer Cyclical	9.9%
Industrials	8.1%
Consumer Defensive	6.3%
Energy	6.2%
Basic Materials	3.8%
Communication Services	2.4%
Utilities	2.1%
Real Estate	1.7%

Key Statistics (as of 9-30-19 unless noted⁵)α

- ▶ **Number of Holdings:** 18
- ▶ **Sharpe Ratio:** 0.87
- ▶ **Beta:** 0.93 (S&P Target Date Through 2040 TR)
- ▶ **R²:** 97.13 (S&P Target Date Through 2040 TR)
- ▶ **Turnover (annualized)⁹:** 0.00
- ▶ **Net Assets:** \$16.8 billion
- ▶ **Underlying fund expense ratios:**
 - Gross⁷ 0.40%
 - Net⁸ 0.40%
- ▶ **Market Cap (millions):** 61978.57

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^A

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	2.52%	1.55%	2.10%
3 year	10.11%	9.42%	8.91%
5 year	8.09%	7.48%	6.72%
10 year	10.29%	9.66%	8.94%

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.40%
Cost Per \$1,000	\$4.00

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: February 1, 2007

¥See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2045.¹⁹¹

The peer group is Target-Date 2045.¹⁴²

Principal risks include: fixed-income securities, foreign securities, futures, issuer, mortgage-backed and asset-backed securities, small cap, long-term outlook and projections, equity securities, underlying fund/fund of funds, market/market volatility, U.S. government obligations, loss of money, restricted/illiquid securities, Target Date portfolio, derivatives, emerging markets, active management, merger and replacement, management, not FDIC insured, high-yield securities and risk of increase expenses. For more details, see Risk Disclosures section of this booklet



American Funds 2045 Target Date Retirement Fund

Investing solely in American Funds 2045 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol*: RFHTX

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)α

American Funds Invmt Co of Amer R6	8.1%
American Funds Washington Mutual R6	8.1%
American Funds Fundamental Invs R6	7.1%
American Funds American Mutual R6	7.1%
American Funds Growth Fund of Amer R6	7.0%
American Funds AMCAP R6	7.0%
American Funds SMALLCAP World R6	7.0%
American Funds New Perspective R6	7.0%
American Funds Capital World Gr&Inc R6	6.1%
American Funds American Balanced R6	5.9%
Totals	70.4% of assets

Asset Allocation (as of 9-30-19)α

US Stock	54.7%
Non US Stock	28.7%
US Bond	8.2%
Cash	6.9%
Non US Bond	1.4%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)α

United States	62.9%
United Kingdom	5.5%
Japan	2.6%
China	2.4%
Canada	2.0%
Switzerland	2.0%
France	1.9%
Netherlands	1.8%
India	1.6%
Hong Kong	1.2%

Top Sector Weightings (as of 9-30-19)α

Technology	18.8%
Healthcare	12.8%
Financial Services	10.7%
Consumer Cyclical	10.1%
Industrials	8.3%
Consumer Defensive	6.4%
Energy	6.3%
Basic Materials	3.9%
Communication Services	2.4%
Utilities	2.0%
Real Estate	1.6%

Key Statistics (as of 9-30-19 unless noted^β)α

- ▶ Number of Holdings: 18
- ▶ Sharpe Ratio: 0.87
- ▶ Beta: 0.92 (S&P Target Date Through 2045 TR)
- ▶ R²: 97.00 (S&P Target Date Through 2045 TR)
- ▶ Turnover (annualized)^γ: 0.00
- ▶ Net Assets: \$12.4 billion
- ▶ Underlying fund expense ratios:
 - Gross^δ 0.40%
 - Net^ε 0.40%
- ▶ Market Cap (millions): 62541.84

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^Δ

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	2.39%	1.44%	1.99%
3 year	10.19%	9.57%	8.88%
5 year	8.13%	7.54%	6.76%
10 year	10.32%	9.75%	8.86%

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.41%
Cost Per \$1,000	\$4.10

