MassMutual

MassMutual@WORK

Your Plan Review
MassMutual @work for you

Plumbers and Steamfitters Local 486 Severance & Annuity/401(k) Plan

Current Period: April 1, 2019 - June 30, 2019
Prior Period: January 1, 2019 - March 31, 2019

The MassMutual Difference

A strong mutual company | Focused on outcomes

165+
years

3M
participants

70+
years servicing retirement plans

$ MassMutual has paid dividends[2] to eligible participating policy owners every year since 1869.

Among the highest financial Strength ratings of any company[1]

A.M. Best	A++
Fitch Ratings	AA+
Moody's Investors Service	Aa3
Standard & Poor's	AA+

OUTCOMES MATTER

PLAN DESIGN	EDUCATION	ADMINISTRATION
Optimize plan design	Deliver actionable employee education	Make plan administration easy

products & services for a variety of markets

businesses · unions · nonprofit organizations · government entities · professional and multiple employer

and continued innovation.

Viability℠ · PlanSMART℠ Analysis · MapMyFinances℠

demonstrating proven success

"superior service"

"always positive"

Client perspectives

"incredibly responsive"

"passion for service"

Award-winning
participant call centers[3]

Top-performing
11 years in a row
2008-2018

94%
Client retention

[1] Financial strength ratings are as of May 28, 2019. Ratings are for Massachusetts Mutual Life Insurance Company (MassMutual) (Springfield, MA 01111-0001) and its subsidiaries, C.M. Life Insurance Co.
and MML Bay State Life Insurance Co. (Enfield, CT 06082). Ratings are subject to change.
[2] Dividends are not guaranteed.
[3] ContactCenterWorld top-performing call center 11 years in a row (2008-2018).

RS-41492-02

We have a Mutual interest in financial wellness

Demographic shifts and rising healthcare costs

Fragmented employee benefits experience

Convergence of Risks

Potential liability of financially unprepared workforce

Need for simple, holistic solutions not being met

Financial Stress on Employees is Real[1]

34% say they know little or nothing about their employer based benefits.

37% find managing their personal finances "somewhat" or "very difficult."

42% Two in five respondents say they are clueless about whether or not they are on track to retire comfortably.

40% Personal finances are a distraction at work making them less productive

Insights

Insight 1
There is a large chasm between how employees feel about their finances and how they want to feel.

Insight 2
Proximity drives prioritization.

Insight 3
Holistic approach and plan can drive employee action.

[1] Source: 2015 MassMutual Employee Benefits Security Study: https://www.massmutual.com/~/media/files/MM-EE-Benefits-Security-Study-Report.pdf

Service

Performance

Retirement outcomes

Continued innovation

Service@work

Executive Summary

Plan Statistics

	3/31/2019	6/30/2019	Plan Trend
Total Plan Assets	$251,346,151	$259,375,742	▲ 3%
Total Outstanding Loan Balances	$1,407,706	$1,445,411	▲ 3%
Participant Contributions			
Participant	$836,034	$975,179	▲ 17%
Rollover	$4,810	$126,129	▲ 2522%
Employer Contributions			
Employer Contributions	$2,074,127	$2,166,746	▲ 4%
Distributions			
Withdrawals	($535,188)	($690,056)	▲ 29%
Terminations	($2,315,742)	($2,515,827)	▲ 9%
Loans	($43,447)	($42,123)	▼ 3%
Expenses*	($818)	($520)	▼ 36%
Investment Income	$28,385,098	$7,992,165	▼ 72%

Notes

*The expenses shown reflect expenses deducted from plan assets. Expenses billed directly to the plan sponsor or expenses related to the expense ratio of investments under the plan are not reflected. The Contribution data displays the combined dollar value of Contributions & Loan Repayments, if applicable.

Executive Summary

Participant Activity

	3/31/2019	6/30/2019	Plan Trend
Total Participants	2,746	2,747	▲ 0%
Average Account Balance	$91,532	$94,421	▲ 3%
Average Number of Investments	4.3	4.3	◄ ► 0%
Number of Outstanding Loans	178	182	▲ 2%
Percent of Participants With a Loan	5%	6%	▲ 20%
Average Loan Balance	$7,908	$7,942	▲ 0%
Total Visits to Website	2,656	2,564	▼ 3%

