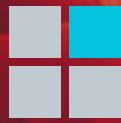


A photograph of two people in an office environment. A woman with curly hair and glasses, wearing a red shirt, is in the foreground, resting her chin on her hand and looking thoughtfully to the side. A man with glasses, wearing a light blue shirt, is in the background, gesturing with his hands as if speaking. A network of glowing blue lines and dots is overlaid on the image, suggesting connectivity or data analysis.

# REFERENCE POINT



# Data can inspire plan changes

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# Reference Point

T. Rowe Price Defined Contribution Plan Data

As of April 2023

## ON UNSETTLED GROUND, PARTICIPANTS HOLD STEADY

For two years, the retirement industry closely watched participants to capture their reactions to market volatility related to the coronavirus pandemic. In short, participants largely stayed the course.

Fast-forward to 2022, a year that started with market volatility caused by war, dealt out significant inflation and fears of recession, and ended with one of the most substantial pieces of retirement legislation in years. It's enough change to unsettle even the most prepared retirement savers. But through it all, participants mostly stayed the course—just as they have since 2020.

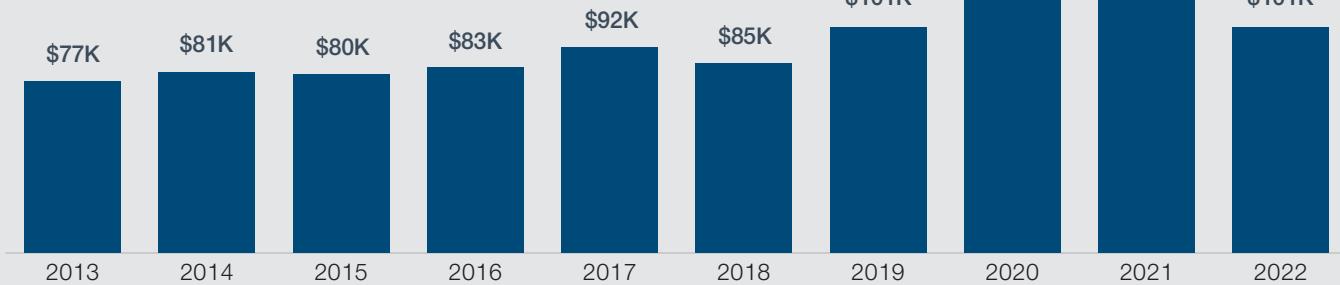
In the latest edition of Reference Point, our annual benchmarking report, we analyze retirement trends over the past 10 years to determine what new or changing behaviors emerged in 2022 and how plan design influences participant behavior. Looking at plan and participant trends is particularly important this year, as plan sponsors—and the retirement professionals who serve their retirement plans—start to evaluate SECURE 2.0 opportunities.

## THE IMPACT TO ACCOUNT BALANCES

After steadily rising since 2018, average account balances dropped from \$124K in 2021 to \$101K in 2022—a decrease of 18% compared with the 20% drop experienced by the S&P 500 Index. This was the second-largest decline in the past 15 years, with the first being the 27% drop from 2007 to 2008. However, participants generally did not stop or reduce contributions in reaction to market volatility, so the decreases in account balances were somewhat muted relative to the drop in the stock market.

How did the decline affect retirement plans' oldest participants? Account balances for participants age 70+ decreased by an average 8%, potentially because these participants tend to allocate more to money market/stable value and less to stocks, which suffered the greatest losses in 2022.

### Average Account Balance



## UNSTEADY MARKETS BUT RELATIVELY STEADY ALLOCATIONS

Periods of market volatility throughout 2022 led to drops in stock value, with the S&P 500 Index decreasing by 20%. Despite rocky market performance, retirement plan participants overall made few changes to their asset allocation.

Stocks experienced the biggest decline in allocation, decreasing from 34.8% in 2021 to 31.7% in 2022. Stocks, in this case, do not include company stock or any mixed portfolios that include an equity allocation, such as target date investments. In comparison to stocks, money market

and stable value investments picked up two percentage points, mostly from participants age 60+. Allocations to money market and stable value increased from 7.5% in 2021 to 9.6% in 2022.

Allocations to target date investments also experienced modest gains for the third year in a row. The vast majority of retirement plans (97%) now offer target date investments, and 44% of overall assets are invested in a target date investment.



Across the total participant population, 85% of participants are age <60 and 15% are age 60+.

## DEFERRAL RATES: STAYING FLAT (MOSTLY)

After climbing steadily since 2015, the average combined employee deferral rate (which includes all employee contribution types) remained relatively flat in 2022, down just slightly from 8.5% in 2021 to 8.4% in 2022. The declines occurred in all age groups under age 60, while those age 60 and older made no changes or slightly increased deferrals.

Participants age 70+ increased their catch-up deferrals by 8.5% in 2022, an increase to 15.3% from 14.1% in 2021. However, across all catch-up-eligible age groups, these contributions remained relatively flat in 2022 after multiple years of growth.

As plans continue to add the Roth contribution option, more participants across all age groups are opting in. Plan adoption of Roth increased from 83% in 2021 to 87% in 2022. As of the end of 2022, 13.2% of participants were making Roth deferrals, up from 4.7% a decade prior, pointing to the increasing popularity of this option.

## EMPLOYER MATCH TRENDS REMAIN MIXED

During the pandemic, many plans reduced or suspended employer match. There was a resurgence of the employer match in 2021, and the percentage of plans offering a match increased again slightly in 2022, especially among larger plans.

In 2022, 94% of plans with \$500 million to \$2 billion in assets and 93% of plans with over \$2 billion in assets offered a match, up from 92% and 86% in 2021, respectively. At the lower end of the spectrum, 40% of plans with less than \$2 million offered a match, up from 28% in 2021.

From an industry perspective, the increases were most heavily concentrated in the information technology and health care and social assistance industries. The retail trade and leisure and hospitality industries experienced the biggest declines in the percentage of plans that offer an employer match.

## HOW MUCH ARE EMPLOYERS MATCHING?

The most common match formulas in 2022 were:

- **50% up to 6%:** 20% of plans that offered a match in 2022 used this formula (down from 21% in 2021)
- **100% up to the first 3%, plus 50% up to the next 2%:** 19% of plans that offered a match in 2022 used this formula (no change from 2021)
- **100% up to 4%:** 15% of plans that offered a match in 2022 used this formula (up from 12% in 2021)

Also in 2022, 4% was the top match effective rate. The top match effective rate is the most common maximum amount employers contribute when you take into account all match formulas.

## WHICH INDUSTRIES ARE ADDING OR REMOVING AN EMPLOYER MATCH?

The industries with the most significant changes from 2021 to 2022:



RETAIL TRADE

**6** Percentage Points Down  
(80% to 74%)



LEISURE AND HOSPITALITY

**4** Percentage Points Down  
(90% to 86%)



INFORMATION TECHNOLOGY

**8** Percentage Points Up  
(86% to 94%)



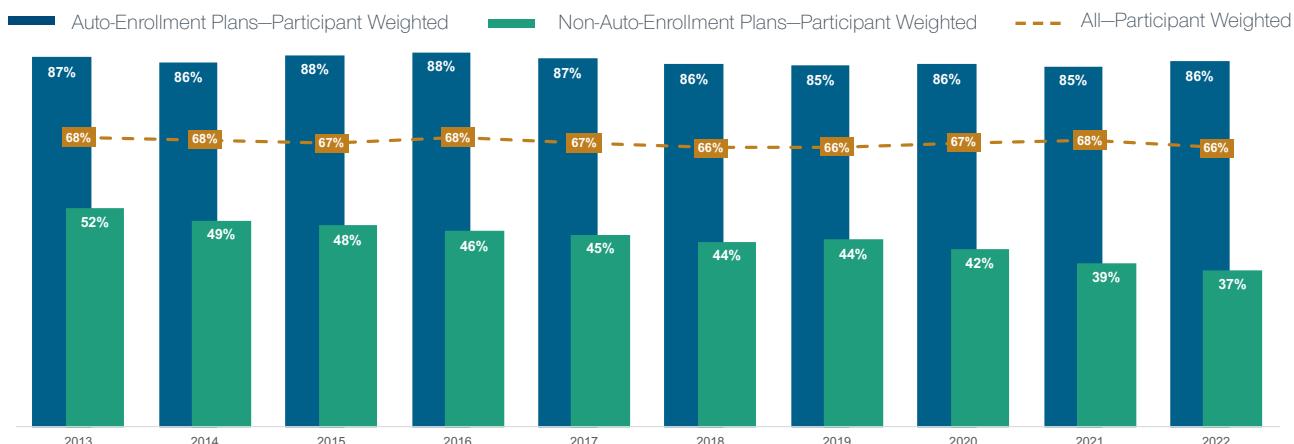
HEALTH CARE AND SOCIAL ASSISTANCE

**2** Percentage Points Up  
(55% to 57%)

## PLAN DESIGN IS MAKING A DIFFERENCE

For years, retirement plans have proven that auto-solutions are effective plan design features to get participants enrolled, saving, and investing. This was apparent in 2022, even as market and economic uncertainties threatened to push participants off track.

### Participation Rate Auto-Enrollment vs. Non-Auto-Enrollment



Plan adoption of the opt-out method for the auto-increase solution also increased in 2022 to 49%, up slightly from 48% in 2021. This method automatically enrolls participants in auto-increase. While more participants declined to use auto-

Plan adoption of auto-enrollment rose in 2022 to 66%, continuing an eight-year trend. Auto-enrollment also continued to yield far higher participation rates: 86% in 2022, compared with just 37% for plans without auto-enrollment.

## DEFAULT DEFERRAL: IS THERE A “MAGIC NUMBER”?

Over the past 10 years, we've seen plans move away from default deferral rates of 2% and 3% that were more common for early adopters of auto-enrollment. Plans have introduced higher default rates to encourage greater saving, and since 2018, more plans have used a 6% default rate than a 3% default rate.

increase in 2022, regardless of the opt-in or opt-out method, the opt-out method continued to produce higher enrollment rates: 62% for the opt-out approach versus 10% for opt-in.

But how high is too high? Is there a rate that would be high enough to motivate participants to decrease their contributions? Our data show that setting the default higher than 3% might be key. Any lower than 4%, and participants are more likely to increase their deferral rate manually. But when the default rate is set to 5% or 6%, only a small percentage decrease from the default:



## BORROWING IS DECLINING, BUT BALANCES ARE UP

More plans now offer loans to participants, with the percentage increasing slightly to 91% in 2022 (from 89.5% in 2021). Loan usage remained below the pre-pandemic average: 18.3% of participants had a loan in 2022 compared with 18.5% in 2021 and 22.1% in 2019. In general, loan usage has been declining for the past 10 years.

Conversely, average loan balances continue to increase, growing to \$9,837 in 2022 over a 10-year low of \$8,435 in 2013. Among borrowers, 89% had a single loan in 2022 compared with just 11.5% who had multiple loans.

This could indicate that, during uncertain times, fewer participants borrowed, but those who did borrowed higher amounts.

## MIXED HARDSHIP TRENDS

Hardship withdrawal usage returned to pre-pandemic levels in 2022: 1.3% compared with 0.8% in 2020 and 0.9% in 2021. Average hardship amounts, however, decreased from the 10-year high in 2021, dropping from \$10,554 to \$9,006.



## LOOKING AHEAD TO SECURE 2.0

The SECURE 2.0 Act of 2022 introduces mandatory and optional provisions that will help increase coverage and allow participants to save more and longer for retirement. The law also helps sponsors to tailor their plans more specifically to the needs of their plan population.

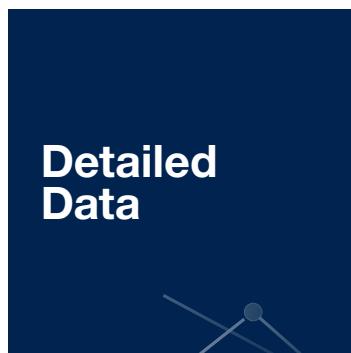
- **Auto-enrollment and auto-increase:** New plans will be required to offer the two features, effective in 2025. While this provision applies only to new plans, plan sponsors might add or modify the auto-solutions in their existing plans.
- **Roth:** Starting in 2024, all catch-up contributions will be required to occur on a Roth basis for participants earning more than \$145,000 in prior-year wages from the employer sponsoring the plan. This provision may substantially affect trends, as plans adopt Roth for the first time and more participants start contributing on a Roth basis. Beginning in 2024, RMDs are not required from Roth accounts in a plan, so there would be no need to roll over to an IRA to avoid RMDs.

How it will affect plan and participant trends is yet to be seen, given that many of the provisions will not go into effect until 2024, 2025, and beyond. We do anticipate that plan sponsors might implement new plan design features or make other changes based on SECURE 2.0, specifically in these areas:

- **Student loan match and emergency savings:**

We expect that the retirement industry and employers will be tracking trends related to retirement plan matching contributions of student loan payments and emergency savings distributions with the financial wellness provisions included in SECURE 2.0.

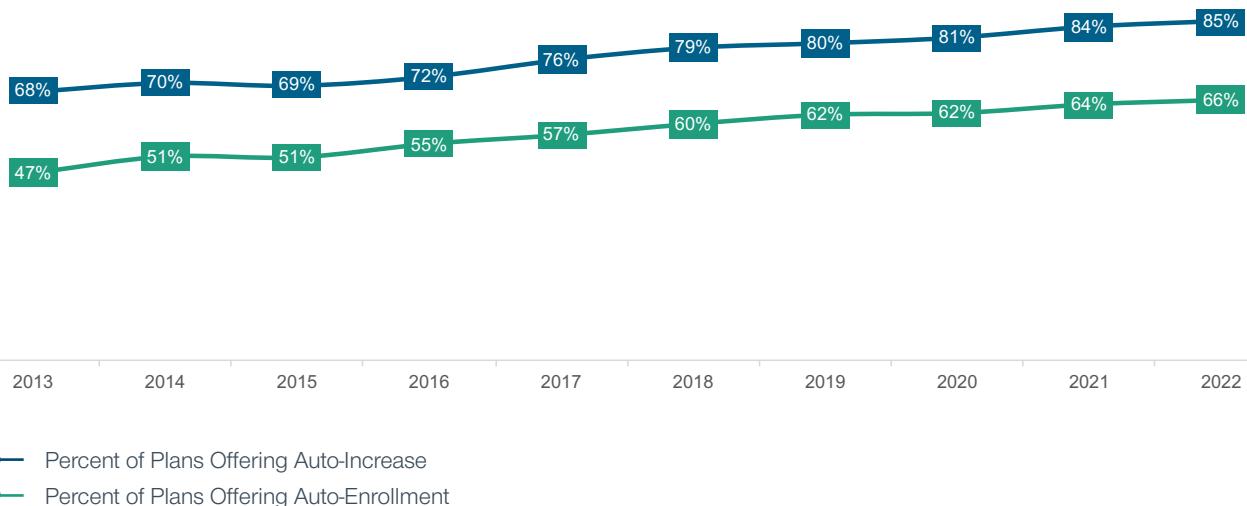




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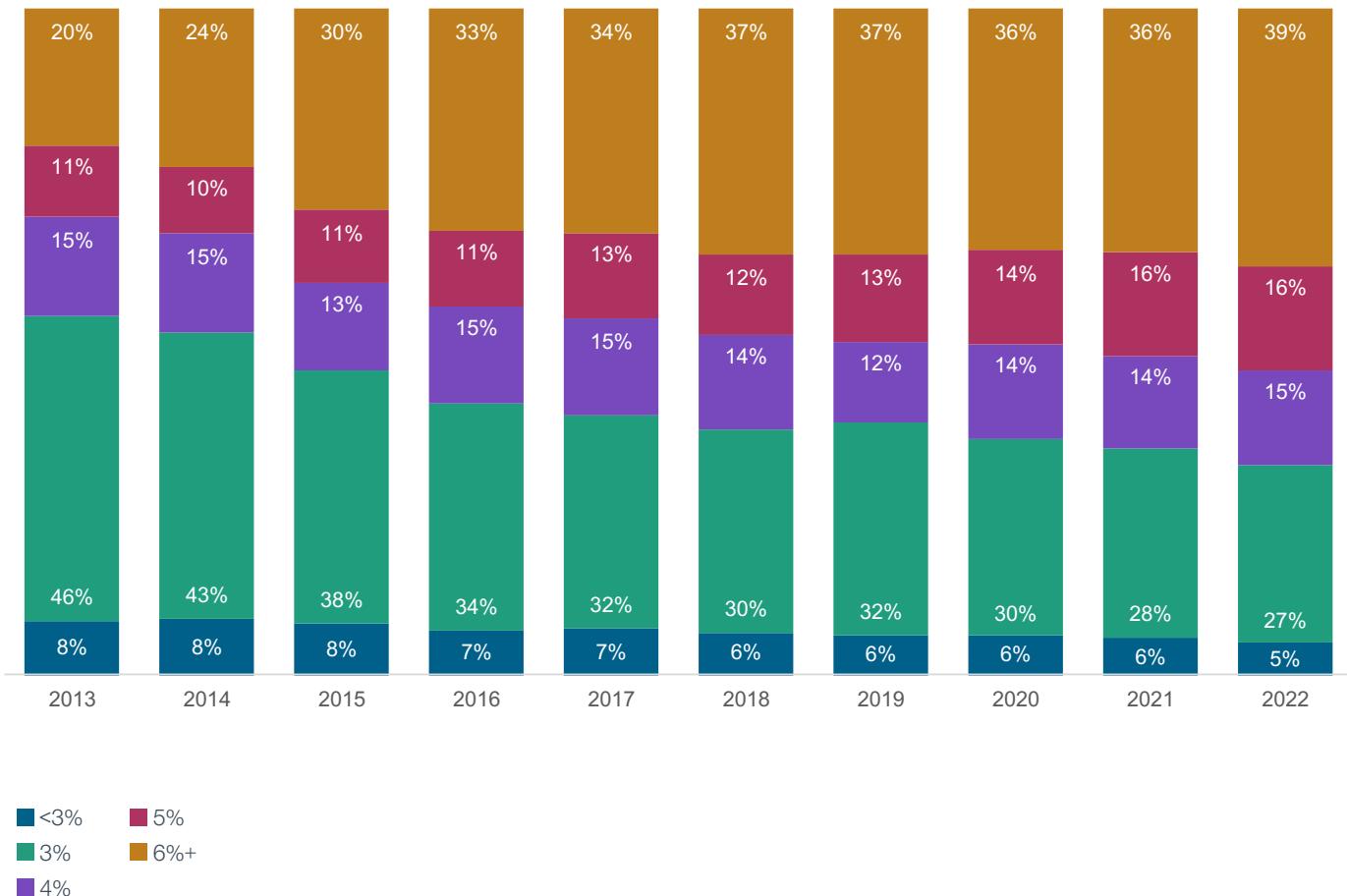
No. 1 PERCENTAGE OF PLANS THAT HAVE ADOPTED AUTO-ENROLLMENT AND AUTO-INCREASE



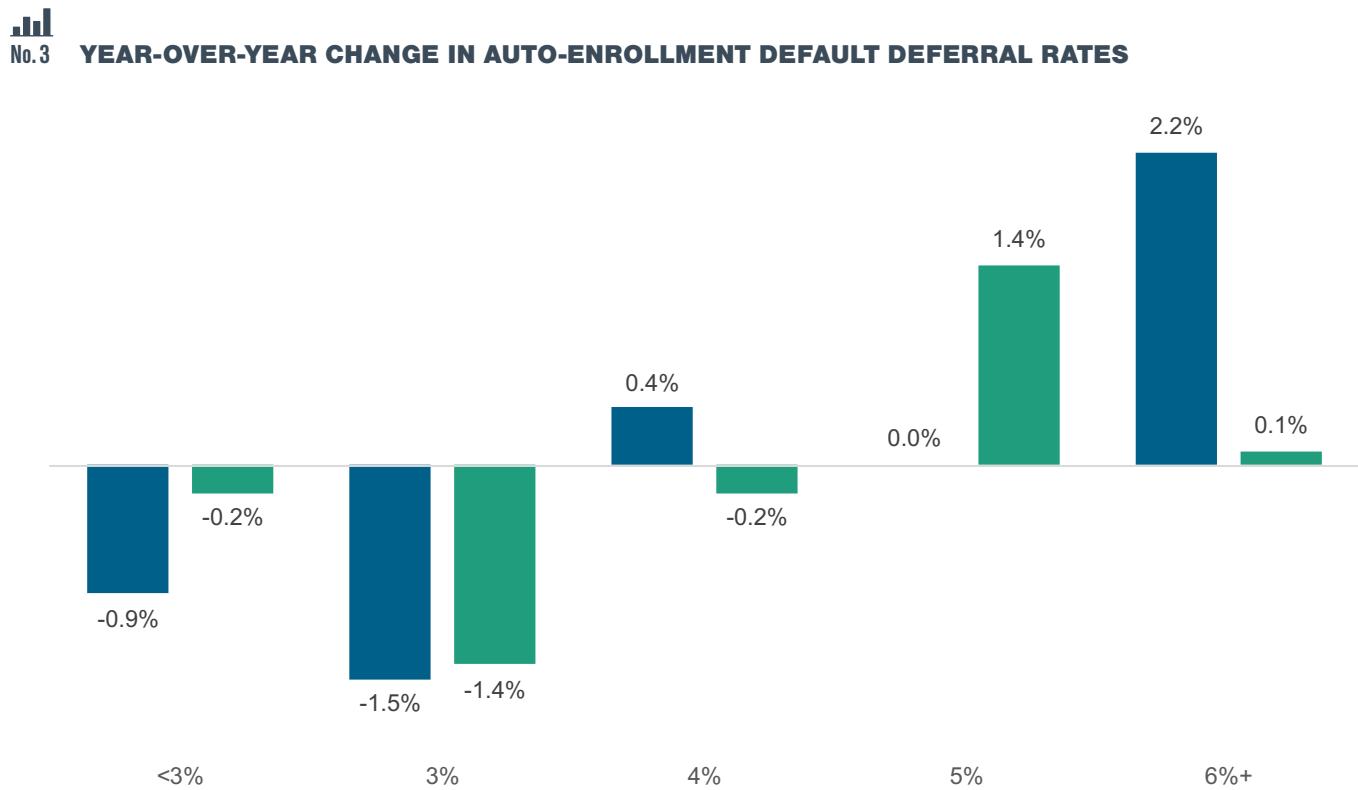
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Percent of Plans Offering Auto-Increase	68%	70%	69%	72%	76%	79%	80%	81%	84%	85%
Percent of Plans Offering Auto-Enrollment	47%	51%	51%	55%	57%	60%	62%	62%	64%	66%

No. 2

## AUTO-ENROLLMENT ADOPTION AND DEFAULT RATE

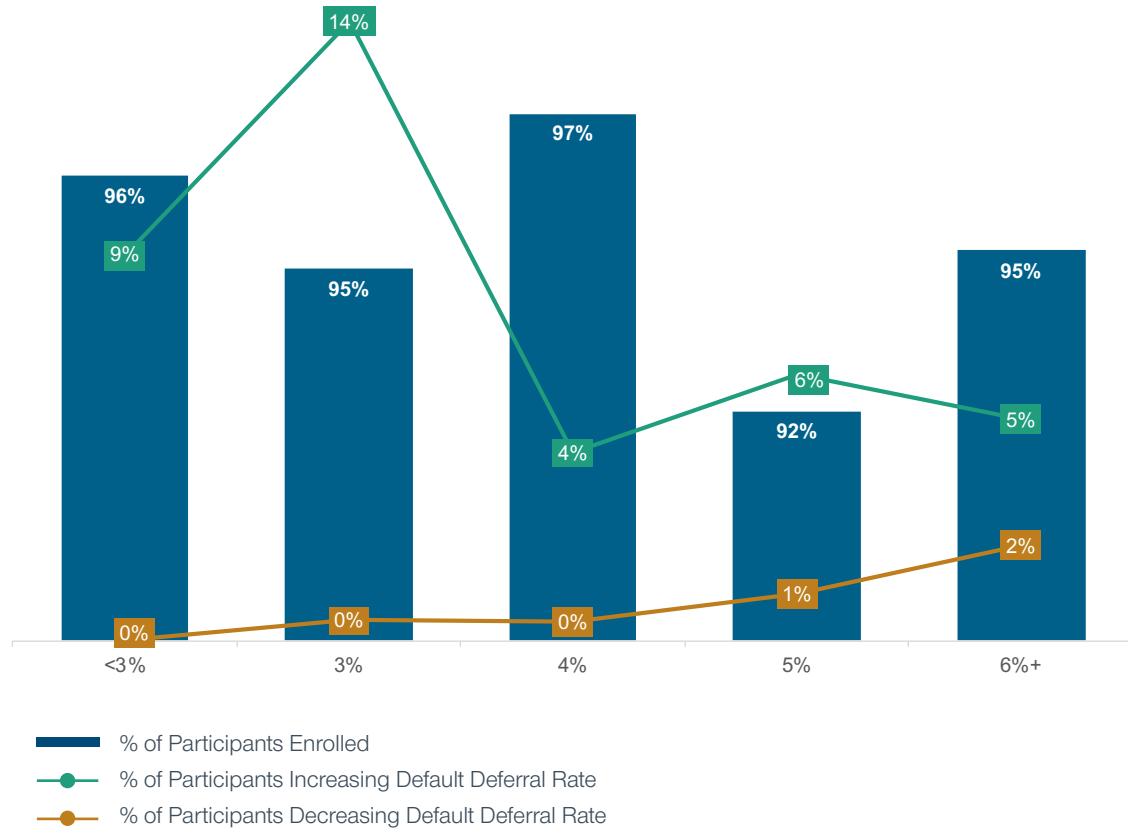


Default Auto-Enrollment (AE) Rate	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<3%	8%	8%	8%	7%	7%	6%	6%	6%	6%	5%
3%	46%	43%	38%	34%	32%	30%	32%	30%	28%	27%
4%	15%	15%	13%	15%	15%	14%	12%	14%	14%	15%
5%	11%	10%	11%	11%	13%	12%	13%	14%	16%	16%
6%+	20%	24%	30%	33%	34%	37%	37%	36%	36%	39%



Results for auto-enrollment are based on those plans that offer the feature.

**No. 4 AUTO-ENROLLMENT DEFAULT DEFERRAL RATE ENROLLMENT PERCENTAGE  
WITH PERCENT OF PARTICIPANTS INCREASING OR DECREASING DEFAULT**

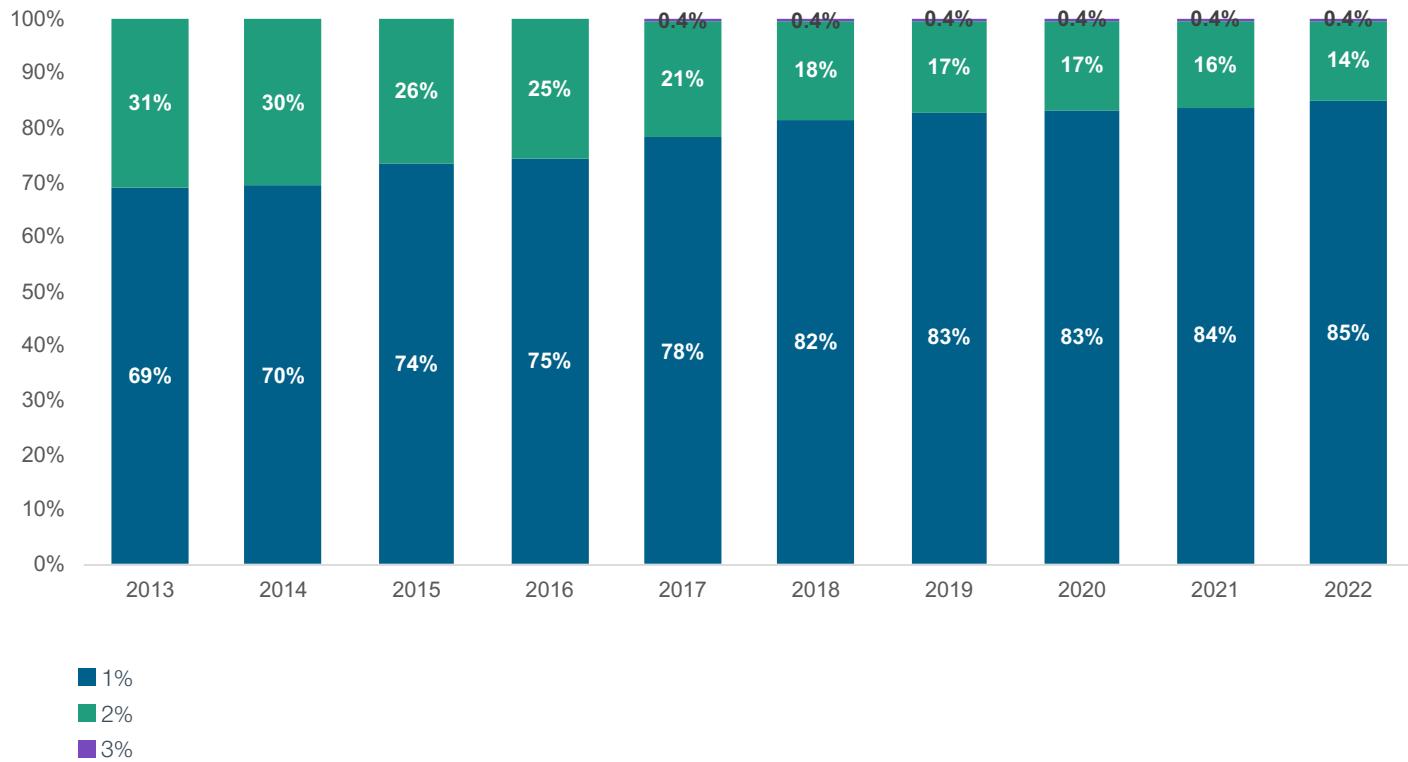


	% Enrolled	% Increased	% Decreased
<b>Default Rate</b>			
<3%	96%	9%	0%
3%	95%	14%	0%
4%	97%	4%	0%
5%	92%	6%	1%
6%+	95%	5%	2%
<b>All Auto-Enrollment Plans</b>	<b>94%</b>	<b>8%</b>	<b>1%</b>

Results for auto-enrollment are based on those plans that offer the feature.

No.5

### DEFAULT AUTO-INCREASE RATE



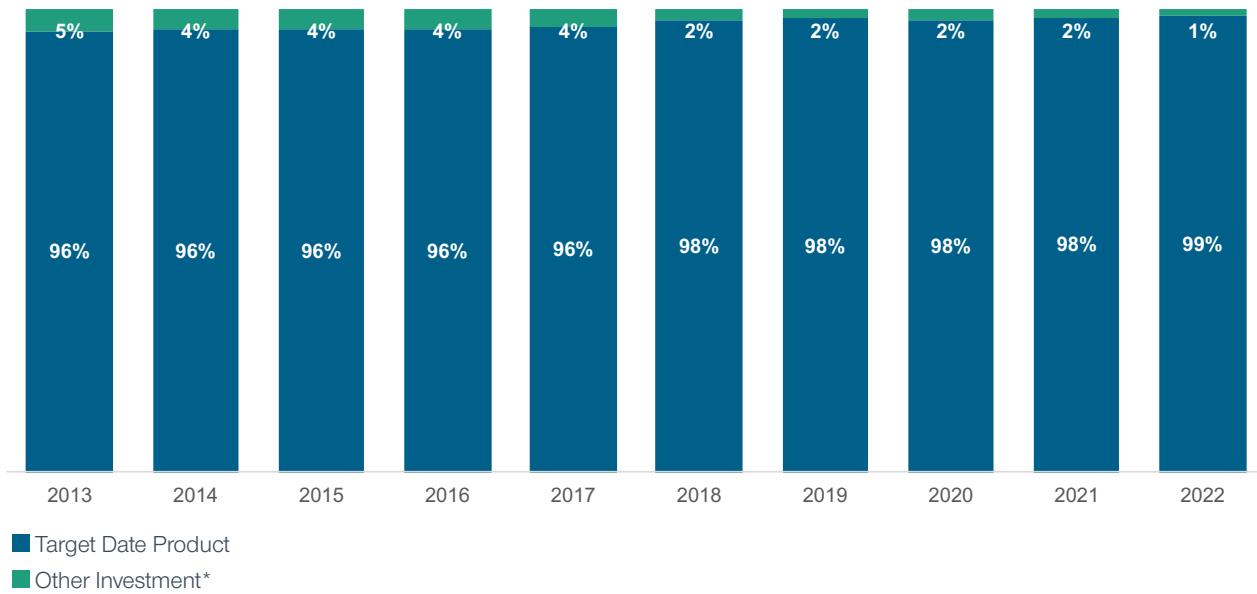
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Default Auto-Increase Rate</b>										
1%	69%	70%	74%	75%	78%	82%	83%	83%	84%	85%
2%	31%	30%	26%	25%	21%	18%	17%	17%	16%	14%
3%	0%	0%	0%	0%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%

Numbers are rounded and may not equal 100%.

Results for auto-increase are based on those plans that offer the feature.