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: February 1, 2007

¥See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2050.¹⁹⁰

The peer group is Target-Date 2050.¹⁹³

Principal risks include: fixed-income securities, restricted/illiquid securities, long-term outlook and projections, derivatives, management, foreign securities, issuer, mortgage-backed and asset-backed securities, underlying fund/fund of funds, high-yield securities, loss of money, active management, market/market volatility, Target Date portfolio, futures, equity securities, U.S. government obligations, merger and replacement, small cap, not FDIC insured, emerging markets and risk of increase expenses. For more details, see Risk Disclosures section of this booklet



American Funds 2050 Target Date Retirement Fund^{114,185}

Investing solely in American Funds 2050 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol*: RFITX

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)α

American Funds Invmt Co of Amer R6	9.0%
American Funds Washington Mutual R6	9.0%
American Funds American Mutual R6	8.0%
American Funds Fundamental Invs R6	8.0%
American Funds SMALLCAP World R6	7.0%
American Funds AMCAP R6	7.0%
American Funds New Perspective R6	7.0%
American Funds Growth Fund of Amer R6	7.0%
American Funds Capital World Gr&Inc R6	7.0%
American Funds Global Balanced R6	5.0%
Totals	74.0% of assets

Asset Allocation (as of 9-30-19)α

US Stock	56.0%
Non US Stock	28.5%
US Bond	7.1%
Cash	7.0%
Non US Bond	1.3%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)α

United States	63.1%
United Kingdom	5.4%
Japan	2.6%
China	2.4%
Canada	2.1%
Switzerland	2.0%
France	1.9%
Netherlands	1.8%
India	1.6%
Brazil	1.2%

Top Sector Weightings (as of 9-30-19)α

Technology	19.3%
Healthcare	13.0%
Financial Services	10.9%
Consumer Cyclical	10.2%
Industrials	8.5%
Energy	6.4%
Consumer Defensive	6.4%
Basic Materials	3.9%
Communication Services	2.4%
Utilities	2.0%
Real Estate	1.4%

Key Statistics (as of 9-30-19 unless noted^β)α

- ▶ Number of Holdings: 16
- ▶ Sharpe Ratio: 0.86
- ▶ Beta: 0.92 (S&P Target Date Through 2050 TR)
- ▶ R²: 96.91 (S&P Target Date Through 2050 TR)
- ▶ Turnover (annualized)^γ: 0.00
- ▶ Net Assets: \$10.4 billion
- ▶ Underlying fund expense ratios:
 - Gross^δ 0.41%
 - Net^ε 0.41%
- ▶ Market Cap (millions): 63467.51

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^Δ

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	2.40%	1.36%	1.84%
3 year	10.18%	9.60%	9.04%
5 year	8.14%	7.51%	6.84%
Since inception	10.38%	n/a	n/a

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.42%
Cost Per \$1,000	\$4.20

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: February 1, 2010

¥See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2055.¹⁸⁹

The peer group is Target-Date 2055.¹⁶³

Principal risks include: small cap, long-term outlook and projections, issuer, management, fixed-income securities, active management, futures, equity securities, derivatives, high-yield securities, underlying fund/fund of funds, loss of money, market/market volatility, Target Date portfolio, foreign securities, not FDIC insured, restricted/illiquid securities, risk of increase expenses, mortgage-backed and asset-backed securities, U.S. government obligations, emerging markets and merger and replacement. For more details, see Risk Disclosures section of this booklet



American Funds 2055 Target Date Retirement Fund

Investing solely in American Funds 2055 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol*: RFKTX

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)^α

American Funds Washington Mutual R6	9.0%
American Funds Invmt Co of Amer R6	9.0%
American Funds American Mutual R6	8.0%
American Funds Fundamental Invs R6	8.0%
American Funds New Perspective R6	7.0%
American Funds Capital World Gr&Inc R6	7.0%
American Funds AMCAP R6	7.0%
American Funds Growth Fund of Amer R6	7.0%
American Funds SMALLCAP World R6	7.0%
American Funds US Government Sec R6	5.0%
Totals	74.0% of assets

Asset Allocation (as of 9-30-19)^α

US Stock	56.0%
Non US Stock	28.5%
US Bond	7.1%
Cash	7.0%
Non US Bond	1.3%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)^α