Notes

Performance@work

Plan Balances by Investment

Asset Allocation

Investment Options	Balances as of 3/31/2019	Percentage*	Plan Activity April 01, 2019 through June 30, 2019						Balances as of 6/30/2019	Percentage*
			Contributions	Other Activity	Transfers	Distributions	Expenses**	Investment Income		
Stable Return II (Wells/Galliard)	$18,333,600	7.29%	$110,030	$0	$115,822	($508,497)	($39)	$87,881	$18,138,797	6.99%
Prem Short-Duration Bond (Barings)	$1,143,573	0.45%	$14,438	$0	($4,958)	($764)	$0	$12,518	$1,164,807	0.45%
Premier Core Bond (Barings)	$9,025,090	3.59%	$83,851	($876)	$160,652	($66,012)	($23)	$288,077	$9,490,758	3.66%
T. Rowe Price Balanced Fund	$16,454,339	6.55%	$156,731	($377)	($381,775)	($42,999)	($82)	$548,782	$16,734,620	6.45%
American Fnds 2010 Target Dt Ret Fd	$1,437,039	0.57%	$4,823	$22,784	$0	($47,368)	$0	$35,692	$1,452,970	0.56%
American Fnds 2015 Target Dt Ret Fd	$4,267,853	1.70%	$18,366	$0	$0	($32,170)	$0	$111,581	$4,365,629	1.68%
American Fnds 2020 Target Dt Ret Fd	$9,930,956	3.95%	$107,039	$0	($216)	($42,332)	$0	$271,604	$10,267,051	3.96%
American Fnds 2025 Target Dt Ret Fd	$19,948,138	7.94%	$178,881	$313	$93,910	($216,966)	($21)	$580,351	$20,584,606	7.94%
American Fnds 2030 Target Dt Ret Fd	$18,471,899	7.35%	$221,735	$812	$1,271	($174,000)	($40)	$554,347	$19,076,024	7.35%
American Fnds 2035 Target Dt Ret Fd	$19,674,123	7.83%	$246,096	$2,129	($1,219)	($14,024)	($10)	$617,988	$20,525,083	7.91%
American Fnds 2040 Target Dt Ret Fd	$12,554,145	4.99%	$216,431	$0	($11,881)	($111,099)	($19)	$390,915	$13,038,493	5.03%
American Fnds 2045 Target Dt Ret Fd	$15,166,530	6.03%	$316,388	$600	($49,545)	($147,899)	$0	$487,570	$15,773,645	6.08%
American Fnds 2050 Target Dt Ret Fd	$10,983,871	4.37%	$359,413	($77)	($18,172)	($17,029)	($69)	$356,022	$11,663,958	4.50%
American Fnds 2055 Target Dt Ret Fd	$5,442,250	2.17%	$274,516	$0	($132)	($8,596)	$0	$178,171	$5,886,209	2.27%
American Fnds 2060 Target Dt Ret Fd	$1,078,732	0.43%	$162,788	$0	($246)	$0	$0	$37,239	$1,278,514	0.49%
Sel Fundamental Val (BrwHnly/BsPt)	$4,588,809	1.83%	$54,007	($255)	($123,866)	($139,342)	($21)	$132,998	$4,512,329	1.74%
MM S&P 500 Index (Northern Trust)	$14,213,130	5.65%	$153,731	($84)	($25,222)	($372,701)	($69)	$590,700	$14,559,484	5.61%
Sel Fundamental Growth (Wellington)	$14,417,918	5.74%	$91,894	$174	$143,100	($351,485)	($34)	$536,224	$14,837,792	5.72%
T. Rowe Price Growth Stock Fund	$26,019,041	10.35%	$208,037	$184	($106,966)	($437,706)	($35)	$962,100	$26,644,654	10.27%
Mid Cap Value (CRM)	$4,975,918	1.98%	$51,516	($898)	$68,060	($28,225)	($7)	$212,925	$5,279,290	2.04%

*Due to rounding, percentages may not total 100 percent.

**The expenses shown reflect expenses deducted from plan assets. Does not include expenses billed directly to the plan sponsor or expenses related to the expense ratio of investments under the plan.

