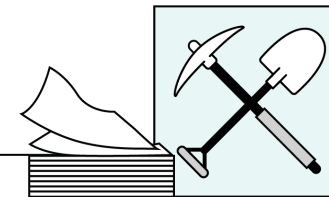


Custom DC plan benchmarks

Mining, quarrying, and oil and gas extraction



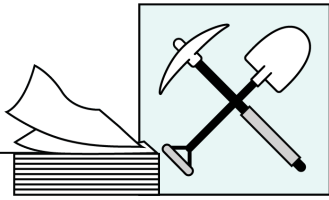


Benchmark population

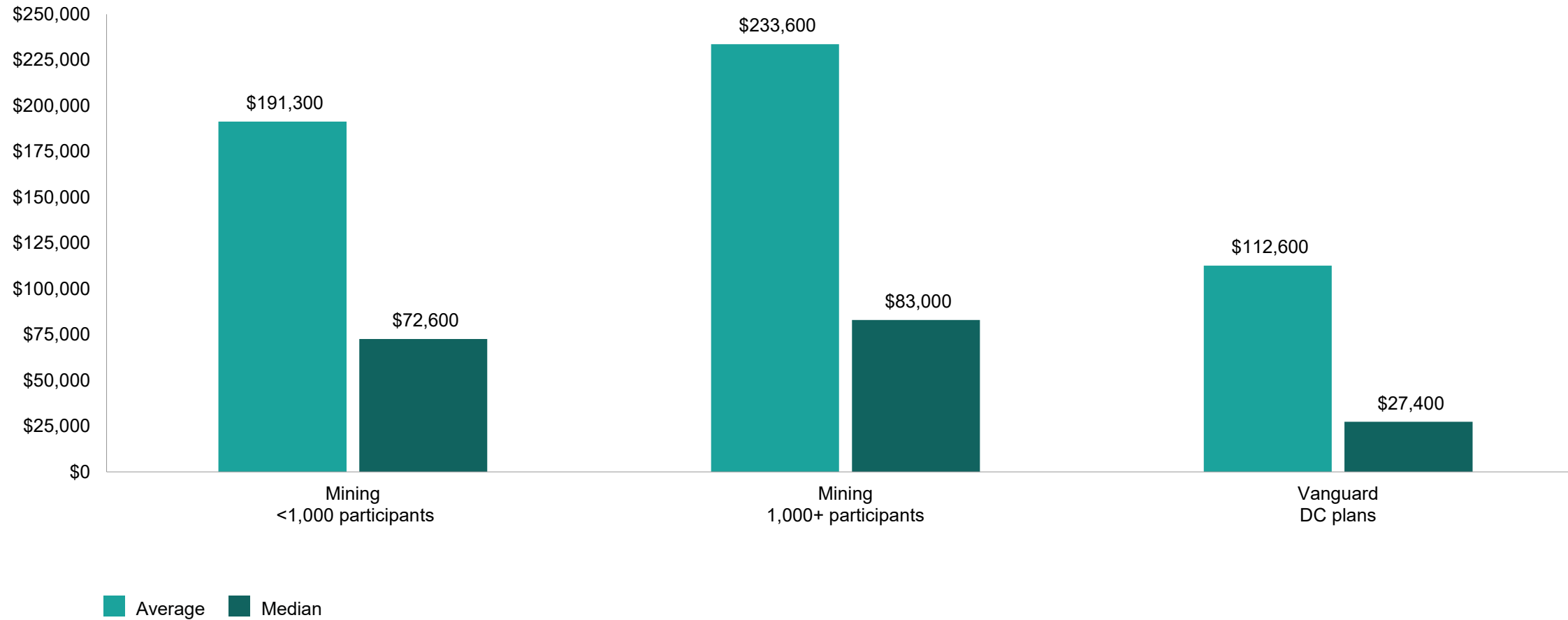
	Mining <1,000 participants	Mining 1,000+ participants	Vanguard DC plans
Number of plans	25	15	1,650
Number of participants	6,710	84,595	4.9 million
Average number of participants	268	5,640	2,950
Median number of participants	234	3,264	565
Amount of assets	\$1.3 billion	\$19.8 billion	\$550.2 billion
Average assets	\$51.3 million	\$1.3 billion	\$333.9 million
Median assets	\$30.9 million	\$641.3 million	\$65.5 million

Mining, Quarrying, and Oil and Gas Extraction is defined by NAICS (North American Industry Classification System) sector 21.

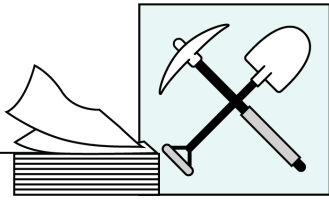
Source: Vanguard, as of December 31, 2022.