United States	63.1%
United Kingdom	5.4%
Japan	2.6%
China	2.4%
Canada	2.1%
Switzerland	2.0%
France	1.9%
Netherlands	1.8%
India	1.6%
Brazil	1.2%

Top Sector Weightings (as of 9-30-19)^α

Technology	19.3%
Healthcare	13.0%
Financial Services	10.9%
Consumer Cyclical	10.2%
Industrials	8.5%
Energy	6.4%
Consumer Defensive	6.4%
Basic Materials	3.9%
Communication Services	2.4%
Utilities	2.0%
Real Estate	1.4%

Key Statistics (as of 9-30-19 unless noted^β)^α

- ▶ Number of Holdings: 16
- ▶ Sharpe Ratio: 0.86
- ▶ Beta: 0.92 (S&P Target Date Through 2055 TR)
- ▶ R²: 96.99 (S&P Target Date Through 2055 TR)
- ▶ Turnover (annualized)[§]: 1.00
- ▶ Net Assets: \$5.6 billion
- ▶ Underlying fund expense ratios:
 - Gross[†] 0.42%
 - Net[†] 0.42%
- ▶ Market Cap (millions): 63454.99

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.[†]

Sub-Account Details

Asset Class/Investment Style

Target Date

Performance**

Returns (as of 9-30-19)

	Fund	Index	Peer Group
1 year	2.38%	1.30%	1.87%
3 year	10.15%	9.66%	9.20%
Since inception	8.02%	n/a	n/a

Expense Ratio (as of 9-30-19)****

Expense Ratio****	0.44%
Cost Per \$1,000	\$4.40

Sub-Account Inception Date: March 24, 2016
Underlying fund Inception Date: March 27, 2015

¶See important notes.

**The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the underlying portfolio and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or certain participant-level charges, or any redemption fees imposed by an underlying fund company. These charges, if included, would otherwise reduce the total return for a participant's account. Performance information current to the most recent month-end is available on our website www.jhpensions.com.

Performance data for a sub-account for any period prior to the date introduced is shown in bold and is hypothetical based on the performance of the underlying fund.

The Index is S&P Target Date Through 2060+.¹²³⁴

The peer group is Target-Date 2060+.^{p71}

Principal risks include: high-yield securities, restricted/illiquid securities, futures, fixed-income securities, market/market volatility, equity securities, underlying fund/fund of funds, derivatives, management, small cap, long-term outlook and projections, loss of money, active management, Target Date portfolio, U.S. government obligations, mortgage-backed and asset-backed securities, not FDIC insured, risk of increase expenses, issuer, emerging markets, foreign securities and merger and replacement. For more details, see Risk Disclosures section of this booklet



American Funds 2060 Target Date Retirement Fund^{114,185}

Investing solely in American Funds 2060 Target Date Retirement Fund (Class R6)

Managed by American Funds Group

Ticker Symbol*: RFUTX

Fund Highlights

Investment Objective and Policies ▶ Depending on the proximity to its target date, the fund will seek to achieve the following objectives to varying degrees: growth, income and conservation of capital. The fund will increasingly emphasize income and conservation of capital by investing a greater portion of its assets in bond, equity-income and balanced funds as it approaches and passes its target date. In this way, the fund seeks to balance total return and stability over time.

Why Consider this Fund

- ▶ You want the opportunity to remain in the same portfolio after the target date is reached
- ▶ You want one-step diversification with exposure to domestic stocks, international stocks and fixed-income securities
- ▶ You've considered your risk tolerance and want your asset allocation to become more conservative over time, but still provide growth after your retirement date to protect against longevity risk
- ▶ You want an actively managed asset allocation portfolio investing in actively managed underlying funds

Holdings, Weightings and Allocations of the underlying fund

Note: The Board of Trustees of the underlying fund ("fund") in which the sub-account invests may, in its discretion, determine to combine the fund with another fund if the target allocation of the fund materially matches the target allocation of the other fund. In such event, the fund's investors (including the sub-account that invests in the fund) will become investors of the other fund. To the extent permitted by applicable regulatory requirements, such a combination would be implemented without seeking the approval of the fund's investors. There is no assurance that the Board of Trustees at any point will determine to implement such a combination.