Plan Balances by Investment

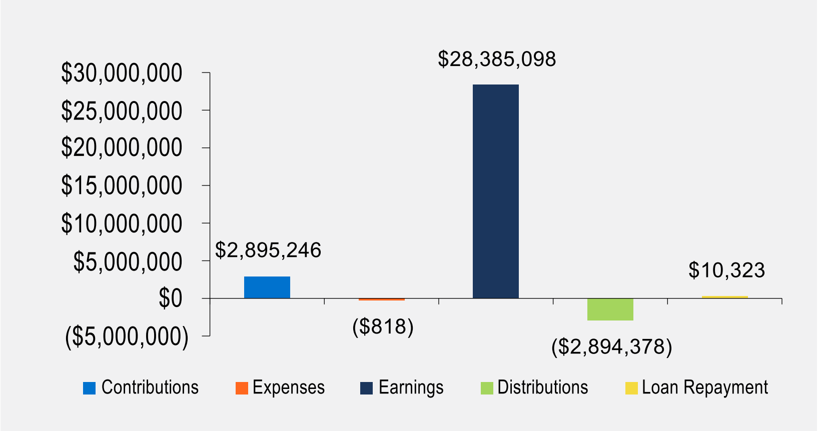
Asset Allocation

Investment Options	Balances as of 3/31/2019	Percentage*	Plan Activity April 01, 2019 through June 30, 2019						Balances as of 6/30/2019	Percentage*
			Contributions	Other Activity	Transfers	Distributions	Expenses**	Investment Income		
Select Mid Cap Gr (TRP/Frontier)	$8,157,014	3.25%	$80,438	$77	$352,653	($34,819)	($13)	$500,302	$9,055,654	3.49%
Sel Small Co Value (AB/Am Century)	$2,373,580	0.94%	$24,078	$29	($89,614)	($13,611)	($7)	$45,873	$2,340,327	0.90%
Small Cap Index (Northern)	$1,883,998	0.75%	$23,782	($228)	($85,500)	($13,232)	($4)	$33,953	$1,842,769	0.71%
EuroPacific Growth (American)	$2,842,491	1.13%	$39,134	($81)	($35,622)	($27,208)	($5)	$109,247	$2,927,954	1.13%
Premier Global (Invesco)	$7,962,114	3.17%	$63,349	$234	($536)	($399,922)	($19)	$309,105	$7,934,325	3.06%
Total	**$251,346,151**	**100%**	**$3,261,490**	**$24,459**	**----**	**($3,248,005)**	**($520)**	**$7,992,165**	**$259,375,740**	**100%**

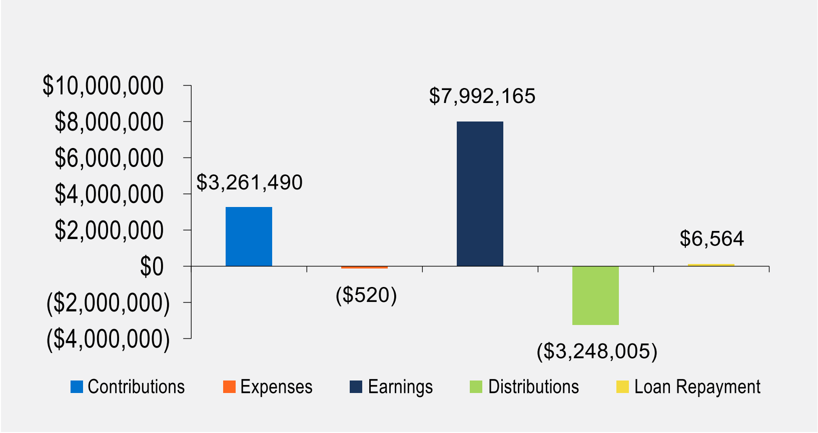
*Due to rounding, percentages may not total 100 percent.
**The expenses shown reflect expenses deducted from plan assets. Does not include expenses billed directly to the plan sponsor or expenses related to the expense ratio of investments under the plan.

Cash Flow Analysis

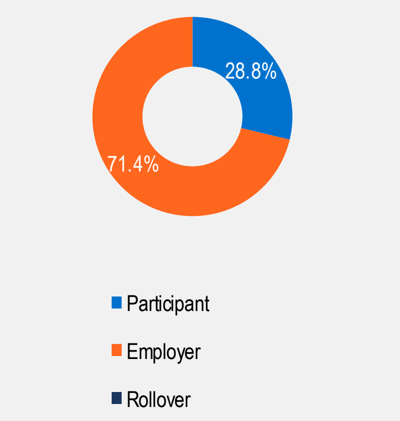
Prior Period 01/01/2019-03/31/2019



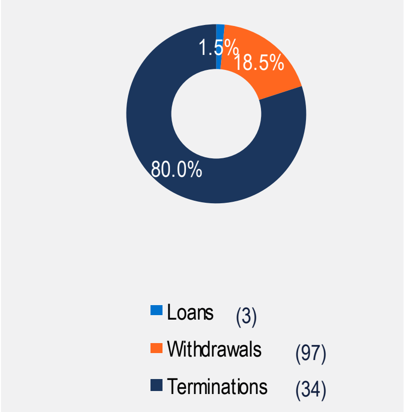
Current Period 04/01/2019-06/30/2019



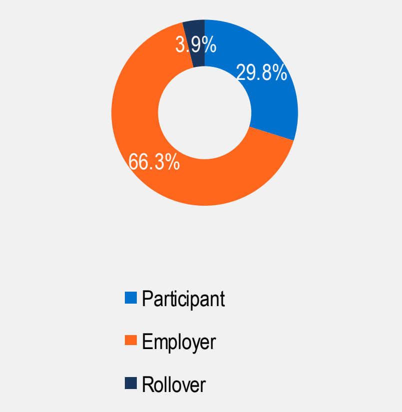
Contribution Analysis*



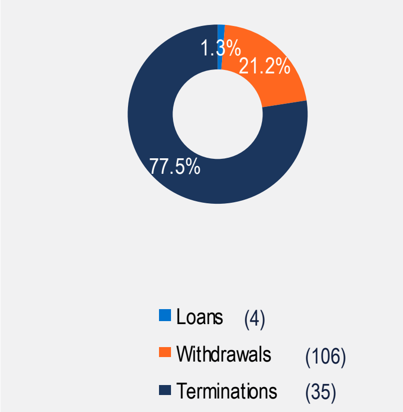
Distribution Analysis



Contribution Analysis*



Distribution Analysis



*The Contribution Analysis Pie Charts display the percentage of the combined dollar value of the Contributions & Loan Repayments

