



Create a plan for the retirement you want.

Deferred Compensation Plan for Employees of Onondaga County may be the best way to work toward your personal retirement goals. But saving for retirement can be both challenging and complicated, depending on your financial situation. This guide can help make complicated choices about retirement and saving for it, simple. Take control of your retirement now by turning your dreams into plans.

Deferred Compensation Plan for Employees of Onondaga County offers tax advantages, a variety of investment choices, and other features to make saving for retirement simple.

- The payroll deduction feature makes contributions easy and convenient.
- Flexible investment choices allow you to choose how much to contribute and where to invest your contributions.
- Pre-tax contributions reduce your current taxable income before federal income taxes are withheld.
- Automatic rebalancing helps to keep your portfolio in line with your investment goals through periodic rebalancing. Periodic rebalancing of your account helps ensure your investments stay aligned over time with the selected strategy you originally selected. For your convenience, you can initiate or discontinue this service at any time. Auto rebalancing is not recommended when using an asset allocation investment option.
- Your vested account balance is always yours to take with you should you change employers. You may also have access to your account savings before you reach retirement age.

Achieving a successful retirement.

The main goal of the plan is to help you build toward a comfortable income during retirement. This guide provides important information on how to use features of the plan and make them work best for you. Be sure to read it carefully, and feel free to contact us if you have any questions.



Online:

www.retiresmart.com



Mobile App:

Download the MassMutual RetireSMARTSM app to keep tabs on your account. Search for "RetireSmart" or "MassMutual" in your Apple App Store[®] or Google Play[™].



Phone:

1-800-743-5274

Dedicated customer service representatives available Monday - Friday, 8 a.m. to 8 p.m. ET or automated phone line 24/7.



Rollover Specialists:

1-888-526-6905

Get help rolling in accounts from a prior retirement account, Monday – Friday, 8 a.m. to 8 p.m. ET. You are encouraged to compare the benefits and features of the different plans before consolidating your accounts. Things to consider include each plan's available investment options, guarantees, fees and expenses.

Enrolling in the plan is easy.

- The paper forms that are applicable to your plan have been enclosed. Complete the information required, sign and date the form. Follow the return instructions on the form.
- Once your enrollment is processed, MassMutual will send you a confirmation report. You should keep this for your records.
- After you've received your confirmation, you can access your account and take advantage of all of our online tools at www.retiresmart.com. Select "Register for Online Access" to create your Username, Password and PIN. You will use this PIN on our voice response phone system.

Access your retirement account – anytime, anywhere.

Your quarterly statements will be delivered to your online account - to access your statements, simply log into your account at www.retiresmart.com, and your statement will be posted to your account in Portable Document Format (PDF). To view the PDF, it is required you have Adobe® Acrobat® viewer software installed on your personal computer. The software is available for download, free of charge, from the Adobe® website.

If you do not have the ability to access and retain PDF documents on your personal computer, then paper statements are available, free of charge, via U.S. mail - to elect paper delivery of your quarterly statements please contact our Participant Information Center at 1-800-743-5274 or change your election under the "My Preferences" tab on www.retiresmart.com.

Choosing investments that are right for you.

Following the simple steps outlined in this guide may help you become more confident with your investment decisions.

If you don't make a choice, your plan will invest your contributions in an asset allocation option on your behalf. This option is selected based on your date of birth and a projected retirement age of 65. (You may want to consider a different option if this is not your intended retirement age.) Offering professional management and monitoring as well as diversification all in one investment, it becomes more conservative as your retirement date approaches. You can change this option any time you wish.

Generally target retirement date (lifecycle) investment options are designed to be held beyond the presumed retirement date to offer a continuing investment option for the investor in retirement. The year in the investment option name refers to the approximate year an investor in the option would plan to retire and likely would stop making new contributions to the investment option. However, investors may choose a date other than their presumed retirement date to be more

conservative or aggressive depending on their own risk tolerance.

Target retirement date (lifecycle) investment options are designed for participants who plan to withdraw the value of their accounts gradually after retirement. Each of these options follows its own asset allocation path (“glide path”) to progressively reduce its equity exposure and become more conservative over time. Options may not reach their most conservative allocation until after their target date. Others may reach their most conservative allocation in their target date year. Investors should consider their own personal risk tolerance, circumstances and financial situation. These options should not be selected solely on a single factor such as age or retirement date. Please consult the prospectus (if applicable) pertaining to the options to determine if their glide path is consistent with your long-term financial plan. Target retirement date investment options’ stated asset allocation may be subject to change. A target date fund may not achieve its objective and/or you could lose money on your investment in the fund. You may experience losses near, at, or after the target date. There is no guarantee of the fund's principal value, including at the target date, or that the fund will provide adequate income at and through your retirement.

Understanding asset allocation.

Determining your asset allocation is an important first step in choosing investment options in your workplace retirement plan. Asset allocation is how you divide your savings among different investment types such as stocks, bonds, and short-term investments. Here we highlight **four** basic steps in developing your asset allocation strategy.

Step 1 – Understand the asset classes.

Consider that your choices generally focus on three things: stocks, bonds and short-term investments. These three types of investments are known as the basic “asset classes”:

- **Stocks**, also called equities, are shares of ownership in a company.
- **Bonds**, also called fixed income investments, are loans made to governments or corporations.
- **Short-term investments**, also known as cash equivalents, are designed to maintain their dollar value. Examples include money market funds, certificates of deposit and Treasury bills.

Although the investment menu in your workplace plan may have many options, most will fall into these basic groups, or a combination of them. Please note that asset allocation doesn't ensure a profit or protect against loss in a declining market, but it may be a sound strategy.

Why it's important.

Each asset class has different characteristics you should be aware of. Historically speaking, stocks have posed greater investment risk than the other asset classes, but have offered the potential for the highest return. Short-term

investments have offered lower returns in exchange for low investment risk. Bonds have tended to fall somewhere in the middle.

Step 2 – Know your tolerance for risk.

How much risk you are comfortable with is an important consideration in choosing your asset allocation strategy. How do you feel about investment risk – the chance that your investments could lose money? You also need to think about inflation risk – the risk that conservative investments such as short-term investments may not keep pace with inflation.

Investing in more than one asset class – or a blend of them – may help to balance your risk. Mixing the various investment types can provide a balance of growth with preservation, because the markets for each investment don't always move in the same direction as each other.¹

Step 3 – Establish your time horizon.

Your tolerance for risk must be considered in the context of your time horizon. Do you have quite a bit of time until you retire or are you getting closer? In the short term, the most volatile investments, such as stocks, can rise and fall dramatically. **Past performance is not indicative of future performance.**

If you need your money within the next few years, you might want to avoid putting a large percentage into a single asset class that could dip in value in the short term. On the other hand, assuming you have six years or more before you will need your money, you may consider investing a percentage of your savings in investments that offer greater potential for return. That's because you have

more time to potentially ride out short-term fluctuations in the value of your investments.

Step 4 – Determine your asset allocation strategy.

The participant website offers tools and resources to help. To determine which strategy may be right for you, check out the Risk Quiz. Log into your account » My Account » Investment Selection » Risk Quiz.

Revisit your strategy once a year and after major life events to ensure it is still in line with your current needs and outlook. You may want to consider adjusting the proportions of stocks, bonds and short-term investments as you get closer to retirement. Remember, everyone's situation will differ, and you should consult a financial advisor about your own particular situation.

Learn more.

The right asset allocation strategy can help you maintain your confidence through market ups and downs. You can learn more about asset allocation at **www.retiresmart.com**. If you have questions, call **1-800-743-5274**.