Top Holdings (as of 9-30-19)α

American Funds Washington Mutual R6	9.0%
American Funds Invmt Co of Amer R6	9.0%
American Funds American Mutual R6	8.0%
American Funds Fundamental Invs R6	8.0%
American Funds Growth Fund of Amer R6	7.0%
American Funds New Perspective R6	7.0%
American Funds AMCAP R6	7.0%
American Funds SMALLCAP World R6	7.0%
American Funds Capital World Gr&Inc R6	7.0%
American Funds American Balanced R6	5.0%
Totals	74.0% of assets

Asset Allocation (as of 9-30-19)α

US Stock	56.0%
Non US Stock	28.5%
US Bond	7.1%
Cash	7.0%
Non US Bond	1.3%
Preferred	0.1%

Top Country Holdings (as of 9-30-19)α

United States	63.1%
United Kingdom	5.4%
Japan	2.6%
China	2.4%
Canada	2.1%
Switzerland	2.0%
France	1.9%
Netherlands	1.8%
India	1.6%
Brazil	1.2%

Top Sector Weightings (as of 9-30-19)α

Technology	19.3%
Healthcare	13.0%
Financial Services	10.9%
Consumer Cyclical	10.2%
Industrials	8.5%
Consumer Defensive	6.4%
Energy	6.4%
Basic Materials	3.9%
Communication Services	2.4%
Utilities	2.0%
Real Estate	1.4%

Key Statistics (as of 9-30-19 unless noted^β)α

- ▶ **Number of Holdings:** 16
- ▶ **Sharpe Ratio:** 0.86
- ▶ **Beta:** 0.91 (S&P Target Date Through 2060+ TR USD)
- ▶ **R²:** 97.07 (S&P Target Date Through 2060+ TR USD)
- ▶ **Turnover (annualized)^γ:** 3.00
- ▶ **Net Assets:** \$1.9 billion
- ▶ **Underlying fund expense ratios:**
 - Gross^δ 0.44%
 - Net^δ 0.44%
- ▶ **Market Cap (millions):** 63479.01

* The Net expense ratio shown is for the underlying fund and reflects any fee waivers or expense reimbursements and is subject to change. Please refer to the underlying prospectus or offering documents for additional information.^Δ

¥ Important notes

Please call 1-800-395-1113 to obtain the Fund Sheet for the group annuity investment option sub-accounts and/or to obtain a prospectus (or Offering Memorandum/Trust Document) for the sub-accounts' underlying fund, that are available on request. The prospectuses (or Offering Memorandum/Trust Documents) for the sub-accounts' underlying funds contain complete details on investment objectives, risks, fees, charges and expenses as well as other information about the underlying funds which should be carefully considered before investing.

Fees and expenses are only one of several factors that you should consider when making investment decisions. The cumulative effect of fees and expenses can substantially reduce the growth of your retirement account. You can visit the Employee Benefit Security Administration's Web site for an example demonstrating the long-term effect of fees and expenses.

Contributions under a group annuity contract issued by John Hancock Life Insurance Company (U.S.A.) (John Hancock USA) are allocated to investment options which: (a) invest solely in shares of an underlying mutual fund, collective trust, or ETF; (b) invest in a combination of these; or (c) are Guaranteed Interest Accounts and which will be held in the John Hancock USA general account. For more information on a particular investment option, please refer to John Hancock USA's Fund sheets, available through the Web site or your John Hancock USA representative.

Allocating assets to only one or a small number of the investment options (other than an asset allocation investment option such as a target date or target risk option) should not be considered a balanced investment program. In particular, allocating assets to a small number of investment options concentrated in particular business or market sectors could subject an account to increased risk and volatility.

* When contributions are allocated to Funds under your employer's group annuity contract with John Hancock, they will be held in a sub-account (also referred to as "Fund"), which invests in shares of the specified underlying mutual fund, collective trust, ETF or a combination of these. The ticker symbols shown are for the underlying mutual fund, collective trusts or ETFs in which sub-accounts are invested. The ticker symbols do not directly apply to the John Hancock sub-account and therefore any public information accessed using these symbols will not reflect the unit value of the subaccount, nor will such information reflect sub-account, contract-level or participant-level charges under your plan's group annuity contract.