 No. 6

## DEFAULT INVESTMENT OPTIONS



■ Target Date Product

■ Other Investment\*

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Target Date Product	96%	96%	96%	96%	96%	98%	98%	98%	98%	99%
Other Investment*	5%	4%	4%	4%	4%	2%	2%	2%	2%	1%

\* Other investments could include balanced, money market, or stable value funds. Results for auto-enrollment and auto-increase are based on those plans that offer the features. Numbers are rounded and may not equal 100%.

 No. 7

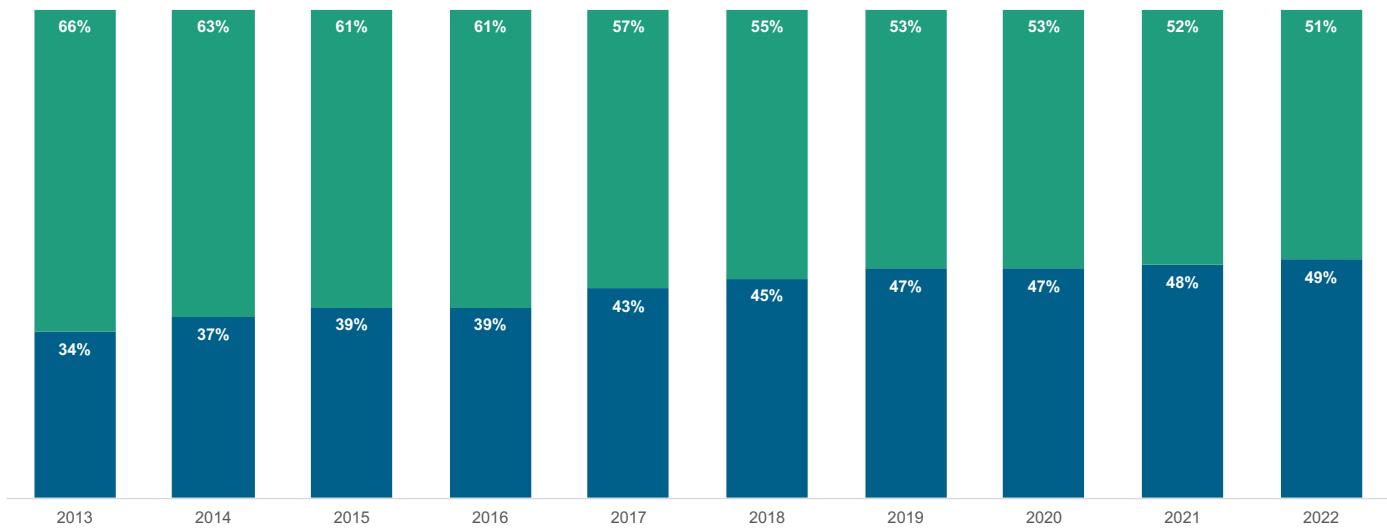
## PARTICIPATION IN OTHER AUTOMATED SERVICES

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Auto-Reenrollment</b>										
Plan Participation	7%	8%	10%	12%	13%	14%	14%	14%	14%	14%
Success Rate	77%	78%	78%	78%	78%	78%	78%	77%	78%	79%
<b>Auto-Restart</b>										
Plan Participation	42%	44%	52%	57%	60%	64%	60%	56%	55%	52%
Success Rate	49%	56%	57%	61%	55%	53%	53%	65%	N/A	N/A

The success rate is used to define how successful the one-time event was in maintaining participation when offering the service to employees. The success rate is the count of participants who actually completed the service process divided by the count of participants who enrolled through the service process.

No.8

## AUTO-INCREASE ELECTION METHODS



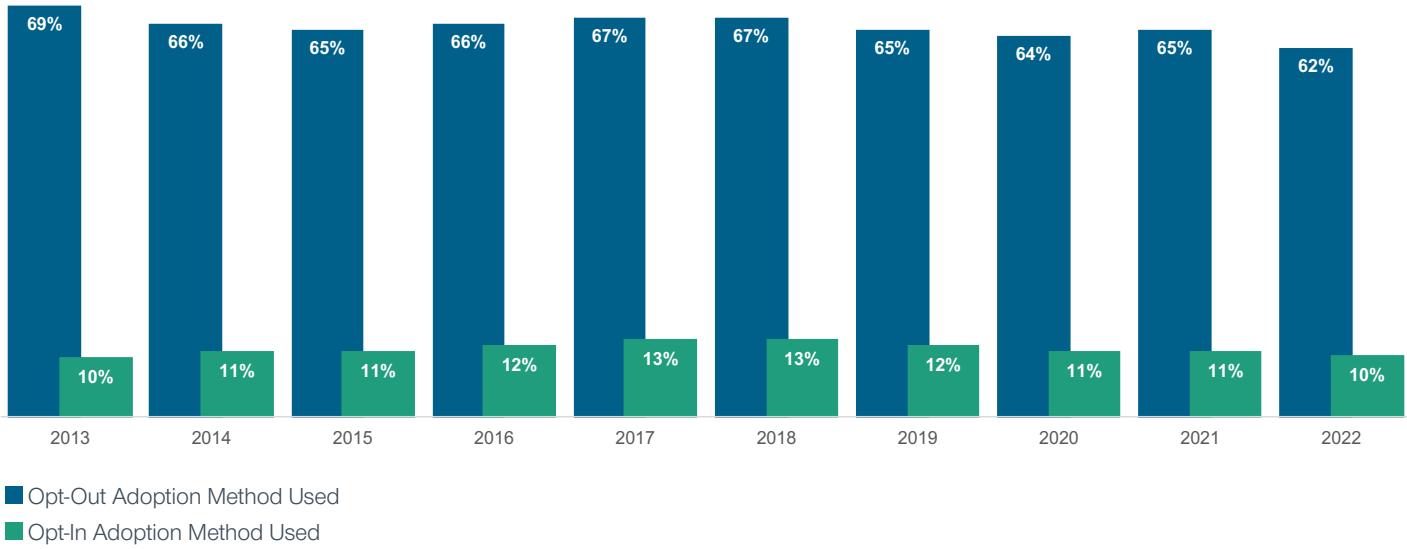
■ Auto-Increase Plans Using Opt-Out Method

■ Auto-Increase Plans Using Opt-In Method

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Auto-Increase Plans Using Opt-Out Method	34%	37%	39%	39%	43%	45%	47%	47%	48%	49%
Auto-Increase Plans Using Opt-In Method	66%	63%	61%	61%	57%	55%	53%	53%	52%	51%



No. 9

**PARTICIPATION ADOPTION RATE BASED ON AUTO-INCREASE ADOPTION METHOD**

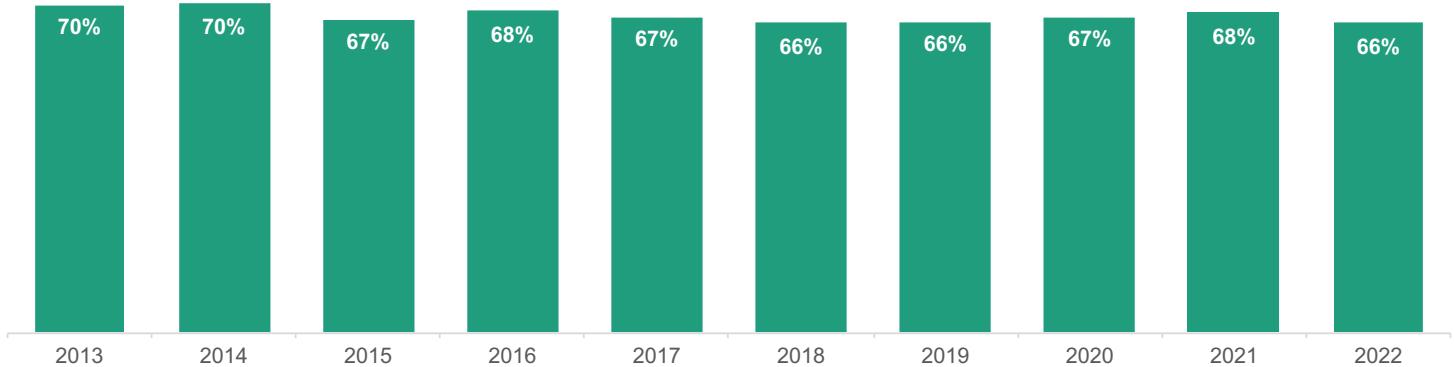
■ Opt-Out Adoption Method Used  
 ■ Opt-In Adoption Method Used

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Opt-Out Adoption Method Used	69%	66%	65%	66%	67%	67%	65%	64%	65%	62%
Opt-In Adoption Method Used	10%	11%	11%	12%	13%	13%	12%	11%	11%	10%

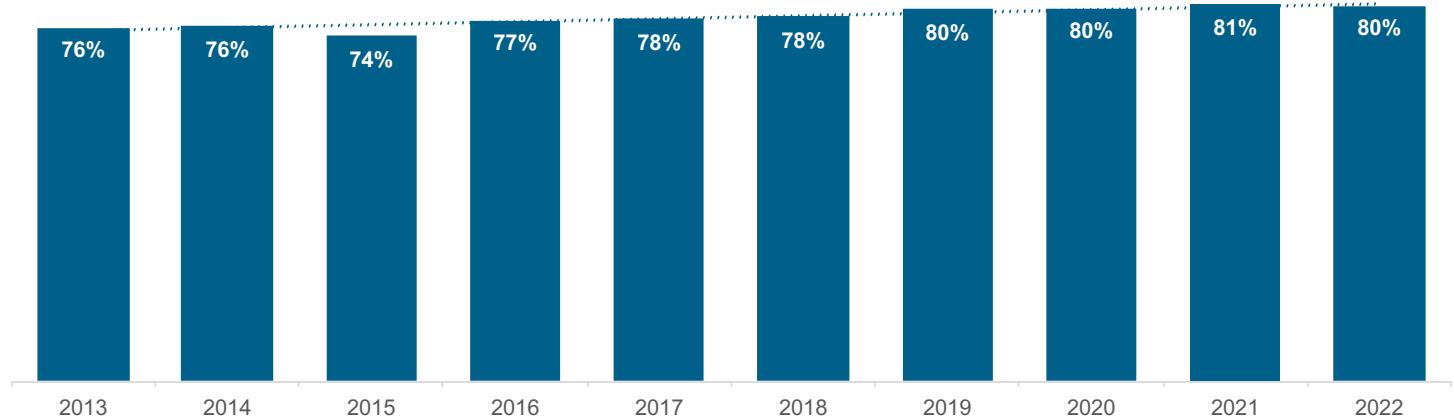




No.10 PARTICIPANT WEIGHTED—PARTICIPATION RATE



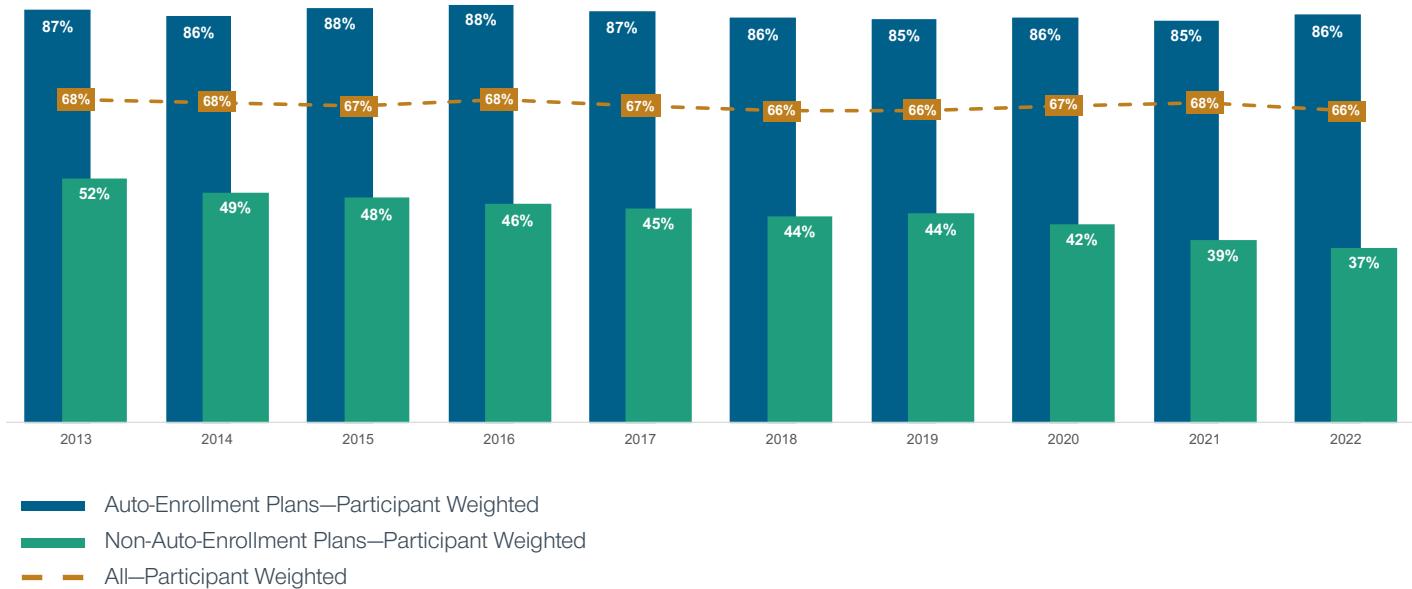
No.11 PLAN WEIGHTED—PARTICIPATION RATE



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Participant Weighted	70%	70%	67%	68%	67%	66%	66%	67%	68%	66%
Plan Weighted	76%	76%	74%	77%	78%	78%	80%	80%	81%	80%



## No.12 PARTICIPATION RATE AUTO-ENROLLMENT VS. NON-AUTO-ENROLLMENT

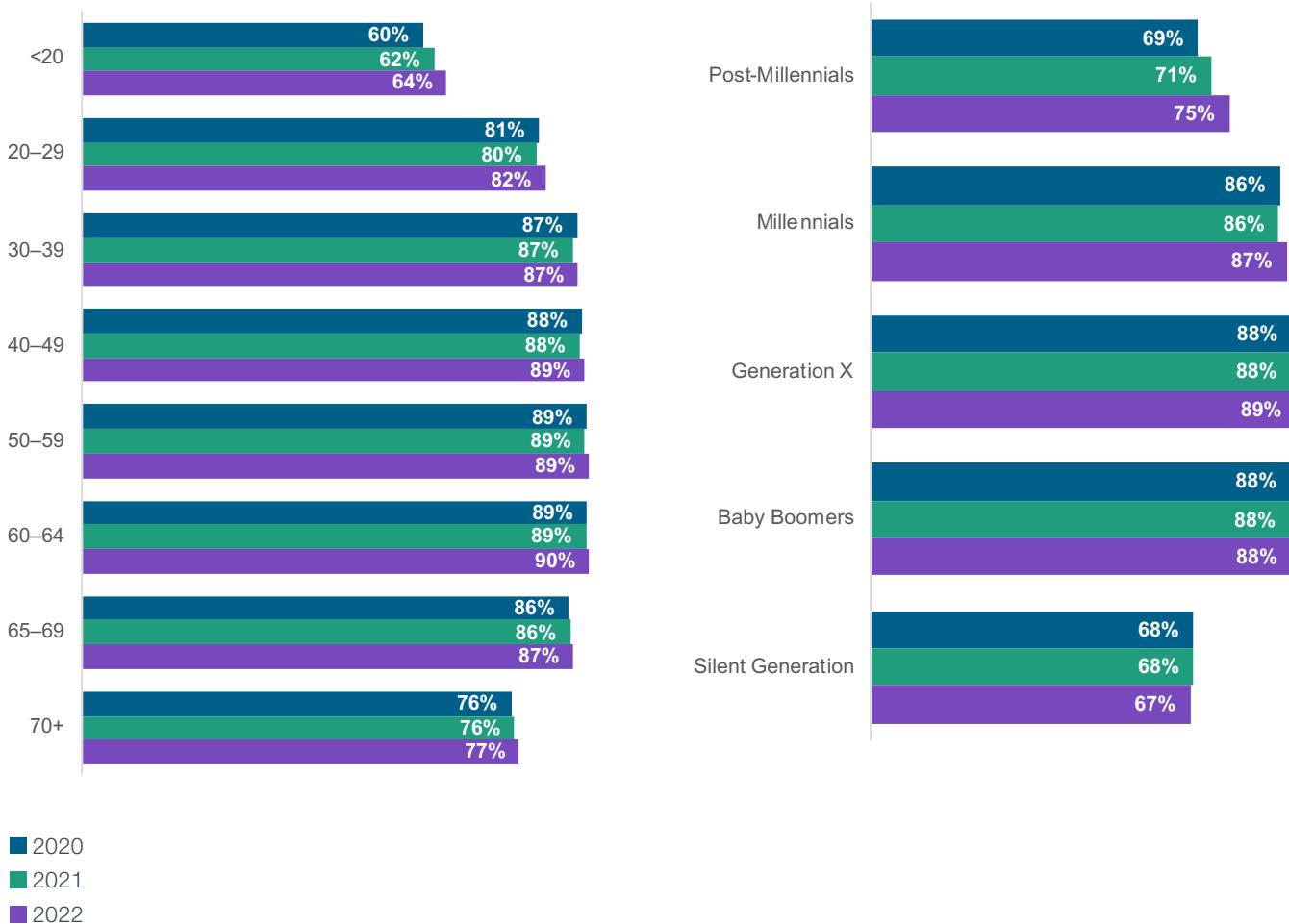


	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Auto-Enrollment Plans—Participant Weighted	87%	86%	88%	88%	87%	86%	85%	86%	85%	86%
Non-Auto-Enrollment Plans—Participant Weighted	52%	49%	48%	46%	45%	44%	44%	42%	39%	37%
All—Participant Weighted	68%	68%	67%	68%	67%	66%	66%	67%	68%	66%





### No.13 SEGMENTED AUTO-ENROLLMENT PARTICIPATION RATES



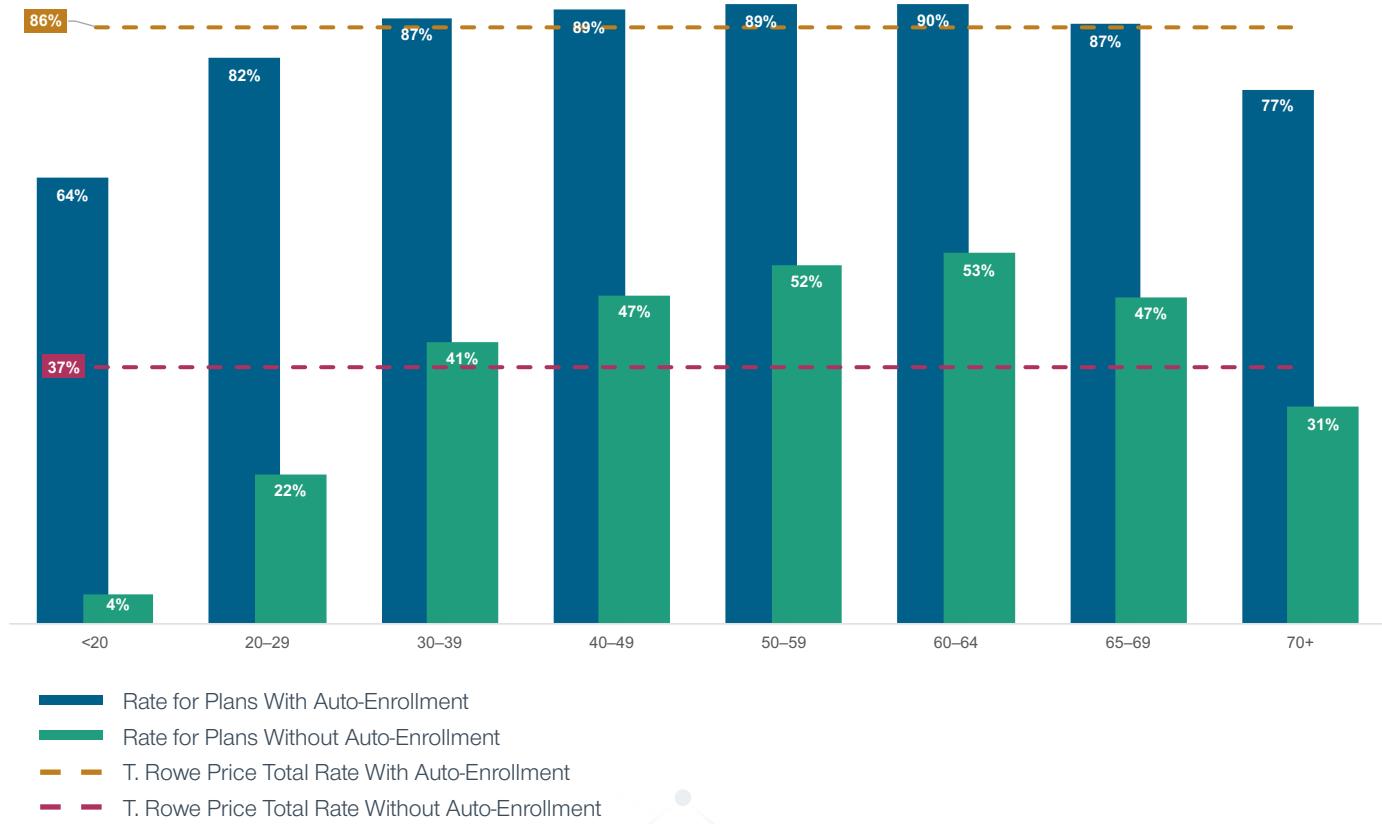
2020 2021 2022

Age Range	2020	2021	2022
<20	60%	62%	64%
20-29	81%	80%	82%
30-39	87%	87%	87%
40-49	88%	88%	89%
50-59	89%	89%	89%
60-64	89%	89%	90%
65-69	86%	86%	87%
70+	76%	76%	77%

2020 2021 2022

Generation	2020	2021	2022
Post-Millennials	69%	71%	75%
Millennials	86%	86%	87%
Generation X	88%	88%	89%
Baby Boomers	88%	88%	88%
Silent Generation	68%	68%	67%

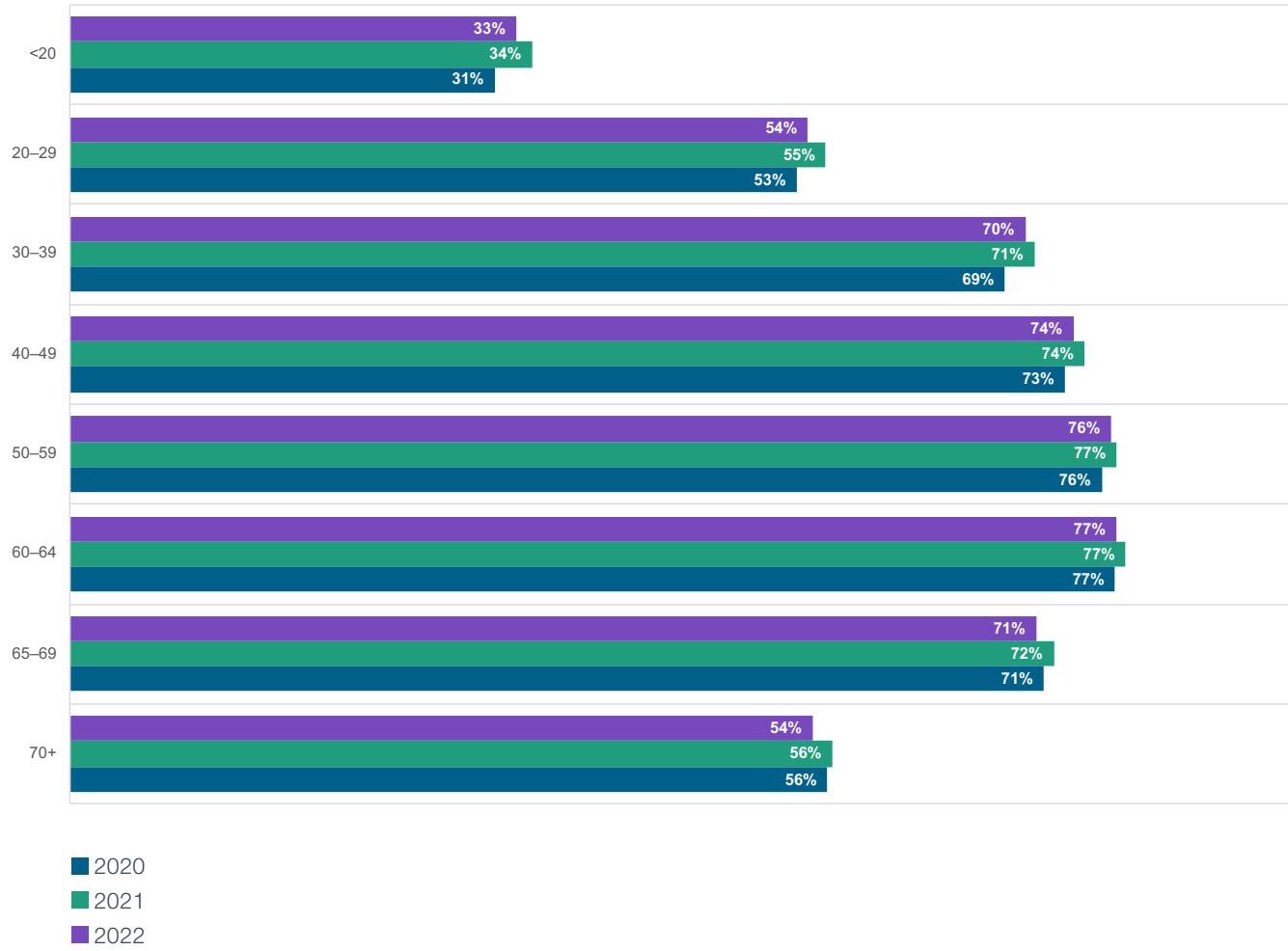
**No. 14 PARTICIPATION RATE BY AGE: AUTO-ENROLLMENT VS. NON-AUTO-ENROLLMENT PLANS**



Age Range	Rate for Plans With Auto-Enrollment	Rate for Plans Without Auto-Enrollment
<20	64%	4%
20-29	82%	22%
30-39	87%	41%
40-49	89%	47%
50-59	89%	52%
60-64	90%	53%
65-69	87%	47%
70+	77%	31%



## No.15 PARTICIPATION RATE (PARTICIPANT WEIGHTED)—BY AGE

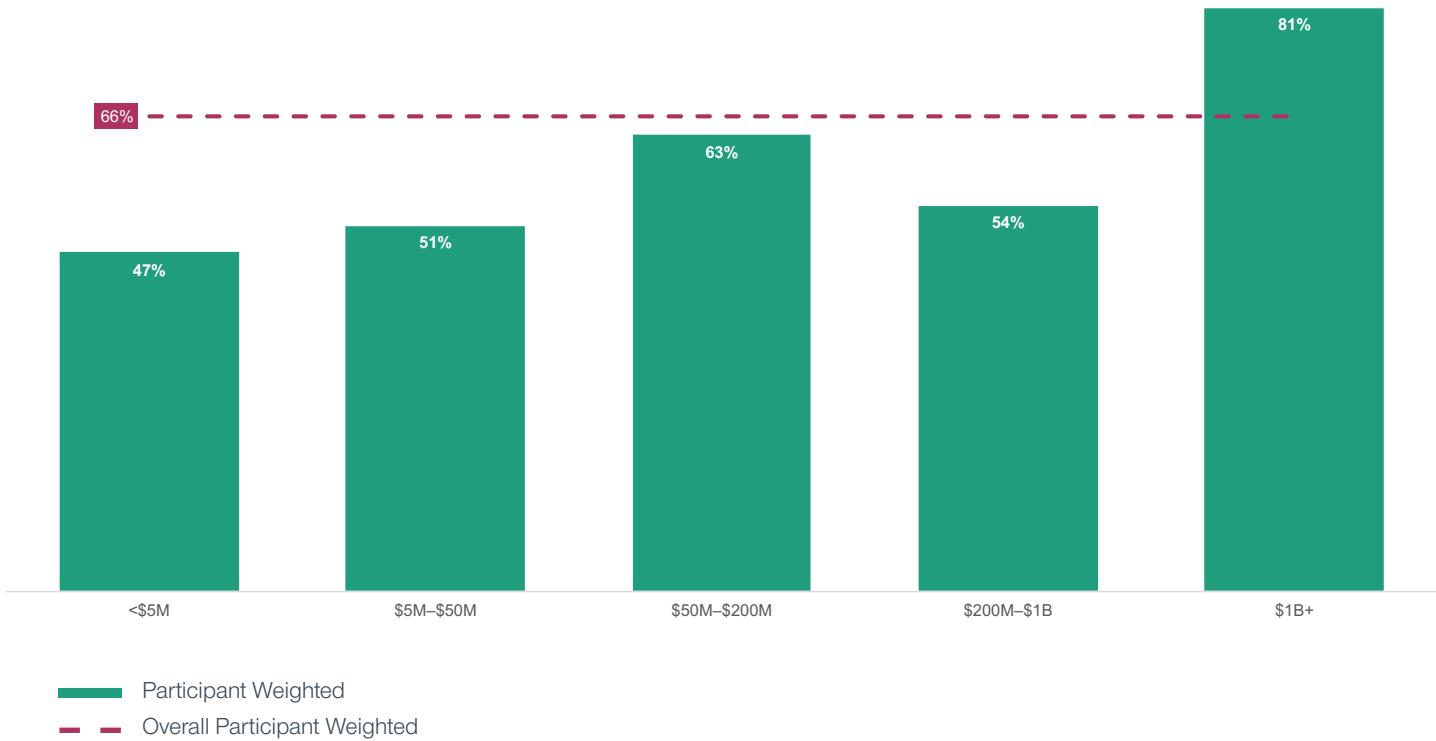


■ 2020  
 ■ 2021  
 ■ 2022

	2020	2021	2022
<20	33%	34%	31%
20-29	54%	55%	53%
30-39	70%	71%	69%
40-49	74%	74%	73%
50-59	76%	77%	76%
60-64	77%	77%	77%
65-69	71%	72%	71%
70+	54%	56%	56%
<b>Total</b>	<b>67%</b>	<b>68%</b>	<b>66%</b>



No. 16 **PARTICIPATION RATE BREAKDOWN—BY PLAN ASSETS (PARTICIPANT WEIGHTED)**

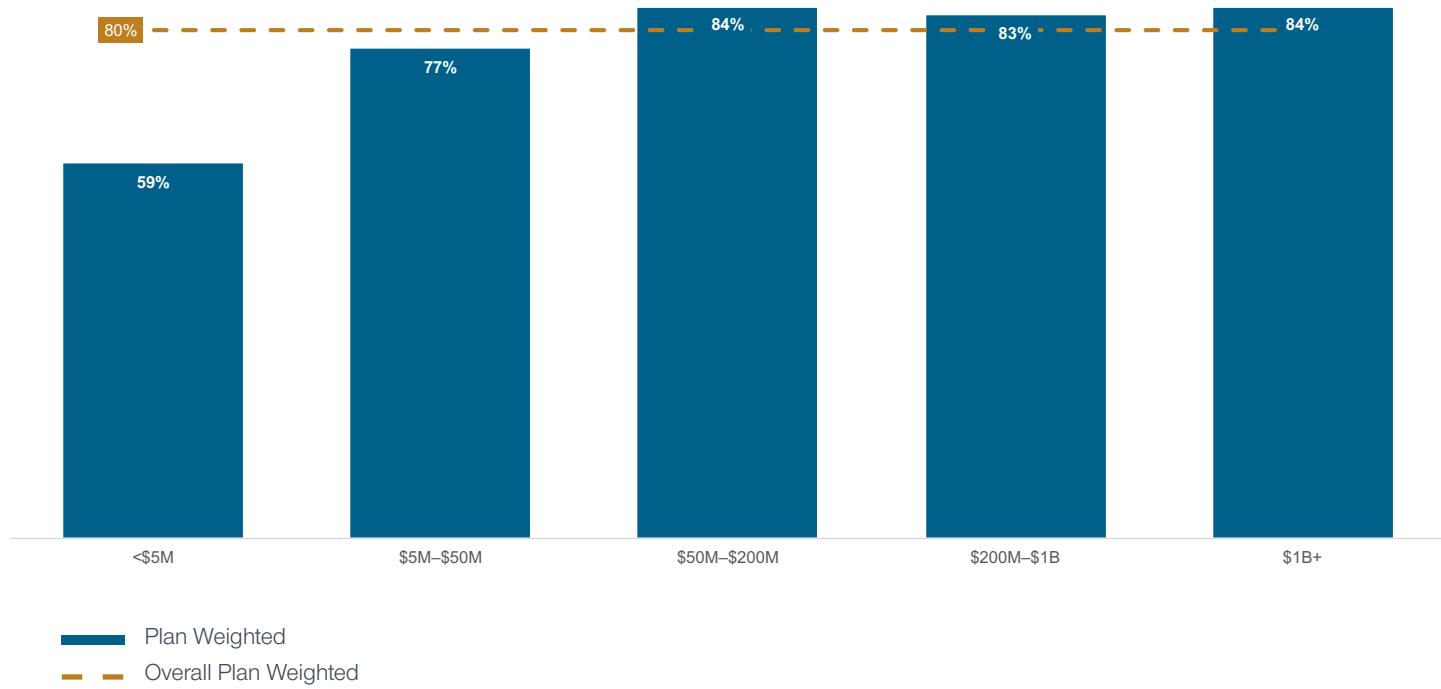


Participant Weighted	
Asset Range	Rate
\$<5M	47%
\$5M–\$50M	51%
\$50M–\$200M	63%
\$200M–\$1B	54%
\$1B+	81%
Overall	66%