¹ <http://www.sec.gov/investor/pubs/assetallocation.htm>

Past performance is no guarantee of future results. The information provided is not written or intended as specific tax or legal advice. MassMutual, its subsidiaries, employees and representatives are not authorized to give tax or legal advice. Individuals are encouraged to seek advice from their own tax or legal counsel.

Your plan's investment options.

The portfolios below are built out of the investment options available in your plan*:

		INVESTMENT PORTFOLIOS				
ASSET CATEGORY	INVESTMENT NAME	Short Term	Conservative	Moderate	Aggressive	Ultra Aggressive
Stable Value	SF Guaranteed	95%	21%	6%	2%	
Intermediate Term Bond	Sel Strategic Bnd Fd (Western)	5%	49%	34%	14%	
High Yield Bond	Prm Hgh Yld Fd (Barings)					
Asset Allocation/ Lifestyle	Invesco Equity and Income Fund					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2005 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt Blnd Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2010 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2015 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2020 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2025 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2030 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2035 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2040 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2045 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2050 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2055 Fd					
Asset Allocation/ Lifecycle	MM Sclt T.Rowe Pr Rtmt 2060 Fd					
Large Cap Value	American Century Equity Inc Fd		2%	3%	4%	5%
Large Cap Value	Invesco Comstock Fund		1%	3%	4%	5%
Large Cap Core	Select Eq Opps Fd(Wllngtn/ TRP)		5%	9%	13%	17%
Large Cap Core	Vanguard 500 Index Fund		5%	9%	13%	17%
Large Cap Growth	Sel TRP/LS Blue Chip Growth Fd		2%	3%	4%	5%
Large Cap Growth	AmerCentury Ultra Fund		1%	3%	4%	5%

Your plan's investment options.

ASSET CATEGORY	INVESTMENT NAME	INVESTMENT PORTFOLIOS				
		Short Term	Conservative	Moderate	Aggressive	Ultra Aggressive
Mid Cap Value	Wells Fargo Spec Mid Cp Val Fd			1%	2%	1%
Mid Cap Core	Vanguard Mid Cap Index Fund		2%	6%	6%	7%
Mid Cap Growth	Sel Md Cp Gr Fd (TRP/ Frontier)			1%	2%	1%
Small Cap Value	Wells Fargo Spec Sm Cap Val Fd		1%	1%	2%	2%
Small Cap Core	Vanguard Small Cap Index Fund		3%	6%	7%	9%
Small Cap Growth	JP Morgan Small Cap Growth Fd		1%	1%	2%	2%
Intl/Global Large Core	Sel Overseas Fund (MFS/ Harris)		5%	10%	15%	17%
Intl/Global Large Growth	Invesco Oppenheimer Global Fd			1%	2%	3%
REITs	Cohen&Steers Real Est Scrts Fd		2%	3%	4%	4%
Specialty	Franklin Utilities Fund					
Specialty	BlackRock Hlth Scncs Op- prts Fd					

*Investment allocation strategies are a convenient way of allocating your account among certain of the plan's individual investment options. Any investment allocation strategies included in these materials are not intended to be investment advice or recommendations to you and may or may not be appropriate for your circumstances. In applying investment allocation strategies to your individual circumstances, you should consider your other assets, income and investments as well as your risk tolerance. If you direct your contributions or current account balance to an investment allocation strategy, your contributions or account balance will be invested in each of the individual investment alternatives in the percentages indicated for the strategy. The plan may offer other investment options not included in the strategies and the individual investment alternatives included in the strategies may also be available on a stand-alone basis. The CustomChoice Strategies chart lists asset classes, along with their weightings in the allocation strategy.

RISK DISCLOSURES FOR CERTAIN ASSET CATEGORIES – PLEASE NOTE THAT YOUR PLAN MAY NOT OFFER ALL OF THE INVESTMENT TYPES DISCUSSED BELOW.

Please consider an investment option's objectives, risks, fees and expenses carefully before investing. This and other information about the investment option can be found in the applicable prospectuses or summary prospectuses, if any, or fact sheets for the investment options listed, which are available from your plan sponsor, the participant website at www.retiresmart.com or by contacting our Participant Information Center at 1-800-743-5274 between 8:00 a.m. and 8:00 p.m. ET, Monday through Friday. Please read them carefully before investing.

If a retirement plan fully or partially terminates its investment in the Guaranteed Interest Account (GIA), Super Flex (SF) Guaranteed, Fixed Interest Account or Separate Account Guaranteed Interest Contract (SAGIC) investment options, the plan receives the liquidation value of its investment, which may either be more or less than the book value of its investment. As a result of this adjustment, a participant's account balance may be either increased or decreased if the plan fully or partially terminates the contract with MassMutual.

Government/Retail Money Market Funds:

You could lose money by investing in the fund. Although the fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. The fund may impose a fee upon the sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Money Market Floating NAV:

You could lose money by investing in the fund. Because the share price of the fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. The fund may impose a fee upon the sale of your shares or may temporarily suspend your ability to sell shares if the fund's liquidity falls below required minimums because of market conditions

or other factors. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to the fund, and you should not expect that the sponsor will provide financial support to the fund at any time.

Risks of investing in bond and debt securities investments include the risk that a bond issuer will default by failing to repay principal and interest in a timely manner (credit risk) and/or the risk that the value of these securities will decline when interest rates increase (interest rate risk).

Risks of investing in inflation-protected bond investments include credit risk and interest rate risk. Neither the bond investment nor its yield is guaranteed by the U.S. Government.

High yield bond investments are generally subject to greater market fluctuations and risk of loss of income and principal than lower yielding debt securities investments.

Investments in value stocks may remain undervalued for extended periods of time, and the market may not recognize the intrinsic value of these securities.

Investments that track a benchmark index are professionally managed investments. However, the benchmark index itself is unmanaged and does not incur fees or expenses and cannot be purchased directly for investment.

Investments in growth stocks may experience price volatility due to their sensitivity to market fluctuations and dependence on future earnings expectations.

Investments in companies with small or mid market capitalization ("small caps" or "mid caps") may be subject to special risks given their characteristic narrow markets, limited financial resources, and less liquid stocks, all of which may cause price volatility.

International/global investing can involve special risks, such as political changes and currency fluctuations. These risks are heightened in emerging markets. Other trading restrictions may apply. Please see the investment's prospectus for more details.

A significant percentage of the underlying investments in aggressive asset allocation portfolio options have a higher than average risk exposure. Investors should consider their risk tolerance carefully before choosing such a strategy.

An investment with multiple underlying investments (which may include MassMutual RetireSmart and any other offered proprietary or non-proprietary asset-allocation, lifestyle, lifecycle or custom blended investments) may be subject to the expenses of those underlying investments in addition to those of the investment itself.

Investments may reside in the specialty category due to 1) allowable investment flexibility that precludes classification in standard asset categories and/or 2) investment concentration in a limited group of securities or industry sectors. Investments in this category may be more volatile than less-flexible and/or less-concentrated investments and may be appropriate as only a minor component in an investor's overall portfolio.

Participants with a large ownership interest in a company or employer stock investment may have the potential to manipulate the value of units of this investment option through their trading practices. As a result, special transfer restrictions may apply. This type of investment option presents a higher degree of risk than diversified investment options under the plan because it invests in the securities of a single company.

Investments that invest more of their assets in a single issuer or industry sector (such as company stock or sector investments) involve additional risks, including unit price fluctuations, because of the increased concentration of investments.

A participant will be prohibited from transferring into most mutual funds and similar investments if they have transferred into and out of the same investment within the previous 60 days. Certain stable value, guaranteed interest, fixed income and other investments are not subject to this rule. This rule does not prohibit participants from transferring out of any investment at any time.