Information Concerning John Hancock's Short-Term Trading Policy

The group annuity contract is not designed for short-term trading. The effect of short-term trading may disrupt or be potentially disruptive to the management of the fund underlying an investment option and may thereby adversely impact the underlying fund's performance, either by impacting fund management practices or by increasing fund transaction costs. These impacts are absorbed by other fund investors, including retirement plan participants. For the protection of the participants, account changes are subject to the following short-term trading guidelines when exchanging investment options under your company's qualified retirement plan account with John Hancock. Requests may be cancelled if not within our guidelines.

Participants are allowed a **maximum of two exchanges per calendar month**. An **exchange** is defined as the full rebalance of a participant's account, or single or multiple fund-to-fund transfers that involve multiple investment options (also referred to as "inter-account transfers") on one day, and may be made over the Web, by fax, courier or mail, through our toll-free participant services line, or with a client account representative.

Recognizing that there may be extreme market or other circumstances requiring a participant to make a further change, John Hancock will allow a participant to move **100% of their assets to a Money Market or Stable Value Fund (as available under the contract after the exchange limit has been reached; no subsequent exchanges may be made for 30 days)**. Once the 30-day hold has

expired, participants can trade again in accordance with the above guidelines.

The guidelines **do not** apply to regular allocations, loans, or withdrawals

In addition, on an ongoing basis, participant account activity is reviewed for trading activity that, though within the monthly exchange limit, could be detrimental to an underlying fund and/or contrary to its exchange policies, as described in the fund's prospectus. As a result of this review, or if requested by a fund company, additional restrictions may be imposed on a participant's retirement account, including but not limited to:

- Applying redemption fees and/or trade restrictions as requested by the underlying fund manager. Such trade restrictions may be more restrictive than the above guidelines
- Restricting the number of exchanges made during a defined period
- Restricting the dollar amount of exchange
- Restricting the method used to submit exchanges (e.g., requiring exchange requests to be submitted in writing via U.S. mail)
- Restricting exchanges into and out of certain investment options

Participants can read about the short-term trading policy at www.jhpensions.com or www.jhnpensions.com (for plans domiciled in New York) under the "modify your account - change account" feature. Redemption fees or market value adjustments associated with exchanges from particular investment options are described on applicable fund sheets, which are available online. For more information or to order prospectuses for the underlying investments, call 1-800-395-1113 and speak to a client account representative.

±Weightings - Applicable to only the Target Date (Lifecycle Portfolio) and Target Risk (Lifestyle Portfolios)

Each Target Risk/Target Date Portfolio has a target percentage allocation designed to meet the investment objectives of a corresponding investment orientation. Allocation percentages may vary or be adjusted due to market or economic conditions or other reasons as set out in the prospectus. Due to abnormal market conditions or redemption activity the fund may temporarily invest in cash and cash equivalents.

The underlying mutual fund, collective trust, or ETF has the right to restrict trade activity without prior notice if a participant's trading is determined to be in excess of their exchange policy, as stated in the prospectus or offering memorandum.

☐The information shown is based on the most recent available information for the underlying mutual fund, collective trust, or ETF (collectively referred to as underlying fund) as of the date of printing and is subject to change. Listed holdings do not represent all of the holdings in the underlying fund.

⁶Average Credit Quality is from a Nationally Recognized Statistically Rating Organization (NRSRO).

1A. Your company's qualified retirement plan offers participants the opportunity to contribute to investment options available under a group annuity contract with John Hancock Life Insurance Company (U.S.A.) (John Hancock USA). These investment options may be sub-accounts (pooled funds) investing directly in underlying mutual fund, collective trusts, or ETFs, or they may be Guaranteed Interest Accounts.

