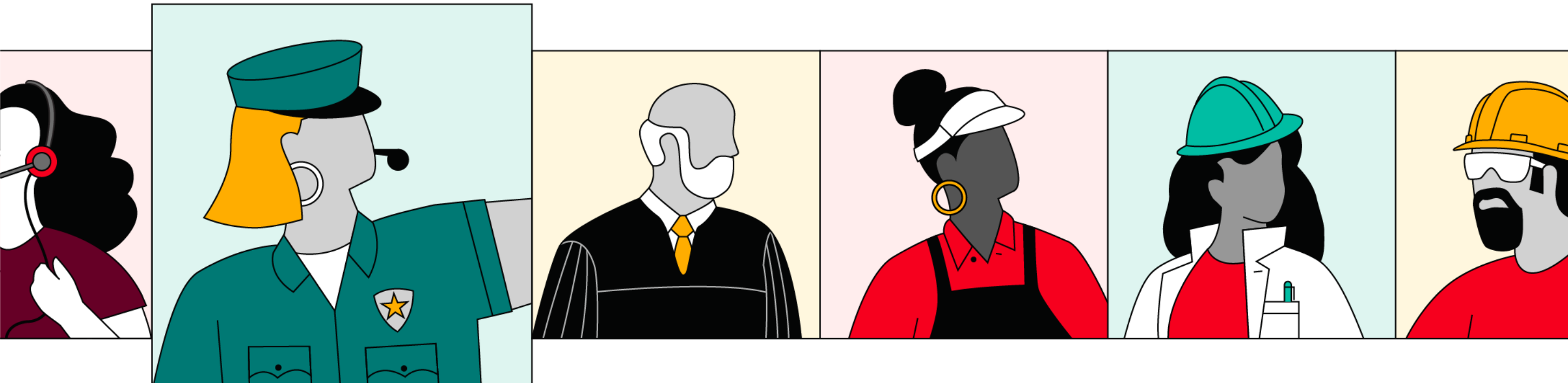


Union plans



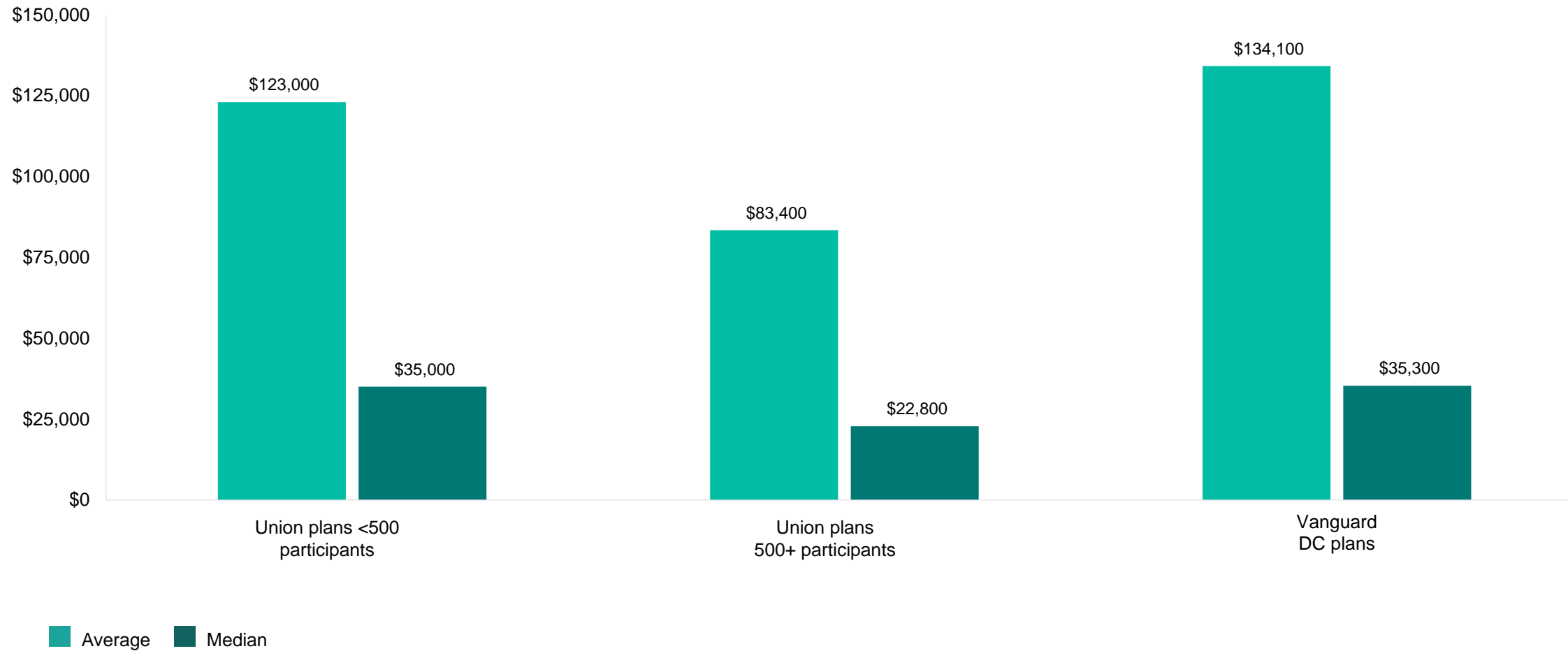
Benchmark population

	Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
Number of plans	53	46	1,550
Number of participants	9,610	168,663	4.8 million
Average number of participants	181	3,667	3,100
Median number of participants	156	1,228	610
Amount of assets	\$1.2 billion	\$14.1 billion	\$644.7 billion
Average assets	\$22.3 million	\$305.6 million	\$418.9 million
Median assets	\$11.7 million	\$95.2 million	\$79.5 million

Union plans are defined as those plans designated exclusively for benefit of union participants.

Source: Vanguard, as of December 31, 2023.