Total Investment Balance

as of 06/30/2019

Participant Demographics

Investment Options	PARTICIPANTS							
	Active	Beneficiary	Retired	Terminated	QDRO	Participants in Option as of 03/31/2019	Participants in Option as of 06/30/2019	Investment Selection Percentage*
Stable Return II (Wells/Galliard)	$16,782,412	$4,843	$346,073	$520,609	$484,860	518	513	3.3%
Prem Short-Duration Bond (Barings)	$1,145,711	$0	$19,021	$75	$0	61	61	0.2%
Premier Core Bond (Barings)	$9,196,352	$16,728	$215,255	$24,045	$38,378	205	207	1.4%
T. Rowe Price Balanced Fund	$16,021,114	$0	$544,284	$101,898	$67,324	211	208	7.5%
American Fnds 2010 Target Dt Ret Fd	$753,234	$51,029	$648,503	$204	$0	33	32	2.6%
American Fnds 2015 Target Dt Ret Fd	$3,314,249	$0	$898,646	$152,696	$39	59	57	2.0%
American Fnds 2020 Target Dt Ret Fd	$10,035,164	$0	$231,242	$625	$21	133	130	4.4%
American Fnds 2025 Target Dt Ret Fd	$19,989,986	$0	$14,528	$6,538	$573,554	366	362	11.4%
American Fnds 2030 Target Dt Ret Fd	$18,774,003	$0	$0	$2,671	$299,351	245	244	7.8%
American Fnds 2035 Target Dt Ret Fd	$19,998,889	$0	$0	$5,179	$521,015	274	278	8.7%
American Fnds 2040 Target Dt Ret Fd	$12,537,564	$0	$0	$2,928	$498,000	252	248	8.1%
American Fnds 2045 Target Dt Ret Fd	$15,501,303	$0	$0	$103	$272,238	272	272	9.2%
American Fnds 2050 Target Dt Ret Fd	$11,559,695	$0	$0	$1,529	$102,733	293	293	9.6%
American Fnds 2055 Target Dt Ret Fd	$5,886,209	$0	$0	$0	$0	241	245	7.7%
American Fnds 2060 Target Dt Ret Fd	$1,278,348	$165	$0	$0	$0	158	165	5.2%
Sel Fundamental Val (BrwHnly/BsPt)	$4,435,264	$0	$9	$44,902	$32,154	188	187	0.7%
MM S&P 500 Index (Northern Trust)	$14,431,759	$514	$33,091	$2,914	$91,207	290	286	1.9%

Total Participants 2747: 2625 Active, 4 Beneficiary, 40 Retired, 34 Terminated, 44 QDRO

*The investment selection percentages reflect participants with an active status. Due to rounding the percentages may not total 100% .

Total Investment Balance

as of 06/30/2019

Participant Demographics

Investment Options	PARTICIPANTS							
	Active	Beneficiary	Retired	Terminated	QDRO	Participants in Option as of 03/31/2019	Participants in Option as of 06/30/2019	Investment Selection Percentage*
Sel Fundamental Growth (Wellington)	$14,694,632	$932	$38,761	$6,405	$97,061	261	262	1.5%
T. Rowe Price Growth Stock Fund	$25,323,437	$10,489	$1,161,872	$31,664	$117,192	381	380	2.6%
Mid Cap Value (CRM)	$5,193,260	$687	$22,206	$5,552	$57,584	241	244	0.8%
Select Mid Cap Gr (TRP/Frontier)	$8,859,713	$0	$5,136	$146,448	$44,358	252	257	1.1%
Sel Small Co Value (AB/Am Century)	$2,320,062	$0	$12,404	$4,338	$3,524	196	194	0.4%
Small Cap Index (Northern)	$1,779,694	$0	$14	$0	$63,061	135	138	0.4%
EuroPacific Growth (American)	$2,844,762	$0	$29	$49	$83,115	160	161	0.7%
Premier Global (Invesco)	$7,847,104	$4,631	$65,482	$2,240	$14,868	260	259	0.9%
Total	**$250,503,920**	**$90,019**	**$4,256,556**	**$1,063,611**	**$3,461,635**	**-----**	**-----**	**100%**

Total Participants 2747: 2625 Active, 4 Beneficiary, 40 Retired, 34 Terminated, 44 QDRO