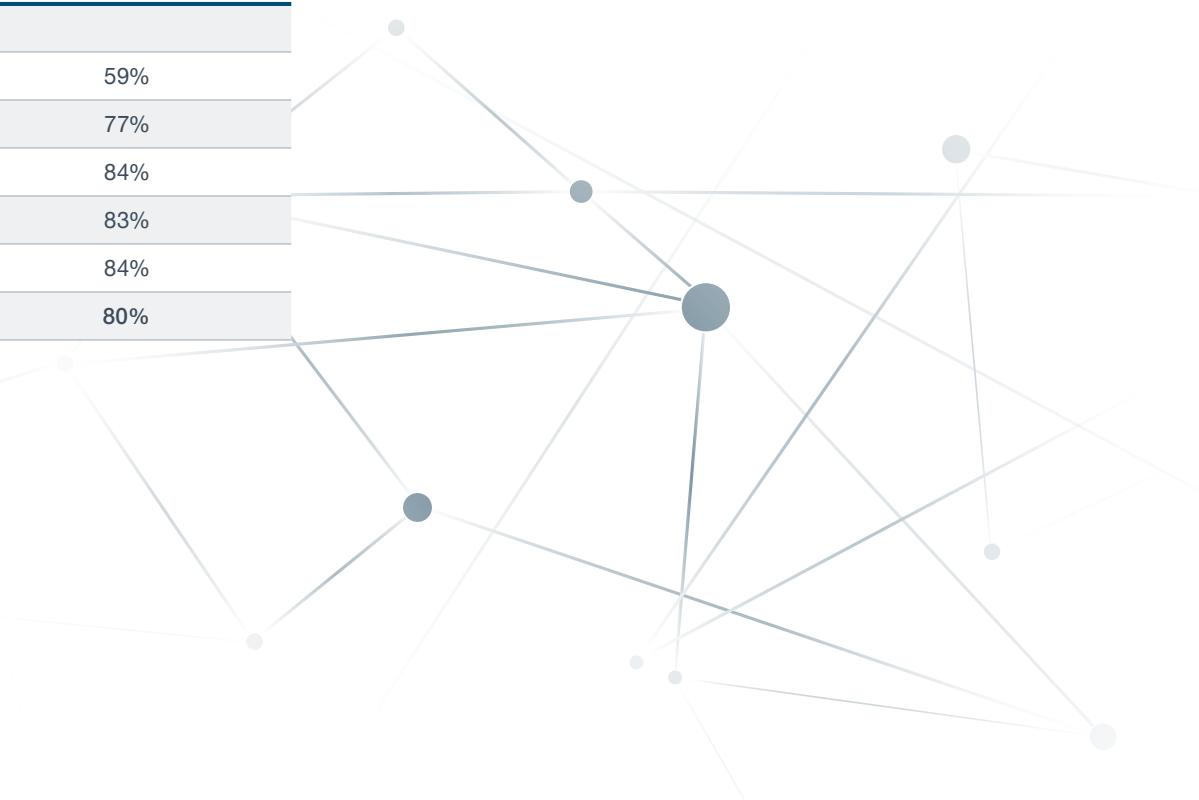


No. 17 **PARTICIPATION RATE BREAKDOWN—BY PLAN ASSETS (PLAN WEIGHTED)**



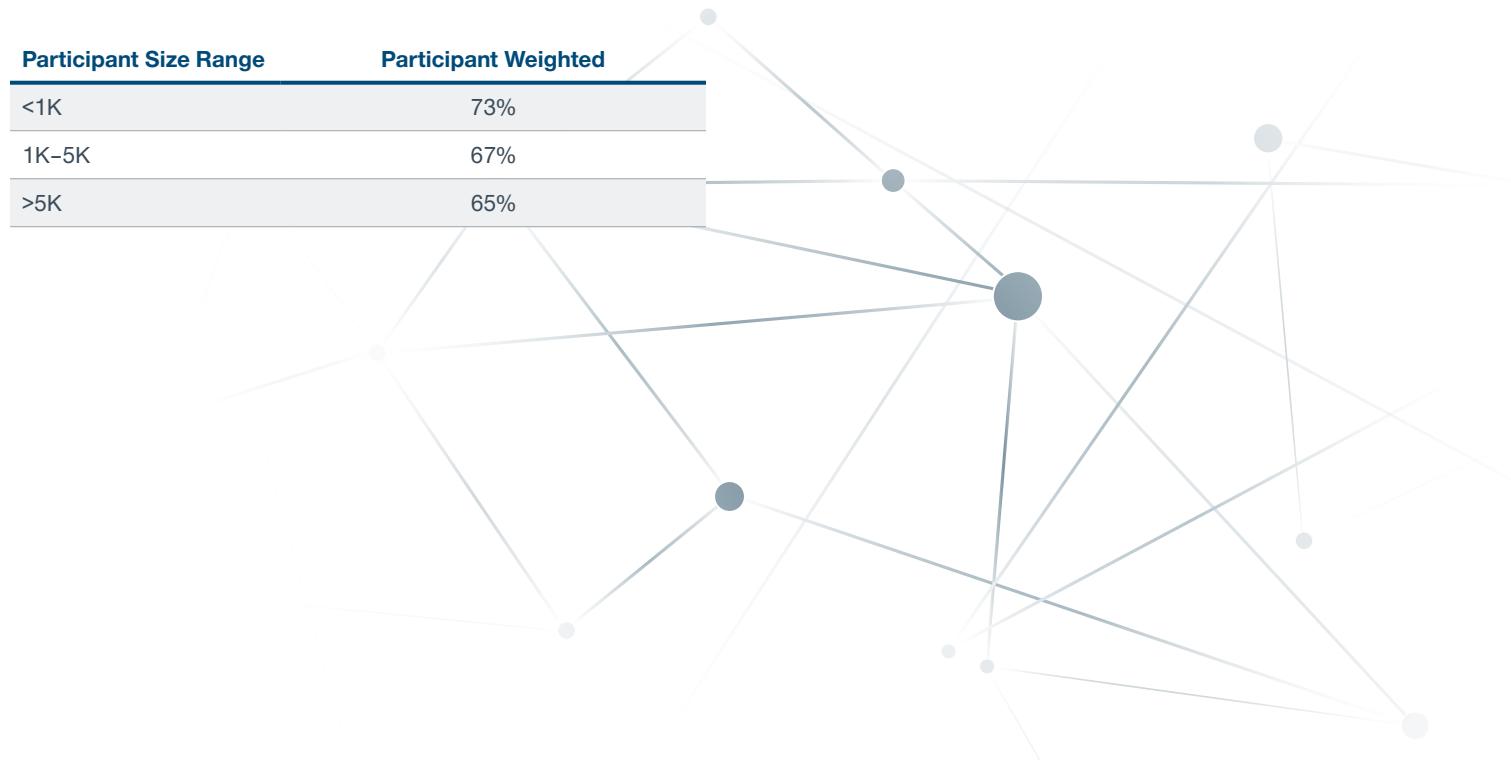
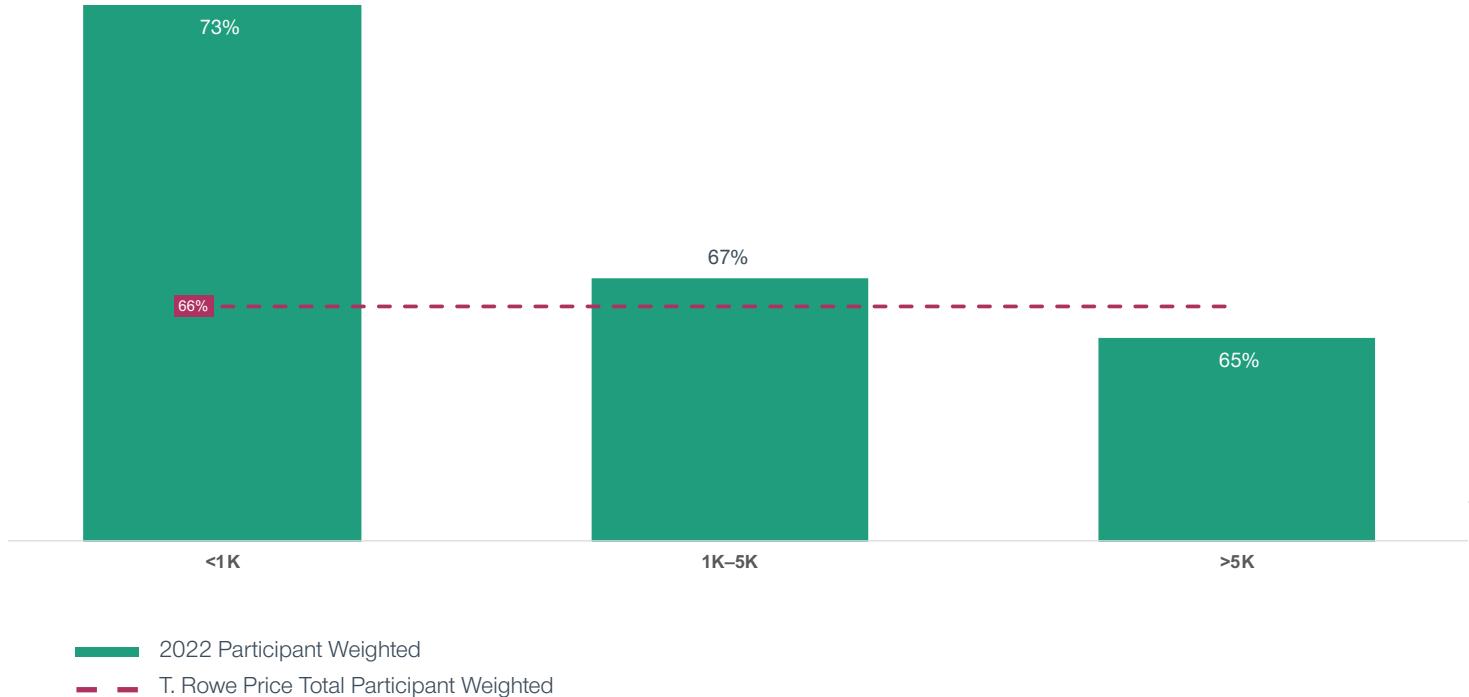
**Plan Weighted**

Asset Range	Plan Weighted
\$<5M	59%
\$5M-\$50M	77%
\$50M-\$200M	84%
\$200M-\$1B	83%
\$1B+	84%
Overall	80%



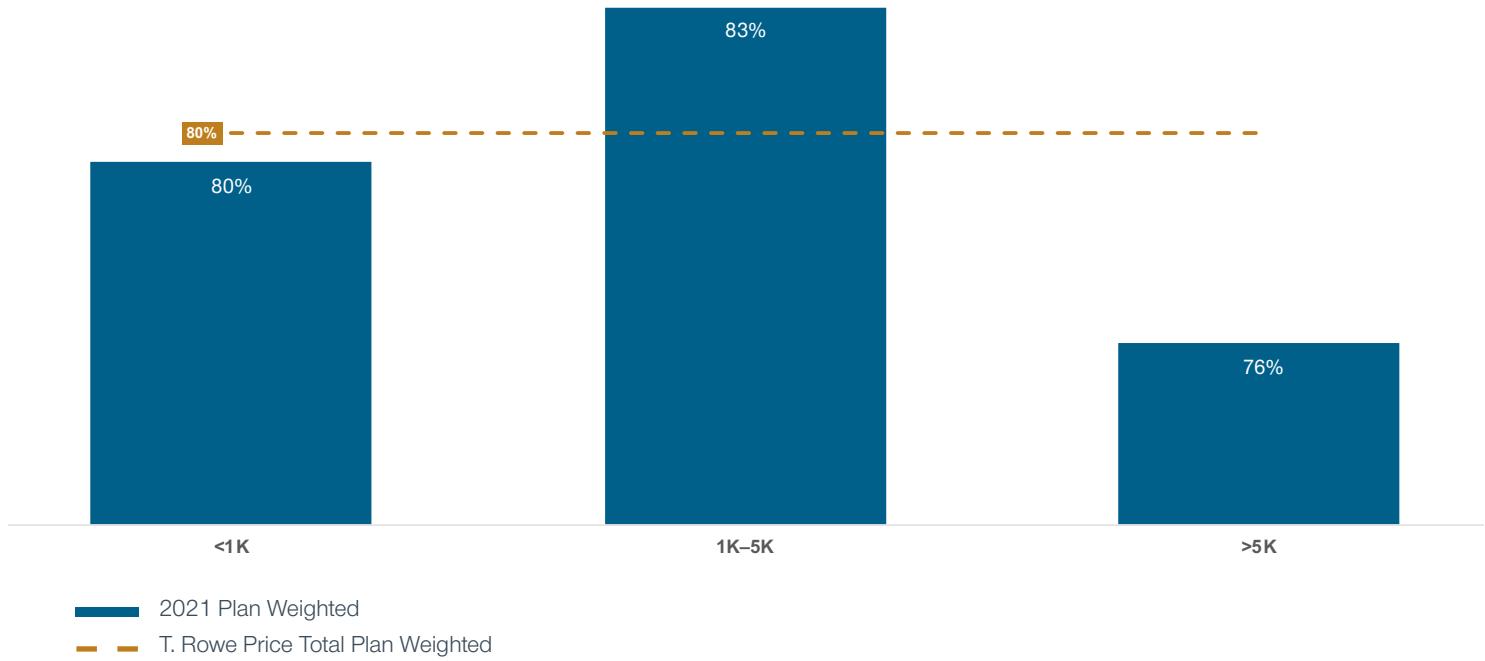


No. 18 **PARTICIPATION RATES BREAKDOWN—BY PLAN PARTICIPANT COUNT (PARTICIPANT WEIGHTED)**

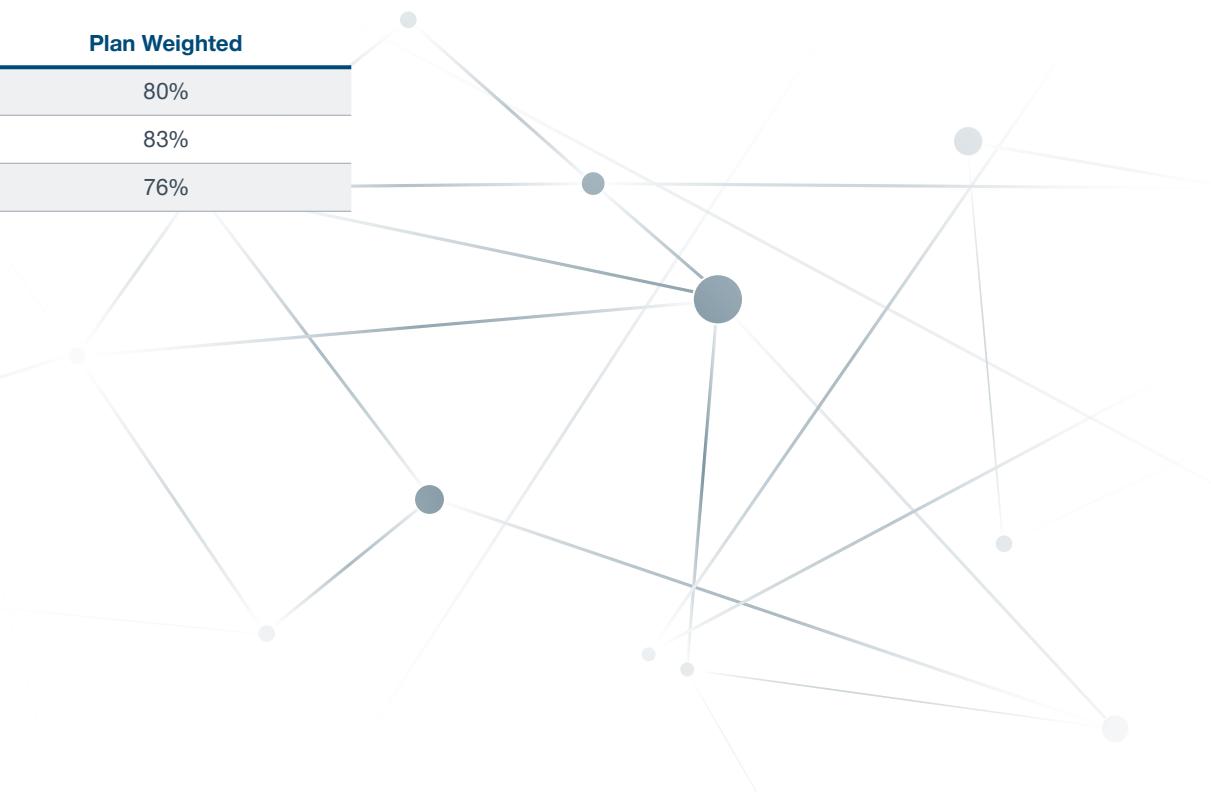




No. 19 **PARTICIPATION RATE BREAKDOWN—BY PLAN PARTICIPANT COUNT (PLAN WEIGHTED)**

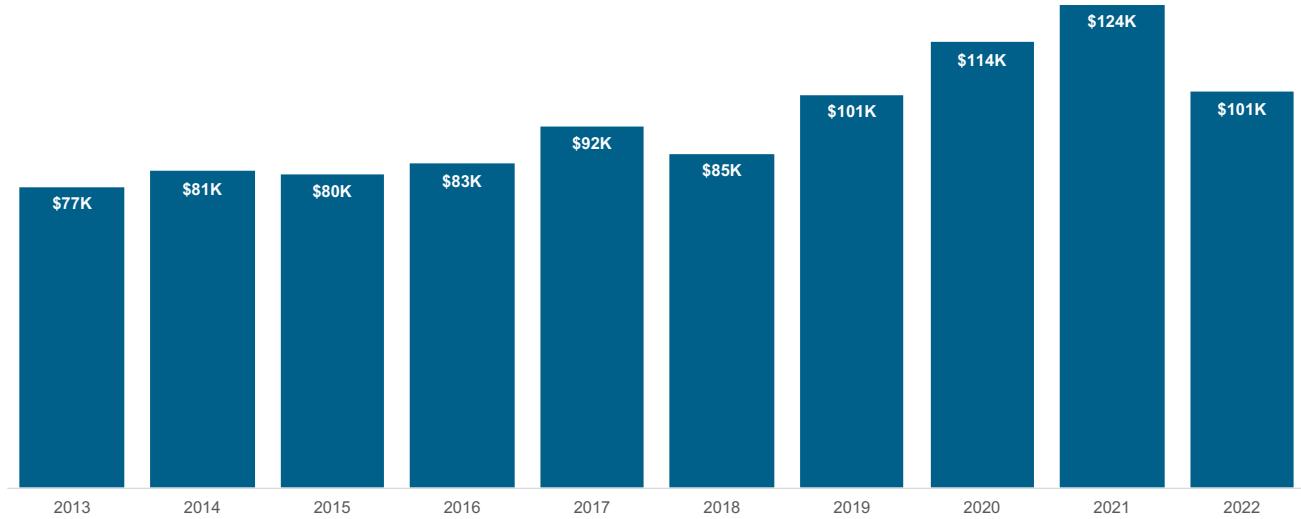


Participant Size Range	Plan Weighted
<1K	80%
1K-5K	83%
>5K	76%

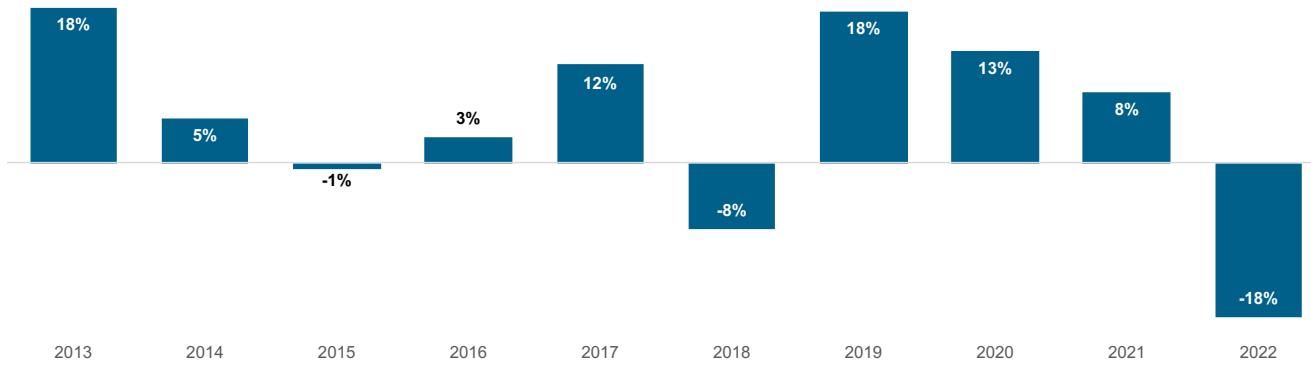




## No.20 AVERAGE ACCOUNT BALANCE

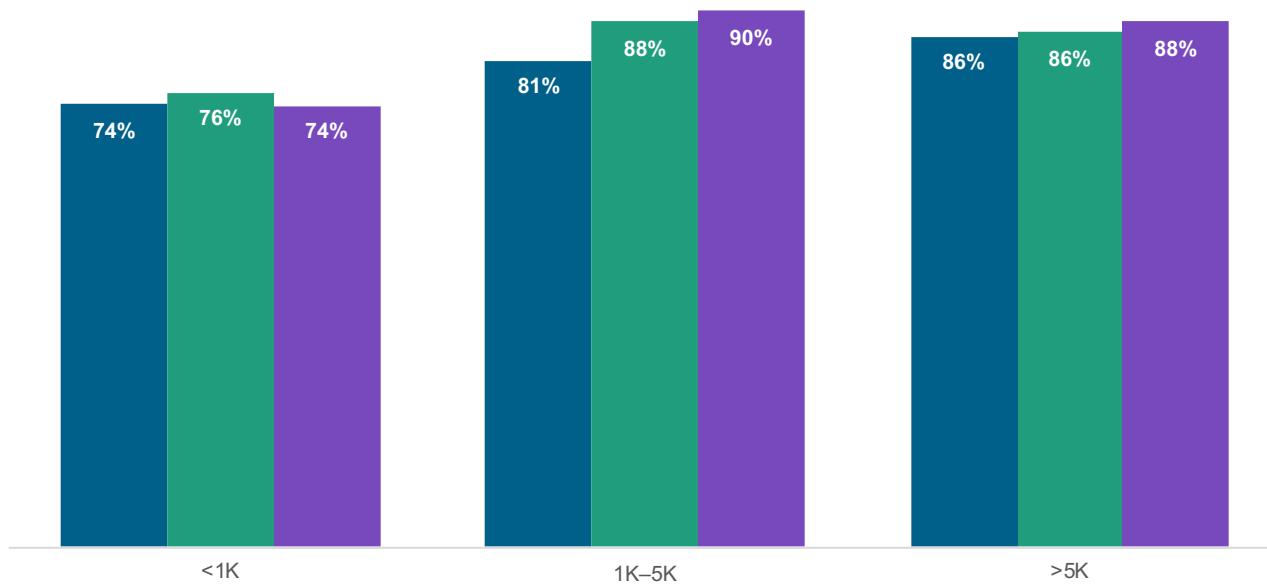


## YEAR-OVER-YEAR ACCOUNT BALANCE CHANGE





No.21 PERCENTAGE OF PLANS WITH MATCH BY NUMBER OF PARTICIPANTS



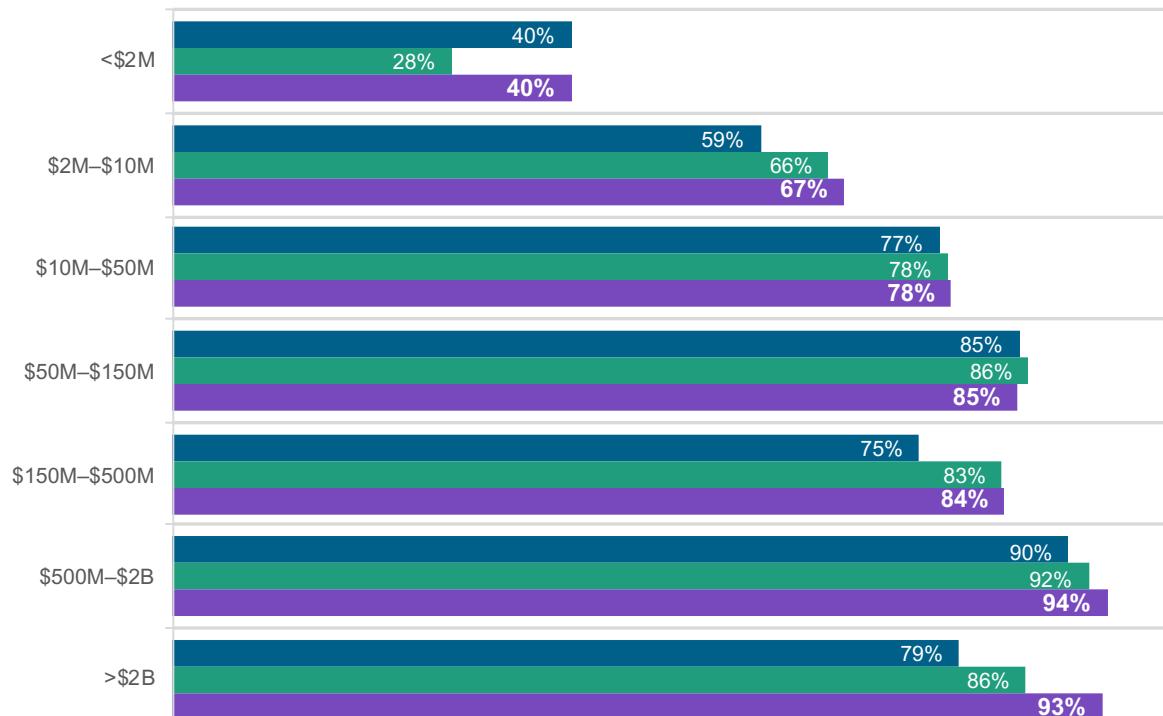
■ 2020  
■ 2021  
■ 2022



Participant Range	2020	2021	2022
<1K	74%	76%	74%
1K-5K	81%	88%	90%
>5K	86%	86%	88%



## No.22 PERCENTAGE OF PLANS WITH MATCH FORMULAS BY ASSETS



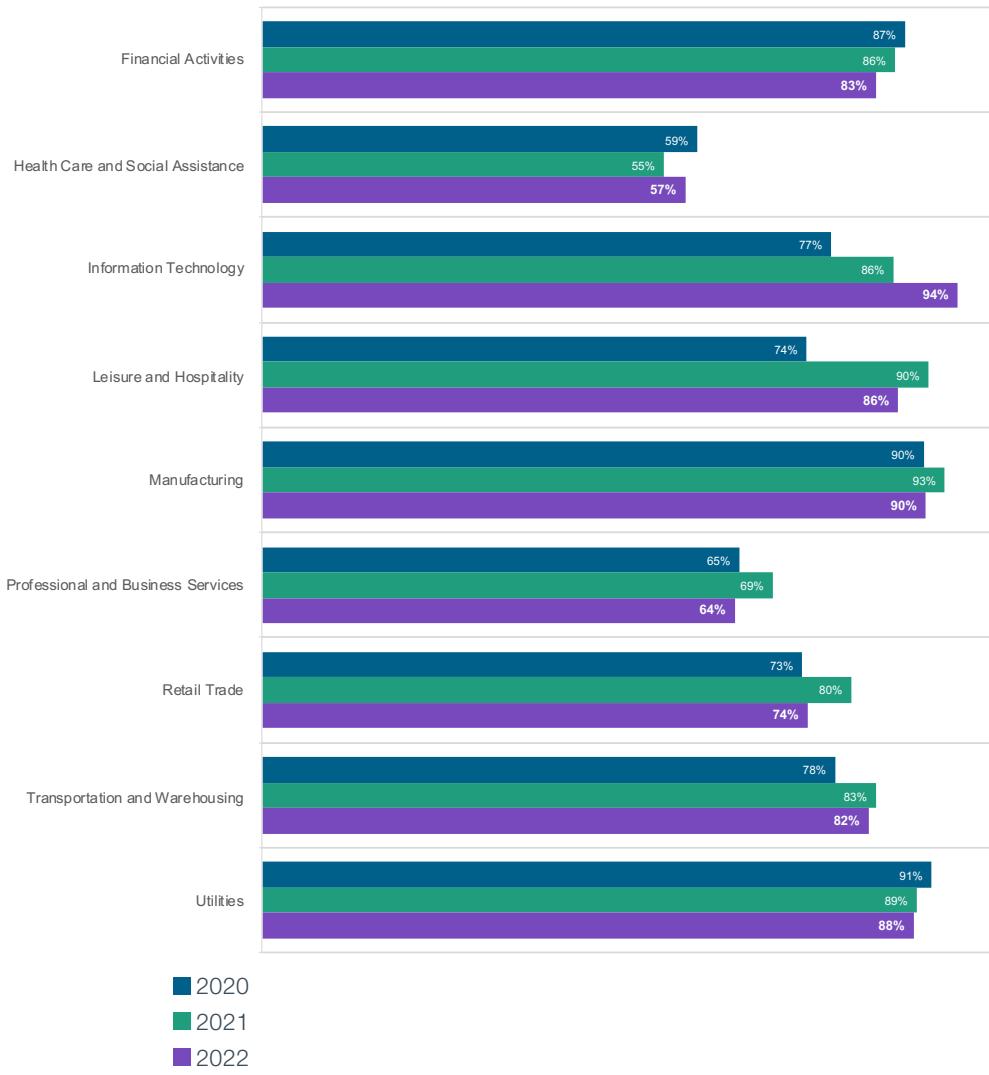
■ 2020  
 ■ 2021  
 ■ 2022

2020 2021 2022

Asset Range			
<\$2M	40%	28%	40%
\$2M-\$10M	59%	66%	67%
\$10M-\$50M	77%	78%	78%
\$50M-\$150M	85%	86%	85%
\$150M-\$500M	75%	83%	84%
\$500M-\$2B	90%	92%	94%
>\$2B	79%	86%	93%



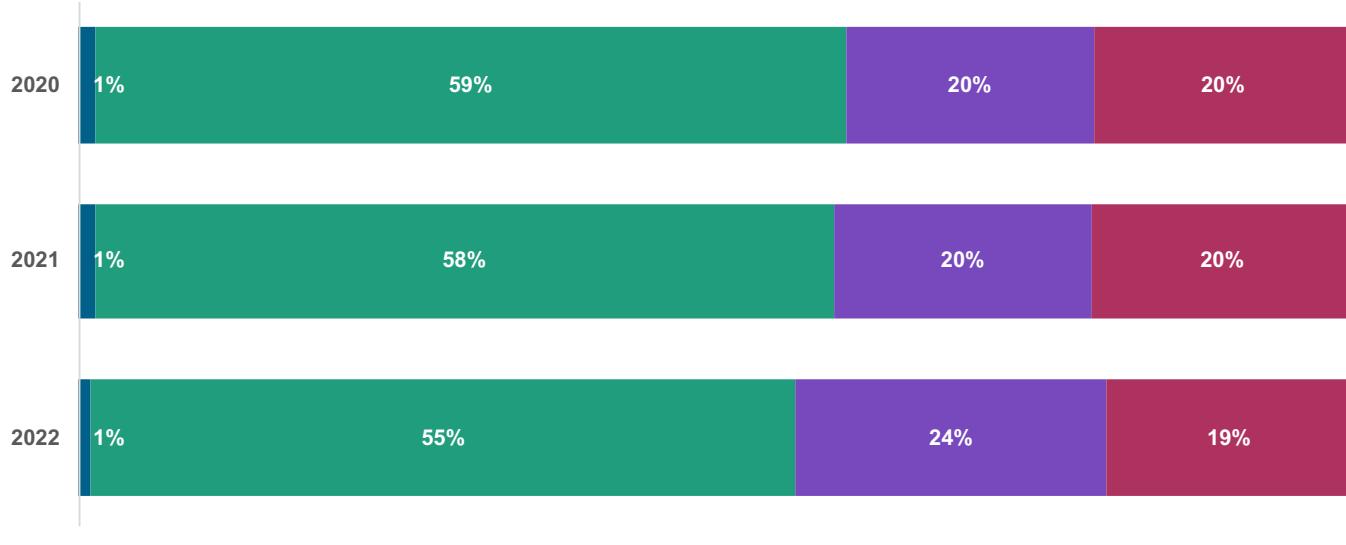
## No.23 PERCENTAGE OF PLANS WITH MATCH FORMULAS BY INDUSTRY