The Funds offered on the JH Signature platform are classified into five risk categories. The risk category in which a Fund is placed is determined based on where the 10 year Standard Deviation (defined below) of the underlying fund's Morningstar Category falls on the following scale: if the 10 year Standard Deviation of the underlying fund's Morningstar Category is 14.70 or higher, the Fund is classified as "Aggressive;" between 10.00 and 14.69 as "Growth;" between 6.40 and 9.99 as "Growth & Income;" between 2.50 and 6.39 as

"Income;" and 2.49 and below as "Conservative." If a 10 year Standard Deviation is not available for a Morningstar Category, then the 5 year Standard Deviation of the underlying fund's Morningstar Category is used to determine the Fund's risk category. If a 5 year Standard Deviation is not available for a Morningstar Category, then the 5 year Standard Deviation of the underlying fund's Morningstar Category Index is used to determine the Fund's risk category. Standard Deviation is defined by Morningstar as a statistical measurement of dispersion about an average, which, for an underlying fund, depicts how widely the returns varied over a certain period of time.

The placement of each investment option's risk/return category is subject to change. This information is not intended as investment advice and there can be no assurance that any investment option will achieve its objectives or experience less volatility than another.

2A. Manager or Sub-Adviser refers to the manager of the underlying fund, or to the sub-adviser of the underlying John Hancock Trust, John Hancock Funds II, or John Hancock Funds III fund in which the sub-account invests. "Underlying fund" includes the underlying mutual fund, collective trust, or ETF in which a sub-account invests.

3A. Date sub-account or Guaranteed Interest Account first available under group annuity contract. The Signature Menu was introduced December 8, 2014. If the sub-account inception date is after December 8, 2014, then the Signature Menu introduction date is the same as the sub-account inception date.

4A. The performance data for a sub-account for any period prior to the sub-account Inception Date is hypothetical based on the performance of the underlying investment since inception of the underlying investment. All other performance data is actual (except as otherwise indicated). Returns for any period greater than one year are annualized. Performance data reflects changes in the prices of a sub-account's investments (including the shares of an underlying mutual fund, collective trust, or ETF), reinvestment of dividends and capital gains and deductions for the sub-account charges.

The performance data presented represents past performance. Past performance is no guarantee of future results and current performance may be lower or higher than the performance quoted. An investment in a sub-account will fluctuate in value to reflect the value of the sub-account's underlying fund and, when redeemed, may be worth more or less than original cost. Performance does not reflect any applicable contract-level or participant-level charges, fees for guaranteed benefits if elected by participant, or any redemption fees imposed by an underlying mutual fund, collective trust or ETF. These charges, if included, would otherwise reduce the total return for a participant's account. Performance current to the most recent month-end is available at www.jhpensions.com.

****Expense Ratio (ER)

This material shows expenses for a specific unit class for investment options available under a John Hancock group annuity contract. The Expense Ratio ("ER") shown represents the total annual operating expenses for the investment options made available by John Hancock. It is made up of John Hancock's (i) "Revenue from Sub-account", and (ii) the expenses of the underlying fund (based on expense ratios reported in the most recent prospectuses available as of the date of printing; "FER"). In the case where an underlying fund has either waived a portion of, or capped, its fees, the FER used to determine the ER of the sub-account that invests in the underlying fund is the net expense ratio of the underlying fund. "Underlying fund" or "fund" refers to the underlying mutual fund, collective trust, or exchanged traded fund ("ETF") in which the investment option invests. The FER is determined by the underlying fund and is subject to fluctuation. Any change in the FER of an underlying fund will affect the Expense Ratio of the investment option which invests in the underlying fund.

The ER applies daily at a rate equivalent to the annual rate shown, and may vary to reflect changes in the expenses of an underlying fund and other factors. For Expense Ratio information current as of the most recent quarter end, please refer to the monthly "Return and Fees" listing available from John Hancock upon request. For more information, please contact your financial representative.