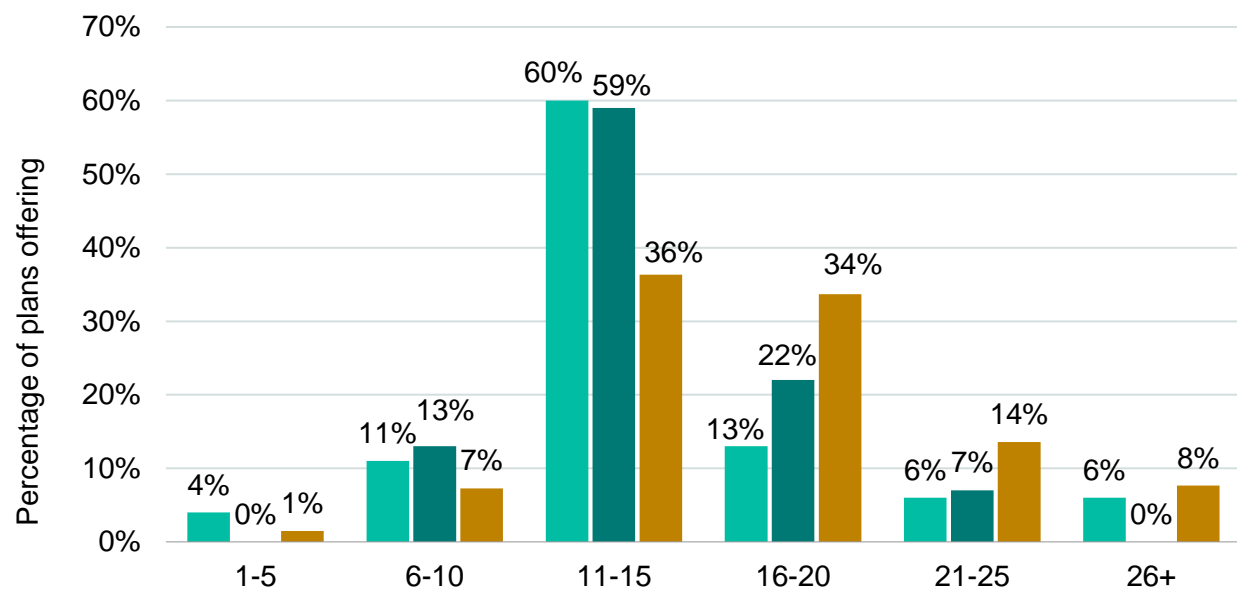
Participant balances



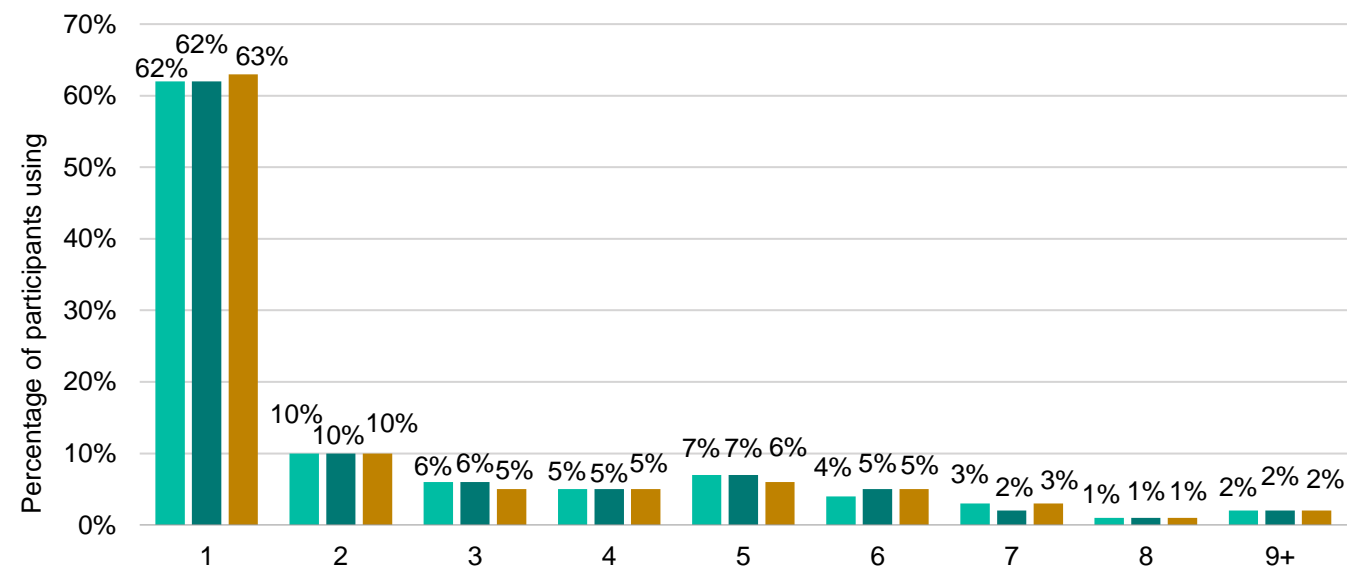
Source: Vanguard, as of December 31, 2023.
Bars in chart may not align precisely with percentages due to rounding.

Number of fund options offered and used

Funds offered per plan (all life-cycle funds counted as one)



Funds used per participant



■ Union plans <500 participants
 ■ Union plans 500+ participants
 ■ Vanguard DC plans

Average funds offered	15.2	14	17.5
Median funds offered	14	13	16
Average funds used	2.3	2.3	2.3
Median funds used	1	1	1

Source: Vanguard, as of December 31, 2023.

Bars in chart may not align precisely with percentages due to rounding.

Types of investment options offered and used*

	Union plans <500 participants		Union plans 500+ participants		Vanguard DC plans	
	Percentage of plans offering	Percentage of participants using*	Percentage of plans offering	Percentage of participants using*	Percentage of plans offering	Percentage of participants using*
Cash	98%	17%	100%	12%	99%	11%
Money market	58%	6%	65%	4%	71%	6%
Stable value/GIC	87%	15%	76%	14%	68%	10%
Bond funds	96%	18%	100%	16%	99%	17%
Active	64%	10%	74%	5%	80%	7%
Index	91%	14%	91%	14%	90%	14%
Inflation-protected securities	17%	4%	11%	3%	35%	3%
Multisector	4%	2%	4%	2%	7%	2%
High-yield	8%	6%	11%	2%	18%	4%
International	21%	8%	15%	1%	19%	5%
Emerging markets	0%	0%	0%	0%	1%	2%
Balanced funds	100%	79%	100%	90%	99%	86%
Traditional balanced	51%	17%	70%	15%	63%	13%
Target-risk	2%	0%	7%	0%	2%	1%
Target-date	96%	75%	100%	85%	96%	83%
Company stock	8%	36%	7%	43%	8%	23%
Self-directed brokerage	8%	3%	7%	0%	21%	1%

* Among participants offered the option.
Source: Vanguard, as of December 31, 2023.
Percentages may not total 100% because of rounding.