Industry	2020	2021	2022
Financial Activities	87%	86%	83%
Health Care and Social Assistance	59%	55%	57%
Information Technology	77%	86%	94%
Leisure and Hospitality	74%	90%	86%
Manufacturing	90%	93%	90%
Professional and Business Services	65%	69%	64%
Retail Trade	73%	80%	74%
Transportation and Warehousing	78%	83%	82%
Utilities	91%	89%	88%

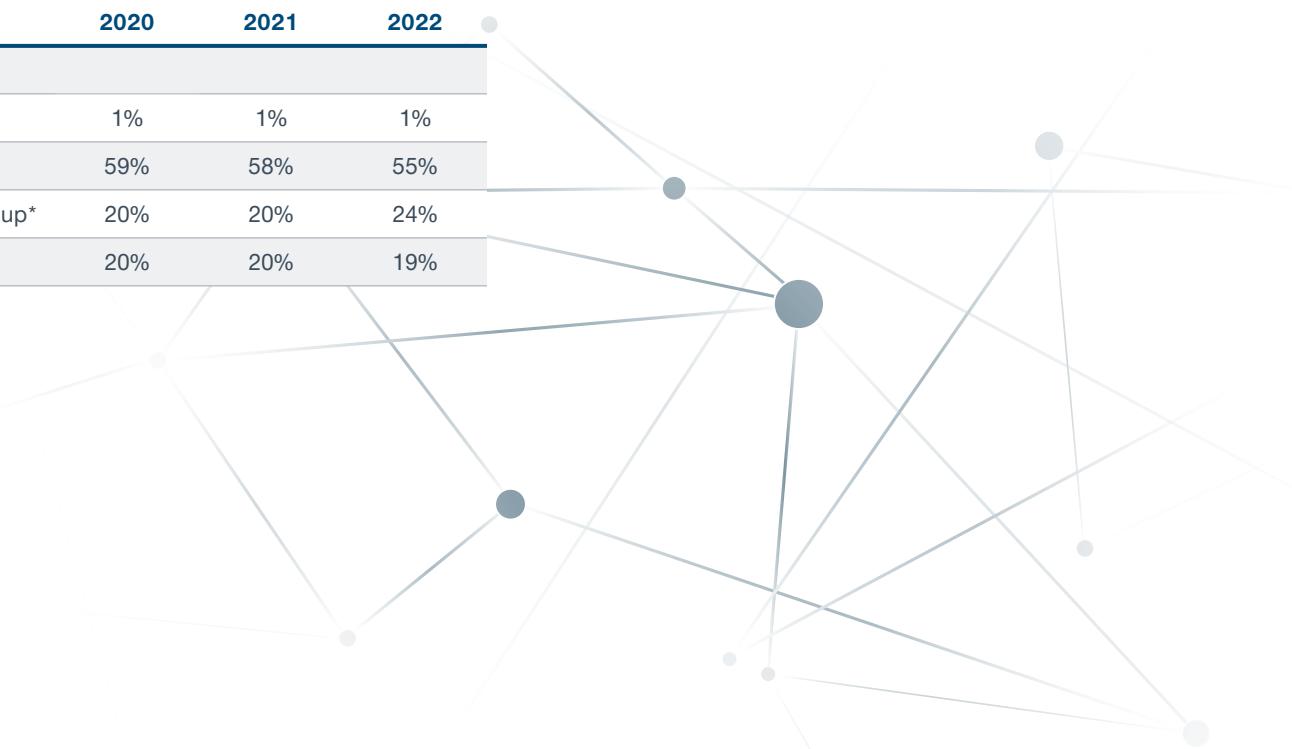


## No. 24 EMPLOYER MATCH TYPE



- Fixed Dollar
- Fixed Percent
- Match By Group\*
- Tiered

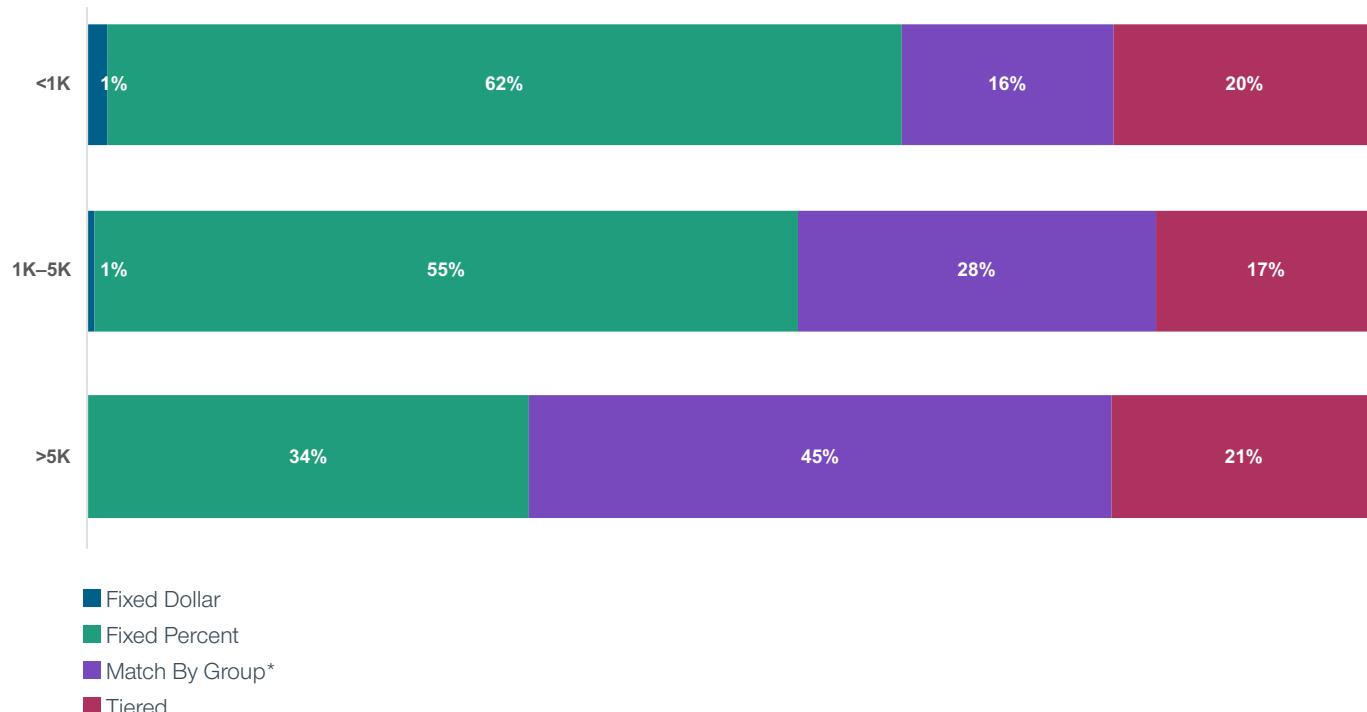
	2020	2021	2022
Match Type			
Fixed Dollar	1%	1%	1%
Fixed Percent	59%	58%	55%
Match By Group*	20%	20%	24%
Tiered	20%	20%	19%



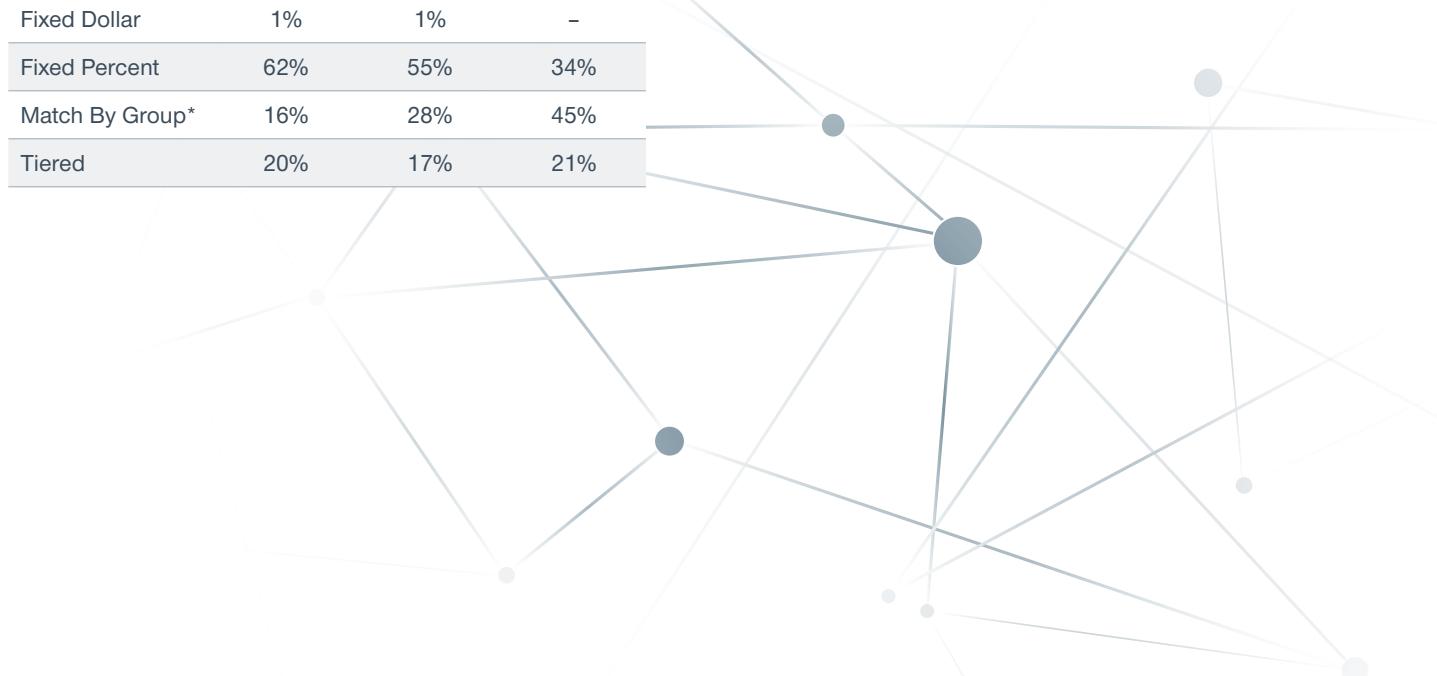
\*"Match By Group" refers to plans that have multiple match formulas for different groups of employees. For example, union versus nonunion or full time versus part time.



## No. 25 EMPLOYER MATCH TYPES BY NUMBER OF PARTICIPANTS



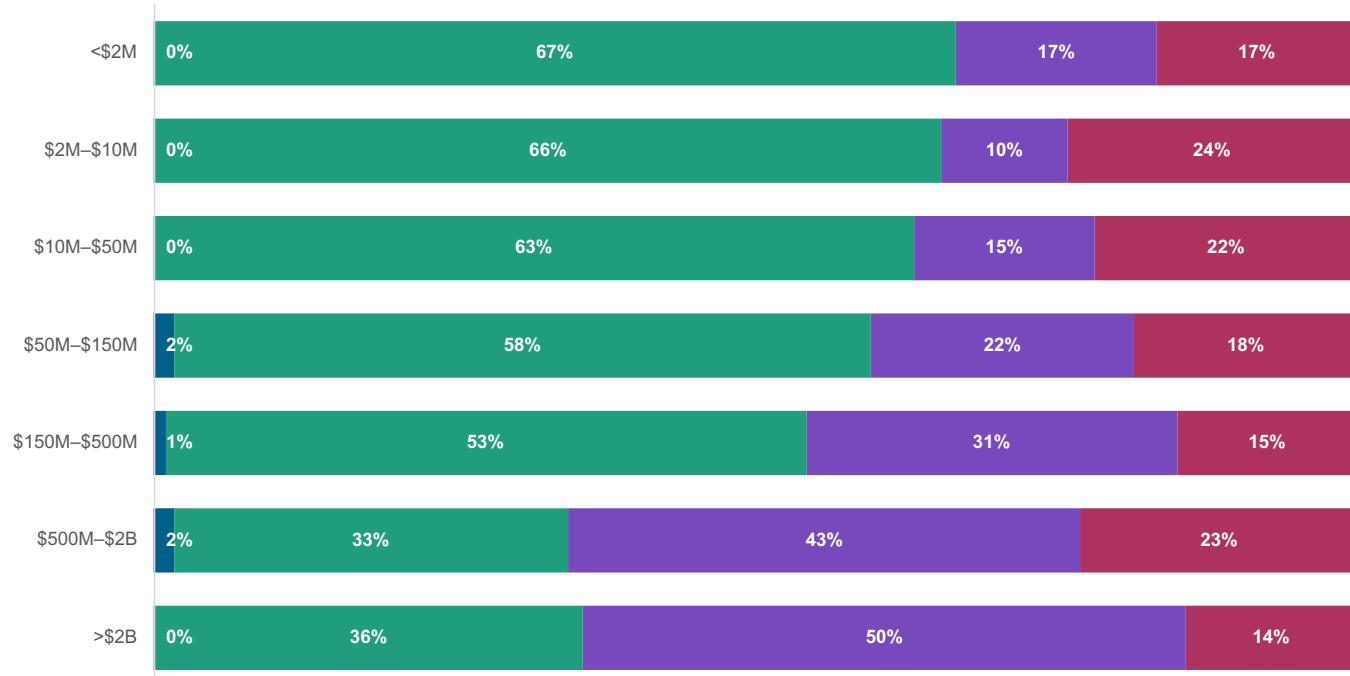
	<1K	1K-5K	>5K
<b>2022 Match Type</b>			
Fixed Dollar	1%	1%	-
Fixed Percent	62%	55%	34%
Match By Group*	16%	28%	45%
Tiered	20%	17%	21%



\*“Match By Group” refers to plans that have multiple match formulas for different groups of employees. For example, union versus nonunion or full time versus part time.



## No. 26 EMPLOYER MATCH TYPE BY ASSET SIZE



■ Fixed Dollar

■ Fixed Percent

■ Match By Group\*

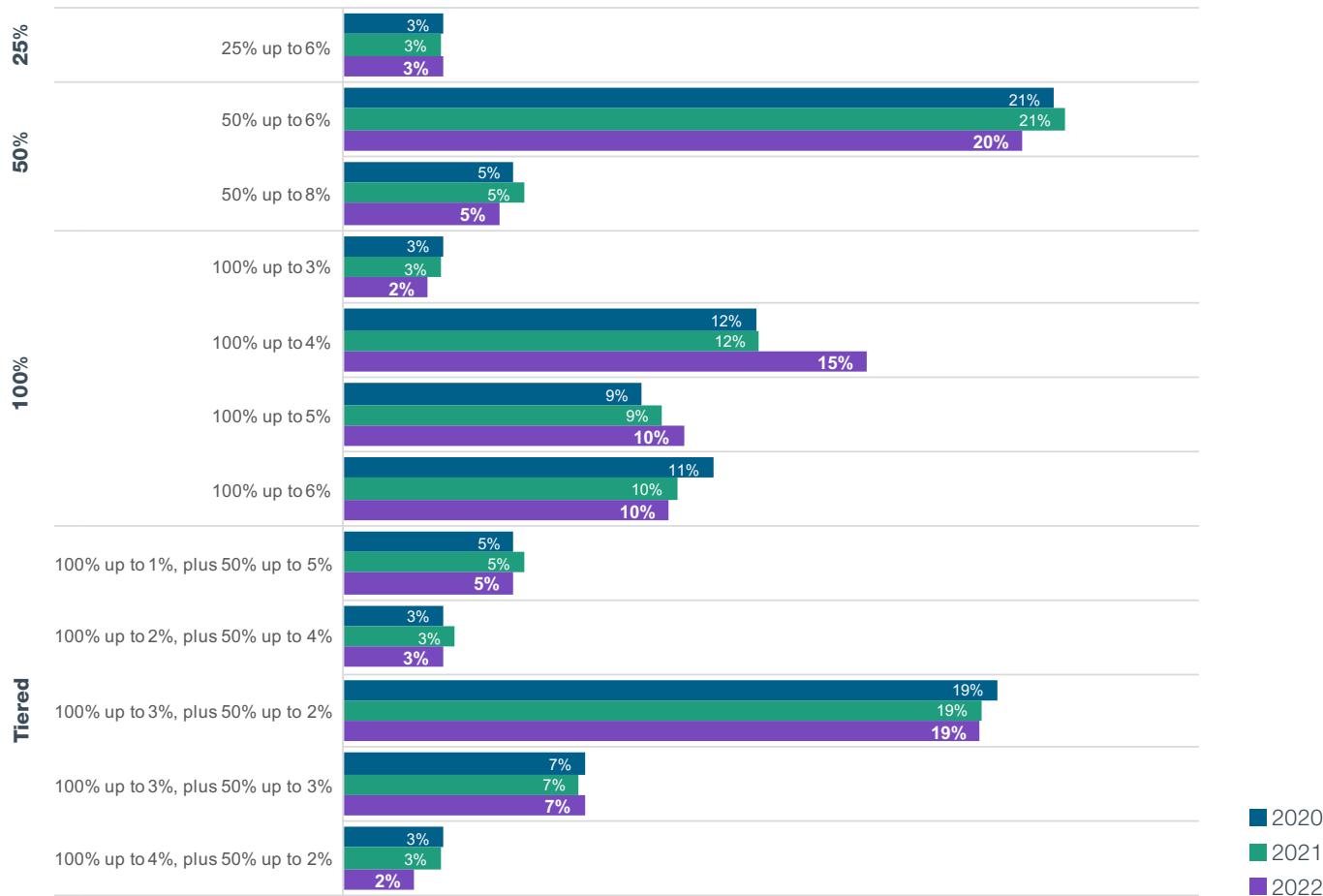
■ Tiered

	<\$2M	\$2M-\$10M	\$10M-\$50M	\$50M-\$150M	\$150M-\$500M	\$500M-\$2B	>\$2B
<b>2022 Match Type</b>							
Fixed Dollar	-	-	-	2%	1%	2%	-
Fixed Percent	67%	66%	63%	58%	53%	33%	36%
Match By Group*	17%	10%	15%	22%	31%	43%	50%
Tiered	17%	24%	22%	18%	15%	23%	14%

\* "Match By Group" refers to plans that have multiple match formulas for different groups of employees. For example, union versus nonunion or full time versus part time.



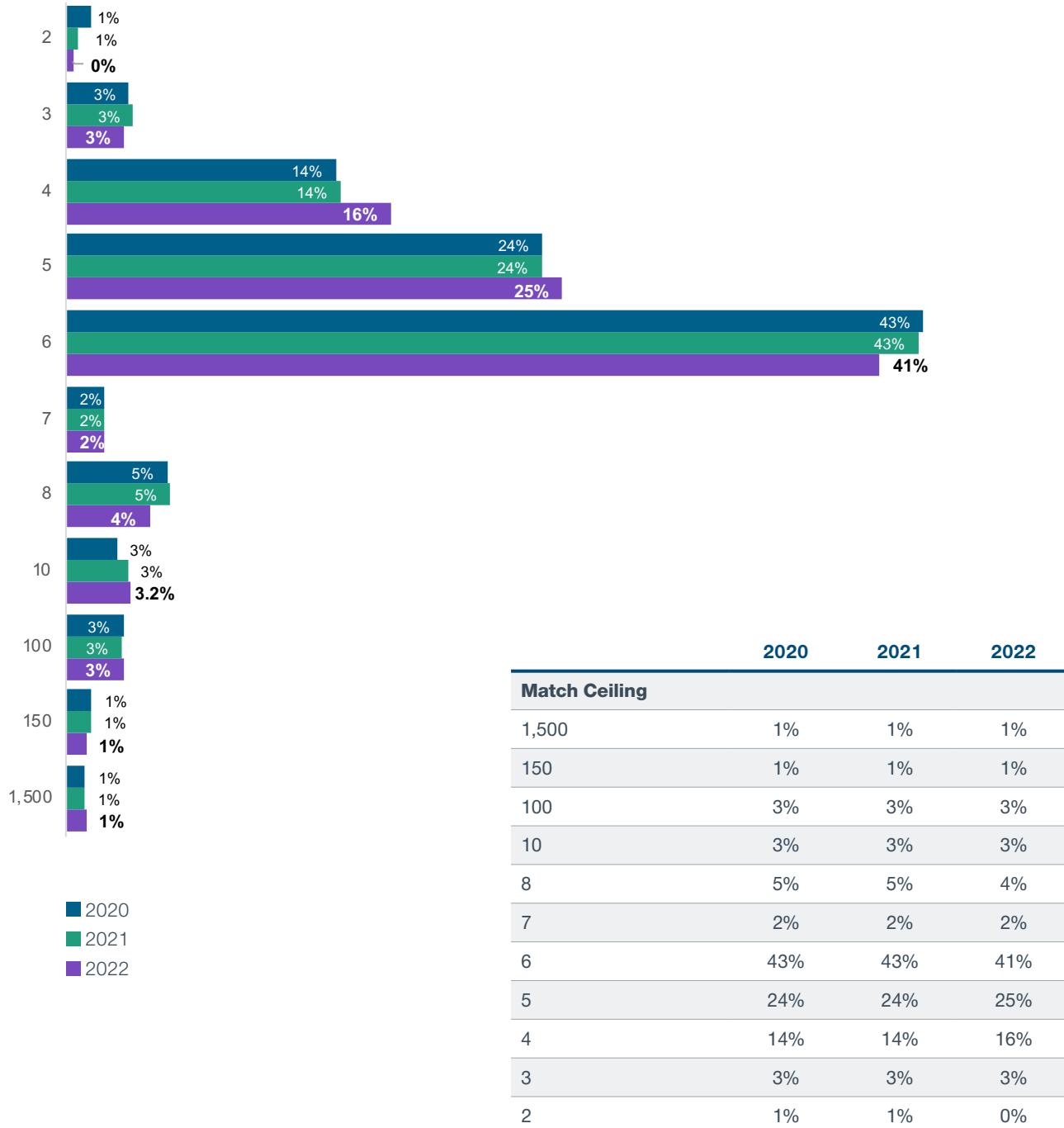
## No.27 TOP MATCH FORMULAS



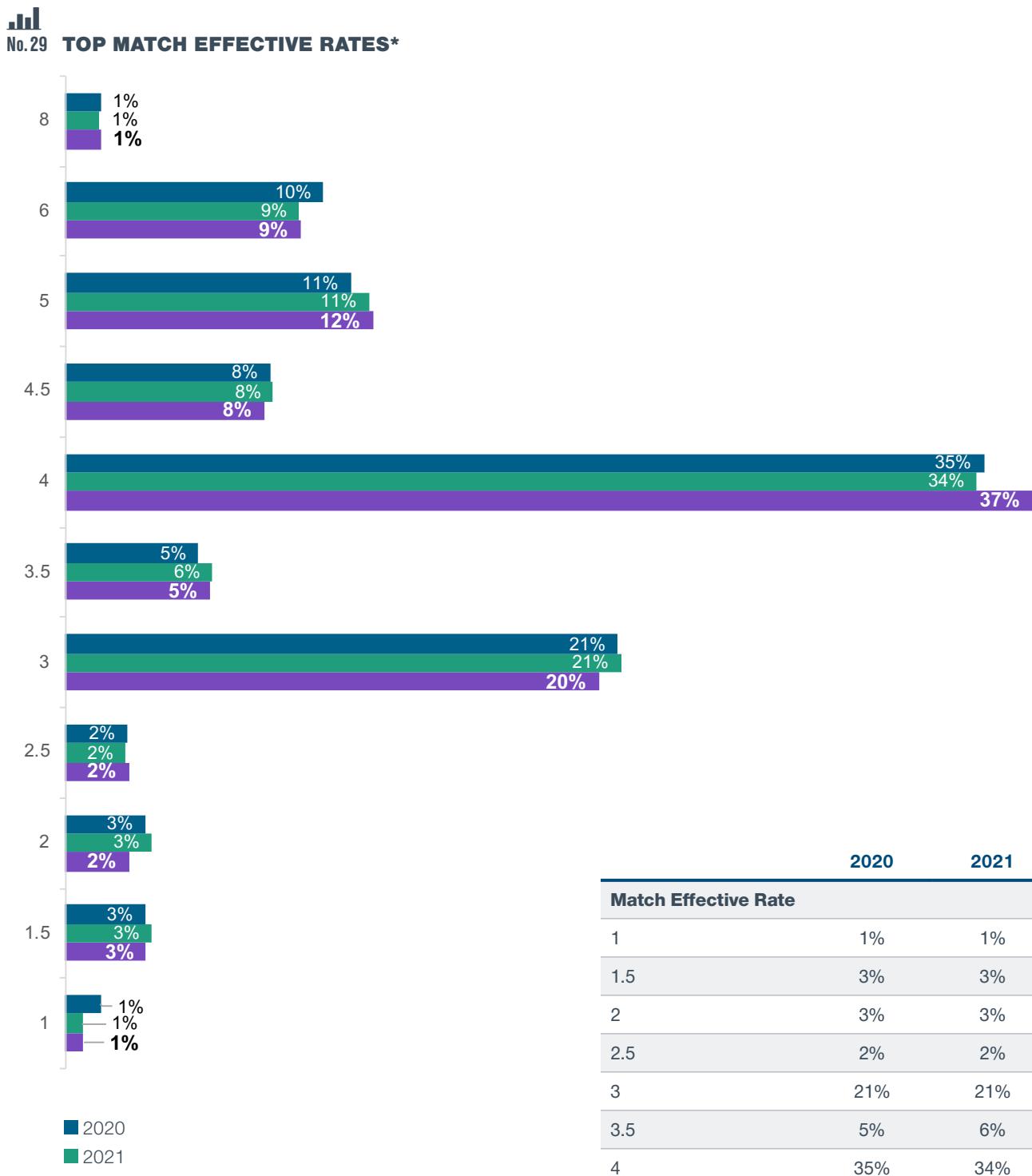
		2020	2021	2022
25%	25% up to 6%	3%	3%	3%
	50% up to 6%	21%	21%	20%
	50% up to 8%	5%	5%	5%
100%	100% up to 3%	3%	3%	2%
	100% up to 4%	12%	12%	15%
	100% up to 5%	9%	9%	10%
Tiered	100% up to 6%	11%	10%	10%
	100% up to 1%, plus 50% up to 5%	5%	5%	5%
	100% up to 2%, plus 50% up to 4%	3%	3%	3%
Tiered	100% up to 3%, plus 50% up to 2%	19%	19%	19%
	100% up to 3%, plus 50% up to 3%	7%	7%	7%
	100% up to 4%, plus 50% up to 2%	3%	3%	2%



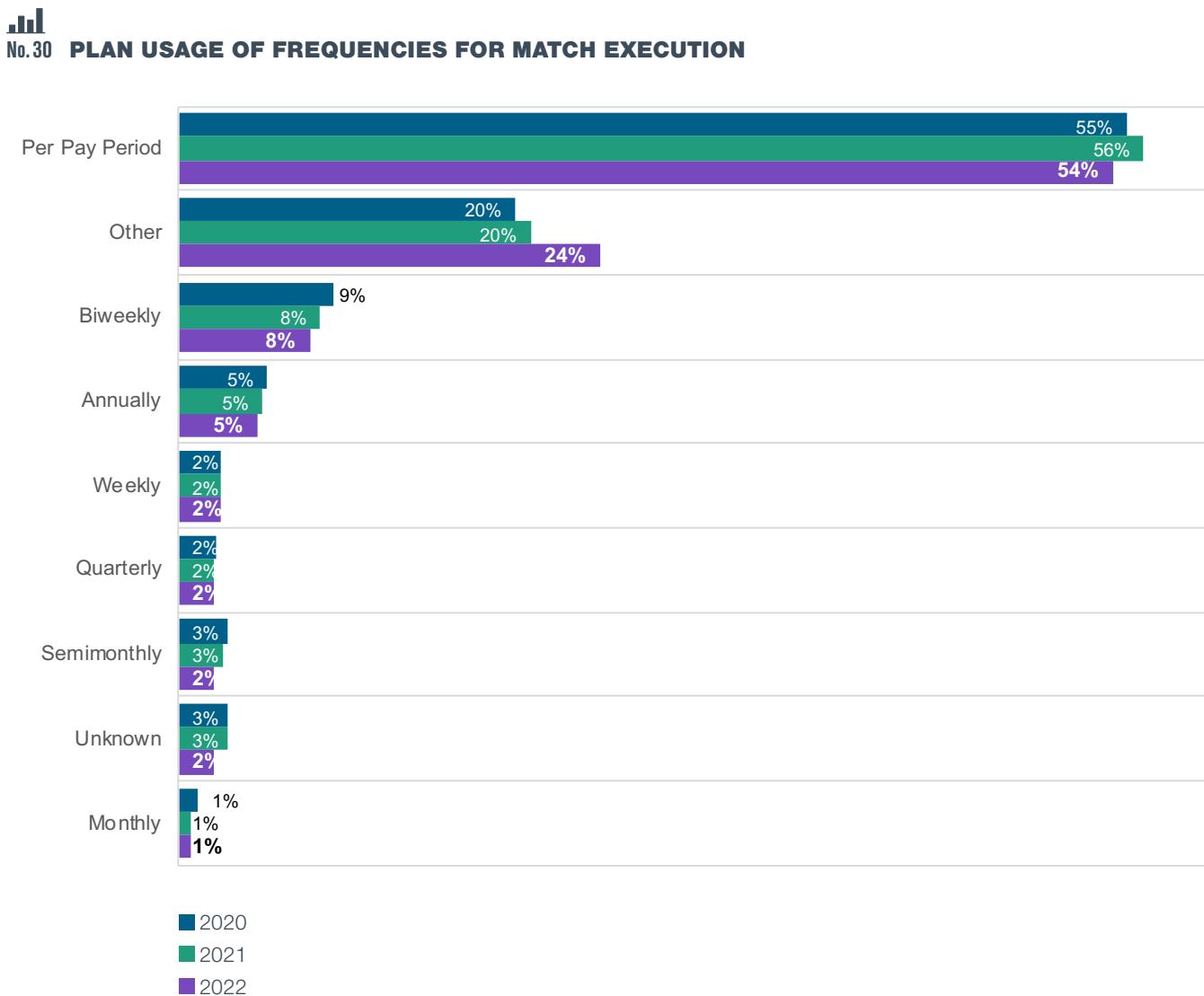
## No.28 TOP MATCH CEILINGS\*



\* Match ceiling is the amount that a participant needs to contribute to take full advantage of the company match.



\*The match effective rate is identified by multiplying the percentage that is matched by the amount of the match. Example: A plan that matches 100% of contributions up to 6% has an effective rate of 6%, while a plan that matches 50% of contributions up to 6% has an effective rate of 3%.