** Performance of the sub-account

The performance data for a sub-account for any period prior to the sub-account Inception Date is hypothetical based on the performance of the underlying portfolio.* The Signature Menu was introduced December 8, 2014. If the sub-account inception date is after December 8, 2014, then the Signature Menu introduction date is the same as the sub-account inception date. Returns for any period greater than one year are annualized. Performance data reflects changes in the prices of a sub-account's investments (including the shares of an underlying fund), reinvestment of dividends and capital gains and deductions for the Expense Ratio (ER). Performance does not reflect any applicable contract-level or certain participant-level charges, fees for guaranteed benefits if elected by participant under the group annuity contract or redemption fees imposed by the underlying Portfolio. These charges, if included, would otherwise reduce the total return for a participant's account. All performance calculations shown have been prepared solely by John Hancock USA. The underlying fund company has not reviewed the sub-account's performance.

6A. Morningstar Category:

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Morningstar assigns categories by placing funds into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor Morningstar uses as the investment objective and investment strategy stated in a fund's prospectus may not be sufficiently detailed for our proprietary classification methodology. Funds are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the fund is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

***Morningstar Portfolio Ratings

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*The amounts displayed below represent the gross and net expense ratios of the underlying fund in which the sub-account invests. Where the figures are different, the underlying fund has either waived a portion of, or capped its fees, and the result of such fee waiver or cap is reflected in the net expense ratio. The waiver or cap is subject to expiration, in which case the Expense Ratio and performance of the sub account may be impacted. Refer to the prospectus of the underlying fund for details.

When calculating the Expense Ratio of the sub-account, the net expense ratio of the underlying fund is used. Returns shown reflect the Expense Ratio of the

sub-account.

⁴The amounts displayed below represent the gross and net expense ratios of the underlying fund in which the sub-account invests. Where the figures are different, the underlying fund has either waived a portion of, or capped its fees, and the result of such fee waiver or cap is reflected in the net expense ratio.

The waiver or cap is subject to expiration, in which case the Expense Ratio and performance of the sub account may be impacted. Refer to the prospectus of the underlying fund for details.

When calculating the Expense Ratio of the sub-account, the net expense ratio of the underlying fund is used. Returns shown reflect the Expense Ratio of the sub-account.

114. If John Hancock has been provided with your date of birth and no investment instructions at the time of enrollment, then, on the date of your enrollment, you will be default enrolled into a Target Date (Lifecycle Portfolio) based on your year of birth and a retirement age of 67, and subject to the Target Date then in existence.

185. This sub-account previously invested in a different share class of the same underlying portfolio. It began investing in the current share class effective on or about November 3, 2017. Performance shown for periods prior to that date is based on the performance of the old share class.

Index Performance:

With respect to the Funds that display an index performance. Index performance shown is for a broad-based securities market index. Indexes are unmanaged and cannot be invested in directly. Index returns were prepared using Morningstar Direct. The performance of an Index does not include any portfolio or insurance-related charges. If these charges were reflected, performance would be lower. Past performance is not a guarantee of future results.

i234. S&P Target Date Through 2060⁺: The S&P Target Date Style Indices are designed to help defined contribution plan sponsors screen, select and monitor appropriate target date funds.

Peer Group Performance:

With respect to the Funds that display a Peer Group Performance. Source: Morningstar Direct for Mutual Funds, as of the most recent month end. Morningstar data is ©2019 by Morningstar, Inc. All rights reserved. Although gathered from reliable sources, the information is not represented or warranted by Morningstar to be accurate, correct, complete or timely. Peer groups are unmanaged and cannot be invested in directly.

p71. Target-Date 2060⁺: Target-date portfolios provide a diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2056-2060 and beyond) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Key Statistics

⁵The Turnover Ratio shown is based on the most recent available financial statements for the underlying mutual fund, collective trust, or ETF as of the date of printing and is subject to change.

Wrap Provider Exposure[†]

S&P

Credit ratings of AA- or better are considered to be high credit quality; credit ratings of BBB- are good credit quality and the lowest category of investment grade; credit ratings BB⁺ and below are lower-rated securities ("junk bonds"); and credit ratings of CCC⁺ or below have high default risk. The credit quality breakdown does not give effect to the impact of any credit derivative investments made by the fund.

Moody's

The rating scale, running from a high of Aaa to a low of C, comprises 21 notches. It is divided into two sections, investment grade and speculative grade. The lowest investment-grade rating is Baa3. The highest speculative-grade rating is Ba1.

Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa.

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