Types of investment options offered and used* (continued)

	Union plans <500 participants		Union plans 500+ participants		Vanguard DC plans	
	Percentage of plans offering	Percentage of participants using*	Percentage of plans offering	Percentage of participants using*	Percentage of plans offering	Percentage of participants using*
Equity funds	98%	34%	100%	29%	99%	31%
Domestic equity funds	98%	33%	100%	28%	99%	30%
Large-cap index	98%	24%	100%	22%	99%	14%
Large-cap active	87%	18%	93%	14%	89%	26%
Large-cap value	83%	12%	80%	9%	87%	9%
Large-cap growth	92%	15%	91%	11%	90%	13%
Large-cap blend	98%	23%	100%	22%	99%	24%
Mid-cap index	81%	12%	89%	11%	84%	14%
Mid-cap active	42%	12%	33%	4%	52%	7%
Small-cap index	42%	12%	41%	8%	63%	11%
Small-cap active	58%	7%	43%	9%	64%	7%
Socially responsible	8%	3%	11%	7%	17%	5%
International equity funds	92%	18%	96%	17%	97%	19%
Index international	74%	13%	85%	11%	81%	14%
Active international	79%	11%	78%	10%	83%	9%
Emerging markets	19%	8%	17%	3%	35%	9%
Global equity funds	8%	10%	13%	2%	16%	3%

* Among participants offered the option.
Source: Vanguard, as of December 31, 2023.
Percentages may not total 100% because of rounding.

Types of investment options offered and used* (continued)

	Union plans <500 participants		Union plans 500+ participants		Vanguard DC plans	
	Percentage of plans offering	Percentage of participants using*	Percentage of plans offering	Percentage of participants using*	Percentage of plans offering	Percentage of participants using*
Sector funds	34%	8%	20%	7%	39%	6%
REIT	26%	2%	17%	5%	33%	5%
Health care	8%	12%	2%	28%	8%	6%
Energy	6%	11%	0%	0%	4%	4%
Precious metals	2%	3%	0%	0%	2%	2%
Technology	2%	2%	0%	0%	3%	5%
Utilities	2%	5%	0%	0%	1%	2%
Natural resources	0%	0%	2%	11%	1%	4%
Financials	0%	0%	0%	0%	<0.5%	<0.5%
Communications	0%	0%	0%	0%	<0.5%	1%
Consumer	0%	0%	0%	0%	<0.5%	1%
Industrials	0%	0%	0%	0%	<0.5%	<0.5%

* Among participants offered the option.
Source: Vanguard, as of December 31, 2023.
Percentages may not total 100% because of rounding.

Target-date fund availability and use

		Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
Percentage of plans offering		96%	100%	96%
Plan assets invested*		34%	41%	41%
Percentage of plan assets*	<10%	0%	0%	5%
	10%–19%	8%	7%	8%
	20%–29%	25%	9%	17%
	30%–39%	16%	26%	20%
	40%–49%	12%	11%	18%
	50%+	39%	48%	32%
Percentage of participants using*		75%	85%	83%
Percentage of participant assets**		62%	58%	62%
Percentage of participant assets in target-date funds**	1%–24%	10%	10%	10%
	25%–49%	8%	11%	8%
	50%–74%	4%	5%	4%
	75%–99%	4%	6%	6%
	100%	75%	69%	72%
Percentage of participants owning**	One target-date fund only	72%	66%	70%
	One target-date fund plus other funds	22%	27%	24%
	Two or more target-date funds only	2%	2%	2%
	Two or more target-date funds plus other funds	3%	5%	4%

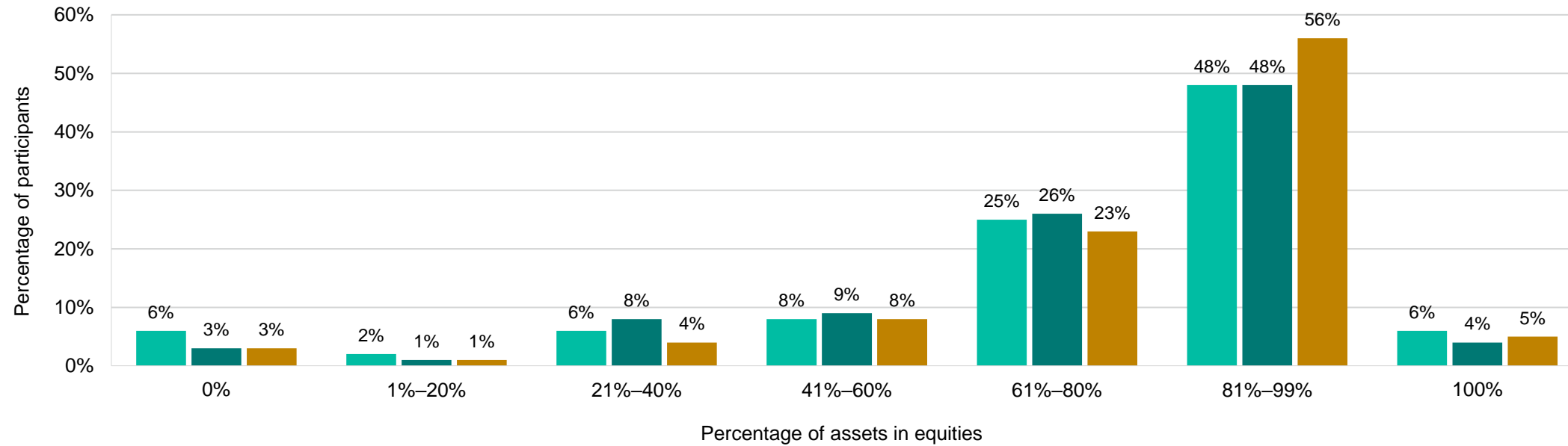
* Among plans offering target-date options.

** Among participants owning target-date options.

Source: Vanguard, as of December 31, 2023.

Percentages may not total 100% because of rounding.