Frequency	2020	2021	2022
Per Pay Period	55%	56%	54%
Other	20%	20%	24%
Biweekly	9%	8%	8%
Annually	5%	5%	5%
Weekly	2%	2%	2%
Quarterly	2%	2%	2%
Semimonthly	3%	3%	2%
Unknown	3%	3%	2%
Monthly	1%	1%	1%

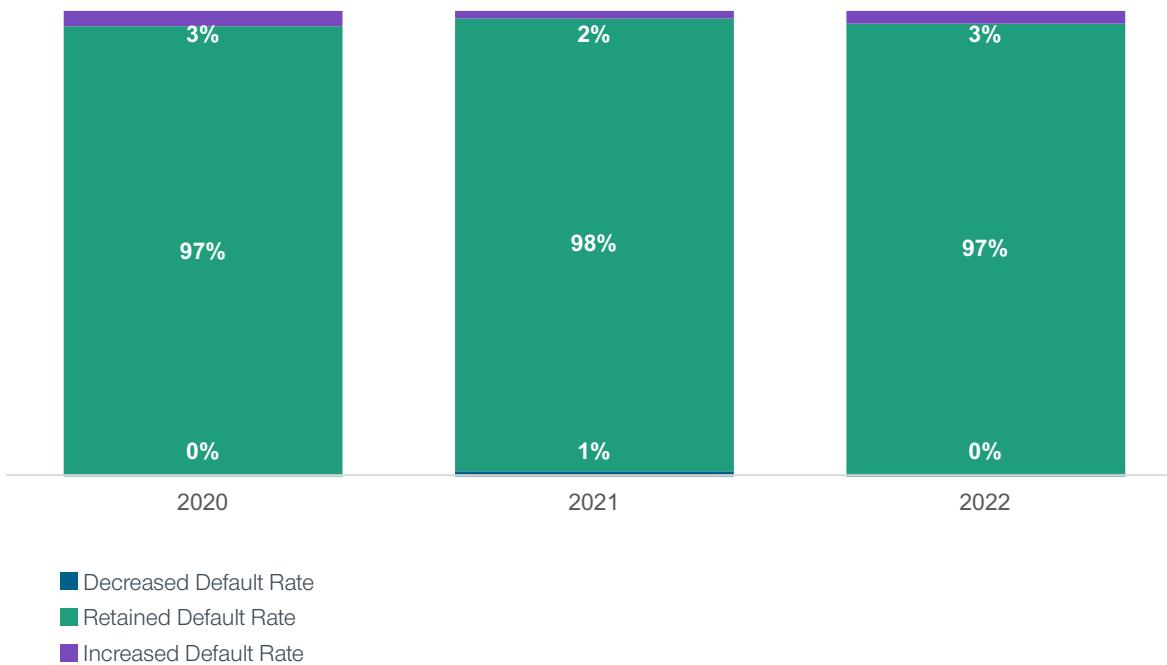


## No.31 PARTICIPANTS' CHANGES TO DEFAULT DEFERRAL RATE



Participants	2020	2021	2022
Decreased Default Rate	8%	7%	10%
Retained Default Rate	50%	51%	54%
Increased Default Rate	42%	42%	37%

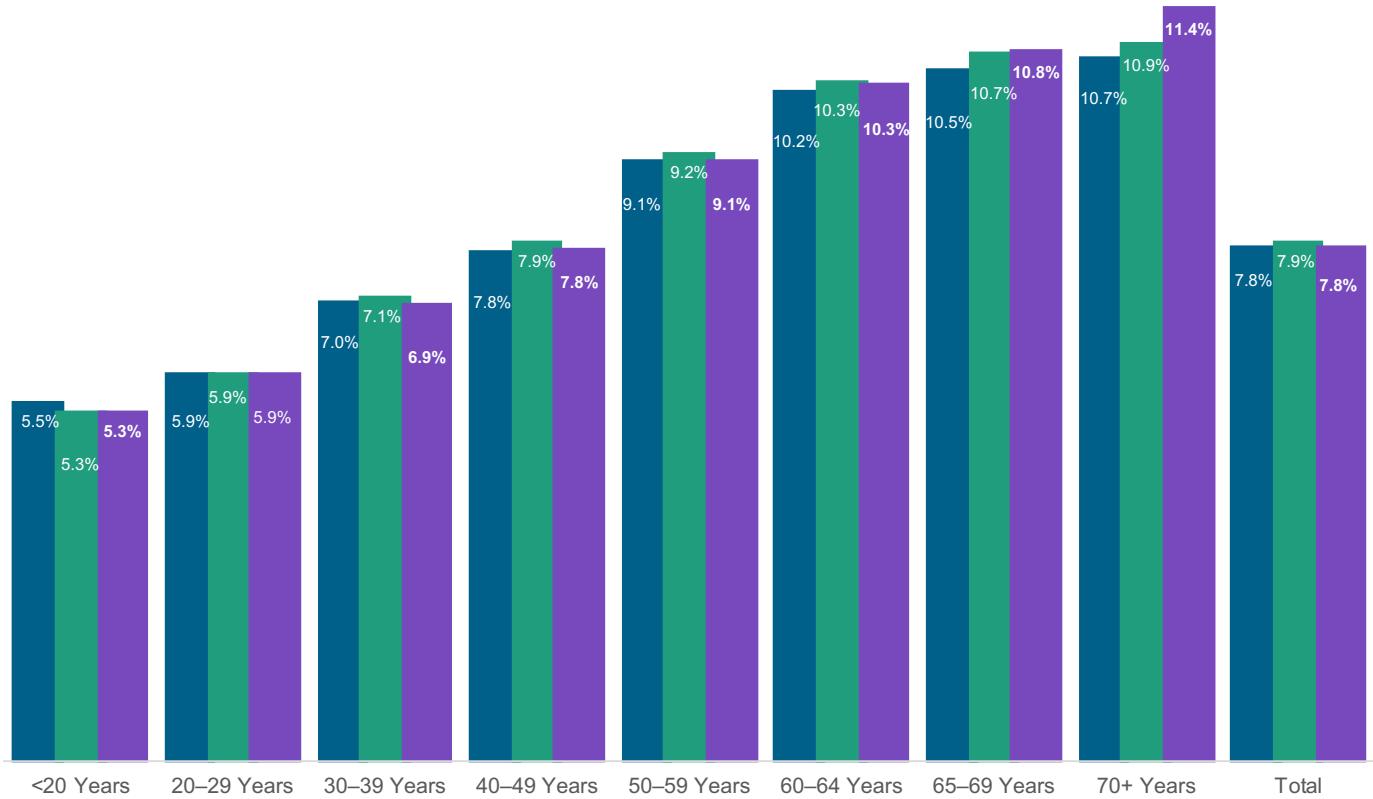
## PLAN SPONSOR ADJUSTMENTS TO DEFAULT DEFERRAL RATES



This chart represents the percentage of auto-enrollment plans that adjusted participants' default deferral rates and the percentage of participants who adjusted a deferral rate during the given period.



## No.32 AVERAGE PRETAX DEFERRAL RATES—BY AGE



2020

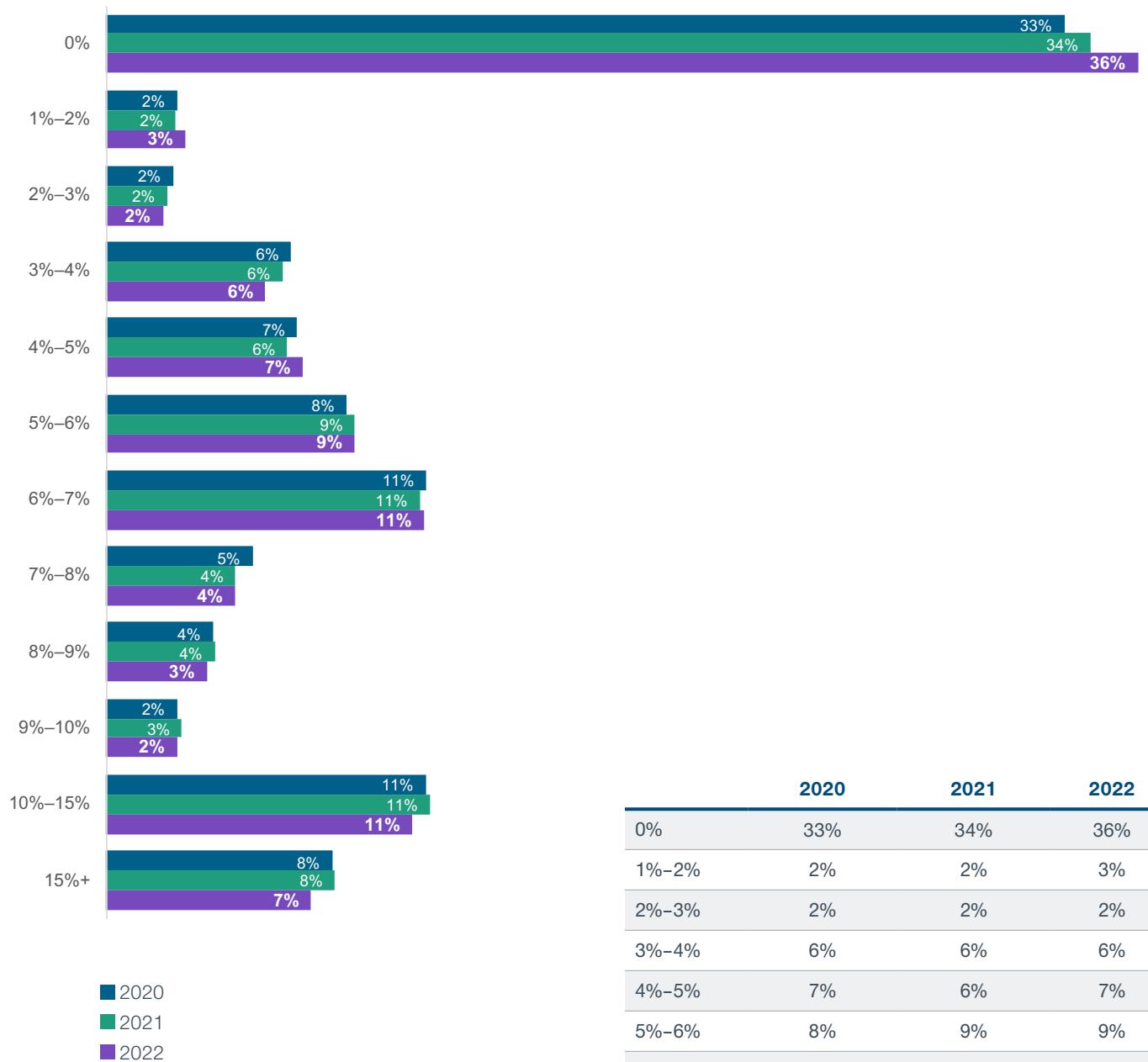
2021

2022

	2020	2021	2022
<20 Years	5.5%	5.3%	5.3%
20-29 Years	5.9%	5.9%	5.9%
30-39 Years	7.0%	7.1%	6.9%
40-49 Years	7.8%	7.9%	7.8%
50-59 Years	9.1%	9.2%	9.1%
60-64 Years	10.2%	10.3%	10.3%
65-69 Years	10.5%	10.7%	10.8%
70+ Years	10.7%	10.9%	11.4%
<b>Total</b>	<b>7.8%</b>	<b>7.9%</b>	<b>7.8%</b>



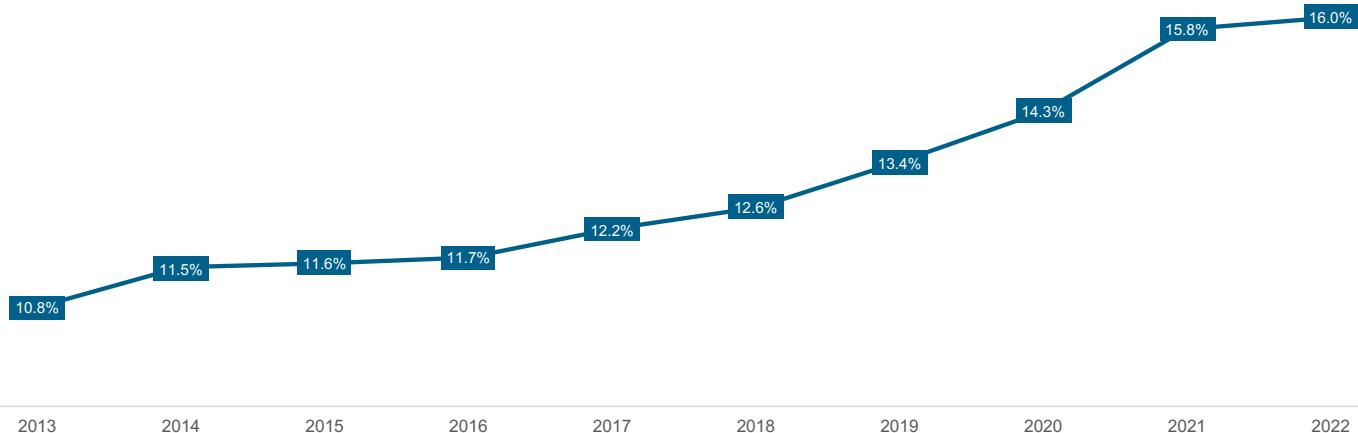
## No.33 PERCENT OF PARTICIPANTS AT EACH DEFERRAL AMOUNT



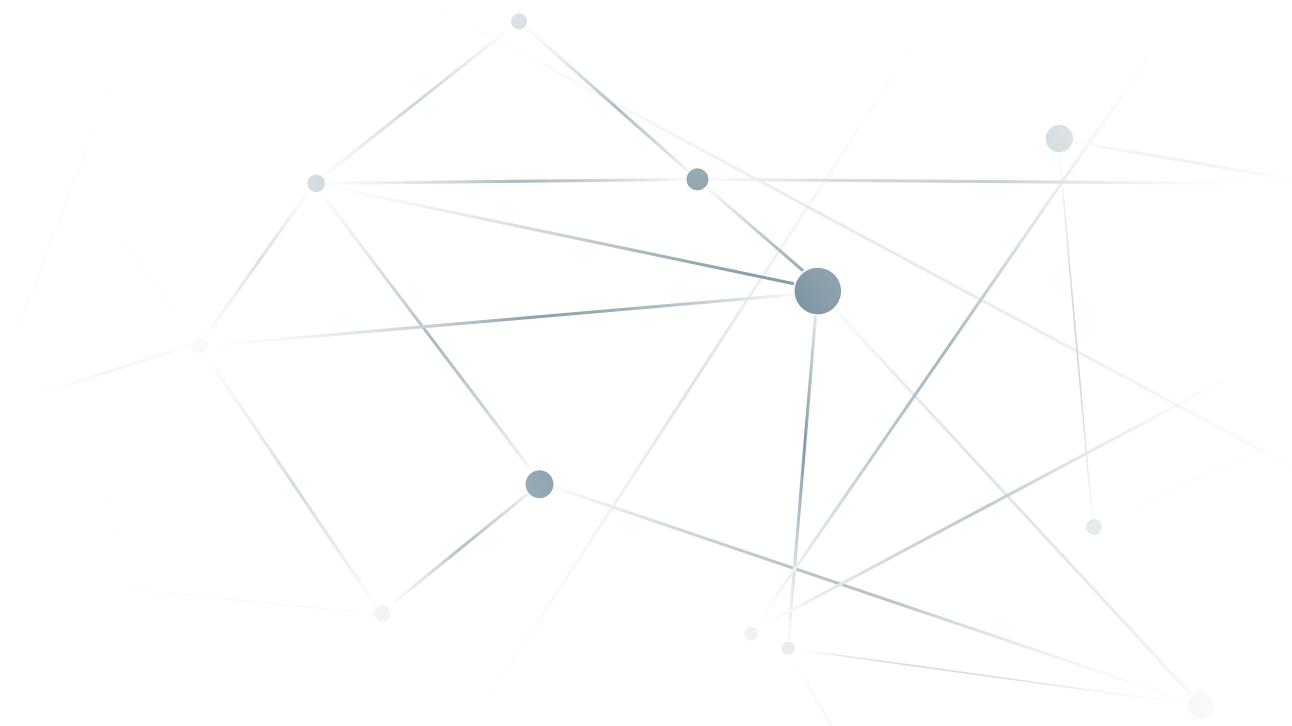
	2020	2021	2022
0%	33%	34%	36%
1%–2%	2%	2%	3%
2%–3%	2%	2%	2%
3%–4%	6%	6%	6%
4%–5%	7%	6%	7%
5%–6%	8%	9%	9%
6%–7%	11%	11%	11%
7%–8%	5%	4%	4%
8%–9%	4%	4%	3%
9%–10%	2%	3%	2%
10%–15%	11%	11%	11%
15%+	8%	8%	7%



No.34 PERCENTAGE OF PARTICIPANTS WITH CATCH-UP CONTRIBUTIONS



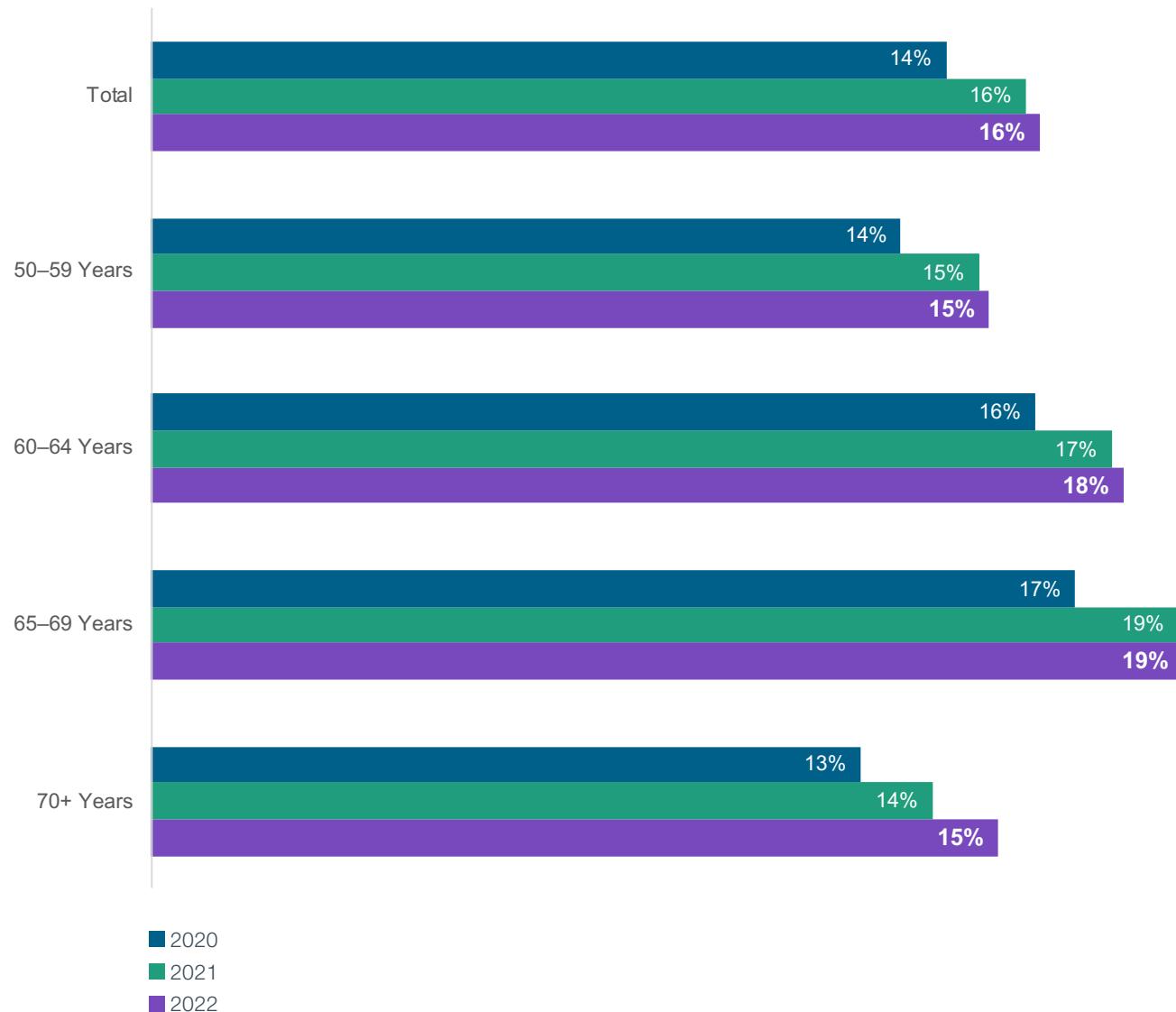
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
% of Participants With Catch-Up	10.8%	11.5%	11.6%	11.7%	12.2%	12.6%	13.4%	14.3%	15.8%	16.0%



Results are based on those participants that are eligible to make catch-up contributions.



No.35 CATCH-UP CONTRIBUTIONS—BY AGE

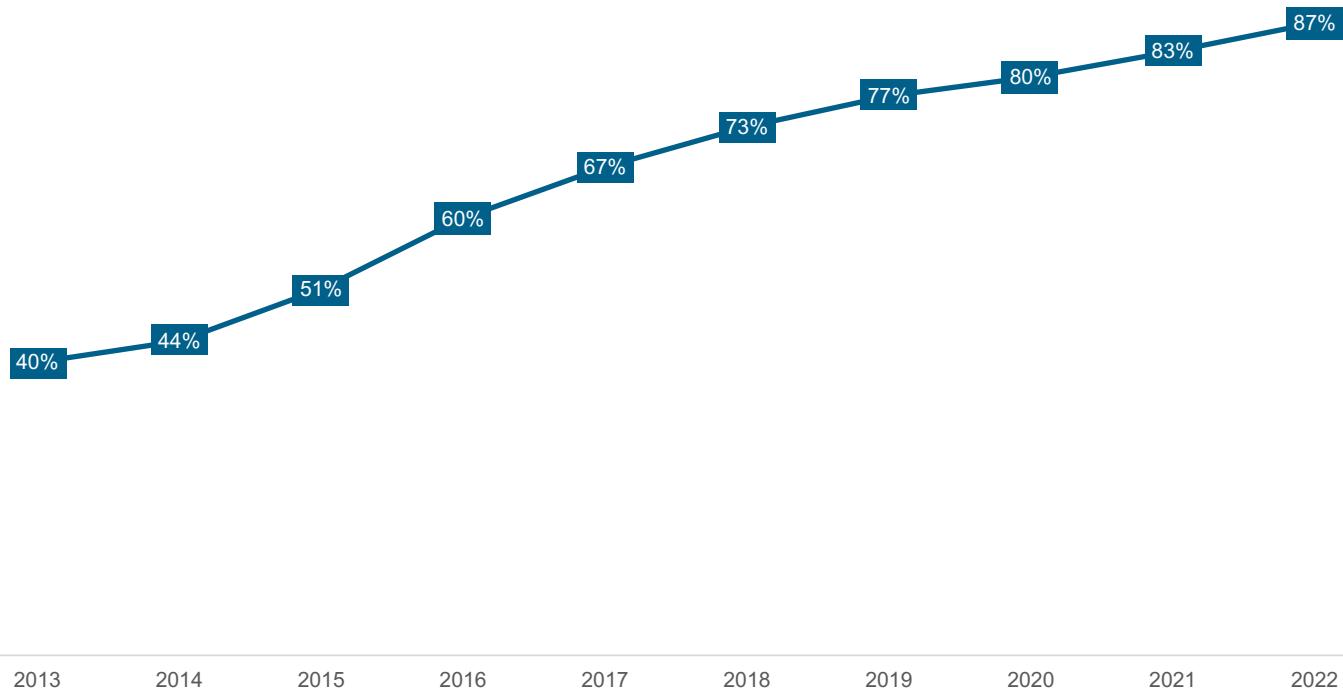


■ 2020  
■ 2021  
■ 2022

	2020	2021	2022
70+ Years	13%	14%	15%
65–69 Years	17%	19%	19%
60–64 Years	16%	17%	18%
50–59 Years	14%	15%	15%
<b>Total</b>	<b>14%</b>	<b>16%</b>	<b>16%</b>



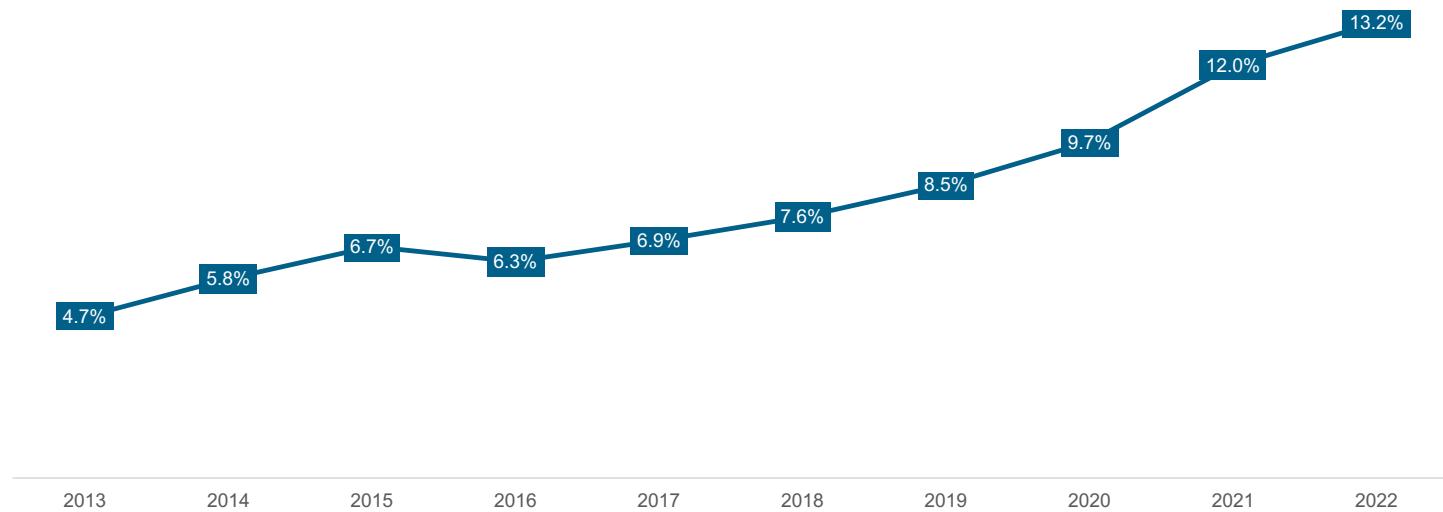
No.36 PERCENTAGE OF PLANS OFFERING ROTH CONTRIBUTIONS



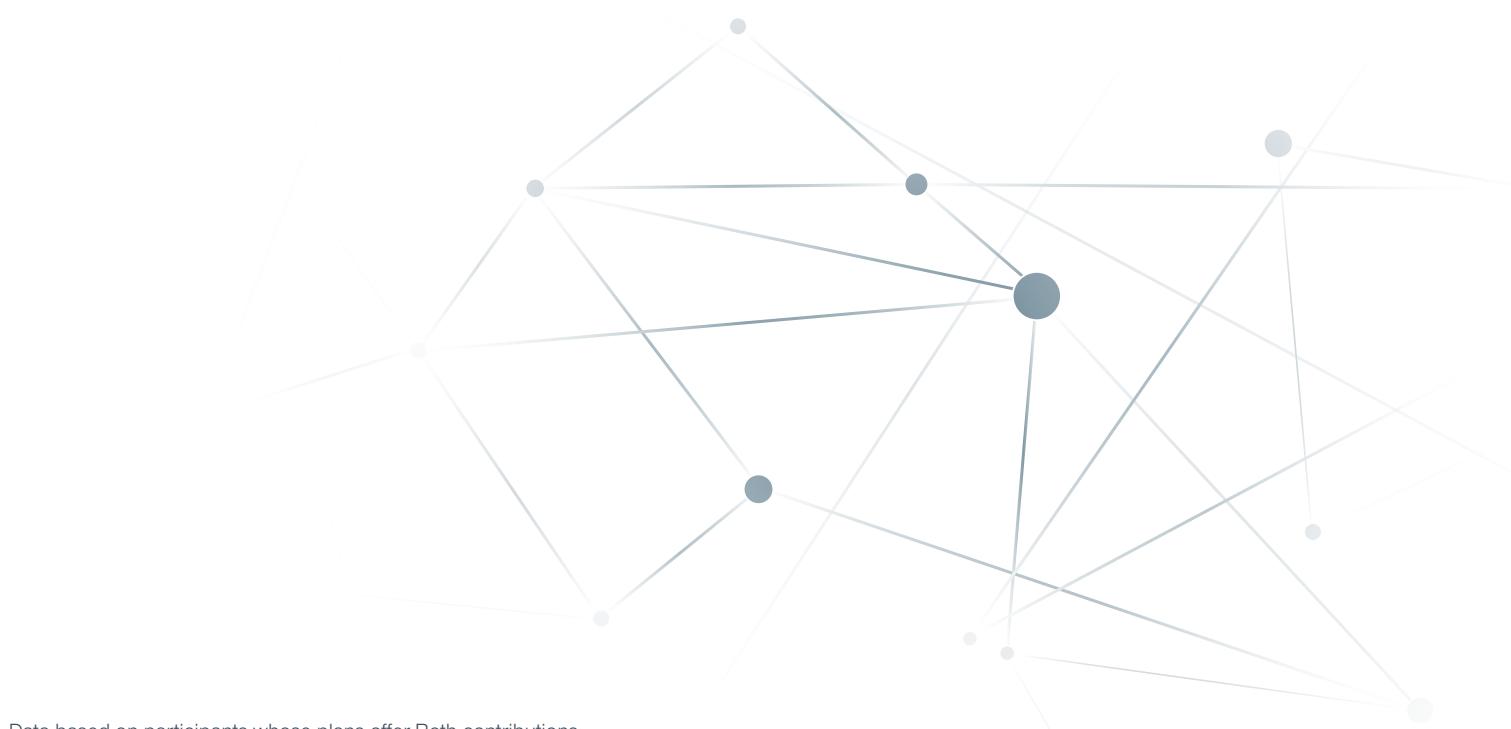
Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Offer Roth	40%	44%	51%	60%	67%	73%	77%	80%	83%	87%



No.37 PERCENTAGE OF PARTICIPANTS MAKING ROTH CONTRIBUTIONS



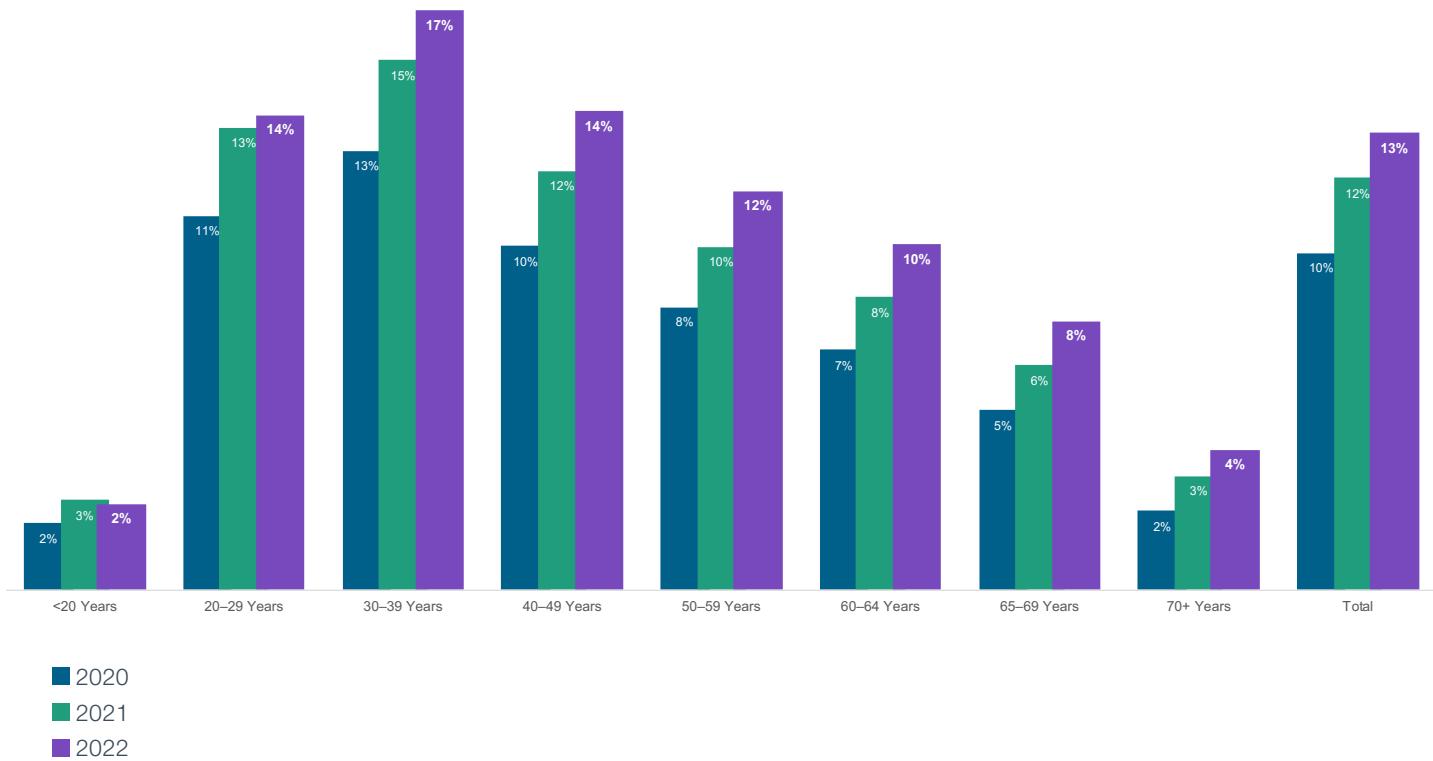
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
% of Participants	4.7%	5.8%	6.7%	6.3%	6.9%	7.6%	8.5%	9.7%	12.0%	13.2%



Data based on participants whose plans offer Roth contributions.