Excessive Trading Policy: MassMutual strongly discourages plan participants from engaging in excessive trading. The MassMutual Excessive Trading Policy helps protect the interests of long-term investors like you. If you would like to view the MassMutual Excessive Trading Policy, please visit MassMutual's participant website at www.retiresmart.com. In addition, you cannot transfer into any investment options if you have already made a purchase followed by a sale (redemption) involving the same investment within the last sixty days.

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Enrollment Form

Deferred Compensation Plan for Employees of Onondaga County
County of Onondaga
63205-1-1

This form is for first time enrollments only. Updates to your existing account will not be processed based on this form.

1 Enter your personal information (Please print clearly)

- ☐ Employee ☐ Surviving Beneficiary (attach notice of death form)
☐ Alternate Payee (attach a QDRO form)

Participant's Name (First, Middle Initial, Last)		Participant's Social Security Number (SSN)
Street Address	Apt. No	Birthdate: mm - dd - yyyy
City	State	Zip
()	()	
Daytime Phone	Evening Phone	Email Address

Marital Status: ☐ Married ☐ Single or Legally Separated ☐ Check here to sign up for email notification*

Plan Administrator Use Only

(Form cannot be processed without this required information and signature)

Hire Date ____/____/____ Plan Entry Date ____/____/____

Payroll Frequency: ☐ Monthly (12/Yr) ☐ Semi-Monthly (24/Yr) ☐ Bi-Weekly (26/Yr) ☐ Weekly (52/Yr)

Years of credited services as of last plan year end: _____ (if this information is **NOT** provided, MassMutual will assume the employee has completed a year of service for each year since hire date.)

As Plan Administrator, I acknowledge receipt, accuracy, completeness including participant's signature.

Plan Administrator Signature

Date

2 Choose your payroll deduction method

- ☐ **Before-Tax Contribution:** \$_____ or _____% of my compensation each pay period for deposit to my before-tax account (not to exceed 80.00%). Each before-tax contribution amount cannot exceed any applicable limit set by the Plan. In addition, total before-tax contributions to all qualified retirement plan(s) you participate in cannot exceed \$19,500 for the 2020 calendar year.

If you reach age 50 any time during the calendar year or are over 50, you may be eligible to contribute up to an additional \$6,500 as a catch-up contribution for the 2020 calendar year. Please check with your Plan Administrator.

- ☐ **Decline Plan Participation:** I elect to make no contributions (0%) at this time. I understand I may revoke this election at any time or I may change this election as allowed by the Plan.

Enrollment Form

Deferred Compensation Plan for Employees of Onondaga County
County of Onondaga
63205-1-1

3

Choose one of the investment strategies below

Your investment strategies are outlined on the following pages. **Choose the selection that works for you.**

IMPORTANT NOTE: This investment election applies to your rollover and all future contributions. Investment allocation strategies are a convenient way of allocating your account among certain of the plan's individual investment options. Any investment allocation strategies included in these materials are not intended to be investment advice or recommendations to you and may or may not be appropriate for your circumstances. In applying investment allocation strategies to your individual circumstances, you should consider your other assets, income and investments as well as your risk tolerance. If you direct your contributions or current account balance to an investment allocation strategy, your contributions or account balance will be invested in each of the individual investment alternatives in the percentages indicated for the strategy. The plan may offer other investment options not included in the strategies and the individual investment alternatives included in the strategies may also be available on a stand-alone basis. The Investment Portfolio chart lists asset classes, along with their weightings in the allocation strategy. Additional investment options may exist that are not included in the portfolio. When selecting your investments, choose only **ONE** portfolio from any of the strategies, sign the form and you're done **OR** you can select individual investment options (under Option C) and build your own portfolio. See below for a complete list of options. The investment options available in this plan may change at the direction of the Plan Sponsor. Elections made on this form may be modified to follow the intent of those changes. If you choose investments for only one source group, contributions from other sources will be allocated to those chosen investments.

Until you make your investment selection, your contributions will be invested in the Target Asset Allocation Investment Option listed below which has the target retirement date closest to your 65th birthday. If you are near, at or past your 65th birthday, your contributions will be invested in the target asset allocation investment option that shows no target retirement date. Following your enrollment, you will receive a transaction confirmation that will tell you specifically in which Target Asset Allocation Option your contributions have been invested. Subject to certain restrictions, you may redirect your contributions to any other investment option under the Plan at any time.

A: Age-Based Investment Option

(If you make a selection here, do not make a selection under any other option. If multiple Investment Options are selected, you will be defaulted as instructed above.)

If you select one of these Asset Allocation investment options, based on the date closest to the year you plan to retire, you're almost done! Check the appropriate box and go to Step 4.

- | | | | |
|--|--|--|--|
| <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2005 Fd | <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2010 Fd | <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2015 Fd | <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2020 Fd |
| <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2025 Fd | <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2030 Fd | <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2035 Fd | <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2040 Fd |
| <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2045 Fd | <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2050 Fd | <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2055 Fd | <input type="radio"/> MM Slct T.Rowe Pr Rtmt 2060 Fd |

Target Asset Allocation Investment Options are single solutions that offer professional management and monitoring as well as diversification – all in one investment. Each investment option has an automatic process that invests more conservatively as retirement nears and the options are named to coincide with a particular retirement date. Your plan is designed to invest your contributions into one of these options as the default investment based on your date of birth and a projected retirement age of 65. You may always choose new investment options at any time.

or

Enrollment Form

Deferred Compensation Plan for Employees of Onondaga County
County of Onondaga
63205-1-1

B: Custom Portfolio Investment Option

(If you make a selection here, do not make a selection under any other option. If multiple Investment Options are selected, you will be defaulted as instructed above.)

Custom portfolios, based on different risk tolerances, have been arranged using the individual funds available to your plan. The amounts of each individual fund contained in the different Custom Portfolio options are shown on the right side of the following fund list. If you select one of these Custom Portfolio investment options, you're almost done! Check the appropriate box and go to Step 4.

- ☐ Short Term ☐ Conservative ☐ Moderate ☐ Aggressive
☐ Ultra Aggressive

or

C: Individual Fund Option

(If you enter selections here, do not make a selection under any other option above. If multiple Investment Options are selected, you will be defaulted as instructed above.)

First, select the individual funds in which you wish to invest. Then, enter the percentage of your contributions to be invested in each of those funds in the space provided. Make sure selections are whole percentages and total 100%. If the percentages below are not whole percentages or do not total 100%, your contributions will be invested in the plan's default fund detailed above. When they add up to 100%, you're almost done! Go to Step 4.