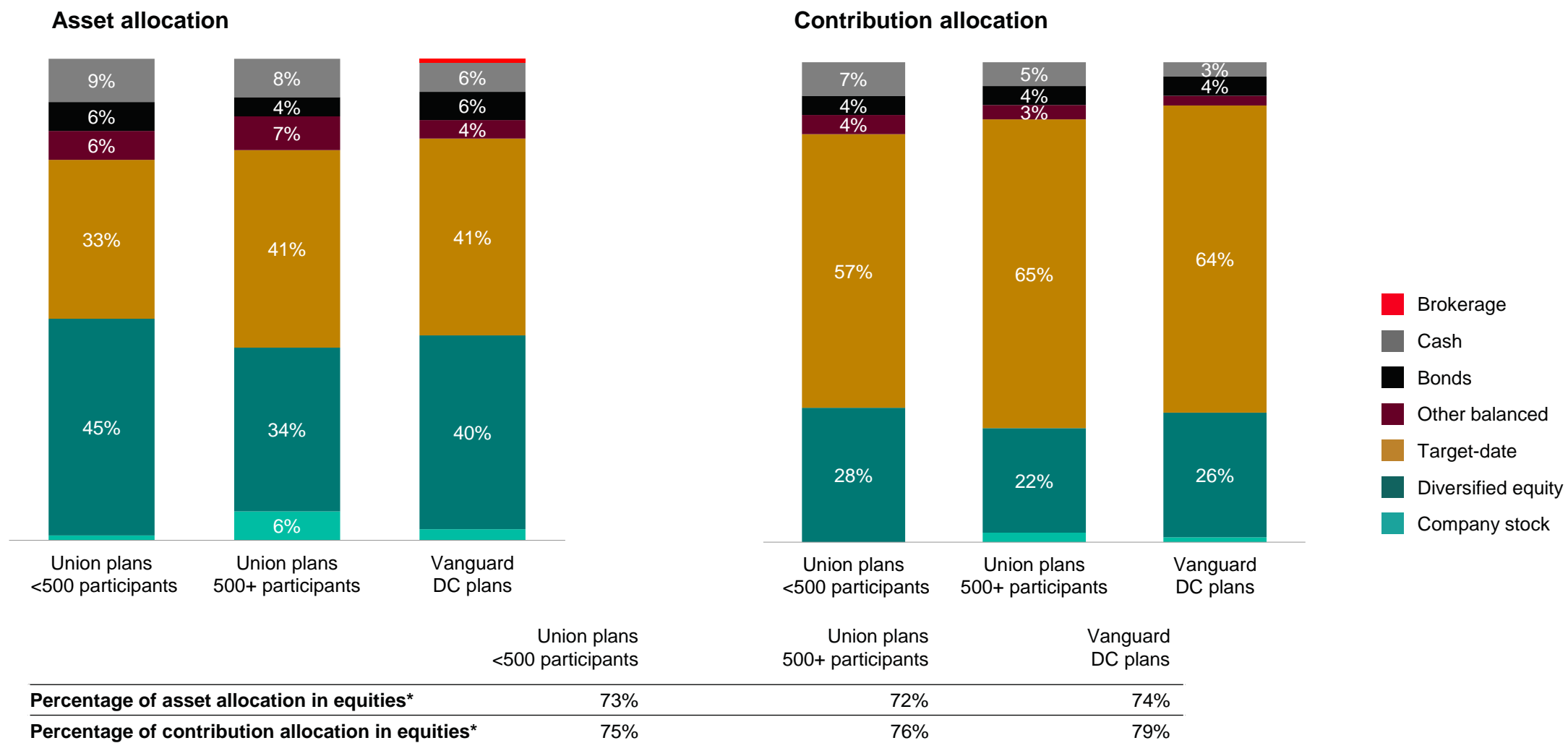
Participant equity exposure



	Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
Average percentage in equities	72%	73%	78%
Median percentage in equities	84%	83%	87%

Source: Vanguard, as of December 31, 2023.
 Bars in chart may not align precisely with percentages due to rounding.

Asset and contribution allocations



* Equities include company stock, diversified equity, and the equity portion of balanced funds.

Source: Vanguard, as of December 31, 2023.

Bars in chart may not align precisely with percentages due to rounding.

Participants with professionally managed allocations

		Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
All participants	Single target-date fund	53%	56%	58%
	Single balanced fund	1%	2%	1%
	Managed account program	6%	7%	7%
	Total	60%	65%	66%
New plan entrants during the year	Single target-date fund	89%	87%	86%
	Single balanced fund	1%	0%	1%
	Managed account program	1%	3%	2%
	Total	91%	90%	89%

Source: Vanguard, as of December 31, 2023
 Percentages may not total 100% because of rounding.