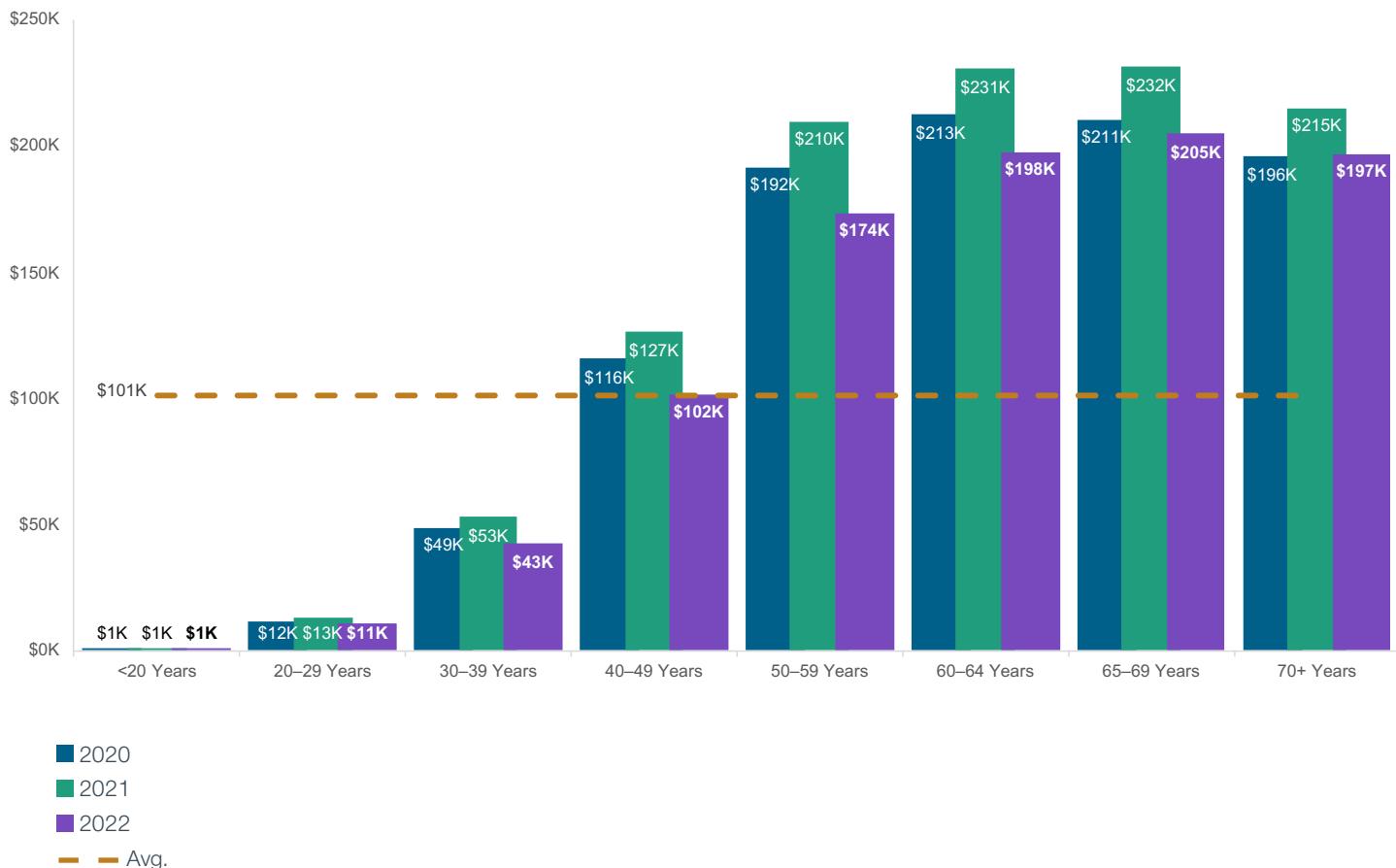
## No.38 PERCENTAGE OF PARTICIPANTS MAKING ROTH CONTRIBUTIONS—BY AGE



	2020	2021	2022
<20 Years	2%	3%	2%
20-29 Years	11%	13%	14%
30-39 Years	13%	15%	17%
40-49 Years	10%	12%	14%
50-59 Years	8%	10%	12%
60-64 Years	7%	8%	10%
65-69 Years	5%	6%	8%
70+ Years	2%	3%	4%
<b>Total</b>	<b>10%</b>	<b>12%</b>	<b>13%</b>



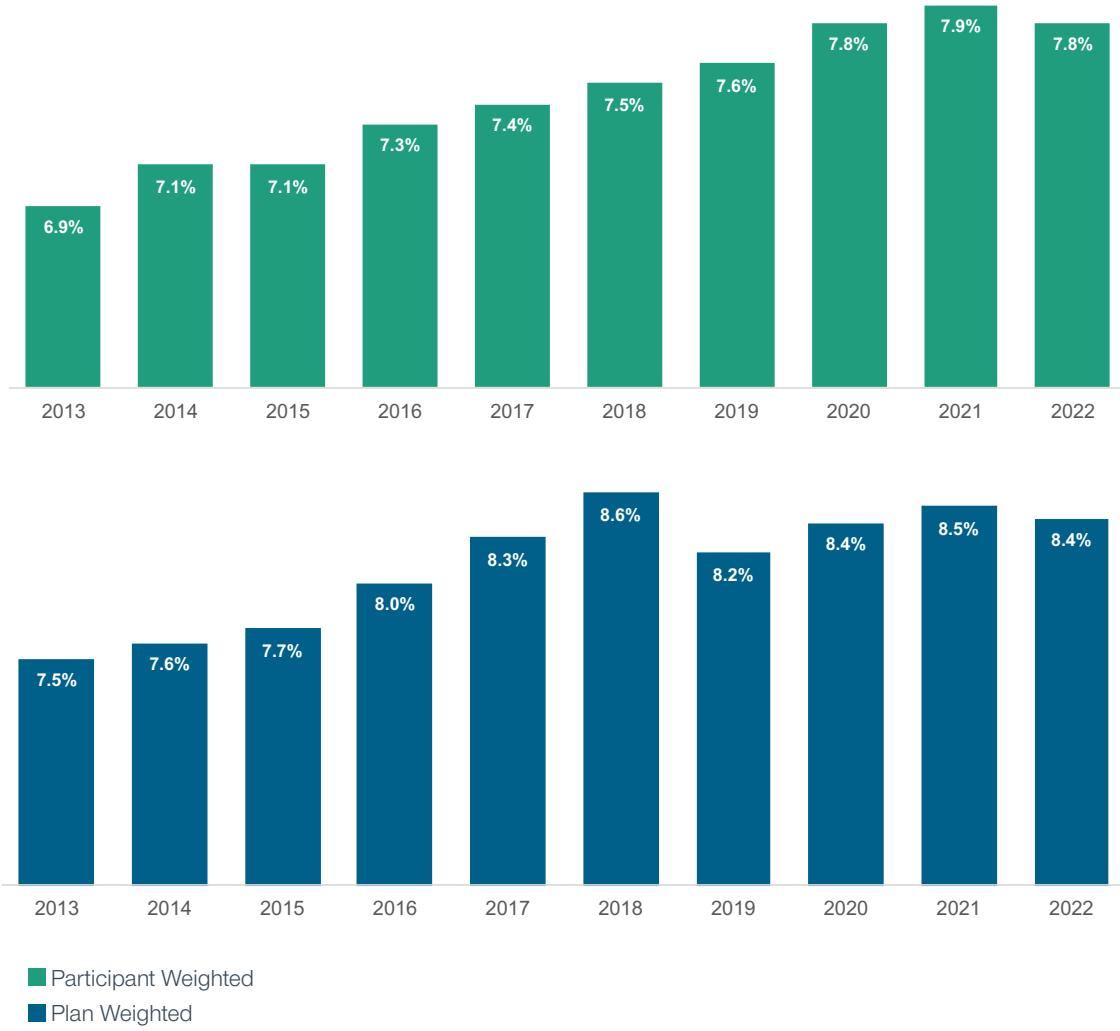
## No.39 AVERAGE ACCOUNT BALANCES—BY AGE



Years	2020	2021	2022
<20 Years	\$1K	\$1K	\$1K
20–29 Years	\$12K	\$13K	\$11K
30–39 Years	\$49K	\$53K	\$43K
40–49 Years	\$116K	\$127K	\$102K
50–59 Years	\$192K	\$210K	\$174K
60–64 Years	\$213K	\$231K	\$198K
65–69 Years	\$211K	\$232K	\$205K
70+ Years	\$196K	\$215K	\$197K
<b>Total</b>	<b>\$114K</b>	<b>\$124K</b>	<b>\$101K</b>



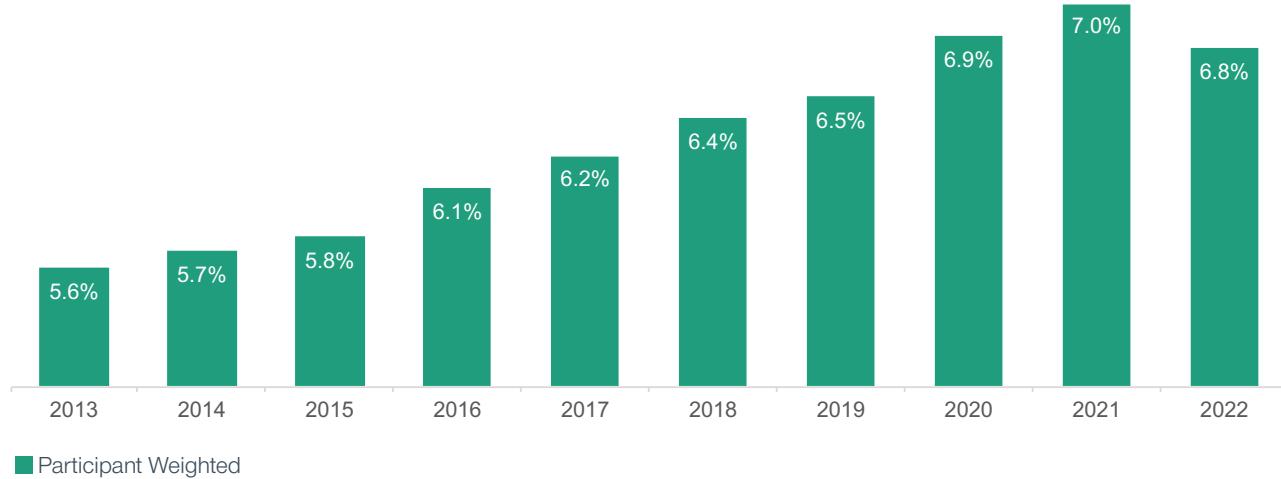
No. 40 AVERAGE EMPLOYEE PRETAX DEFERRALS



■ Participant Weighted  
■ Plan Weighted

**Participant Weighted**      **Plan Weighted**

	Participant Weighted	Plan Weighted
2013	6.9%	7.5%
2014	7.1%	7.6%
2015	7.1%	7.7%
2016	7.3%	8.0%
2017	7.4%	8.3%
2018	7.5%	8.6%
2019	7.6%	8.2%
2020	7.8%	8.4%
2021	7.9%	8.5%
2022	7.8%	8.4%

**AVERAGE EMPLOYEE ROTH DEFERRALS**

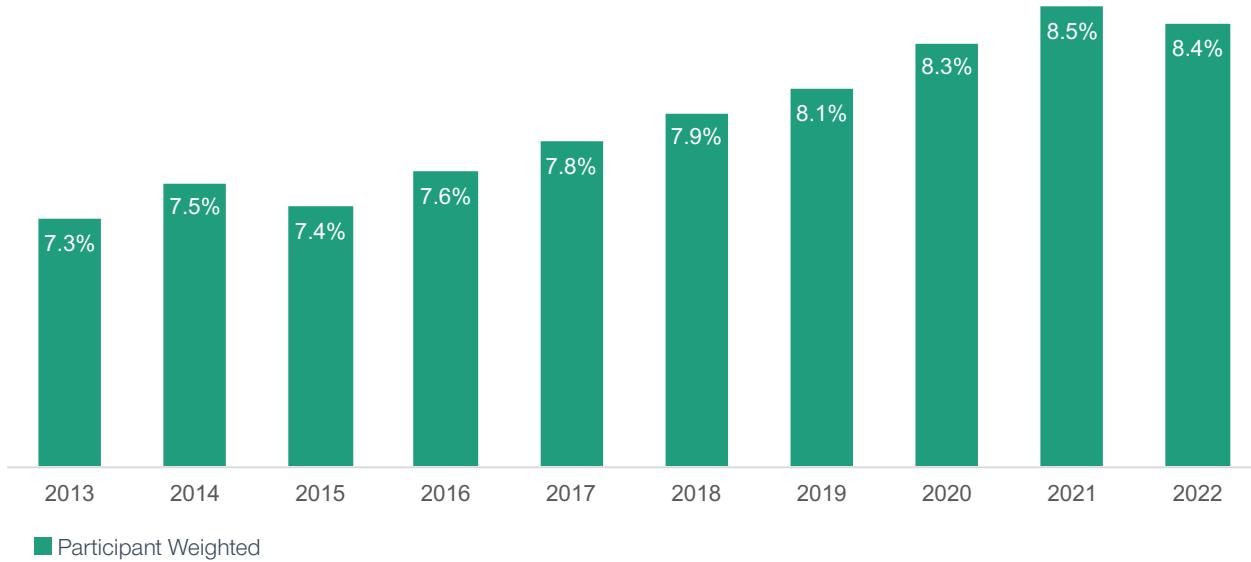
■ Participant Weighted

Roth	
2013	5.6%
2014	5.7%
2015	5.8%
2016	6.1%
2017	6.2%
2018	6.4%
2019	6.5%
2020	6.9%
2021	7.0%
2022	6.8%





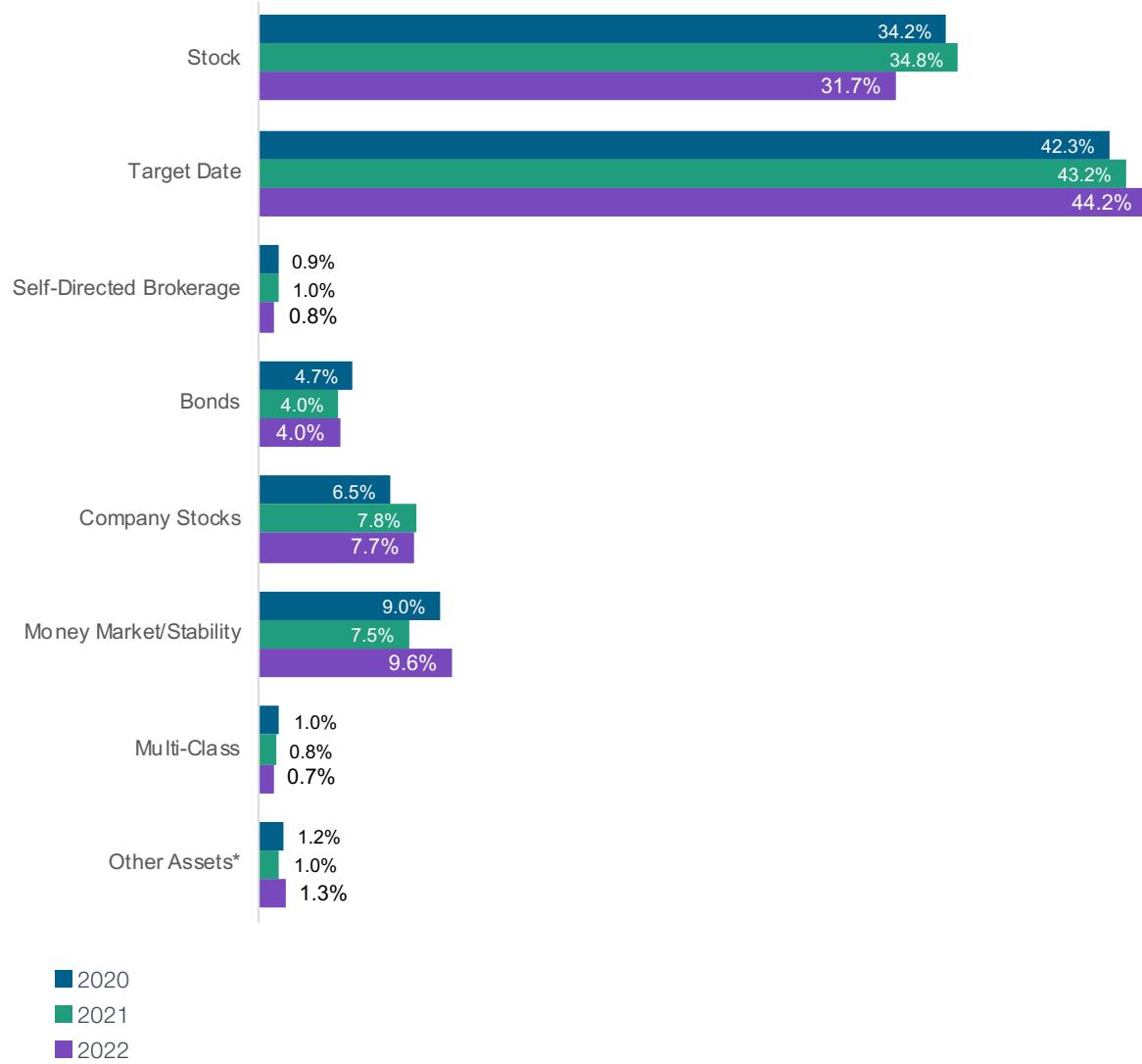
## No. 42 AVERAGE EMPLOYEE COMBINED DEFERRALS



Participant Weighted

Combined	
2013	7.3%
2014	7.5%
2015	7.4%
2016	7.6%
2017	7.8%
2018	7.9%
2019	8.1%
2020	8.3%
2021	8.5%
2022	8.4%



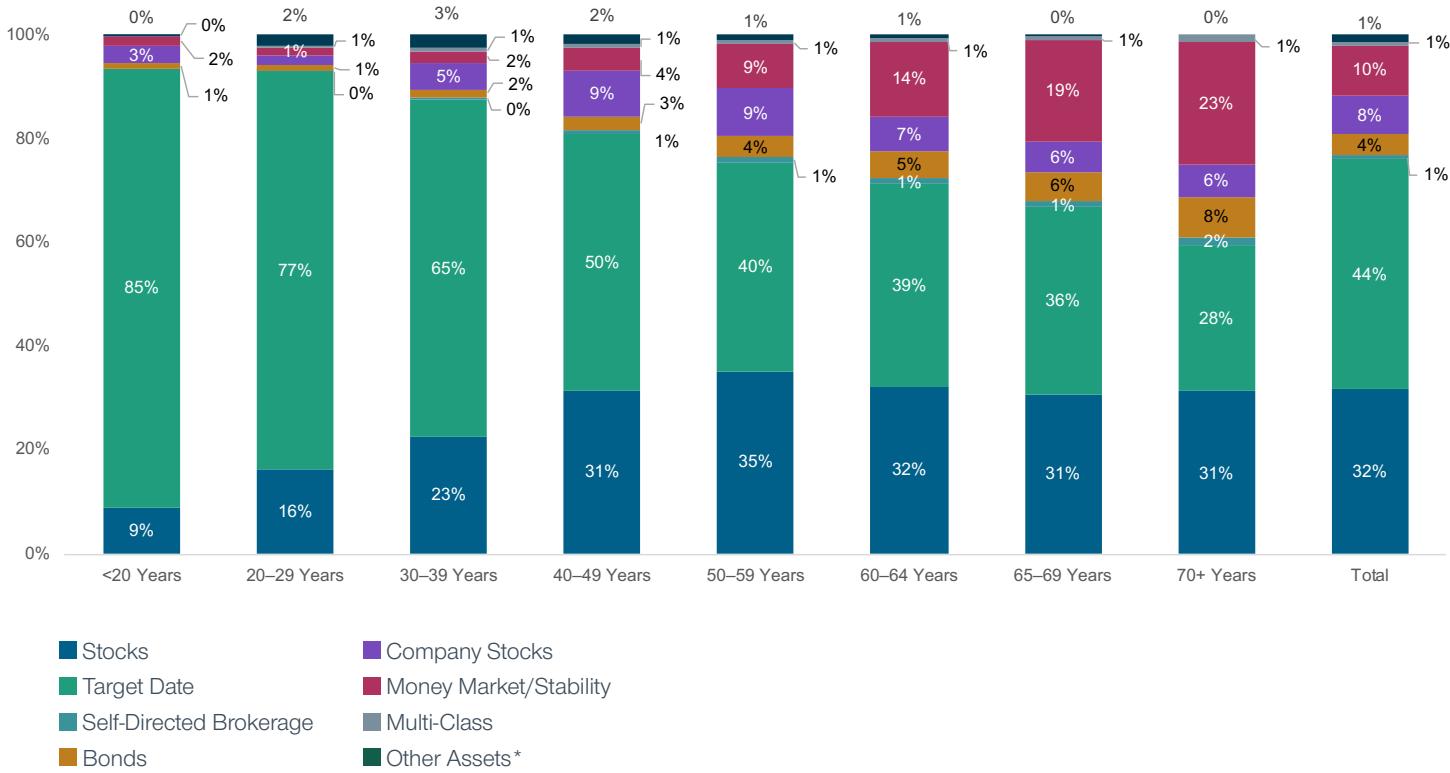

**No.43 ASSET ALLOCATION**


	Stocks	Target Date	Self-Directed Brokerage	Bonds	Company Stocks	Money Market/Stability	Multi-Class	Other Assets*
2020	34.2%	42.3%	0.9%	4.7%	6.5%	9.0%	1.0%	1.2%
2021	34.8%	43.2%	1.0%	4.0%	7.8%	7.5%	0.8%	1.0%
2022	31.7%	44.2%	0.8%	4.0%	7.7%	9.6%	0.7%	1.3%

\*Other assets include loan and settlement amounts.  
Numbers may not total 100% due to rounding.



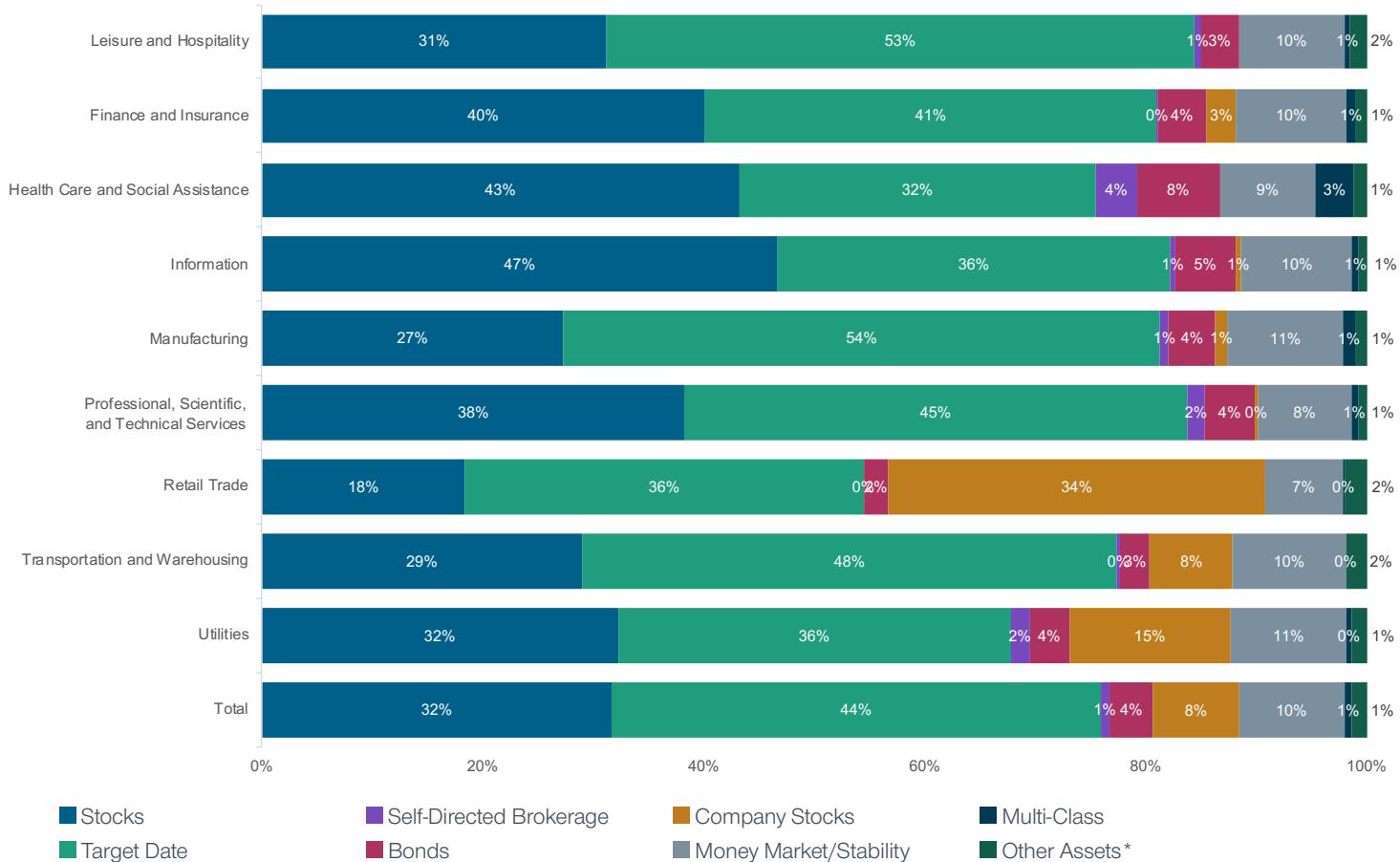
## No. 44 ASSET ALLOCATION—BY AGE



\*Other assets include loan and settlement amounts.  
Numbers may not total 100% due to rounding.



## No. 45 ASSET ALLOCATION—BY INDUSTRY

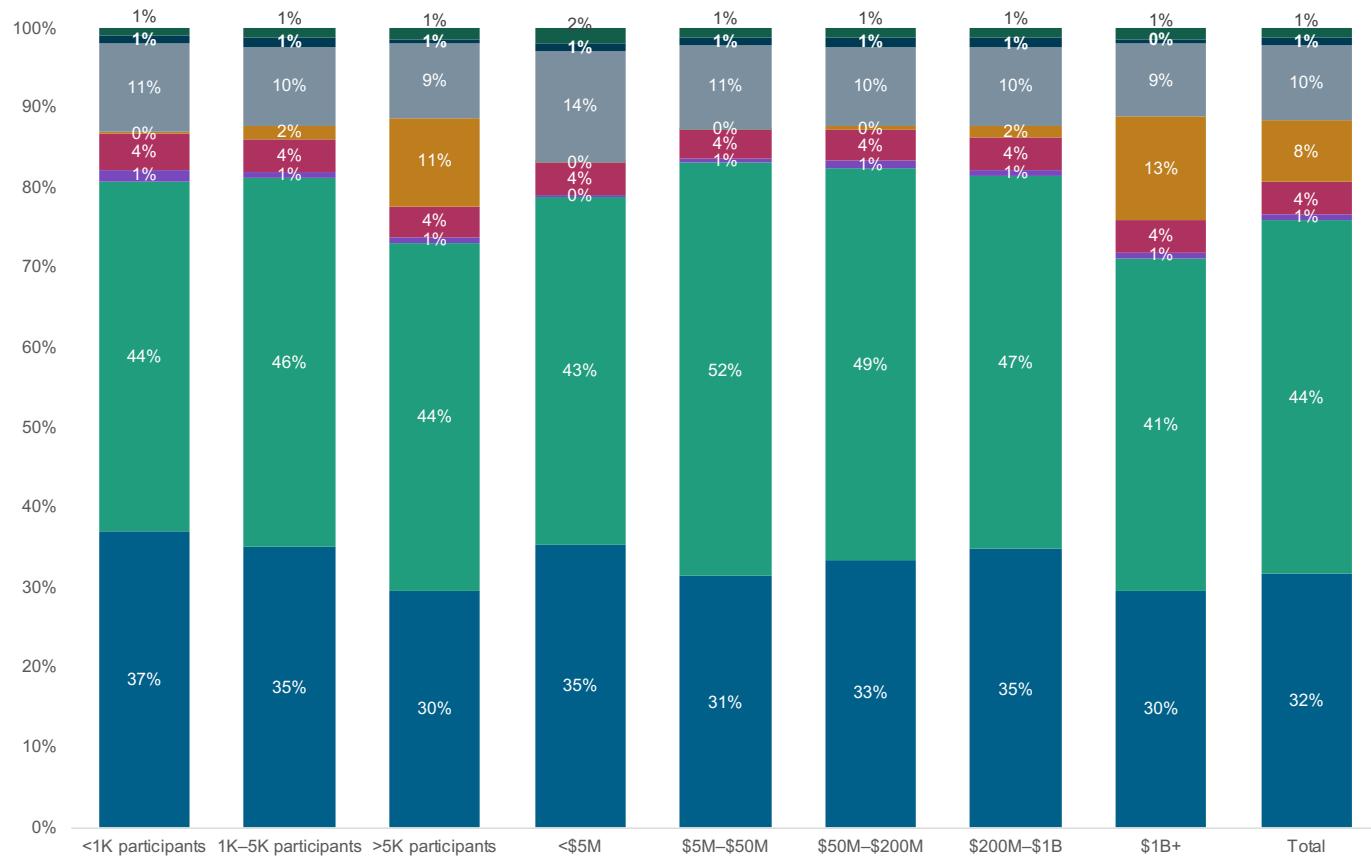


	Stock	Target Date	Self-Directed Brokerage	Bonds	Company Stocks	Money Market/Stability	Multi-Class	Other Assets*
Leisure and Hospitality	31%	53%	1%	3%	-	10%	1%	2%
Finance and Insurance	40%	41%	0%	4%	3%	10%	1%	1%
Health Care and Social Assistance	43%	32%	4%	8%	-	9%	3%	1%
Information	47%	36%	1%	5%	1%	10%	1%	1%
Manufacturing	27%	54%	1%	4%	1%	11%	1%	1%
Professional, Scientific, and Technical Services	38%	45%	2%	4%	0%	8%	1%	1%
Retail Trade	18%	36%	0%	2%	34%	7%	0%	2%
Transportation and Warehousing	29%	48%	0%	3%	8%	10%	0%	2%
Utilities	32%	36%	2%	4%	15%	11%	0%	1%
<b>Total</b>	<b>32%</b>	<b>36%</b>	<b>2%</b>	<b>4%</b>	<b>15%</b>	<b>11%</b>	<b>0%</b>	<b>1%</b>

\*Other assets include loan and settlement amounts.



## No. 46 ASSET ALLOCATION—PLAN SIZE



Stocks

Target Date

Self-Directed Brokerage

Bonds

Company Stocks

Money Market/Stability

Multi-Class

Other Assets\*

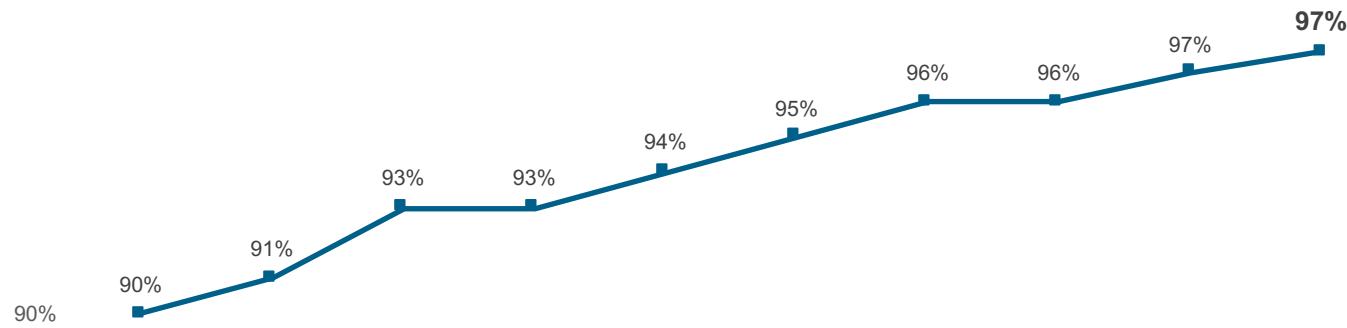
	Stocks	Target Date	Self-Directed Brokerage	Bonds	Company Stocks	Money Market/Stability	Multi-Class	Other Assets*
<1K participants	37%	44%	1%	4%	0%	11%	1%	1%
1K-5K participants	35%	46%	1%	4%	2%	10%	1%	1%
>5K participants	30%	44%	1%	4%	11%	9%	1%	1%
<\$5M	35%	43%	0%	4%	0%	14%	1%	2%
\$5M-\$50M	31%	52%	1%	4%	0%	11%	1%	1%
\$50M-\$200M	33%	49%	1%	4%	0%	10%	1%	1%
\$200M-\$1B	35%	47%	1%	4%	2%	10%	1%	1%
\$1B+	30%	41%	1%	4%	13%	9%	0%	1%
<b>Total</b>	<b>32%</b>	<b>44%</b>	<b>1%</b>	<b>4%</b>	<b>8%</b>	<b>10%</b>	<b>1%</b>	<b>1%</b>

\*Other assets include loan and settlement amounts.