Breakdowns for Custom Portfolio Options

Investment Options	EE Contribution	Rollover	Short Term	Conservative	Moderate	Aggressive	Ultra Aggressive
SF Guaranteed	_____ %	_____ %	95%	21%	6%	2%	
Sel Strategic Bnd Fd (Western)	_____ %	_____ %	5%	49%	34%	14%	
Prm Hgh Yld Fd (Barings)	_____ %	_____ %					
Invesco Equity and Income Fund	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2005 Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt Blnd Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2010 Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2015 Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2020 Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2025 Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2030 Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2035 Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2040 Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2045 Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2050 Fd	_____ %	_____ %					

Enrollment Form

Deferred Compensation Plan for Employees of Onondaga County
County of Onondaga
63205-1-1

Breakdowns for Custom Portfolio Options

Investment Options	EE Contribution	Rollover	Short Term	Conservative	Moderate	Aggressive	Ultra Aggressive
MM Slct T.Rowe Pr Rtmt 2055 Fd	_____ %	_____ %					
MM Slct T.Rowe Pr Rtmt 2060 Fd	_____ %	_____ %					
American Century Equity Inc Fd	_____ %	_____ %		2%	3%	4%	5%
Invesco Comstock Fund	_____ %	_____ %		1%	3%	4%	5%
Select Eq Opps Fd(Wllngtn/TRP)	_____ %	_____ %		5%	9%	13%	17%
Vanguard 500 Index Fund	_____ %	_____ %		5%	9%	13%	17%
Sel TRP/LS Blue Chip Growth Fd	_____ %	_____ %		2%	3%	4%	5%
AmerCentury Ultra Fund	_____ %	_____ %		1%	3%	4%	5%
Wells Fargo Spec Mid Cp Val Fd	_____ %	_____ %			1%	2%	1%
Vanguard Mid Cap Index Fund	_____ %	_____ %		2%	6%	6%	7%
Sel Md Cp Gr Fd (TRP/Frontier)	_____ %	_____ %			1%	2%	1%
Wells Fargo Spec Sm Cap Val Fd	_____ %	_____ %		1%	1%	2%	2%
Vanguard Small Cap Index Fund	_____ %	_____ %		3%	6%	7%	9%
JP Morgan Small Cap Growth Fd	_____ %	_____ %		1%	1%	2%	2%
Sel Overseas Fund (MFS/Harris)	_____ %	_____ %		5%	10%	15%	17%
Invesco Oppenheimer Global Fd	_____ %	_____ %			1%	2%	3%
Cohen&Steers Real Est Scrts Fd	_____ %	_____ %		2%	3%	4%	4%
Franklin Utilities Fund	_____ %	_____ %					
BlackRock Hlth Scncs Oppts Fd	_____ %	_____ %					

***All contributions must equal 100%**

Enrollment Form

Deferred Compensation Plan for Employees of Onondaga County
County of Onondaga
63205-1-1

4 Sign, date and return your forms

Please provide your signature and return to your Plan Administrator. After receipt of this form, MassMutual will send you written confirmation once your account is established.

I understand I may revoke this election at any time or I may change this election as allowed by the Plan. I understand that the maximum annual limit on contributions is determined under the Plan document and the Internal Revenue Code. Any amounts contributed may be reduced or returned to me as required by these limitations.

X

Participant's Signature

Date

IMPORTANT NOTE: IF YOU ENROLL BY MAILING THIS FORM TO MASSMUTUAL, BUT THEN SUBSEQUENTLY CHANGE YOUR ELECTIONS THROUGH THE AUTOMATED PHONE LINE OR THE PARTICIPANT WEBSITE, THE MOST RECENTLY DATED ACTIVITY WILL PREVAIL. FOR YOUR MAILING ADDRESS, PROVIDE EITHER A STREET ADDRESS OR P.O. BOX, NOT BOTH. IF YOU PROVIDE BOTH, MASSMUTUAL WILL FOLLOW USPS GUIDELINES AND USE THE P.O. BOX AS YOUR MAILING ADDRESS.

If you have selected an investment strategy and one or more of the strategy's component investments listed on your form has been replaced, any contributions that would have been invested in that component investment will be invested according to the investment allocation in effect at the time the strategy is implemented and the new component will be listed on your confirmation form.

Investors should consider an investment's objectives, risks, charges and expenses carefully before investing. For this and other information, see the prospectus available from your plan sponsor, on the participant website at www.retiresmart.com or by contacting our Participant Information Center at 1-800-743-5274 between 8:00 a.m. and 8:00 p.m. ET, Monday through Friday. Read it carefully before investing.

***By selecting 'Email Notification' in Section 1 above, you are consenting to receive electronic notices regarding materials for your retirement plan. You will receive an email notification that will contain a link to our secure participant website log-in page. Once you log-in to your account, you will be able to view all available plan-related documents referenced in the electronic notice. You may view the documents online, save them to your personal computer, or print them for your records. Documents will be posted either in HTML or PDF format. By electing 'Email Notification,' you are verifying that you possess the ability to view and download HTML and PDF documents. These documents may include, for example, a Summary Plan Description (SPD), a Summary of Material Modification, individual benefit statements, investment related information, as well as any notice or communication required under the Internal Revenue Code (IRC), including but not limited to, loan notes, notices to interested parties and notices of available distribution options. In the event of an invalid email address, full mailbox, or spam settings, MassMutual will send printed material via U.S. mail. The election or cancellation date of the email notification program may result in notifications remaining in their existing delivery method for a short period of time. Adobe Acrobat Reader version 7.0 or higher is required to view retirement statements. Visit www.adobe.com for a free download.**

To get the most out of your plan...You may also roll over your eligible distributions from your prior employer's qualified plan.

Beneficiary Form

Deferred Compensation Plan for Employees of Onondaga County
County of Onondaga
63205-1-1

1 Enter your personal information (Please print clearly)

Participant's Name (First, Middle Initial, Last)		Participant's Social Security Number (SSN)
Street Address		Apt. No
City	State	Zip
()	()	
Daytime Phone	Evening Phone	Email Address

Marital Status: ☐ Married ☐ Single or Legally Separated

2 Designate Beneficiary(ies) (Check one box only)

A: ☐ Spouse Primary Beneficiary: I would like my spouse to receive my entire account balance upon my death.

Spouse's Name	Spouse's Social Security Number (SSN)	Spouse's Date of Birth: mm - dd - yyyy
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or

B: ☐ Non-Spouse or Multiple Primary Beneficiaries: I would like the following person(s) to receive my account balance upon my death: **[Up to 3 decimals may be entered when assigning percentages (e.g., 33.333%, 33.334%, etc.), but the total for all primary beneficiaries must equal 100%.]**

Beneficiary Name	Social Security Number	Relationship	Percentage %
Beneficiary Name	Social Security Number	Relationship	Percentage %
Beneficiary Name	Social Security Number	Relationship	Percentage %
Beneficiary Name	Social Security Number	Relationship	Percentage %

Contingent Beneficiary (Optional)

If no Primary Beneficiary listed on the front of this form is alive upon my death, I designate the following person(s) to receive my account balance upon my death: **[Up to 3 decimals may be entered when assigning percentages (e.g., 33.333%, 33.334%, etc.), but the total for all contingent beneficiaries must equal 100%.] Plan Administrator: Please retain a copy of this form in your files.**

Beneficiary Name	Social Security Number	Relationship	Percentage %
Beneficiary Name	Social Security Number	Relationship	Percentage %
Beneficiary Name	Social Security Number	Relationship	Percentage %

Beneficiary Form

Deferred Compensation Plan for Employees of Onondaga County
County of Onondaga
63205-1-1

Beneficiary Name	Social Security Number	Relationship	Percentage
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3 Sign, date and return your forms

By signing this form, I certify that the information I have provided is accurate, to the best of my knowledge. I have read the Instructions and understand the elections I have made. I designate the above beneficiary(ies) to receive my account balance at my death. I understand that this beneficiary designation supersedes and replaces any previous designation.

I hereby authorize MassMutual to contact me or the Plan Administrator if they have any questions or require further documentation to process this form.

Participant's Signature	Date
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In addition to submitting this completed form for processing, please keep a copy of this form for your records.

Please provide your signature and mail to: **MassMutual, PO Box 219062, Kansas City, MO 64121.**

For overnight delivery, mail to: **MassMutual, 430 W. 7th St., Kansas City, MO 64105.**

After receipt of this form, MassMutual will send you written confirmation once your account is updated.