Automatic enrollment options*

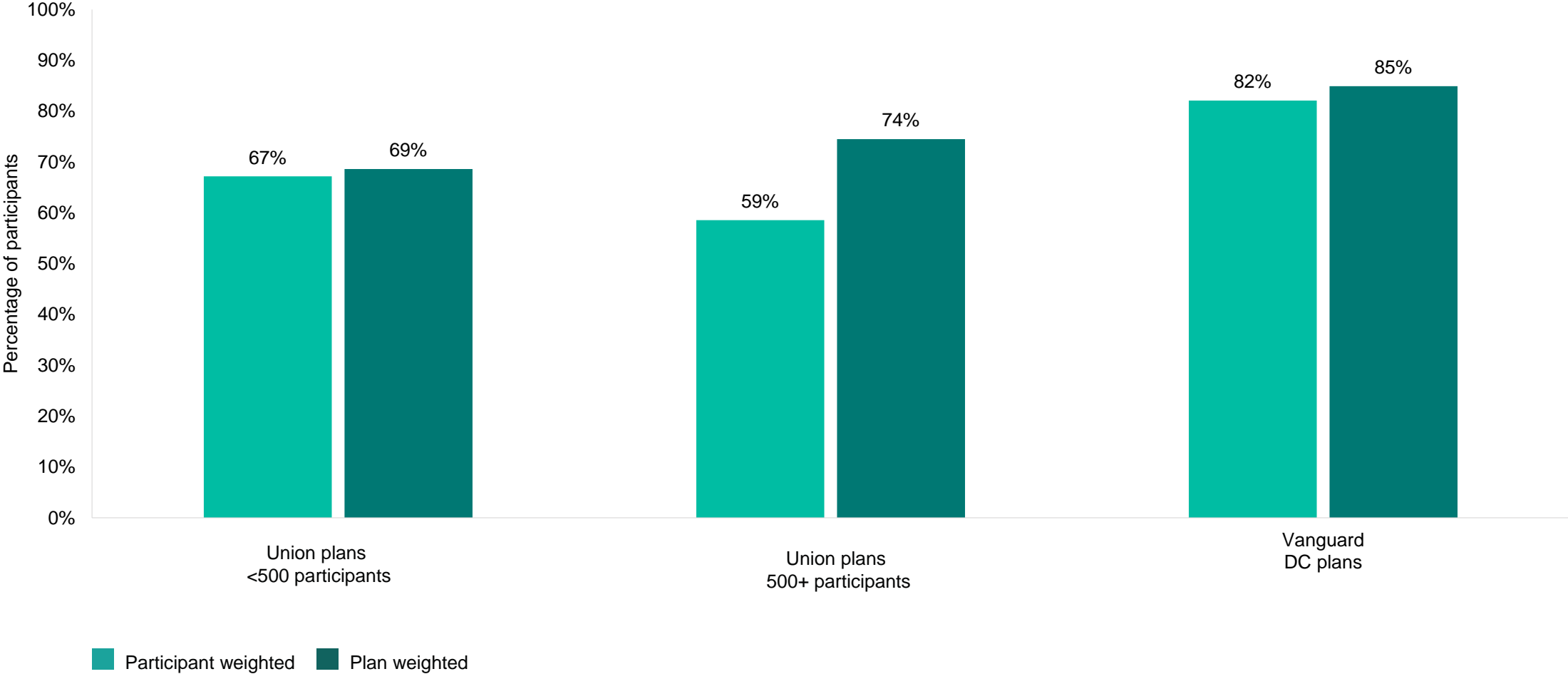
		Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
Automatic enrollment*	Number of plans	18	22	842
	Percentage of plans	39%	65%	59%
Default automatic enrollment rate	1 percent	0%	5%	2%
	2 percent	0%	23%	5%
	3 percent	33%	27%	33%
	4 percent	11%	9%	14%
	5 percent	11%	18%	17%
	6 percent or more	44%	18%	29%
Default automatic increase rate	1 percent	67%	68%	67%
	2 percent	0%	0%	2%
	Voluntary election	33%	27%	25%
	Service feature not offered	0%	5%	6%
Default automatic increase cap	<6 percent	8%	7%	2%
	6 to 9 percent	33%	27%	17%
	10 to 14 percent	17%	40%	49%
	15 to 19 percent	25%	7%	22%
	20+ percent	17%	13%	6%
	No cap	0%	7%	4%
Default fund	Target-date fund	100%	100%	98%
	Other balanced fund	0%	0%	1%
	Money market or stable value fund	0%	0%	1%

* Limited to plans using Vanguard's automatic enrollment service.

Source: Vanguard, as of December 31, 2023.

Percentages may not total 100% because of rounding.

Participation rates



Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Bars in chart may not align precisely with percentages due to rounding.

Participant deferral rates

		Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
	Average	8.4%	7.0%	7.4%
	Median	7.0%	5.9%	6.2%
	<4.0%	18%	33%	24%
	4.0%–6.0%	21%	20%	20%
	6.1%–9.9%	29%	22%	32%
	10.0%–14.9%	19%	17%	17%
	15.0%+	13%	8%	7%

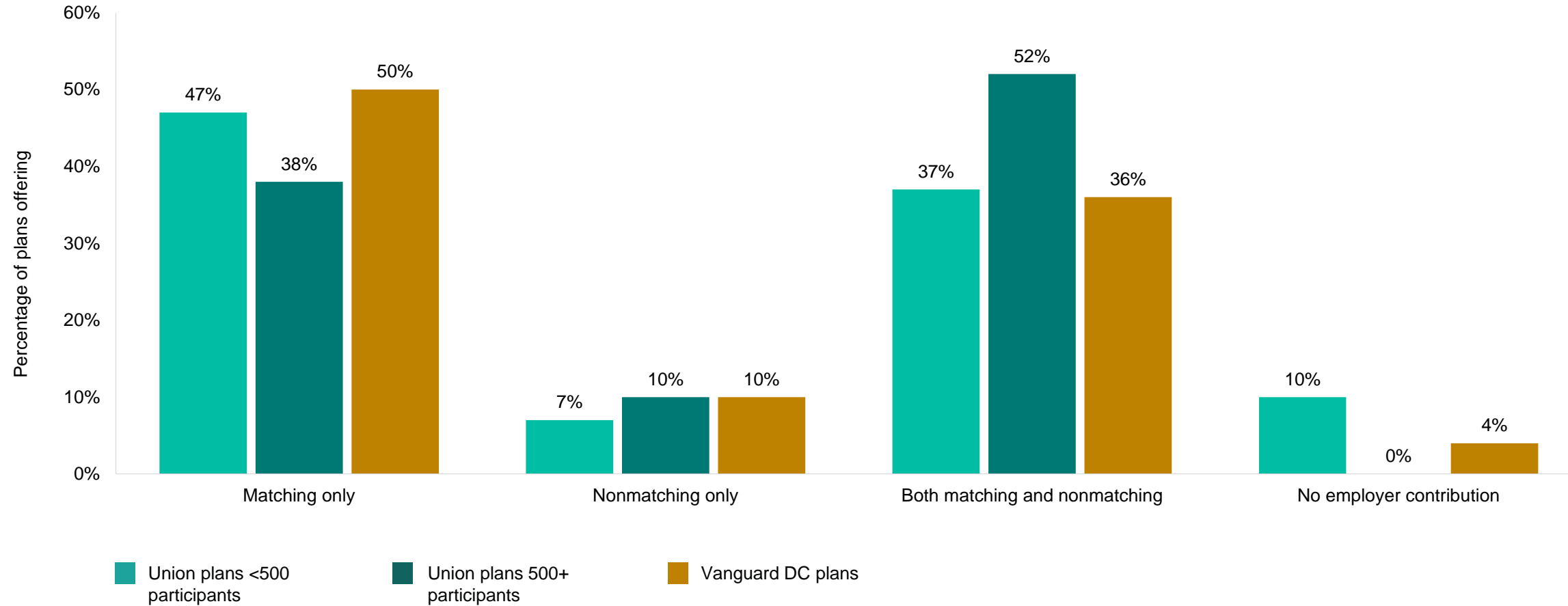
Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Percentages may not total 100% because of rounding.