## No. 47 PERCENTAGE OF PLANS OFFERING TARGET DATE PRODUCTS

100%



80%

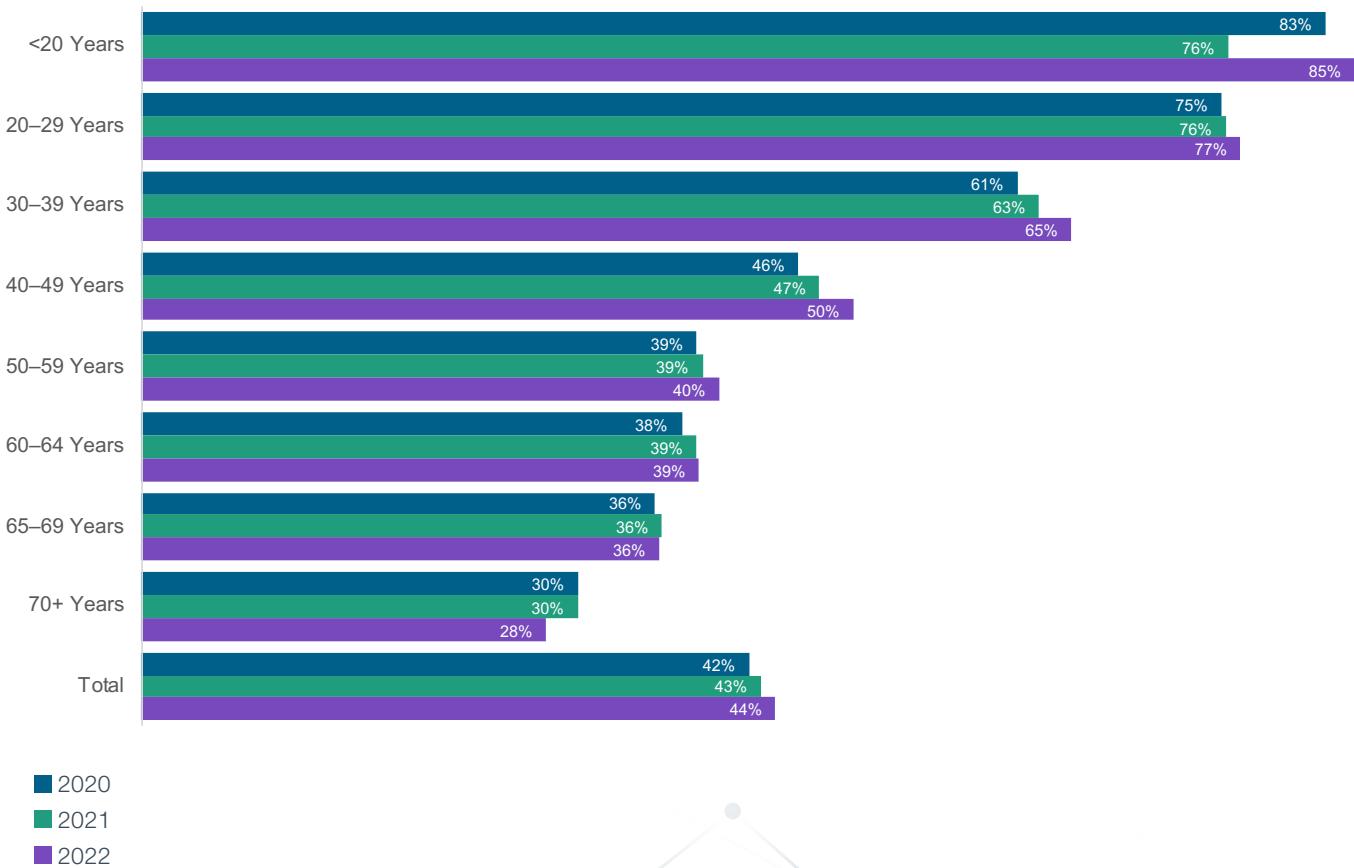
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
% of Participants	90%	91%	93%	93%	94%	95%	96%	96%	97%	97%





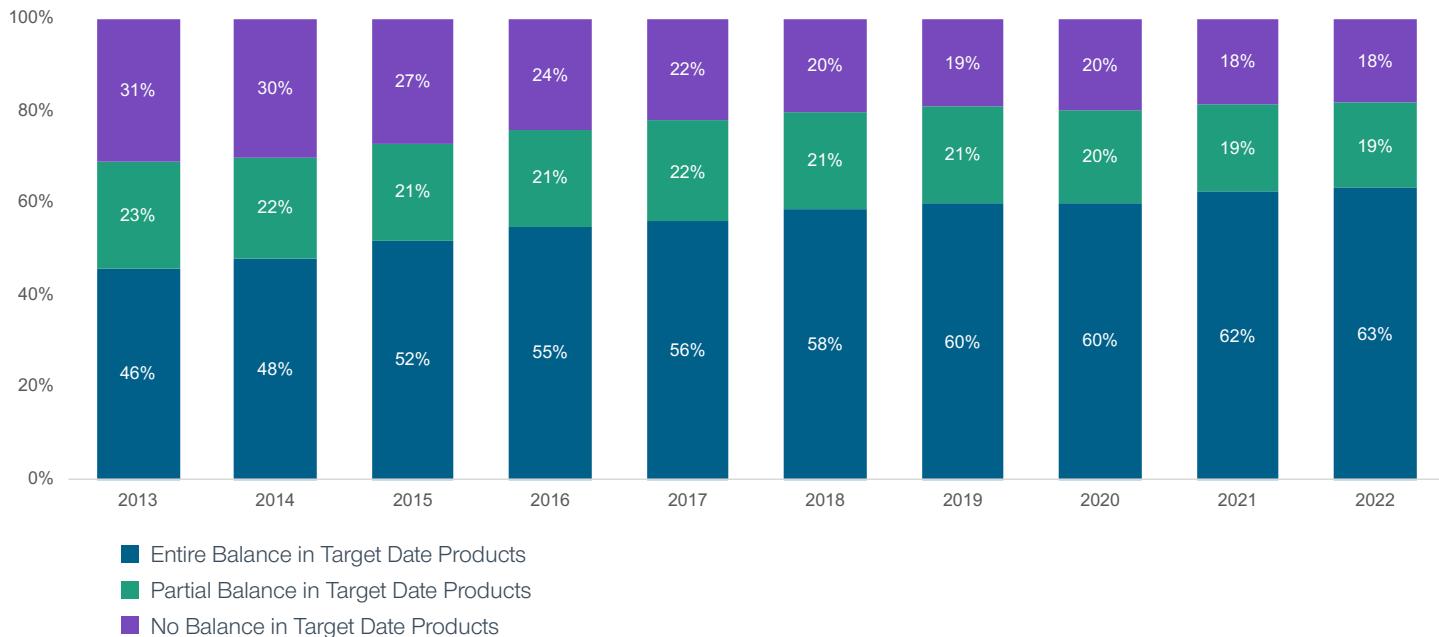
No. 48 PERCENTAGE OF ASSETS IN A TARGET DATE PRODUCT—BY AGE



	2020	2021	2022
<20 Years	82.6%	75.8%	84.6%
20–29 Years	75.3%	75.6%	76.7%
30–39 Years	61.1%	62.6%	64.9%
40–49 Years	45.8%	47.3%	49.6%
50–59 Years	38.7%	39.1%	40.3%
60–64 Years	37.6%	38.7%	38.9%
65–69 Years	35.8%	36.3%	36.1%
70+ Years	30.4%	30.4%	28.2%
<b>Total</b>	<b>42.3%</b>	<b>43.2%</b>	<b>44.2%</b>



## No.49 TARGET DATE PRODUCT INVESTMENT COMPARISON—PERCENTAGE OF PARTICIPANTS



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Entire Balance in Target Date Products	46%	48%	52%	55%	56%	58%	60%	60%	62%	63%
Partial Balance in Target Date Products	23%	22%	21%	21%	22%	21%	21%	20%	19%	19%
No Balance in Target Date Products	31%	30%	27%	24%	22%	20%	19%	20%	18%	18%

Numbers may not total 100% due to rounding.



## No.50 AVERAGE NUMBER OF FUNDS

20



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Plan Level (Fund Options Offered)	14.8	15.0	16.0	16.1	16.2	16.1	16.1	16.3	16.2	16.2
Participant Level (Fund Options Held without Target Date Funds)	6.5	6.6	7.4	7.9	7.6	8.2	8.9	9.1	8.4	8.5
Participant Level (Fund Options Held with Target Date Funds)	2.7	2.7	2.6	2.5	2.5	2.4	2.4	2.3	2.3	2.3

Numbers may not total 100% due to rounding.



## No.51 TYPES OF INVESTMENT OPTIONS OFFERED

All Industries	Plans <1K Participants	Plans 1K – 5K Participants	Plans >5K Participants	All Plans
<b>Stability</b>				
Guaranteed	<1%	1%	1%	<1%
Money Market-Non-40 Act	2%	2%	5%	2%
Stable Value	82%	88%	80%	83%
U.S. Money Market	92%	96%	89%	93%
<b>Fixed Income</b>				
Corporate Bond	–	1%	3%	1%
Emerging Markets Fixed Income	2%	1%	2%	2%
Global Fixed Income	10%	16%	11%	12%
High Yield Fixed Income	13%	18%	11%	14%
Inflation Linked	23%	28%	29%	25%
U.S. Fixed Income	95%	100%	98%	97%
<b>Asset Allocation</b>				
Aggressive Allocation	3%	1%	2%	2%
Allocation	3%	3%	1%	3%
Cautious Allocation	29%	18%	21%	25%
Flexible Allocation	1%	3%	–	1%
Moderate Allocation	39%	38%	24%	36%
Target Date	92%	96%	93%	93%
<b>U.S. Equity</b>				
U.S. Equity Large-Cap	98%	99%	99%	98%
U.S. Equity Mid-Cap	89%	91%	84%	89%
U.S. Equity Small-Cap	91%	94%	82%	90%
<b>International Equity</b>				
Asia ex-Japan Equity	2%	3%	2%	2%
Global Emerging Markets Equity	38%	41%	21%	36%
Global Equity	11%	13%	20%	12%
Global Equity Large-Cap	93%	98%	93%	95%
Global Equity Mid-/Small-Cap	14%	15%	6%	13%
Japan Equity	0%	–	2%	<1%
Latin America Equity	1%	1%	2%	1%
<b>Sector Funds</b>				
Communications Sector Equity	2%	3%	6%	2%
Energy Sector Equity	1%	–	–	<1%
Financials Sector Equity	1%	1%	3%	1%
Health Care Sector Equity	5%	2%	5%	4%
Industrials Sector Equity	<1%	–	1%	<1%
Natural Resources Sector Equity	4%	5%	2%	4%
Precious Metals Sector Equity	1%	–	–	<1%
Real Estate Sector Equity	30%	30%	26%	30%
Technology Sector Equity	12%	6%	7%	10%
Utilities Sector Equity	2%	1%	1%	1%
<b>Commodities</b>				
Commodities Broad Basket	2%	2%	–	2%
<b>Alternatives</b>				
Employer Stock	4%	13%	28%	10%
<b>All Categories</b>				
	100%	100%	100%	100%

Note: Participant ranges define those plans where total participant counts fall within the specified ranges. Investment category labels were derived from recognized Morningstar categories.



## No. 52 TYPES OF INVESTMENT OPTIONS OFFERED

All Industries	Plans <5M Assets	Plans 5M-50M Assets	Plans 50M-200M Assets	Plans 200M-1B Assets	Plans 1B+ Assets	2022 T. Rowe Price Total
<b>Stability</b>						
Guaranteed	-	1%	<1%	1%	3%	1%
Stable Value	65%	85%	88%	89%	95%	86%
U.S. Money Market	81%	97%	99%	99%	90%	97%
<b>Fixed Income</b>						
Emerging Markets Fixed Income	2%	1%	1%	1%	5%	1%
High Yield Fixed Income	7%	11%	18%	12%	13%	14%
Inflation Linked	7%	24%	26%	29%	15%	24%
U.S. Fixed Income	70%	98%	100%	99%	95%	97%
<b>Asset Allocation</b>						
Aggressive Allocation	2%	5%	2%	-	3%	3%
Allocation	2%	3%	3%	1%	3%	3%
Cautious Allocation	7%	30%	30%	30%	15%	28%
Flexible Allocation	-	2%	0%	4%	-	2%
Moderate Allocation	33%	35%	38%	35%	28%	36%
Target Date	81%	94%	96%	96%	90%	94%
<b>U.S. Equity</b>						
U.S. Equity Large-Cap Blend	79%	98%	100%	98%	95%	97%
U.S. Equity Large-Cap Growth	72%	91%	92%	91%	72%	89%
U.S. Equity Large-Cap Value	58%	89%	86%	84%	64%	83%
U.S. Equity Mid-Cap	65%	92%	94%	91%	79%	90%
U.S. Equity Small-Cap	74%	93%	97%	95%	77%	93%
<b>International Equity</b>						
Asia ex-Japan Equity	2%	1%	2%	1%	5%	2%
Europe Equity Large-Cap	2%	-	1%	1%	5%	1%
Global Emerging Markets Equity	33%	35%	44%	30%	15%	36%
Global Equity	7%	12%	12%	12%	33%	13%
Global Equity Large-Cap	70%	95%	100%	98%	87%	95%
Global Equity Mid-/Small-Cap	9%	11%	14%	15%	5%	12%
Global Fixed Income	2%	9%	14%	12%	8%	11%
Japan Equity	2%	-	-	-	5%	<1%
Latin America Equity	2%	-	1%	-	5%	1%
<b>Sector Funds</b>						
Communications Sector Equity	2%	1%	2%	4%	8%	2%
Energy Sector Equity	-	1%	-	-	-	<1%
Financials Sector Equity	2%	-	0%	-	8%	1%
Health Care Sector Equity	2%	5%	4%	1%	8%	4%
Industrials Sector Equity	-	1%	-	-	3%	<1%
Natural Resources Sector Equity	2%	6%	5%	2%	5%	4%
Precious Metals Sector Equity	-	1%	0%	-	-	<1%
Real Estate Sector Equity	9%	35%	32%	22%	21%	29%
Technology Sector Equity	7%	10%	10%	7%	8%	9%
Utilities Sector Equity	5%	2%	<1%	1%	-	1%
<b>Commodities</b>						
Commodities Broad Basket	-	1%	3%	2%	-	2%
<b>Alternatives</b>						
Employer Stock	12%	3%	5%	16%	33%	9%
<b>All Categories</b>						
	100%	100%	100%	100%	100%	100%

Note: Assets under management ranges define those plans where assets under management fall within the specified ranges. Investment category labels were derived from recognized Morningstar categories.



## No. 53 WHERE ASSETS ARE INVESTED

All Industries	<1K Participants	1K–5K Participants	>5K Participants	2022 T. Rowe Price Total
<b>Stability</b>				
Guaranteed	–	1%	1%	1%
Stable Value	83%	89%	90%	86%
U.S. Money Market	96%	98%	95%	97%
<b>Fixed Income</b>				
Emerging Markets Fixed Income	1%	1%	2%	1%
High Yield Fixed Income	12%	16%	14%	14%
Inflation Linked	23%	27%	24%	24%
U.S. Fixed Income	95%	100%	98%	97%
<b>Asset Allocation</b>				
Aggressive Allocation	4%	1%	1%	3%
Allocation	3%	3%	2%	3%
Cautious Allocation	28%	29%	25%	28%
Flexible Allocation	1%	3%	–	2%
Moderate Allocation	36%	38%	29%	36%
Target Date	93%	96%	95%	94%
<b>U.S. Equity</b>				
U.S. Equity Large-Cap Blend	96%	99%	96%	97%
U.S. Equity Large-Cap Growth	90%	91%	81%	89%
U.S. Equity Large-Cap Value	85%	85%	75%	83%
U.S. Equity Mid-Cap	90%	92%	87%	90%
U.S. Equity Small-Cap	92%	96%	87%	93%
<b>International Equity</b>				
Asia ex-Japan Equity	1%	2%	2%	2%
Europe Equity Large-Cap	0%	1%	2%	1%
Global Emerging Markets Equity	38%	39%	22%	36%
Global Equity	11%	13%	19%	13%
Global Equity Large-Cap	94%	98%	94%	95%
Global Equity Mid-/Small-Cap	13%	13%	8%	12%
Global Fixed Income	8%	15%	11%	11%
Japan Equity	0%	–	2%	0%
Latin America Equity	1%	0%	2%	1%
<b>Sector Funds</b>				
Communications Sector Equity	1%	2%	6%	2%
Energy Sector Equity	0%	–	–	0%
Financials Sector Equity	0%	0%	4%	1%
Health Care Sector Equity	5%	2%	5%	4%
Industrials Sector Equity	0%	–	1%	0%
Natural Resources Sector Equity	5%	5%	2%	4%
Precious Metals Sector Equity	1%	–	–	0%
Real Estate Sector Equity	29%	29%	27%	29%
Technology Sector Equity	11%	7%	7%	9%
Utilities Sector Equity	2%	1%	1%	1%
<b>Commodities</b>				
Commodities Broad Basket	2%	2%	–	2%
<b>Alternatives</b>				
Employer Stock	4%	11%	24%	9%
<b>All Categories</b>	100%	100%	100%	100%

Note: Assets under management ranges define those plans where assets under management fall within the specified ranges. Investment category labels were derived from recognized Morningstar categories.

**Want to learn more?** Contact your T. Rowe Price representative.



## No. 54 WHERE ASSETS ARE INVESTED

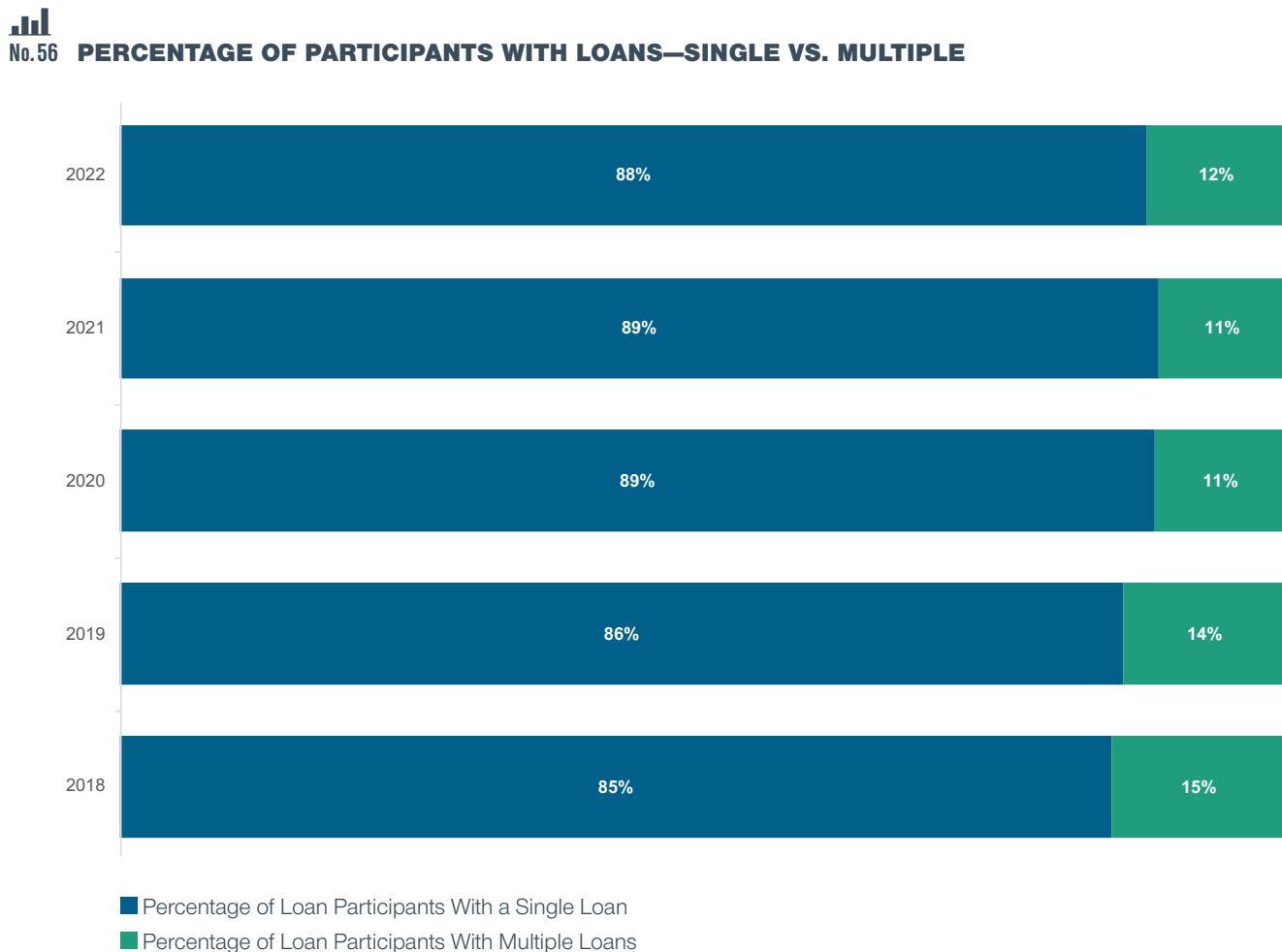
	Plans <5M Assets	Plans 5M–200M Assets	Plans 50M–200M Assets	Plans 200M–1B Assets	Plans 1B+ Assets	2022 T. Rowe Price Total
<b>Stability</b>						
Guaranteed	–	1%	<1%	1%	3%	1%
Stable Value	76%	86%	88%	89%	95%	87%
U.S. Money Market	84%	97%	99%	99%	90%	97%
<b>Fixed Income</b>						
Emerging Markets Fixed Income	2%	1%	1%	1%	5%	1%
High Yield Fixed Income	13%	12%	18%	12%	13%	14%
Inflation Linked	20%	25%	26%	29%	15%	25%
Other Fixed Income	–	–	–	–	3%	<1%
U.S. Fixed Income	100%	99%	100%	99%	95%	99%
<b>Asset Allocation</b>						
Aggressive Allocation	4%	5%	2%	–	3%	3%
Allocation	7%	3%	3%	1%	3%	3%
Cautious Allocation	38%	38%	30%	30%	15%	32%
Flexible Allocation	–	2%	0%	4%	–	2%
Moderate Allocation	40%	38%	38%	35%	28%	37%
Target Date	87%	94%	96%	96%	90%	94%
<b>U.S. Equity</b>						
U.S. Equity Large-Cap Blend	98%	98%	100%	98%	95%	98%
U.S. Equity Large-Cap Growth	84%	92%	92%	91%	72%	90%
U.S. Equity Large-Cap Value	80%	91%	86%	84%	64%	85%
U.S. Equity Mid-Cap	87%	93%	94%	91%	79%	92%
U.S. Equity Small-Cap	100%	94%	97%	95%	77%	95%
<b>International Equity</b>						
Asia ex-Japan Equity	2%	1%	2%	1%	5%	2%
Europe Equity Large Cap	2%	–	1%	1%	5%	1%
Global Emerging Markets Equity	44%	37%	44%	30%	15%	37%
Global Equity	13%	12%	12%	12%	33%	13%
Global Equity Large-Cap	98%	97%	100%	98%	87%	98%
Global Equity Mid-/Small-Cap	13%	11%	14%	15%	5%	13%
Global Fixed Income	13%	11%	14%	12%	8%	12%
Japan Equity	2%	–	–	–	5%	<1%
Latin America Equity	2%	–	1%	–	5%	1%
<b>Sector Funds</b>						
Communications Sector Equity	4%	1%	2%	4%	8%	2%
Energy Sector Equity	2%	1%	–	–	–	<1%
Financials Sector Equity	2%	1%	<1%	–	8%	1%
Health Care Sector Equity	7%	5%	4%	1%	8%	4%
Industrials Sector Equity	–	1%	–	–	3%	<1%
Natural Resources Sector Equity	4%	6%	5%	2%	5%	5%
Precious Metals Sector Equity	–	1%	0%	–	–	<1%
Real Estate Sector Equity	20%	37%	32%	22%	21%	30%
Technology Sector Equity	9%	10%	10%	7%	8%	9%
Utilities Sector Equity	4%	2%	0%	1%	–	1%
<b>Commodities</b>						
Commodities Broad Basket	2%	1%	3%	2%	–	2%
<b>Alternatives</b>						
Employer Stock	11%	3%	5%	16%	33%	9%
<b>All Categories</b>	100%	100%	100%	100%	100%	100%

Note: Participant ranges define those plans where total participant counts fall within the specified ranges. Investment category labels were derived from recognized Morningstar categories.

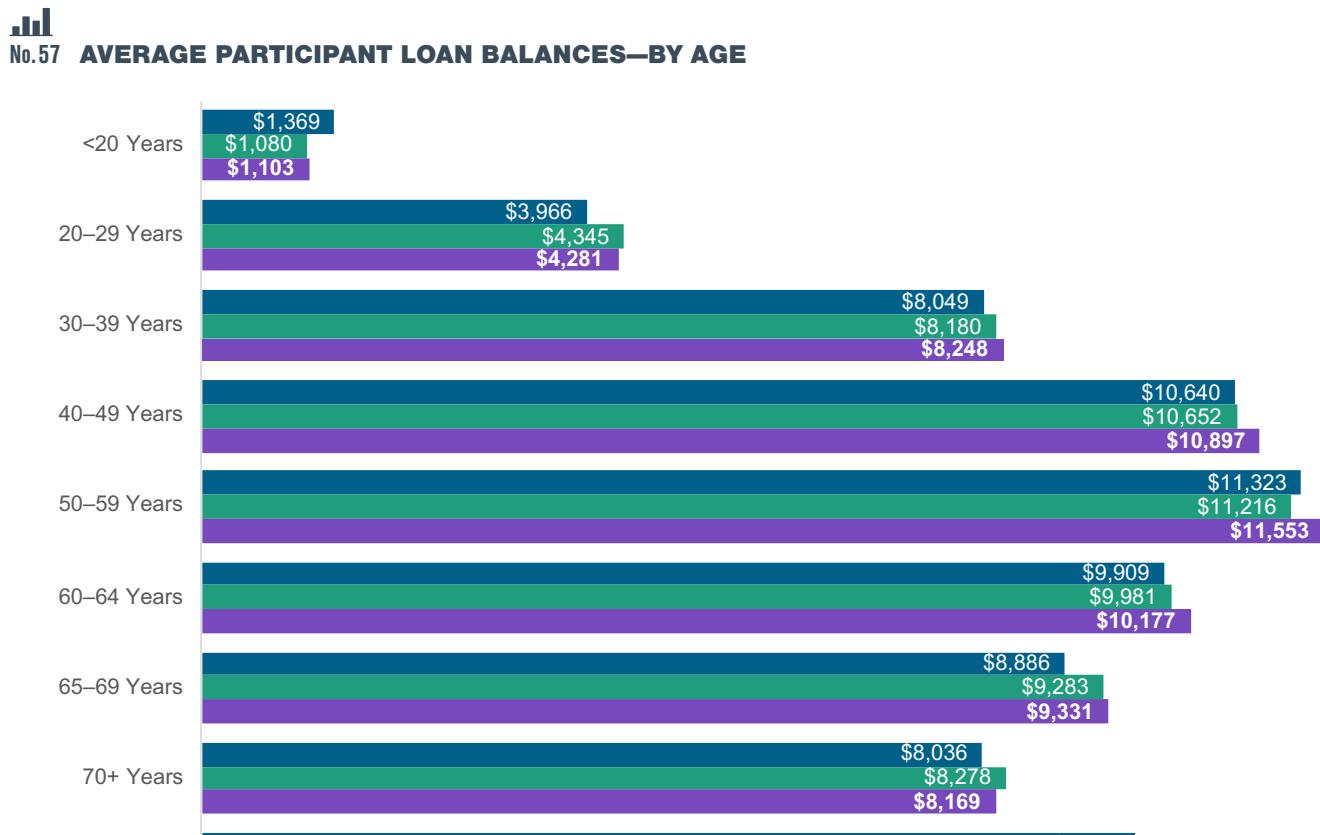
 **No. 55 LOANS**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Percentage of Plans That Permit Loans	87.3%	87.3%	87.0%	87.1%	87.2%	88.9%	88.6%	89.8%	89.5%	91.0%
Percentage of Plans That Allow Multiple Loans	39.8%	40.2%	44.1%	44.1%	43.3%	41.7%	41.6%	40.8%	40.1%	41.3%
Percentage of Participants With Loans	24.9%	24.7%	24.3%	23.8%	23.4%	22.5%	22.1%	19.6%	18.5%	18.3%
Average Participant Loan Balance	\$8,438	\$8,831	\$9,075	\$9,037	\$9,184	\$9,351	\$9,525	\$9,612	\$9,663	\$9,837





	2018	2019	2020	2021	2022
Percentage of Loan Participants With a Single Loan	85%	86%	89%	89%	88%
Percentage of Loan Participants With Multiple Loans	15%	14%	11%	11%	12%



2020

2021

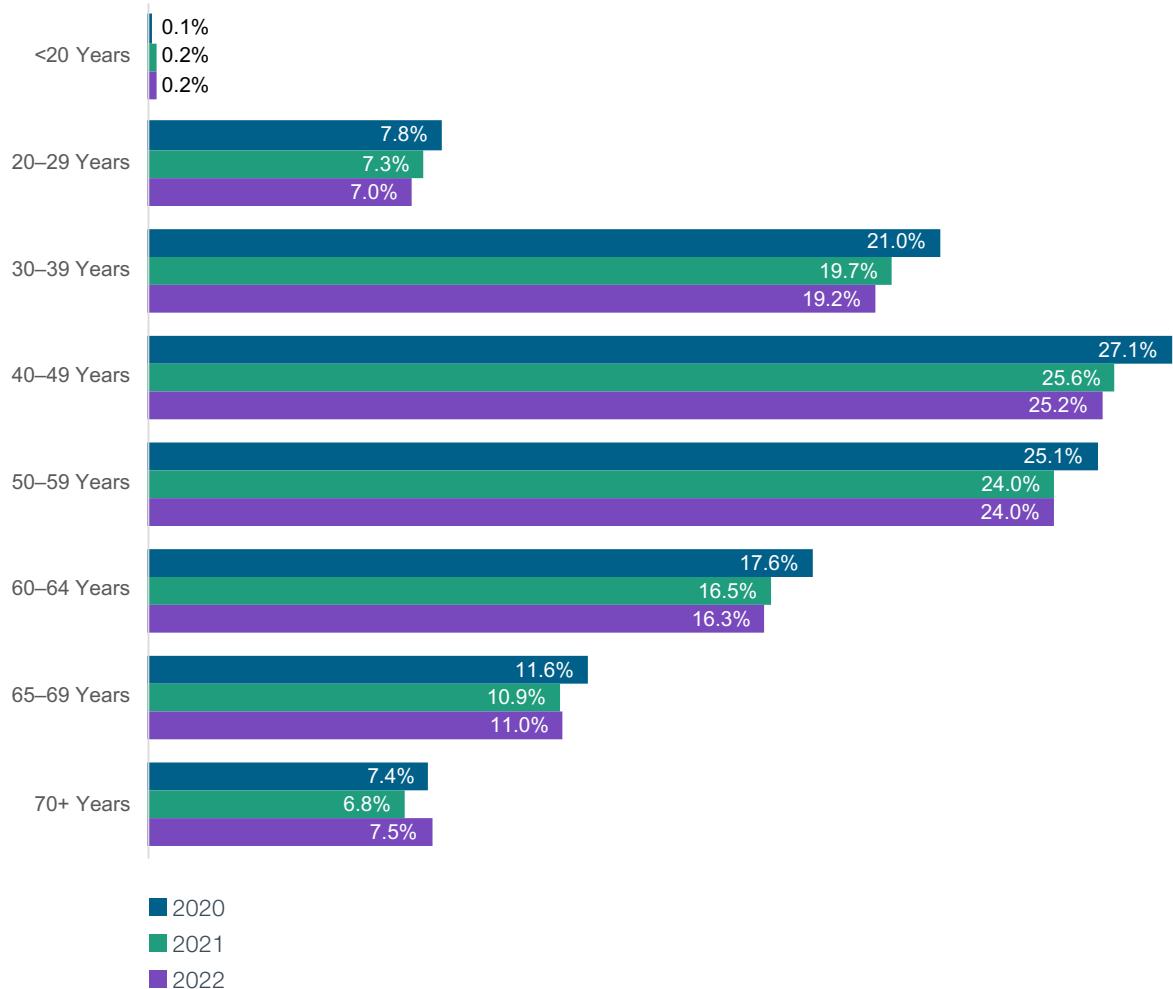
2022

Age Range	2020	2021	2022
<20 Years	\$1,369	\$1,080	\$1,103
20-29 Years	\$3,966	\$4,345	\$4,281
30-39 Years	\$8,049	\$8,180	\$8,248
40-49 Years	\$10,640	\$10,652	\$10,897
50-59 Years	\$11,323	\$11,216	\$11,553
60-64 Years	\$9,909	\$9,981	\$10,177
65-69 Years	\$8,886	\$9,283	\$9,331
70+ Years	\$8,036	\$8,278	\$8,169
Total	\$9,612	\$9,663	\$9,837

The data set includes only plans that allow at least 1 loan.