IMPORTANT: IF NO VALID BENEFICIARY DESIGNATION IS ON FILE OR IF DESIGNATION CANNOT OTHERWISE BE DETERMINED, BENEFICIARY(IES) WILL BE DETERMINED BY THE PLAN FIDUCIARY ACCORDING TO PLAN DOCUMENTS AND APPLICABLE LAW. FOR YOUR MAILING ADDRESS, PROVIDE EITHER A STREET ADDRESS OR P.O. BOX, NOT BOTH. IF YOU PROVIDED BOTH, MASSMUTUAL WILL FOLLOW USPS GUIDELINES AND USE THE P.O. BOX AS YOUR MAILING ADDRESS.

Sample wording for use in completing this form:

To Designate

1. Your estate
2. The trustee of the Trust established under your Will
3. The trustee of your Revocable or Irrevocable Trust

Use This Wording

- Executors or Administrators of my estate
- (Name of trustee) as trustee, or the then acting trustee, of the Trust established under (your name) Will dated (date of Will)
- (Name of trustee) as trustee, or the then acting trustee, of the (name of Trust) established on (date of Trust)

Trust as Beneficiary:

Before designating a trust as the beneficiary of your plan benefit, you should consult an attorney with expertise in trusts and estates law. Some of the factors to consider include:

1. Who is going to be the beneficiary – your spouse, a minor child – and what are their financial needs?
2. Are the protections of a trust desirable?
3. What are the income tax consequences of designating a trust as beneficiary?

The following requirements must be satisfied before your trust beneficiaries will be treated as your retirement plan's designated beneficiary:

1. The trust must be valid under state law.
2. The trust must be irrevocable or must, by its terms, become irrevocable on your death.
3. The trust's beneficiaries must be identifiable from the trust instrument.
4. You must provide trust documentation to the retirement plan administrator.
5. All trust beneficiaries must be individuals.

Rolling over Money you have in another Retirement Plan to MassMutual

Why you may consider consolidation¹:

- **SAVE TIME:** consolidation may potentially simplify your retirement planning by placing all of your assets in a single account to manage.
- **POTENTIAL TO SAVE MONEY:** consolidation may reduce your fees and maintenance costs.
- **HELP INCREASE DIVERSIFICATION:** consolidating accounts may eliminate duplication of investment classes across your qualified plan account. Duplication may reduce diversification which can negatively impact your investment strategy.

MassMutual can help

Through MassMutual's Concierge Service, a dedicated team of consolidation specialists can help you transfer your plan assets to a single provider — helping you better manage your retirement planning.



Obtain and complete
related forms



Contact
financial institutions



Confirm
fund transfers

Take action now, don't wait!

To learn more, please contact your MassMutual representative today
or call MassMutual at 1-800-854-0647, 8 a.m. to 8 p.m. ET Mon. – Fri.

¹ Consolidation of assets and contract exchanges may not be appropriate and suitable for all participants based on their individual situations. Participants should consult an independent financial advisor prior to choosing to consolidate assets. Additionally, you should consider the impact of transfer fees, the loss of vested benefits and/or surrender charges that may be imposed when funds are rolled over.

Participant Fees Disclosure Statement

Plan: Deferred Compensation Plan for Employees of Onondaga County
Subscription: County of Onondaga
Created: 06/10/2020

Account Number: 63205-1-1

You are a participant or beneficiary in an individual account plan that allows you to direct the investment of your account balance. This disclosure statement is designed to provide you with information that will allow you to make informed decisions when selecting and managing your investments. This disclosure statement advises you of information regarding fees and expenses associated with your participation in the Plan. The General Plan Information section provides information regarding the operation of the Plan. The Comparative Chart section provides information about the Plan's designated investment alternatives including investment performance, operating expenses, fees, trade restrictions, and an industry benchmark relative to each non-fixed interest investment to help you make investment decisions. If the Plan has target date or life cycle investment allocation alternatives, this disclosure statement will include a Target Date Asset Allocation Investment Alternatives section providing information on how the investment allocation will change over time, when it will reach its most conservative asset allocation, the relevance of any dates used to describe the investment and the participant age groups for whom the investment alternative is designed. If your Plan's administrative expenses could be deducted from your account balance, this disclosure statement will include an Administrative Expenses section. The Administrative Expenses section provides information regarding charges for administrative expenses incurred on a Plan-wide basis that may be deducted from your account. An Individual Expenses section regarding individual expenses that may be deducted from your account, will also be included in this disclosure statement if the Plan charges participants and beneficiaries for the expenses associated with individual transactions.

Please be mindful that:

- An investment's past performance is no guarantee of future results.
- To help achieve long-term retirement security, you should give careful consideration to the benefits of a well-balanced and diversified investment portfolio.
- Fees are only one of several factors you should consider when making investment decisions. For more information and an example demonstrating the long-term effect of fees and expenses, please visit: <https://www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/a-look-at-401k-plan-fees.pdf> and <https://www.dol.gov/agencies/ebsa/about-ebsa/our-activities/resource-center/publications/understanding-your-retirement-plan-fees>.

General Plan Information

Investment Instructions: In order to direct your Plan investments, you must make your election at www.retiresmart.com or contact the MassMutual Participant Information Center at 1-888-606-7343. If you are currently not participating in the Plan and have questions concerning plan provisions, including eligibility requirements, contact Jacki Copani at (315) 435-2135 or Civic Center, 14th Floor 421 Montgomery Street, Syracuse NY 13202.

Limitations on Instructions:

- You may give investment instructions on any day the New York Stock Exchange is open for business.
- Any trade restrictions specific to an individual investment alternative will be listed in the Comparative Chart.



General Plan Information (continued)

- If the Plan offers publicly traded employer securities as a designated investment alternative, certain discretionary transactions requested by participants who are officers, directors, or principal stockholders that involve employer securities will have trading restrictions imposed as additional reporting of those transactions is required.

Designated Investment Alternatives (DIA): The Plan provides designated investment alternatives into which you can direct the investment of your Plan funds. The Comparative Chart below identifies these designated investment alternatives and provides information regarding the alternatives.

Investment Manager: For information regarding the designated investment manager for the Plan (if any), please contact your Plan Sponsor.

Glossary of Terms: Please visit <http://www.massmutual.com/glossary> for a glossary of investment terms relevant to the investment options under this Plan. This glossary is intended to help you better understand your options.

Comparative Chart

This section includes important information to help you compare the investment alternatives offered under your Plan. If you want additional information about your investment options, you can go to the specific Internet web site addresses shown below or you can contact the MassMutual Participant Information Center at 1-888-606-7343. If you are currently not participating in the Plan, contact Jacki Copani at (315) 435-2135 or Civic Center, 14th Floor 421 Montgomery Street, Syracuse NY 13202. To help achieve long-term retirement security, you should give careful consideration to the benefits of a well-balanced and diversified investment portfolio. Spreading your assets among different types of investments can help you achieve a favorable rate of return, while minimizing your overall risk of losing money. This is because market or other economic conditions that cause one category of assets, or one particular security, to perform very well often cause another asset category, or another particular security, to perform poorly. If you invest more than 20% of your retirement savings in any one company, industry or class of investment, your savings may not be properly diversified. Although diversification is not a guarantee against loss, it is an effective strategy to help you manage investment risk. In deciding how to invest your retirement savings, you should take into account all of your assets, including any retirement savings outside of the Plan. No single approach is right for everyone because, among other factors, individuals have different financial goals, different time horizons for meeting their goals, and different tolerances for risk. It is also important to periodically review your investment portfolio, your investment objectives, and the investment alternatives under the Plan to help ensure that your retirement savings will meet your retirement goals. Diversification does not assure a profit and does not protect against a loss in a declining market.

Document Summary

This section focuses on the performance of investment alternatives that have a fixed or stated rate of return. The chart shows the annual rate of return of each such alternative, the term or length of time that you will earn this rate of return and other information relevant to performance.