Aggregate participant and employer contribution rates

		Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
Total saving rate	Average	11%	9%	12%
	Median	10%	7%	11%
Distribution of rates	<5.0%	19%	32%	14%
	5.0%–8.9%	24%	26%	20%
	9.0%–11.9%	18%	14%	21%
	12.0%–14.9%	15%	10%	20%
	15.0%+	25%	18%	25%

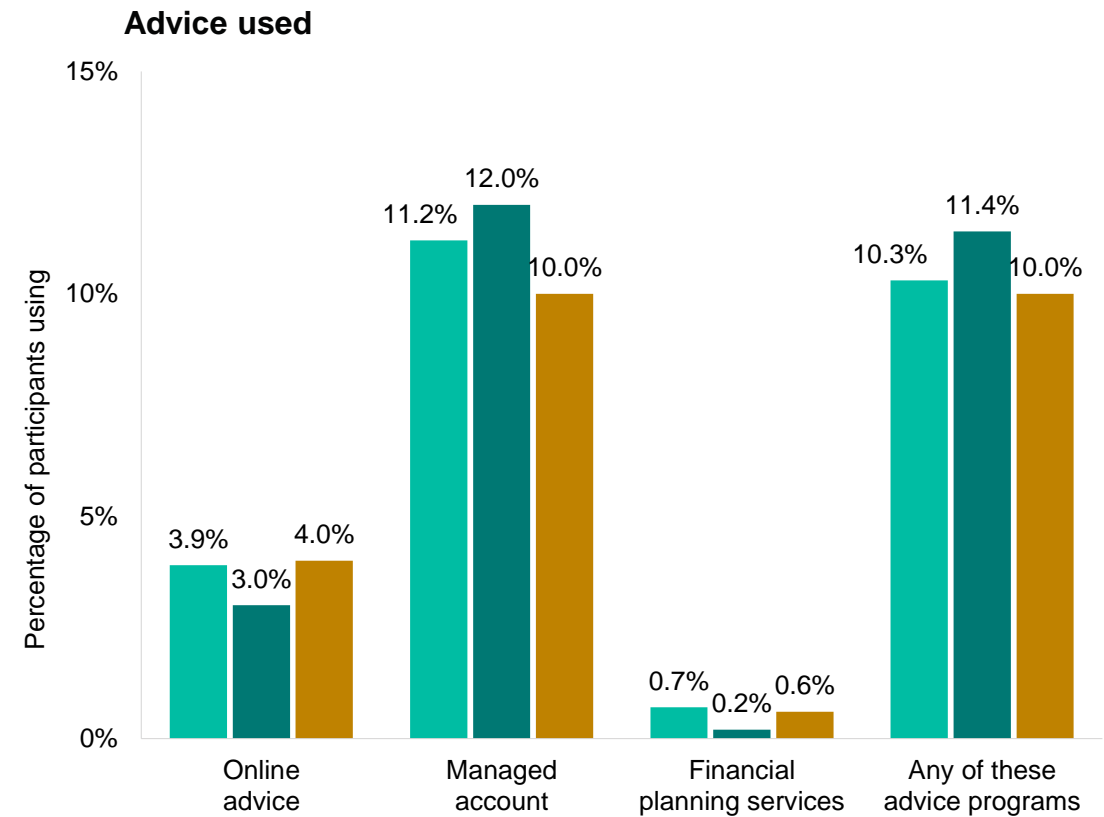
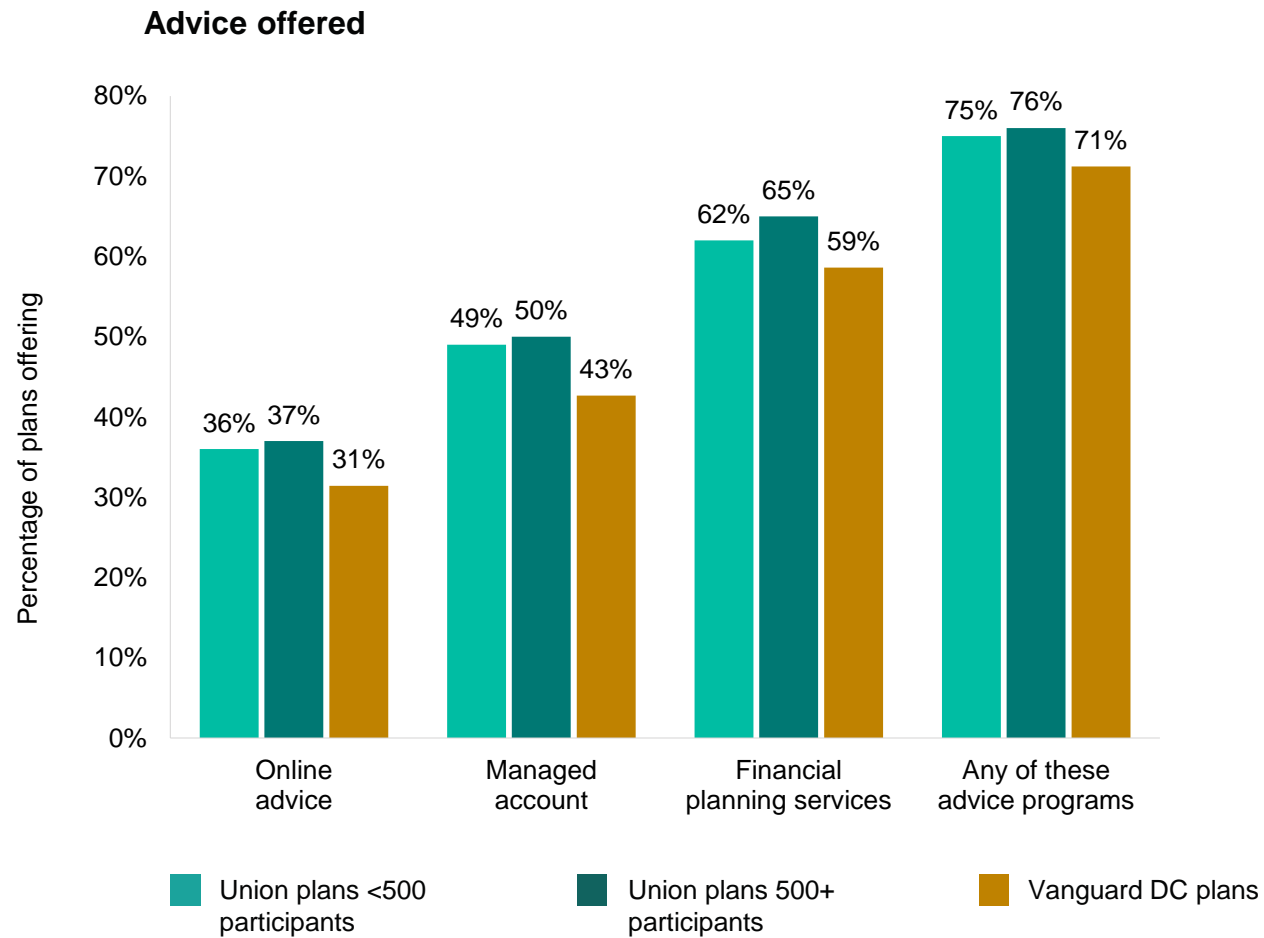
Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Percentages may not total 100% because of rounding.