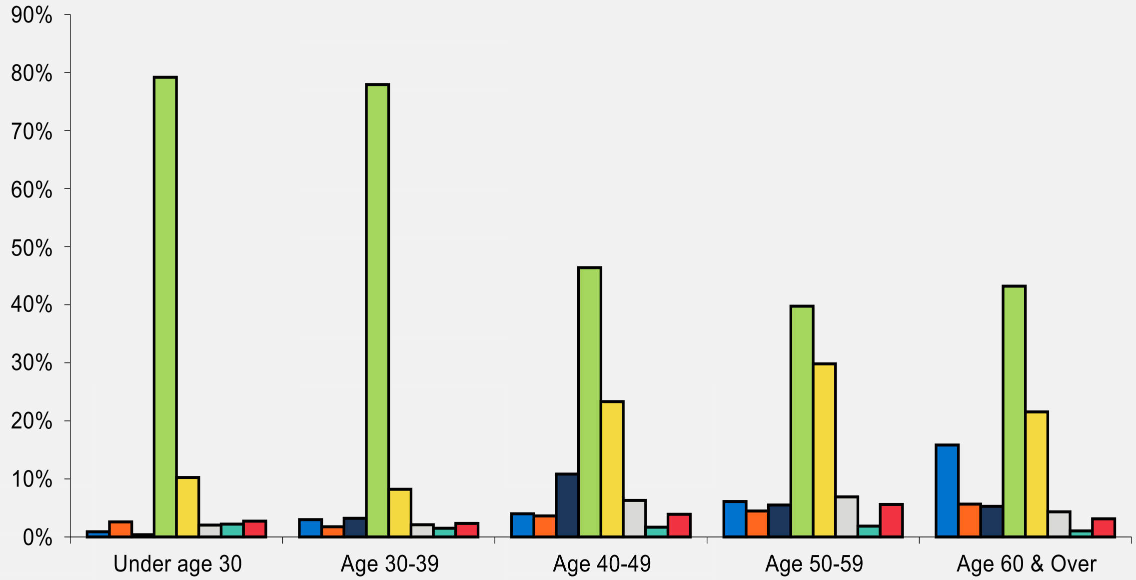
*The investment selection percentages reflect participants with an active status. Due to rounding the percentages may not total 100% .

Retirement outcomes@work

Balances by Age

as of 06/30/2019

Age	Under age 30	Age 30-39	Age 40-49	Age 50-59	Age 60 and Over	Total
Number of Participants	343	639	664	732	369	2,747
Group Balance	$5,614,489	$32,222,253	$68,091,390	$101,572,370	$51,875,238	$259,375,740
Average Account Balance	$16,369	$50,426	$102,547	$138,760	$140,583	$94,421

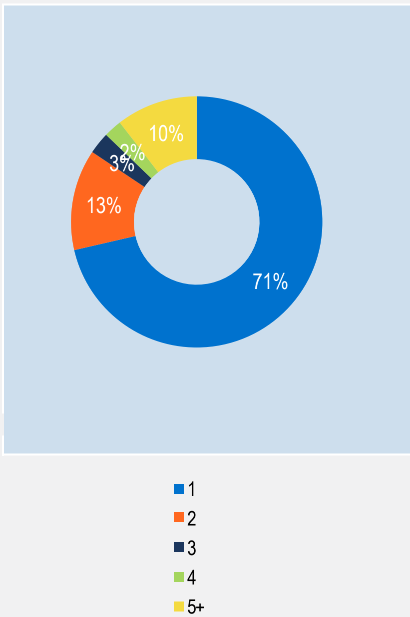


Asset Category:	Under age 30	Age 30-39	Age 40-49	Age 50-59	Age 60 & Over	Total All Ages
Stable Value	$50,173	$960,761	$2,718,947	$6,194,442	$8,214,473	$18,138,796
Fixed Income	$145,699	$565,655	$2,467,291	$4,543,242	$2,933,679	$10,655,566
Asset Allocation/Lifestyle	$7,450	$1,033,616	$7,373,182	$5,587,255	$2,733,117	$16,734,620
Asset Allocation/Lifecycle	$4,444,976	$25,107,629	$31,582,845	$40,369,773	$22,406,957	$123,912,180
Large Cap Equity	$574,563	$2,644,525	$15,870,576	$30,288,441	$11,176,154	$60,554,259
Mid Cap Equity	$114,833	$677,885	$4,281,588	$7,013,958	$2,246,680	$14,334,944
Small Cap Equity	$123,995	$481,891	$1,141,858	$1,893,454	$541,898	$4,183,096
Intl/Global Equity	$152,800	$750,290	$2,655,102	$5,681,806	$1,622,281	$10,862,279