Comparative Chart (continued)

Fixed Return Investments			
Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile		Annual Rate of Return	Term
CASH			
SF Guaranteed STABLE VALUE 09/06/2019 MassMutual		2.45%	Semi-annually
			The rate of return listed was effective beginning on 09/04/2019, is reset Semi-annually, and is calculated net of certain contract expenses. Under the terms of your group annuity contract, there is a guaranteed minimum gross interest rate of 3.00%. Although the gross rate of return provided under the contract will never fall below 3.00%, the net rate of return may, in some instances, be less than 3.00% after applicable expenses are deducted from the contract. Current rate of return information is available by contacting the MassMutual Participant Information Center at 1-888-606-7343. If you are currently not participating in the Plan, contact Jacki Copani at (315) 435-2135 or Civic Center, 14th Floor 421 Montgomery Street, Syracuse NY 13202.
www.MassMutual.com/FF/RM3500.PDF			

This section focuses on the performance of investment alternatives that do not have a fixed or stated rate of return. The chart shows how these alternatives have performed over time and allows you to compare them with an appropriate benchmark for the same time periods. **Past performance does not guarantee how the investment alternative will perform in the future. Your investment in these alternatives could lose money.**

Information about an investment alternative's principal risks is available on the Investment Profile. You can obtain a specific Investment Profile using the web site address provided for the specific investment alternative in the Comparative Chart.

This chart also shows fee and expense information for the investment alternatives under your Plan. It shows the Total Annual Operating Expense which are expenses that reduce the rate of return of the investment alternative. Any shareholder-type fees are also disclosed. These fees are in addition to Total Annual Operating Expenses. Expense information is reflected as of the date of this report and may change over time. Please note that expense information for each investment alternative reflected on the Investment Profile is updated from time to time. Please see the Investment Profile which includes current expense information as well as the date the expenses were most recently updated.

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments			Fees and Expense Information		
	Average Annual Total Return as of 05/31/2020	Benchmark		Gross Total Annual Operating Expenses	Net Total Annual Operating Expenses**	Shareholder-Type Fees, Restrictions and Other
BOND						
Sel Strategic Bnd Fd (Western) INTERMEDIATE TERM BOND 01/01/2005 MassMutual Select www.MassMutual.com/FF/msbxz.PDF	1 Year 5 Year 10 years 8.50% 4.38% 4.89% *Since Fund Inception if less than 10 years	1 Year 5 Year 10 years 9.42% 3.96% 3.93% BBgBarc US Agg Bond	10 Year or *Since Fund Inception if less than 10 years	As a % \$1000 0.49%	As a % \$1000 \$4.90	
Prm High Yld Fd (Barings) HIGH YIELD BOND 10/01/2000 MassMutual Premier www.MassMutual.com/FF/mphxz.PDF	-1.85% 3.71% 7.17%	1.33% 4.28% 6.72% BBgBarc US Corp High Yield		0.54%	0.54%	\$5.40
ASSET ALLOCATION						
Invesco Equity and Income Fund ASSET ALLOCATION/LIFESTYLE 09/25/2012 Invesco www.MassMutual.com/FF/ieifx.PDF	0.99% 3.92% 7.24%	7.78% 5.51% 7.33% Lipper Balanced Index		0.40%	0.39%	\$3.90
MM Sict T.Rowe Pr Rmt Blnd Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmbvx.PDF	5.85% N/A 3.66%	7.08% 4.20% 3.71% S&P Target Date Ret Inc TR		0.61%	0.34%	\$3.40

Comparative Chart (continued)

	Variable Return Investments						Fees and Expense Information				
Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Average Annual Total Return as of 05/31/2020			Benchmark			Gross Total Annual Operating Expenses		Net Total Annual Operating Expenses**		Shareholder-Type Fees, Restrictions and Other
	1 Year	5 Year	10 years	1 Year	5 Year	10 years	As a %	Per \$1000	As a %	Per \$1000	
	10 Year or *Since Fund Inception if less than 10 years			10 Year or *Since Fund Inception if less than 10 years							
MM Sict T.Rowe Pr Rtm 2005 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmfbx.PDF	5.88%	N/A	3.86%	7.08%	4.20%	3.71%	1.25%	\$12.50	0.37%	\$3.70	
MM Sict T.Rowe Pr Rtm 2010 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmxbx.PDF	6.10%	N/A	3.80%	6.94%	4.45%	3.44%	0.53%	\$5.30	0.37%	\$3.70	
MM Sict T.Rowe Pr Rtm 2015 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmfbx.PDF	6.25%	N/A	3.64%	6.64%	4.67%	3.08%	0.57%	\$5.70	0.40%	\$4.00	
MM Sict T.Rowe Pr Rtm 2020 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmfbx.PDF	6.44%	N/A	3.43%	6.52%	4.91%	2.78%	0.48%	\$4.80	0.43%	\$4.30	
MM Sict T.Rowe Pr Rtm 2025 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmtwx.PDF	6.50%	N/A	3.20%	6.15%	5.10%	2.20%	0.53%	\$5.30	0.47%	\$4.70	
MM Sict T.Rowe Pr Rtm 2025 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmtfx.PDF											

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments			Fees and Expense Information		
	Average Annual Total Return as of 05/31/2020		Benchmark	Gross Total Annual Operating Expenses	Net Total Annual Operating Expenses**	Shareholder-Type Fees, Restrictions and Other
	1 Year	5 Year	10 Year or *Since Fund Inception if less than 10 years	As a %	As a %	
MM Sict T.Rowe Pr Rtmnt 2030 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmtrx.PDF	6.64%	N/A	2.98%	5.71% S&P Target Date 2030 TR	5.23% 1.57%	\$5.00
MM Sict T.Rowe Pr Rtmnt 2035 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmtrjx.PDF	6.51%	N/A	2.70%	5.17% S&P Target Date 2035 TR	5.32% 0.90%	\$5.20
MM Sict T.Rowe Pr Rtmnt 2040 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmtrfx.PDF	6.51%	N/A	2.49%	4.79% S&P Target Date 2040 TR	5.39% 0.46%	\$5.40
MM Sict T.Rowe Pr Rtmnt 2045 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmftx.PDF	6.34%	N/A	2.33%	4.51% S&P Target Date 2045 TR	5.41% 0.17%	\$5.50
MM Sict T.Rowe Pr Rtmnt 2050 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmddx.PDF	6.39%	N/A	2.34%	4.40% S&P Target Date 2050 TR	5.48% N/A	\$5.50

Comparative Chart (continued)