Types of employer contributions



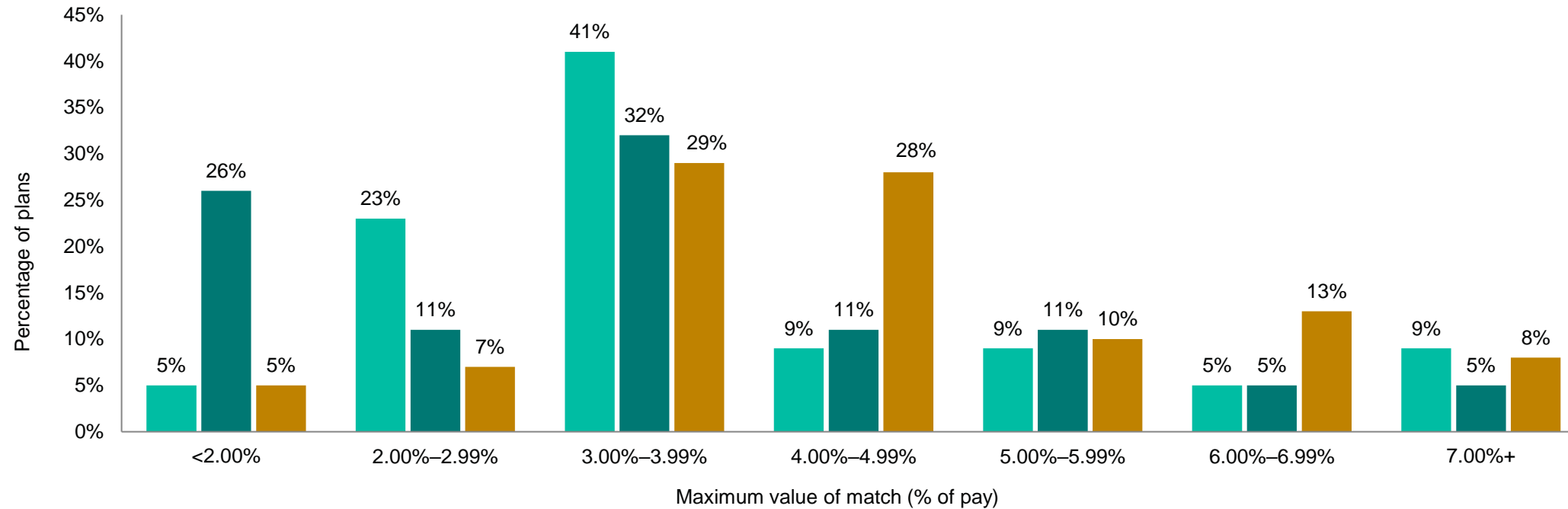
Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Bars in chart may not align precisely with percentages due to rounding.

Advice services



Source: Vanguard, as of December 31, 2023.
 Bars in chart may not align precisely with percentages due to rounding.

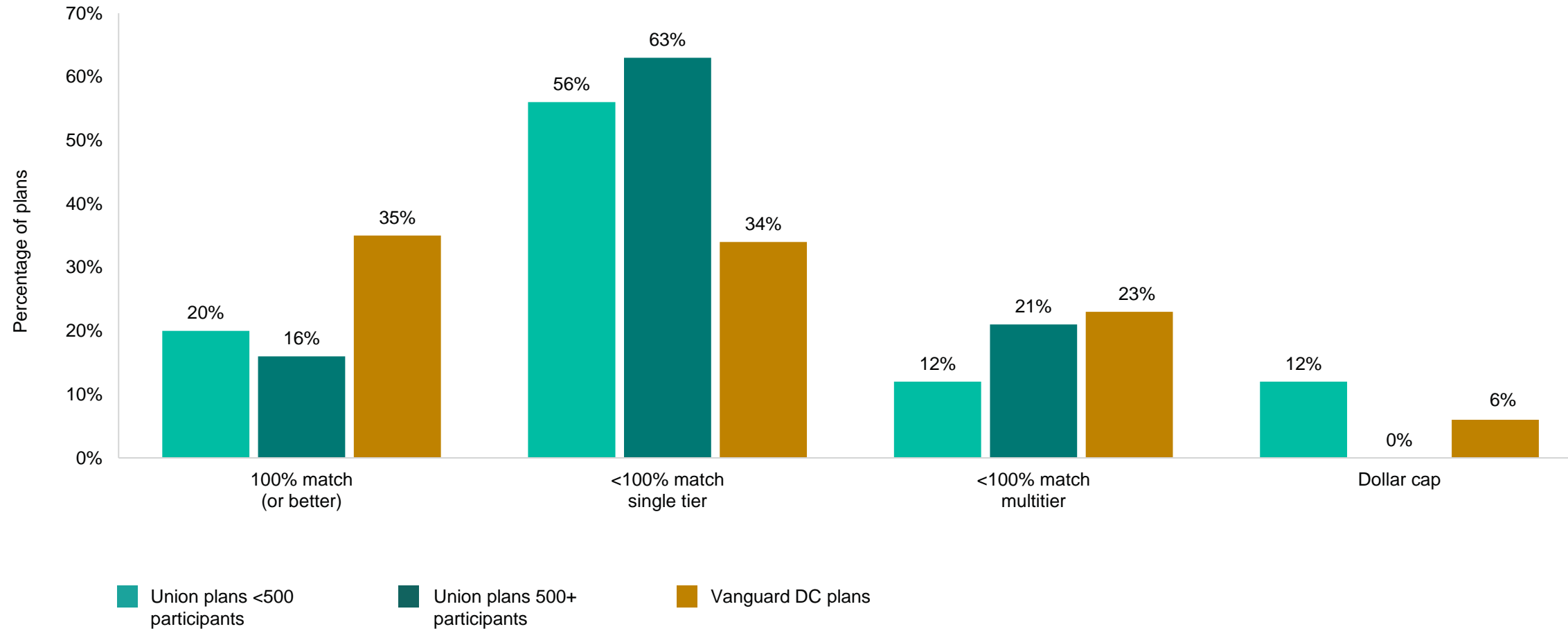
Matching contributions



	Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
Average value	4.8%	3.2%	4.6%
Median value	3.0%	3.0%	4.0%