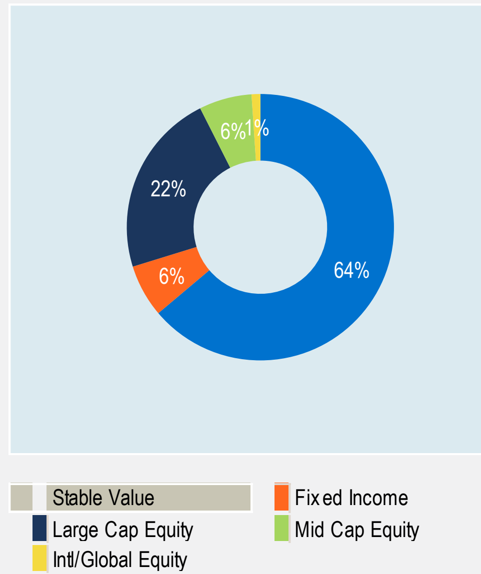
Participant Diversification

04/01/2019 through 06/30/2019

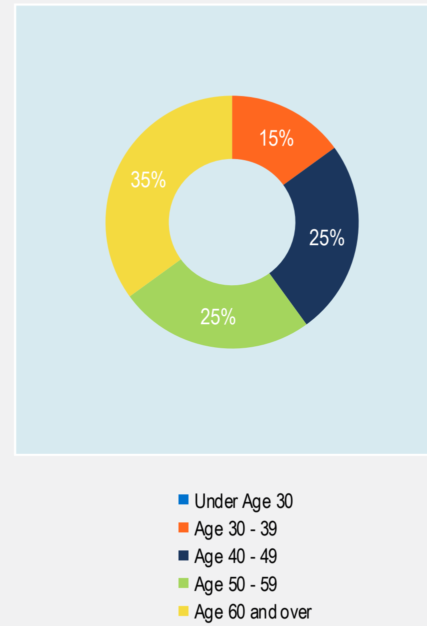
Number of options held by participants



Percentage of participants in one option by asset category group



Percentage of participants in one option in most utilized asset category group by age



	Period Ending 6/30/2017	Period Ending 6/30/2018	Period Ending 06/30/2019	Industry Average *
Average number of options	3.9	4.3	4.3	5.5
Number of participants in one option	1635	N/A	1961	N/A

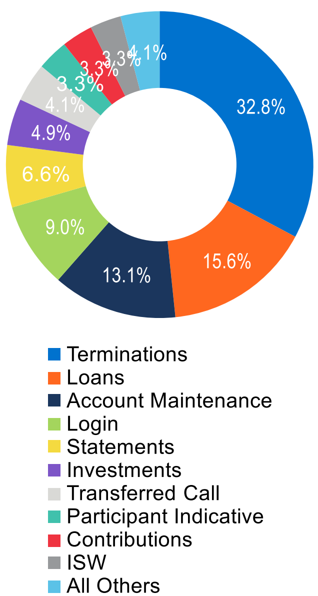
*Source: Hewitt Associates 2016 Universe Benchmarks Report

Participant Interactions

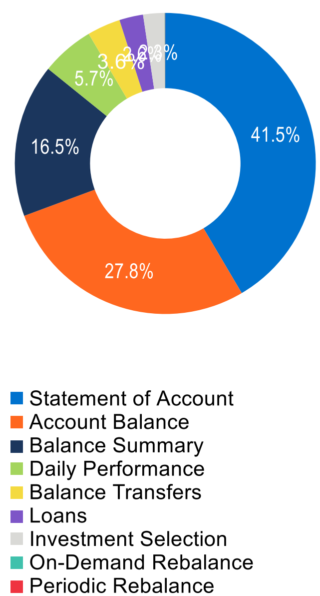
04/01/2019 through 06/30/2019

	Total Visits
Toll Free 800#	16
Call Center	163
Website	2,564

Toll Free 800#



Website (My Account)



Highlights - Website

My Account	551
Research	16

Highlights - Retirement Services Call Center

Loans	22
Statements	9
Investments	6
Participant Indicative	6
Transferred Call	5

Loan Summary

Loan Data

	Your Plan 03/31/2019	Your Plan 06/30/2019	MassMutual Average 12/31/2018	Industry Averages
Number of loans allowed	10	10	2.	1.2*
Average number of loans per participant with loans	1.2	1.2	1.2	Not available
Percentage of participants with loans	5.5%	5.5%	10.7%	14.6%*
Average loan balance	$7,908	$7,942	$8,041	$6,216*
Percentage of plan assets loaned	.6%	.6%	1.5%	0.7%*

	Your Plan 03/31/2019	Your Plan 06/30/2019
Total number of participants with loans	150	152
Total number of outstanding loans	178	182
Average account balance of participants with loans	$170,083	$173,801
Total value of outstanding loans	$1,407,706	$1,445,411

Current Loan Interest Rate = 6.00%

*Source: PSCA's 58th Annual Survey of PS and 401(k) Plans

Continued innovation@work

MassMutual's Commitment to GoingGreen

How we obtained the U.S. Green Building Council's LEED Certification:

- Eliminated Styrofoam cups from all campuses
- Recycled 300 tons of paper and cardboard each year
- Saved more than 5 million gallons of water each year
- Removed single-use plastic straws from all campuses (more than 180,000 plastic straws each year)