Variable Return Investments										Fees and Expense Information									
Average Annual Total Return as of 05/31/2020										Benchmark		Gross Total Annual Operating Expenses		Net Total Annual Operating Expenses**		Shareholder-Type Fees, Restrictions and Other			
10 Year or *Since Fund Inception if less than										10 Year or *Since Fund Inception if less than		As a %		As a %					
1 Year 5 Year 10 years										1 Year 5 Year 10 years		As a %		Per \$1000					
Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	MM Sict T.Rowe Pr Rtmt 2055 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmdjx.PDF										10 Year or *Since Fund Inception if less than		10 Year or *Since Fund Inception if less than		As a %		Per \$1000		
	6.35% N/A 2.33%										4.27% 5.51% -0.09%		0.71%		\$7.10		\$5.50		
	S&P Target Date 2055 TR																		
Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	MM Sict T.Rowe Pr Rtmt 2060 Fd ASSET ALLOCATION/LIFECYCLE 02/16/2018 MassMutual Select www.MassMutual.com/FF/mmskx.PDF										10 Year or *Since Fund Inception if less than		10 Year or *Since Fund Inception if less than		As a %		As a %		
	6.38% N/A 2.33%										4.50% 5.62% 0.01%		1.41%		\$14.10		\$5.60		
	S&P Target Date 2060+ TR																		
STOCK																			
Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	American Century Equity Inc Fd LARGE CAP VALUE 07/27/2013 American Century www.MassMutual.com/FF/aeudx.PDF										10 Year or *Since Fund Inception if less than		10 Year or *Since Fund Inception if less than		As a %		As a %		
	0.21% 7.52% 8.07%										-2.54% 4.13% 7.05%		0.57%		\$5.70		\$5.70		
	Russell 3000 Value Idx																		
Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Invesco Comstock Fund LARGE CAP VALUE 09/25/2012 Invesco www.MassMutual.com/FF/icsfx.PDF										10 Year or *Since Fund Inception if less than		10 Year or *Since Fund Inception if less than		As a %		As a %		
	-8.42% 2.30% 7.45%										-1.63% 4.35% 9.19%		0.41%		\$4.10		\$4.00		
	Russell 1000® Value Idx																		
Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Select Eq Opps Fd(Wllngtn/TRP) LARGE CAP CORE 07/01/2000 MassMutual Select www.MassMutual.com/FF/mfvzx.PDF										10 Year or *Since Fund Inception if less than		10 Year or *Since Fund Inception if less than		As a %		As a %		
	3.48% 8.20% 12.99%										12.55% 9.58% 13.07%		0.74%		\$7.40		\$7.40		
	Russell 1000® Idx																		

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments			Fees and Expense Information		
	Average Annual Total Return as of 05/31/2020		Benchmark	Gross Total Annual Operating Expenses	Net Total Annual Operating Expenses**	Shareholder-Type Fees, Restrictions and Other
	1 Year	5 Year	10 Year or *Since Fund Inception if less than 10 years	1 Year	5 Year	10 Year or *Since Fund Inception if less than 10 years
Vanguard 500 Index Fund LARGE CAP CORE 01/01/2004 Vanguard www.MassMutual.com/FF/vfiacx.pdf	12.80%	9.83%	13.12%	12.85%	9.88%	13.16%
				0.04%	0.04%	0.04%
				\$0.40	\$0.40	\$0.40
Sel TRP/LS Blue Chip Growth Fd LARGE CAP GROWTH 01/01/2004 MassMutual Select www.MassMutual.com/FF/mbcx.pdf	22.56%	14.99%	16.87%	26.26%	14.51%	16.08%
						Russell 1000® Growth Index
				0.64%	0.64%	0.64%
				\$6.40	\$6.40	\$6.40
AmerCentury Ultra Fund LARGE CAP GROWTH 06/02/2006 American Century www.MassMutual.com/FF/mbcx.pdf	31.28%	15.57%	16.53%	26.26%	14.51%	16.08%
						Russell 1000® Growth Index
				0.62%	0.62%	0.62%
				\$6.20	\$6.20	\$6.20
Wells Fargo Spec Mid Cp Val Fd MID CAP VALUE 01/01/2009 Wells Fargo www.MassMutual.com/FF/auldx.pdf	-3.86%	3.88%	10.54%	-6.91%	2.56%	9.47%
						Russell Mid Cap Value Idx
				0.72%	0.72%	0.72%
				\$7.20	\$7.20	\$7.20
Vanguard Mid Cap Index Fund MID CAP CORE 01/01/2004 Vanguard www.MassMutual.com/FF/wfprx.pdf	4.81%	6.19%	11.54%	2.61%	5.93%	11.42%
						Russell Mid Cap Idx
				0.05%	0.05%	0.05%
				\$0.50	\$0.50	\$0.50
www.MassMutual.com/FF/vimax.pdf						

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments			Fees and Expense Information		
	Average Annual Total Return as of 05/31/2020		Benchmark	Gross Total Annual Operating Expenses		Net Total Annual Operating Expenses** Shareholder-Type Fees, Restrictions and Other
	1 Year	5 Year	10 Year or *Since Fund Inception if less than 10 years	1 Year	5 Year	10 Year or *Since Fund Inception if less than 10 years
Sel Md Cp Gr Fd (TRP/Frontier) MID CAP GROWTH 08/01/2000 MassMutual Select www.MassMutual.com/FF/mefzx.PDF	11.34%	9.90%	13.93%	17.03%	10.73%	14.08%
				Russell Mid Cap Growth Index		
Wells Fargo Spec Sm Cap Val Fd SMALL CAP VALUE 01/01/2009 Wells Fargo www.MassMutual.com/FF/esprx.PDF	-10.75%	3.02%	8.20%	-14.69%	0.71%	6.53%
				Russell 2000® Value Idx		
Vanguard Small Cap Index Fund SMALL CAP CORE 01/01/2004 Vanguard www.MassMutual.com/FF/vsmx.pdf	-1.45%	4.69%	10.44%	-3.44%	3.72%	9.23%
				Russell 2000® Idx		
JP Morgan Small Cap Growth Fd SMALL CAP GROWTH 12/01/2010 JP Morgan www.MassMutual.com/FF/jgsmx.PDF	21.31%	14.18%	14.45%	7.32%	6.34%	10.77%
				Russell 2000® Growth Index		
Sel Overseas Fund (MFS/Harris) INTL/GLOBAL LARGE CORE 05/02/2001 MassMutual Select www.MassMutual.com/FF/moszx.PDF	-4.44%	0.31%	5.37%	-2.82%	0.79%	5.27%
				MSCI EAFE Idx		

Comparative Chart (continued)

Name of Investment Type of Investment Investment Inception Date Investment Manager Investment Profile	Variable Return Investments			Fees and Expense Information		
	Average Annual Total Return as of 05/31/2020		Benchmark	Gross Total Annual Operating Expenses	Net Total Annual Operating Expenses**	Shareholder-Type Fees, Restrictions and Other
	1 Year	5 Year	10 Year or *Since Fund Inception if less than 10 years	1 Year	5 Year	10 Year or *Since Fund Inception if less than 10 years
Invesco Oppenheimer Global Fd INTL/GLOBAL LARGE GROWTH 12/23/1969 Invesco www.MassMutual.com/FF/oglix.PDF	10.90%	7.07%	10.63%	5.43%	5.29%	8.48%
				0.67%	\$6.70	0.67%
						\$6.70
Cohen& Steers Real Est Scrts Fd REITS 04/01/2006 Cohen & Steers www.MassMutual.com/FF/csrix.PDF	-6.68%	5.71%	10.00%	-14.56%	2.46%	8.16%
				FTSE NAREIT Equity REIT TR		
				0.79%	\$7.90	0.79%
						\$7.90
BlackRock Hlth Scns Opprts Fd SPECIALTY 12/02/2006 BlackRock www.MassMutual.com/FF/shskx.PDF	28.27%	10.29%	16.97%	21.18%	8.92%	16.03%
				S&P 1500 Health Care		
				0.76%	\$7.60	0.76%
						\$7.60
Franklin Utilities Fund SPECIALTY 01/01/2006 Franklin/Templeton www.MassMutual.com/FF/fufrx.PDF	3.08%	8.69%	11.69%	6.09%	9.86%	11.77%
				S&P 500 Ig/Utilities		
				0.53%	\$5.30	0.50%
						\$5.00

*The benchmark since inception return is calculated from the month-end of the investment's inception.