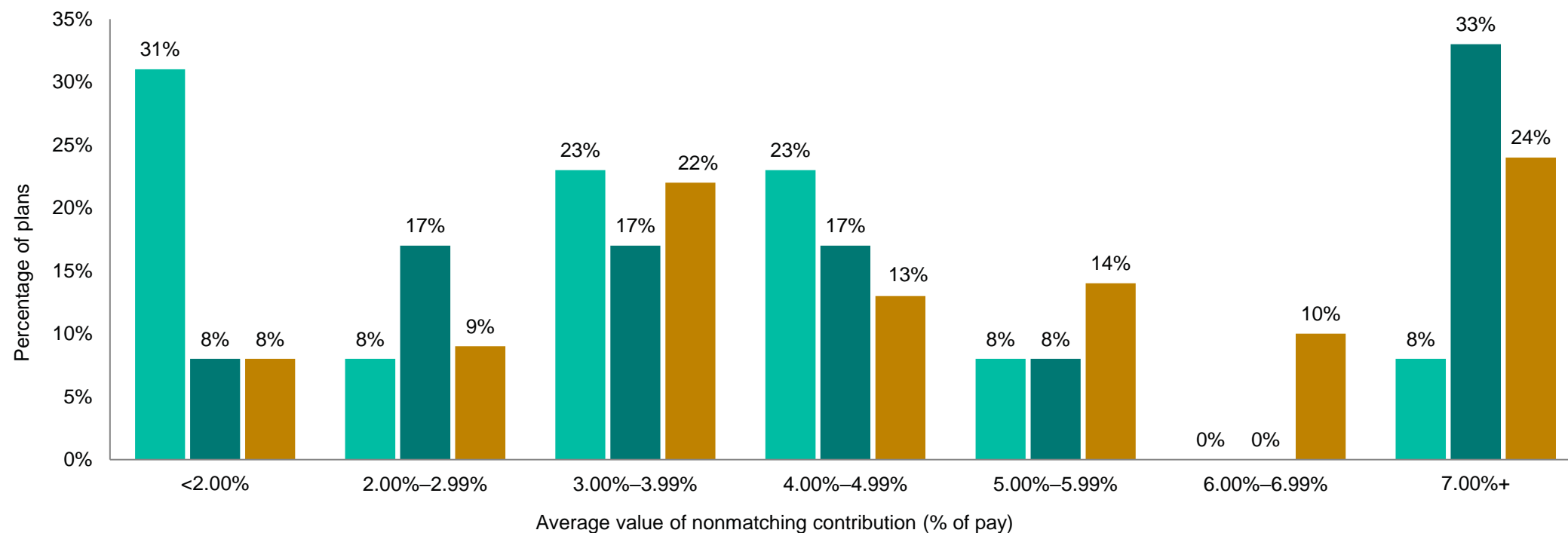
Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Bars in chart may not align precisely with percentages due to rounding.

Matching formulas



Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Bars in chart may not align precisely with percentages due to rounding.

Nonmatching/Profit-sharing employer contributions



	Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
Average value	3.4%	6.9%	5.4%
Median value	3.2%	4.6%	4.4%

Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Bars in chart may not align precisely with percentages due to rounding.

Roth availability and use

		Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
Percentage of plans offering Roth (among plans with elective deferrals)		61%	71%	82%
Percentage of plan assets invested in Roth*		5.8%	4.6%	4.4%
Distribution of percentage of plan assets in Roth	<1%	36%	21%	9%
	1%–2%	29%	25%	34%
	3%–5%	11%	42%	33%
	6%–9%	18%	8%	15%
	10%–14%	4%	0%	5%
	15%+	4%	4%	3%
Percentage of participants with assets in Roth*		20%	21%	18%
Percentage of participant assets in Roth**		18%	20%	18%
Distribution of participant assets in Roth	1%–24%	55%	48%	50%
	25%–49%	26%	24%	24%
	50%–74%	13%	11%	14%
	75%–99%	4%	9%	6%
	100%	2%	8%	3%
Percentage of participants making Roth contributions (past 12 months)***		22%	24%	17%
Percentage of participant contributions going to Roth**		49%	48%	54%
Distribution of percentage of participant contributions to Roth	1%–24%	22%	22%	22%
	25%–49%	28%	28%	26%
	50%–74%	19%	18%	15%
	75%–99%	6%	5%	7%
	100%	25%	27%	29%

* Among plans offering Roth.

** Among participants using Roth.

*** Among participants making elective deferrals.

Source: Vanguard, as of December 31, 2023.

Percentages may not total 100% because of rounding.

Participant loans and in-service withdrawals

		Union plans <500 participants	Union plans 500+ participants	Vanguard DC plans
Outstanding loans*	Percentage of participants with outstanding loans	20%	20%	13%
	Percentage of account balance in loans	9%	11%	9%
	Average loan balance	\$11,398	\$10,916	\$10,708
Percentage of active participants with outstanding loans*	No loans	80%	80%	87%
	One loan	16%	14%	10%
	Two loans	3%	6%	3%
	Three+ loans	1%	0%	0%
Loans issued past 12 months*	Average per 1,000 active participants	127	141	105
	Average loan amount	\$12,443	\$10,856	\$10,646
Nonhardship withdrawals taken past 12 months**	Average per 1,000 active participants	133	136	113
	Average withdrawal amount	\$19,594	\$11,206	\$17,112
Hardship withdrawals taken past 12 months**	Average per 1,000 active participants	60	49	68
	Average withdrawal amount	\$7,253	\$7,346	\$4,730

* Among plans allowing loans.

** Among participants allowed in-service withdrawals.

Source: Vanguard, as of December 31, 2023.

Percentages may not total 100% because of rounding.

Important information

All investing is subject to risk, including the possible loss of the money you invest. Be aware that fluctuations in the financial markets and other factors may cause declines in the value of your account. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income. Diversification does not ensure a profit or protect against a loss.

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