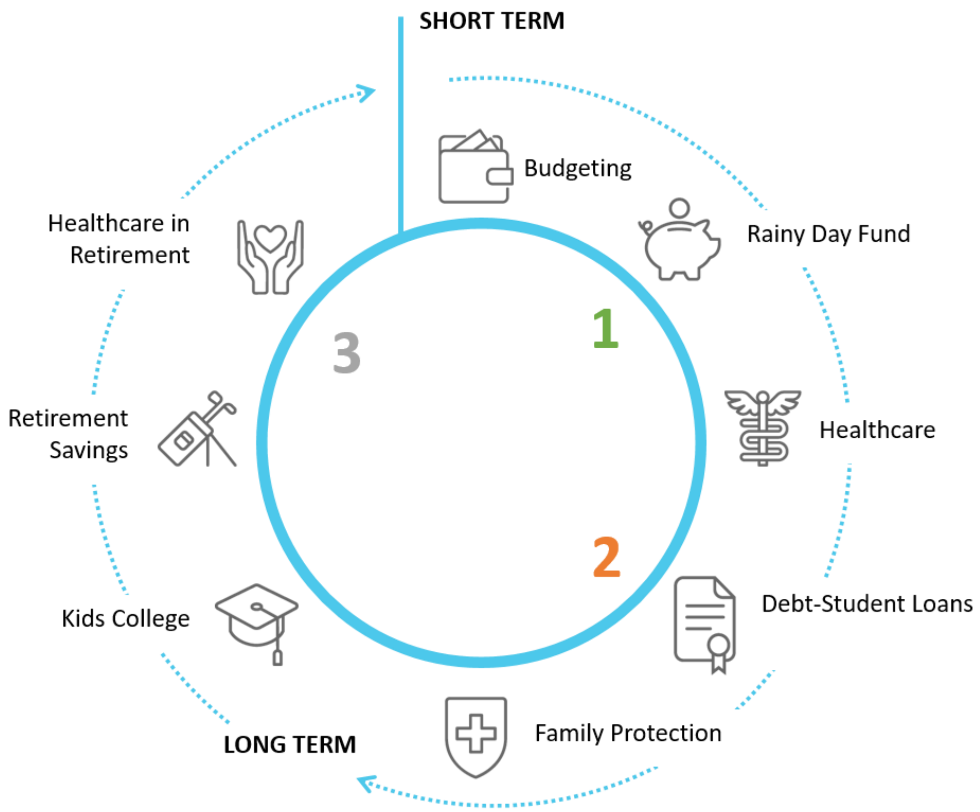
MassMutual's Commitment to GoingGreen

Upcoming changes to our quarterly statement and fee disclosure:

- Members will receive their hardcopy Q2-2019 statement and participant fee disclosure in July
- MassMutual will mail a postcard to members announcing our GoingGreen/e-delivery changes in August
- Members can call MassMutual's Participant Information Center or change their e-delivery preferences through the RetireSMART website after they receive the postcard
- The Q3-2019 statements will follow our new GoingGreen e-delivery statement process
- Participant fee disclosures will be included with the Qualified Default Investment Alternative (QDIA) notice mailings starting in Q4-2019

A dynamic solution for improving financial wellness

MapMyFINANCES Enables participants to make more informed decisions about their finances at every life stage.



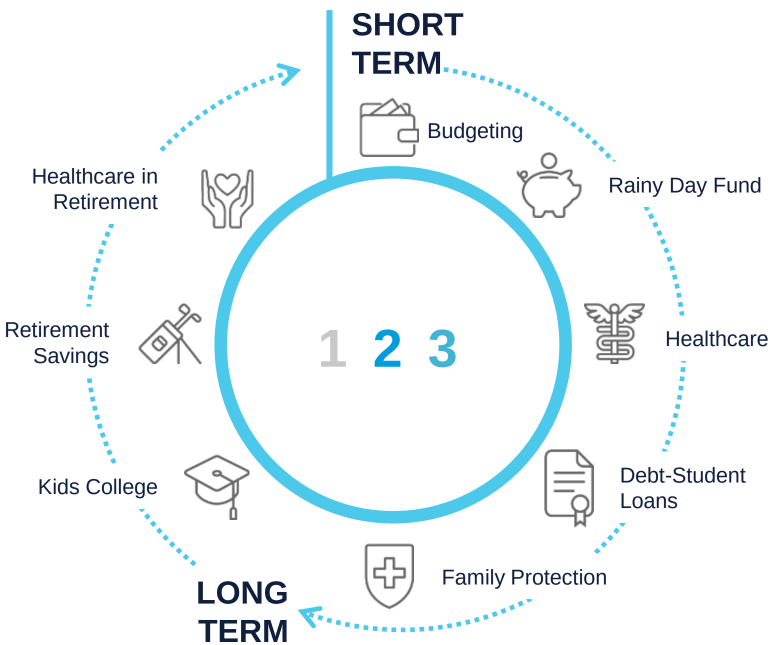
ADVANTAGES

- Creates a unique financial wellness score to help participants gauge their current financial heath.
- Delivers simple, actionable ways for your participants to improve their score.
- Makes your open-enrollment process smoother and more successful.
- Inspires participants to achieve better financial outcomes and ultimately, improve your organization's bottom line.