Comparative Chart (continued)

**The Net Total Annual Operating Expenses include any investment expense waiver/reimbursement arrangements documented in the investment's prospectus and may be lower than the Gross Total Annual Operating Expenses due to the indicated expense waivers or reimbursements, which may be subject to expiration. Additional information regarding investment expense waivers specific to each investment is included in this document, if available, including whether the waiver is contractual or voluntary and its date of expiration. All available information about investment expense waivers is current and complete as of the date of this report. If information regarding the waivers is incomplete, it is because our third-party data provider was unable to make the information available. For some investments, the Net Total Annual Operating Expense ratio figure reflects the subtraction of interest expense, which results from an investment's use of certain other investments. This expense is required to be treated as an investment expense for accounting purposes, but is not payable to the investment adviser or subadviser (if applicable). For more information, please see the investment profile or the prospectus that corresponds to the investment, which are both available from MassMutual. Contact the MassMutual Participant Information Center at 1-888-606-7343. If you are currently not participating in the Plan, contact Jacki Copani at (315) 435-2135 or Civic Center, 14th Floor 421 Montgomery Street, Syracuse NY 13202.

Other share classes of an investment or its underlying investment (depending upon the investment) may have existed longer, which may account for any pre-inception performance shown. If pre-inception performance is shown, it is generally the performance of an older share class of the investment itself or its underlying investment (depending upon the investment) adjusted for fees and expenses of the newer share class. However, if using the expenses of the newer share class rather than the expenses of the older share class (due to lower expenses of the newer share class) would result in better performance, then pre-inception performance represents that of the older share class without any expense adjustment.

The cumulative effect of fees and expenses can substantially reduce the growth of your retirement savings. Visit the U.S. Department of Labor's Website for an example showing the long-term effect of fees and expenses at <https://www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/a-look-at-401k-plan-fees.pdf>. Fees and expenses are only one of many factors to consider when you decide to invest in an alternative. You may also want to think about whether an investment in a particular option, along with your other investments, will help you achieve your financial goals.

To obtain additional information about the Plan's designated investment alternatives, please obtain the Investment Profiles for the specific investment alternatives you are interested in using the web site addresses provided in the Comparative Chart or go to www.retiresmart.com.

You have the right to request the following information relating to the Plan's investment alternatives: copies of prospectuses or any short-form or summary prospectus or similar documents, financial statements or reports, a statement of the value of each investment available under the Plan as well as the valuation date, and a list of the assets that make up the portfolio of each investment under the Plan that constitute "plan assets" within the meaning of U.S. Department of Labor regulations and the value of each of these assets. In addition, you may request a free paper copy of the information available on the web site(s) listed on the Comparative Charts above and the Glossary of Investment Terms. This information can be obtained by contacting Jacki Copani at (315) 435-2135 or Civic Center, 14th Floor 421 Montgomery Street, Syracuse NY 13202 or MassMutual Participant Information Center, P.O. Box 219062, Kansas City, MO 64121-9062, 1-888-606-7343.

Administrative Expenses

If fees/expenses are incurred for plan administration, such fees/expenses may be charged to the Plan. As an individual account Plan, these Administrative Fees may be charged against your account balance to the extent they are not charged against forfeitures or paid by the Plan Sponsor. As a result, your account balance may be reduced for your share of any Plan Administrative fees charged against your account. These fees may be charged on a pro rata basis (i.e., based on the relative size of each participant and beneficiary's account) and/or a per capita basis (i.e., each participant and beneficiary is charged the same fee). If Plan Administrative fees are charged to your account balance, the actual dollar amount will be reported to you in the calendar quarter following the quarter in which the charge occurs. Please refer to your quarterly account statement for information on any fees actually charged to your account.

Please note that the Plan Administrative fees which appear below are not reflected in the total annual operating expenses of any of the Plan's investment options. However, in addition to the Plan Administrative fee amounts listed in this section, some of the Plan's Administrative fees may have been paid through revenue sharing arrangements maintained with one or more of the Plan's investment options in which you may be invested.

Pro Rata Fees

Plan administration fees/expenses that may be charged pro rata include, but are not limited to, fees/expenses for legal, accounting, audit, compliance, intermediary/advisor, investment, recordkeeping, and trustee services (collectively "Plan Administration Fees").

Per Capita Fees

Plan administration fees/expenses that may be charged on a per capita basis are fees/expenses for recordkeeping services.

Administrative Expense Name	Description of Expense	Expense Amount/Schedule	Allocation Method
Asset Charge	An asset charge is assessed to each plan participant account under the plan to partially offset general plan administrative costs including tracking contributions, plan investments, expenses, availability of services such as the participant website, call center, benefit calculations, and processing distributions.	.43 % \$0 - \$999,999,999	The plan's asset charge is a percentage of total plan assets. This percentage is provided in this chart. One twelfth of this fee will be assessed against participant accounts each month. When assessed, it will be prorated among participant accounts. Your share of the fee will be determined by multiplying the plan's total asset charge by a ratio that is equal to the value of your account balance divided by the value of all account balances under the plan.

If the Plan's Sponsor normally pays the fees for administrative services performed by MassMutual, and the payment is overdue in accordance with the Plan Sponsor's Administrative Services Agreement with MassMutual, the Plan Sponsor is authorizing that the outstanding expenses will be deducted from participants' account balances on a pro

Administrative Expenses (continued)

rata basis to the extent allowed by the Plan's Administrative Services Agreement. Your share of the overdue expense will be determined by multiplying the fee by a ratio that is equal to the value of your account balance divided by the value of all account balances under the plan.

Contract Discontinuance and Termination Services

If at some point in the future the Plan discontinues the investment provider relationship with MassMutual either by transitioning the Plan to a new record keeper or because of the complete termination of the Plan, additional fees may be charged depending on the terms of the investment contract/agreement in effect at that time and certain administrative services performed in conjunction with the event.

When investment contracts are discontinued, the participants' accounts could be assessed contract surrender charges, termination asset charges, or market value adjustments. Your Plan's specific investment contract/agreement will identify which of these discontinuance fees are in effect. The discontinuance fees may also be dependent on the conditions of the market at the point in time the investment contract/agreement is discontinued.

If any special reports are requested during the transition of the plan to a new record keeper, a \$300 fee may be charged for each report.

Adjustment Fees

On occasion, the Plan Sponsor may request that certain calculations be performed to make adjustments to specific participants' accounts or to calculate and allocate earnings. The fee for such a service is \$75 per hour.

If the Plan's Sponsor directs MassMutual to deduct the adjustment fee from participants' account balances, the fee will be deducted on a pro rata basis. Your share of the expense will be determined by multiplying the fee by a ratio that is equal to the value of your account balance divided by the value of all participants' account balances under the plan.

In addition, there may be other administrative services performed by service providers outside of MassMutual during the next 12 months. However, it is unknown at this time if any services by other service providers will be required, what fees may be charged and whether those fees will be paid from plan assets. Examples of other administrative services that may occur outside of MassMutual and that may be paid by plan assets if not paid by the Plan Sponsor include but are not limited to: legal services; third party administrator services; accounting services; plan audits; and intermediary/advisor services. If any fees for services performed outside of MassMutual are to be deducted from participant accounts, they may be deducted on a pro rata or a per capita basis. The Plan Sponsor will direct which allocation method will be used when the fee for the service is submitted for payment to the service provider or reimbursement to the Plan Sponsor.

Individual Expenses

The Plan may impose certain charges against individual participants' accounts rather than charge them against the Plan as a whole. These charges may arise based on your use of a feature available under the Plan (e.g., participant loans), or based on the application of applicable law (e.g., processing a qualified domestic relations order in case of a divorce). Any fee or expense charged against your account will be reported to you in your quarterly account statement in the calendar quarter following the quarter in which the charge occurs (and/or, as applicable, in any transaction statement).

Individual Expenses (continued)

Activity Type	Current Fees
Insufficient Funds	\$75
Qualified Domestic Relation Order	\$500
Reprocessing (adjustment)	\$75
Special Mailing	\$40

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Notes:

Notes:

MassMutual
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