## No. 58 PERCENTAGE OF PARTICIPANTS WITH OUTSTANDING LOANS—BY AGE



2020

2021

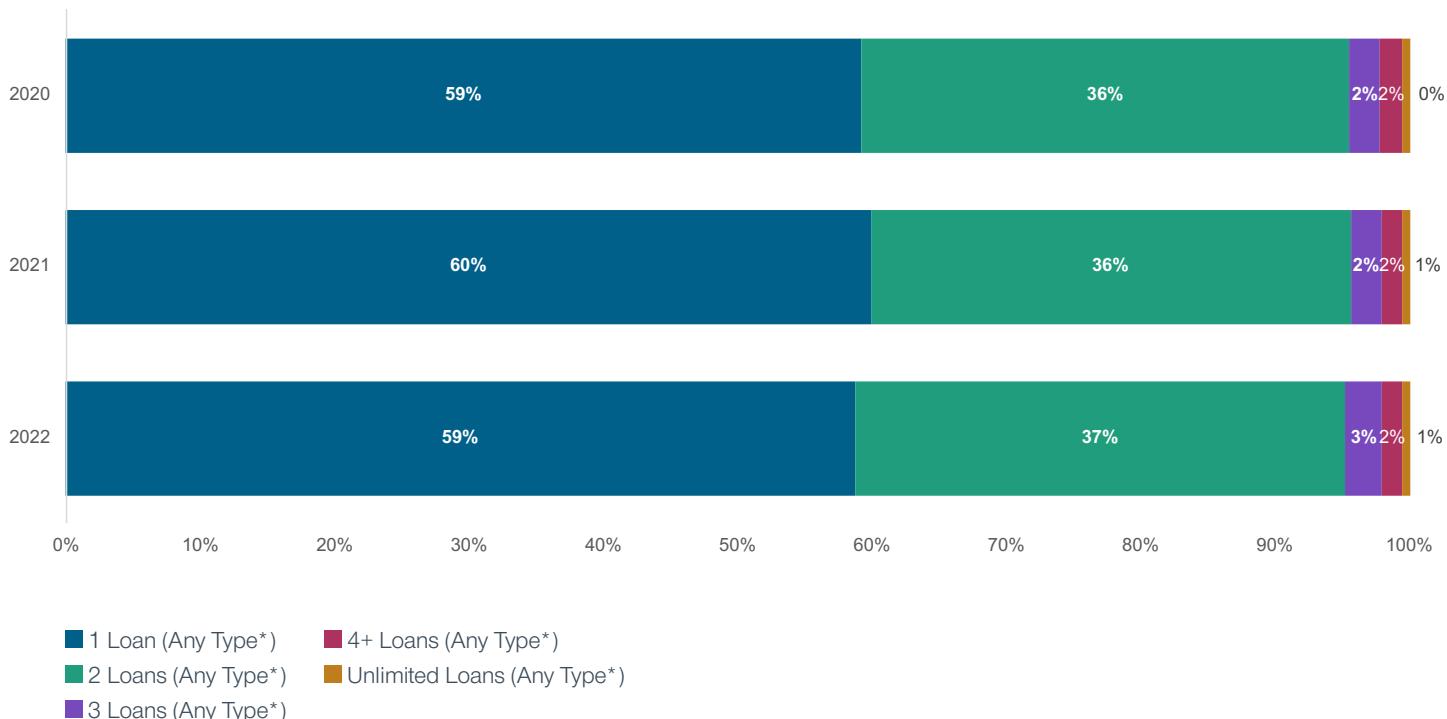
2022

Age Range	2020	2021	2022
<20 Years	0.1%	0.2%	0.2%
20-29 Years	7.8%	7.3%	7.0%
30-39 Years	21.0%	19.7%	19.2%
40-49 Years	27.1%	25.6%	25.2%
50-59 Years	25.1%	24.0%	24.0%
60-64 Years	17.6%	16.5%	16.3%
65-69 Years	11.6%	10.9%	11.0%
70+ Years	7.4%	6.8%	7.5%
<b>Total</b>	<b>20.0%</b>	<b>18.8%</b>	<b>18.5%</b>

The data set includes only plans that allow at least 1 loan.



## No. 59 MAXIMUM NUMBER OF LOANS ALLOWED



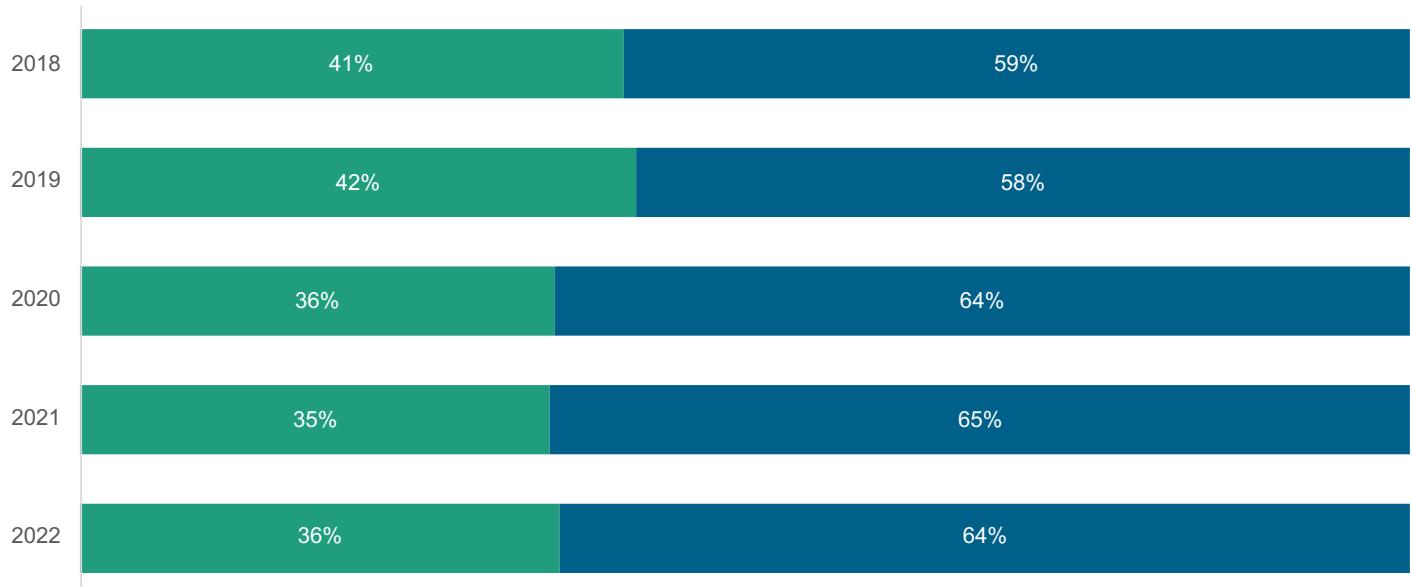
	2020	2021	2022
1 Loan (Any Type*)	59%	60%	59%
2 Loans (Any Type*)	36%	36%	37%
3 Loans (Any Type*)	2%	2%	3%
4+ Loans (Any Type*)	2%	2%	2%
Unlimited Loans (Any Type*)	1%	1%	1%

\*Any type—plan may offer primary residence, standard, or both loan types.  
The data set includes only plans that allow at least 1 loan.

Numbers may not total 100% due to rounding.



No. 60 MULTIPLE OR SINGLE LOAN USAGE



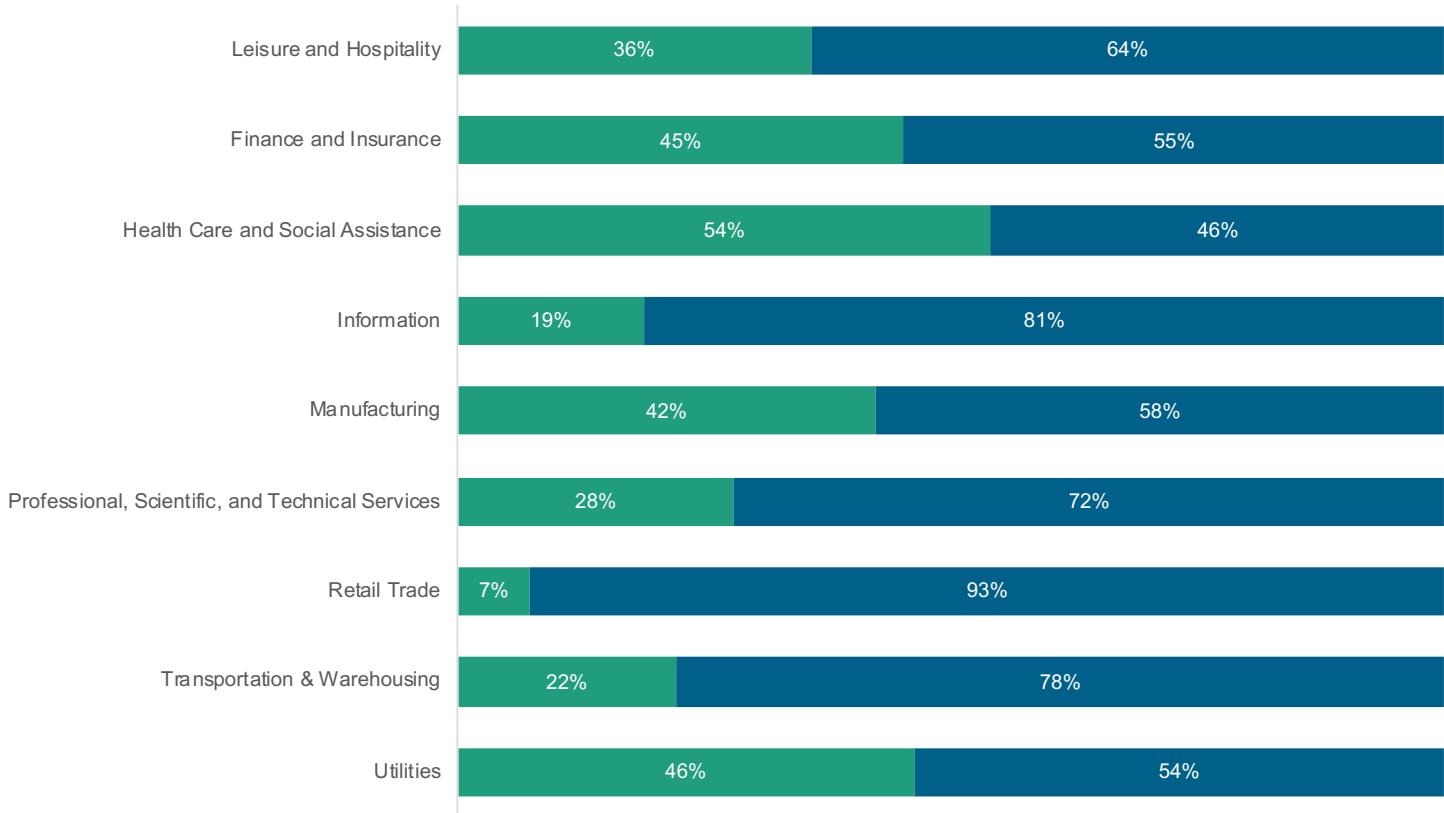
■ Percentage With Multiple Loans

■ Percentage With Single Loan

	Percentage With Multiple Loans	Percentage With Single Loan
2018	41%	59%
2019	42%	58%
2020	36%	64%
2021	35%	65%
2022	36%	64%



## No. 61 MULTIPLE OR SINGLE LOAN USAGE



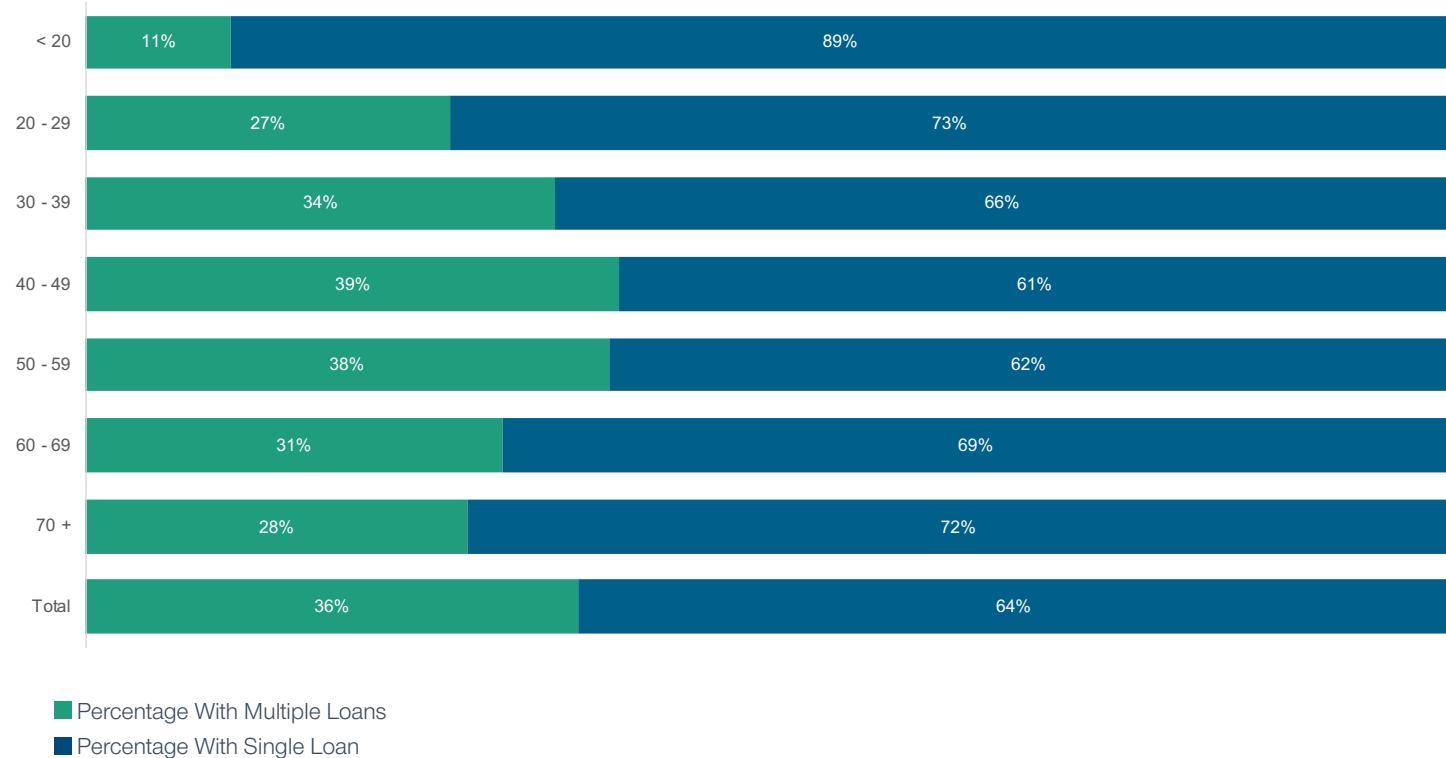
■ Percentage With Multiple Loans

■ Percentage With Single Loan

	Percentage With Multiple Loans	Percentage With Single Loan
Leisure and Hospitality	36%	64%
Finance and Insurance	45%	55%
Health Care and Social Assistance	54%	46%
Information	19%	81%
Manufacturing	42%	58%
Professional, Scientific, and Technical Services	28%	72%
Retail Trade	7%	93%
Transportation & Warehousing	22%	78%
Utilities	46%	54%



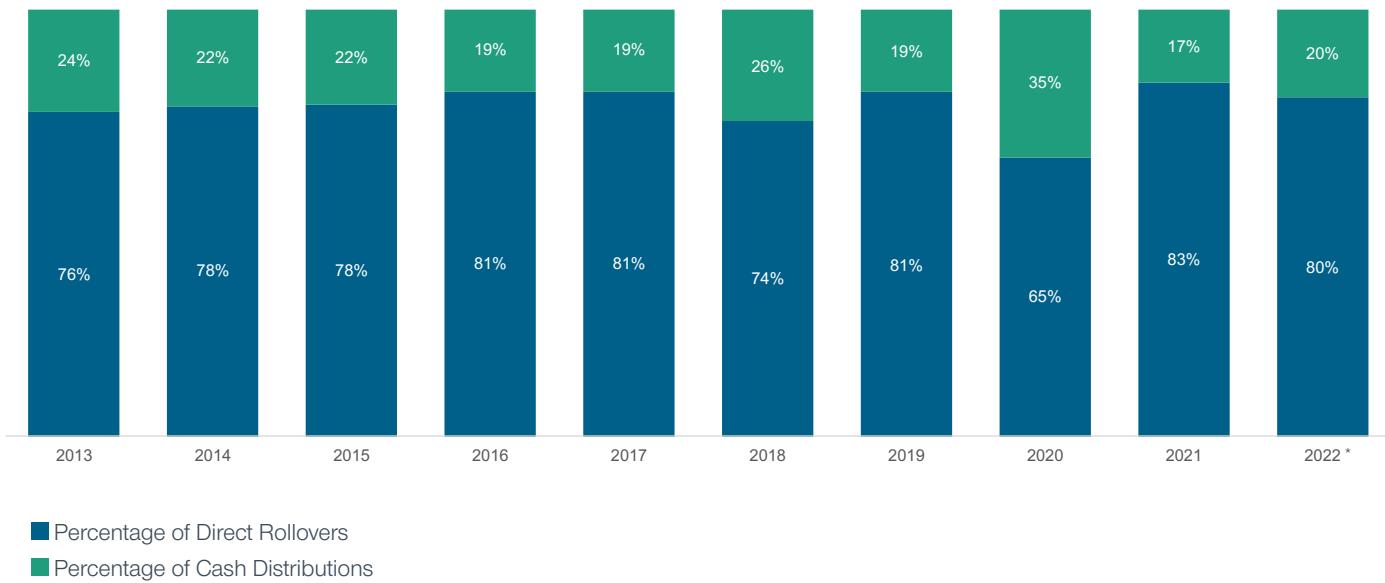
## No. 62 PERCENTAGE OF LOAN TAKERS WITH A SINGLE LOANS VS MULTIPLE LOANS BY AGE



	Percentage With Multiple Loans	Percentage With Single Loan
<20	11%	89%
20-29	27%	73%
30-39	34%	66%
40-49	39%	61%
50-59	38%	62%
60-69	31%	69%
70+	28%	72%
<b>Total</b>	<b>36%</b>	<b>64%</b>



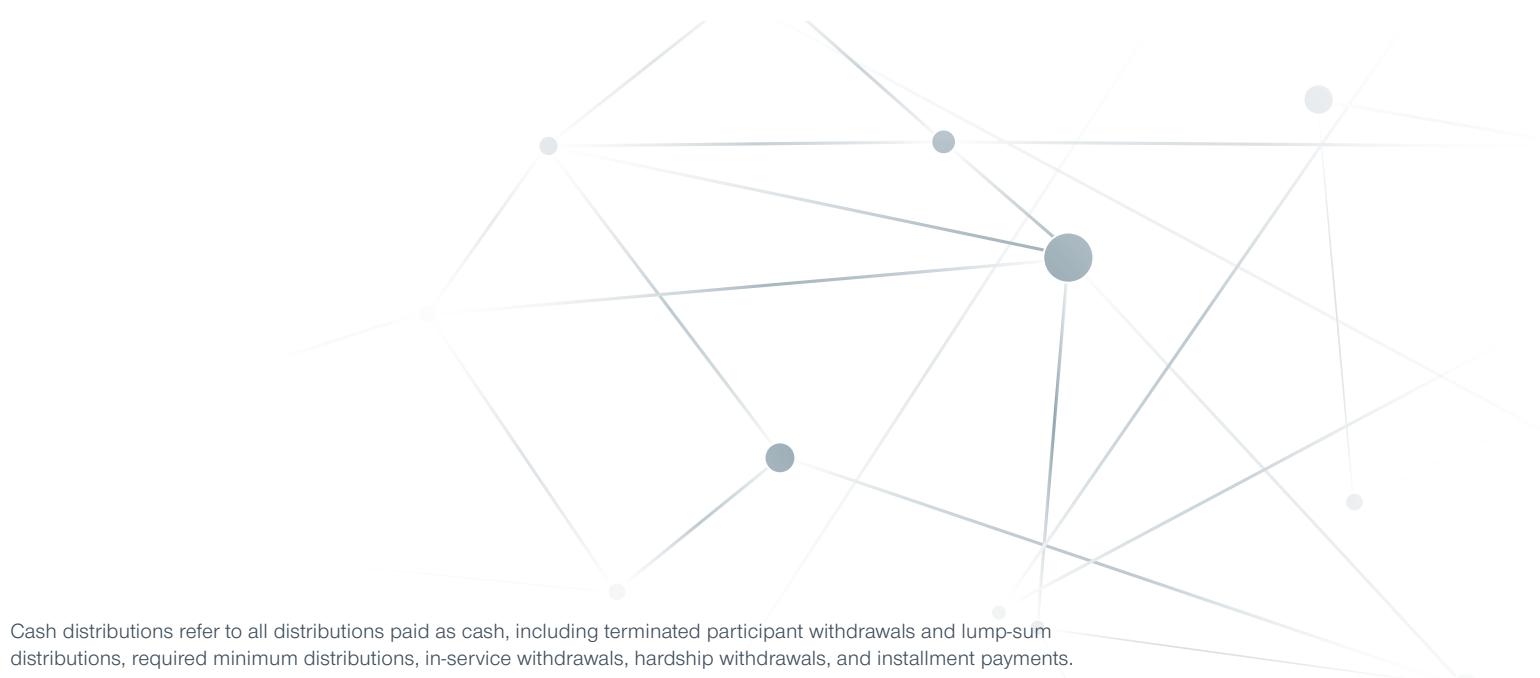
No.63 PARTICIPANT DISTRIBUTIONS—DIRECT ROLLOVERS VS. CASH DISTRIBUTIONS



■ Percentage of Direct Rollovers

■ Percentage of Cash Distributions

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
Percentage of Direct Rollovers	76%	78%	78%	81%	81%	74%	81%	65%	83%	80%
Percentage of Cash Distributions	24%	22%	22%	19%	19%	26%	19%	35%	17%	20%

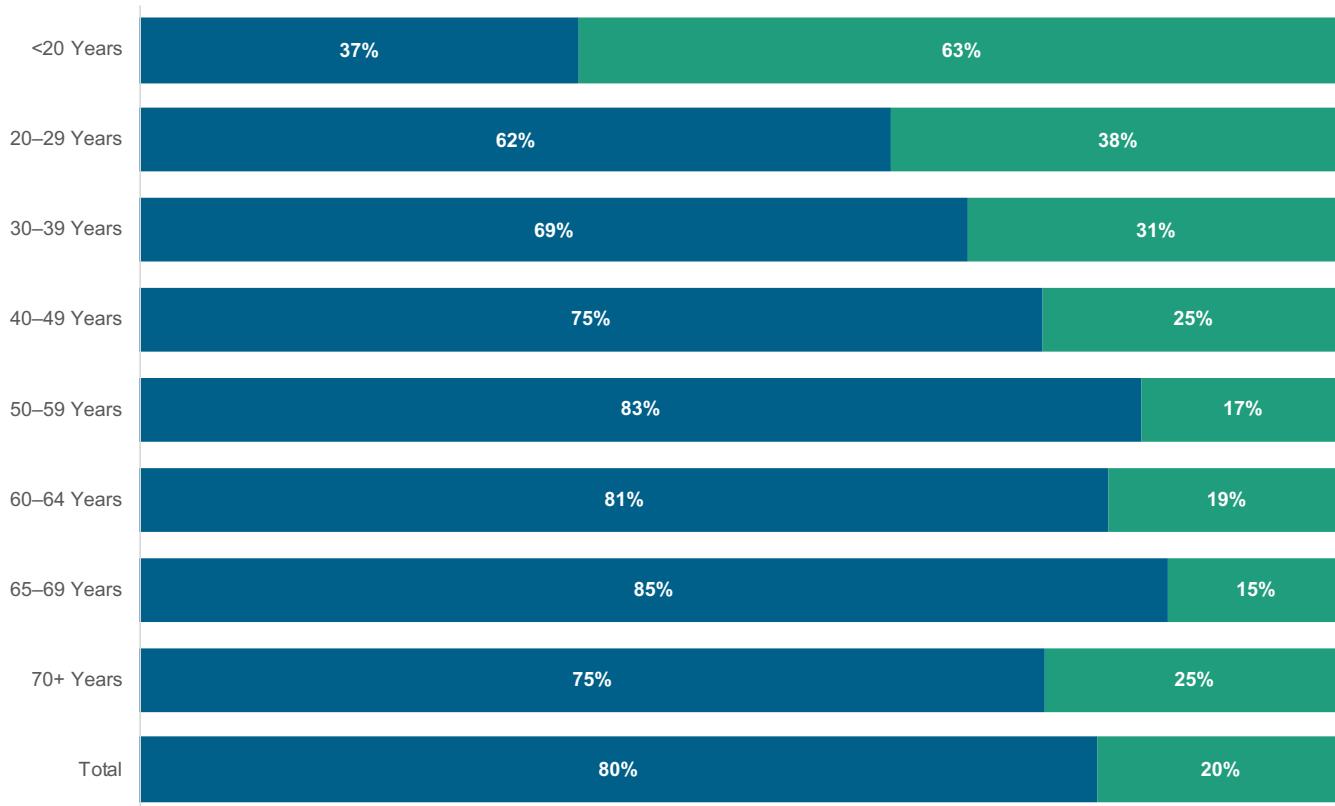


Cash distributions refer to all distributions paid as cash, including terminated participant withdrawals and lump-sum distributions, required minimum distributions, in-service withdrawals, hardship withdrawals, and installment payments.

\*Distributions are calculated based on data from January through October 2022.



## No. 64 PARTICIPANT DISTRIBUTIONS—BY AGE



■ Percentage of Direct Rollovers

■ Percentage of Cash Distributions

Age Range	Percentage of Direct Rollovers	Percentage of Cash Distributions
(<20)	37%	63%
20–29	62%	38%
30–39	69%	31%
40–49	75%	25%
50–59	83%	17%
60–64	81%	19%
65–69	85%	15%
70+	75%	25%
<b>Total</b>	<b>80%</b>	<b>20%</b>

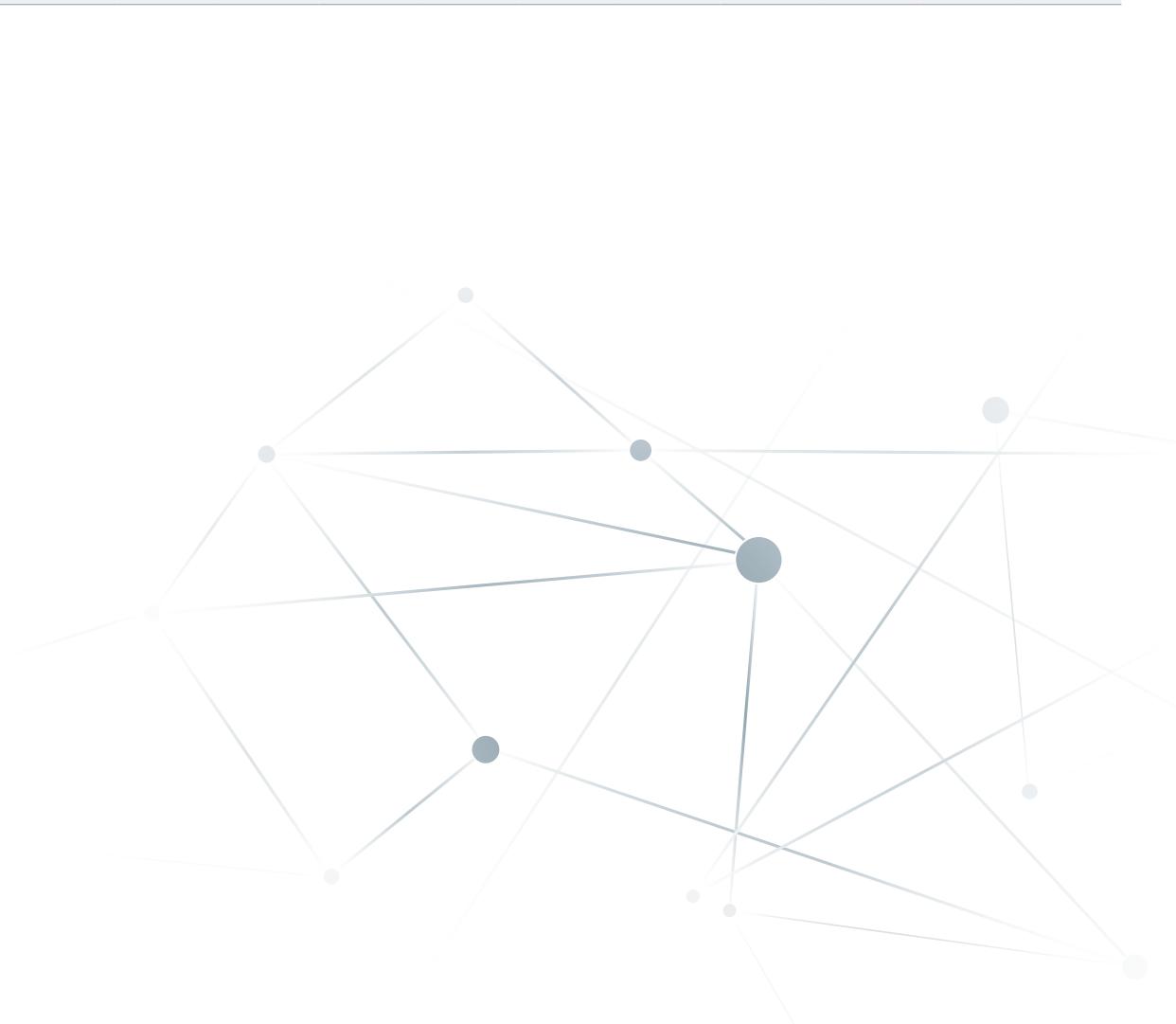
Cash distributions refer to all distributions paid as cash, including terminated participant withdrawals and lump-sum distributions, required minimum distributions, in-service withdrawals, hardship withdrawals, and installment payments.

2022 distributions are calculated based on data from January through October 2022.



## No. 65 HARSHIP WITHDRAWALS

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Percentage of Participants Taking Hardship Withdrawals	1.7%	1.6%	1.4%	1.4%	1.4%	1.3%	1.5%	0.8%	0.9%	1.3%
Percentage of Plans That Allow Hardship Withdrawals	71	73	72	69	70	72	73	69	58	74
Average Hardship Withdrawal Amount	\$5,810	\$6,469	\$6,685	\$6,923	\$7,059	\$7,080	\$7,827	\$9,738	\$10,554	\$9,006



## Methodology

Unless otherwise noted, all data included in this report are drawn from the following sources: Data are based on the large-market, full-service universe—T. Rowe Price total—of T. Rowe Price Retirement Plan Services, Inc., retirement plans (401(k) and 457 plans), consisting of 652 plans and approximately 2 million participants.

Auto-enrollment, auto-increase, and default deferral rate results are based on participants of large-market, full-service 401(k) and 457 plans who were automatically enrolled in their plan during 2022. Trend results are based on findings at the calendar year-end from 2013 to 2022.

Auto-reenrollment—An automatic reenrollment for participants who opted not to participate in their plan. This is run on demand and could occur about once a year.

Auto-restart—For participants who were contributing to their plan and have taken a hardship withdrawal. Once the suspension period is over, participants will have their contributions automatically restarted unless they opt out.

Auto-rebalance—Provides participants with the tools they need to maintain a consistent investment strategy. If they are not investing 100% of their account in a diversified fund, auto-rebalance will automatically rebalance their account on a periodic basis (e.g., quarterly or annually).

Participation rates by age are participant weighted (total number of participants divided by the total number eligible to participate). Participant-weighted year-over-year participation rate averages are calculated by dividing the number of participants by the number eligible to participate. The plan-weighted year-over-year participation rate average is the sum of plan-level averages divided by the number of plans.

Results for participant age breakdowns are based on the number of participants who made Roth contributions during the calendar year periods ended December 31, 2013, through December 31, 2022. These data capture the number of eligible participants in plans that offer Roth contributions at each calendar year-end from December 31, 2013, through December 31, 2022.

## Methodology

The data are based on any participants who are eligible to make contributions during the period. Participation results are based on all contributions. Participation rates by age are participant weighted (total number of participants divided by the total number eligible to participate).

Employee and employer contributions are based on plans with contributions during the calendar years ended December 31, 2013, through December 31, 2022. Employer contributions include all types of employer money, such as matching contributions, discretionary contributions, and retirement contributions. Match percentages are the maximum percentage of participant contributions that a company will match. Company vesting percentages shown are an aggregated count of those plans and plan locations that have identifiable vesting schedules for reporting purposes.

Deferral results are based on employee pretax deferral percentages greater than zero for eligible participants over various time periods from calendar years ended December 31, 2013, through December 31, 2022. Average deferral by age is participant weighted (total of all participant deferral percentages divided by the total number of participants with a deferral percentage).

Catch-up contribution results for participant age breakdowns are based on the number of participants who made catch-up contributions during the various calendar year periods ended December 31, 2013, through December 31, 2022. These data capture the number of eligible participants over age 50 in plans that offer catch-up contributions.

**Roth qualified distribution**—A qualified distribution is tax-free if taken at least five years after the year of your first Roth contribution AND you have reached age 59½, become totally disabled, or died. If your distribution is not qualified, any earnings from the Roth portion will be taxable in the year it is distributed. These rules apply to Roth distributions only from employer-sponsored plans. Additional plan distribution rules apply.

Loan availability and usage results are based on active participants with outstanding loan balances at calendar years ended December 31, 2013, through December 31, 2022. Participant loans are limited to plans that offer loans. Hardship withdrawal data represent all hardship withdrawals from qualified 401(k) and 457 plan types at calendar years ended December 31, 2013, through December 31, 2022.

## Methodology

Distribution data represent all distributions and hardship withdrawals from qualified 401(k) and 457 plan types for various time periods from calendar years ended December 31, 2013, through December 31, 2022. The rollover/cashout percentage is based on the amount of assets cashed out or rolled out of a retirement plan account for any participant, including both active and terminated, during the calendar year ended December 31, 2022.

Throughout Reference Point, the reader will see year-over-year changes expressed as a percentage change (e.g., 25% increase). For example: If the deferral rate was 7.8% in 2020, and the deferral rate was 7.6% in 2019, this would be a 3% increase. In the same example, the percentage point movement would be 0.2. We have not used percentage point movement in this document except where noted.



[troweprice.com/referencepoint](http://troweprice.com/referencepoint)

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T. Rowe Price Investment Services, Inc.

T. Rowe Price Retirement Plan Services, Inc.

T. Rowe Price Associates, Inc.

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