Help participants with a game plan tailored to their situation

1

We will help prioritize **GOALS**

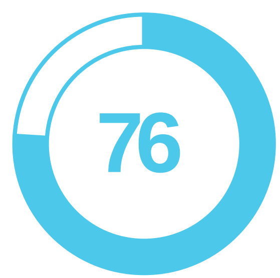


2

We will provide a current wellness **SCORE**

PROFILE 1

YOUR FINANCIAL WELLNESS SCORE



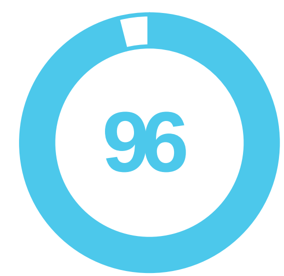
GOOD NEWS,
We have some suggestions on how you can increase your score:

3

And show simple, actionable **WAYS TO IMPROVE** that score, through a "to-do" list

PROFILE 1

HERE'S HOW YOU CAN GET TO:



LET'S TAKE A LOOK AT:

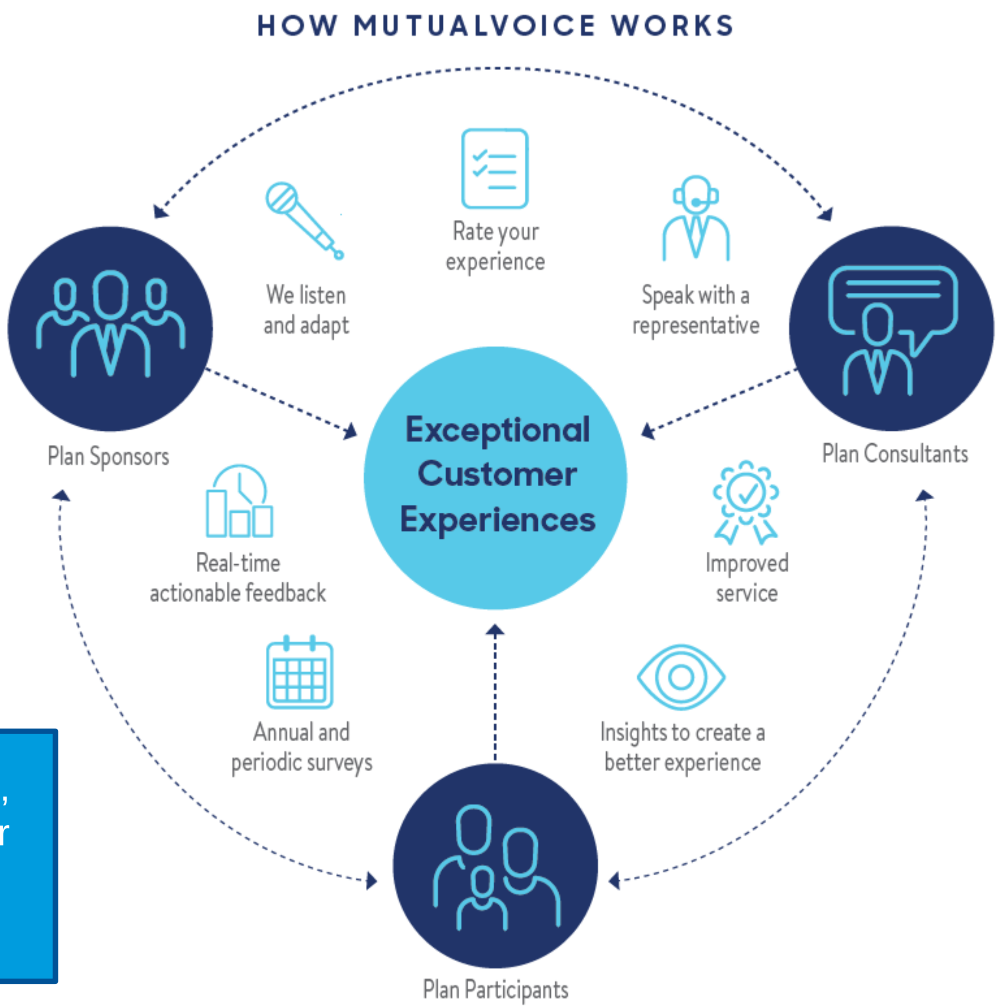
EDUCATION **SOLUTIONS**

Guidance may not be available for certain products. Guidance is based on MapMyFinances assumptions and information provided by the employee and employer.

mutualvoice – our commitment to you @work

Service centered around you.

- Real-time actionable feedback from you, advisors, TPA's, and participants
- Annual and periodic surveys
- Insights to create a better experience



Through real-time actionable feedback, we gain valuable insights into how your plan is performing on many levels.

Cybersecurity

A comprehensive program in place to protect your data

MassMutual takes its responsibility to protect your data very seriously. While no cybersecurity program can protect against every eventuality, our Enterprise Information Risk Management Program helps to ensure the security and integrity of our customer data.

Training and Access

- Intensive employee training on privacy and IT security
- Restricted Access
- Multi-factor authentication

Ongoing Testing

- Tests and vulnerability assessments
- Internal auditing and regulatory oversight
- Security wellness checks

Multi-level defense

- Multiple firewalls, Intrusion detectors and protection sensors
- Antivirus technology
- Rapid response teams

Additional Safeguards

- Third-party vendors required to maintain data protection programs
- Cyber insurance
- Robust business continuity program

A Commitment to the Community

In 2016 MassMutual announced a **$15 million dollar donation to the University of Massachusetts/Amherst** to strengthen its data science and cybersecurity programs

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