Participant balances

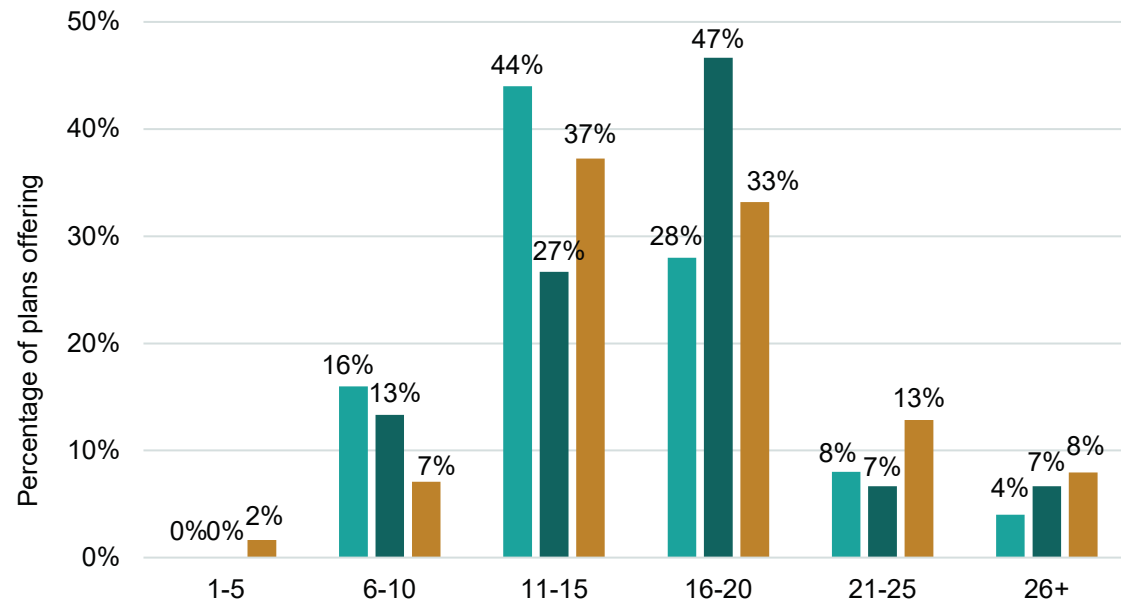


Source: Vanguard, as of December 31, 2022.
Bar chart may not align precisely with percentages due to rounding.

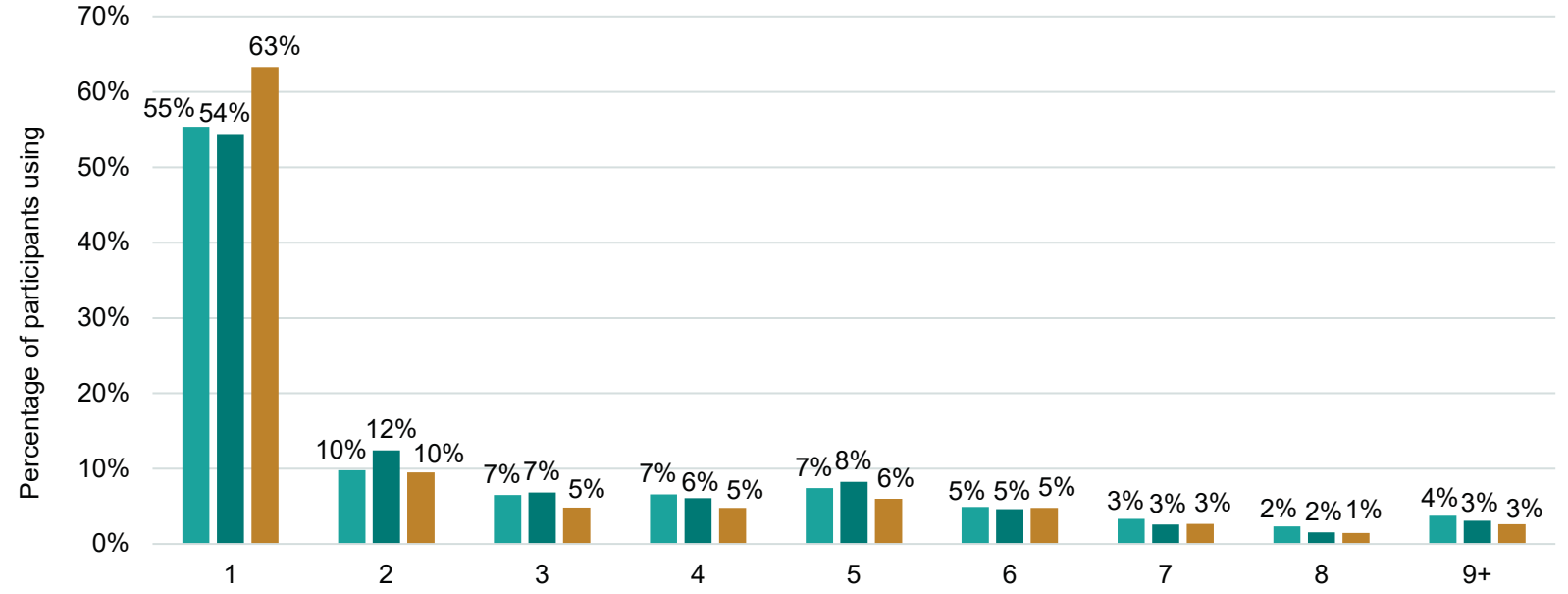


Number of fund options offered and used

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



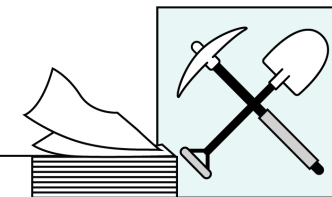
Funds used per participant



	Average funds offered	Median funds offered	Average funds used	Median funds used
Mining <1,000 participants	15.0	14	2.7	1
Mining 1,000+ participants	16.6	17	2.6	1
Vanguard DC plans	17.4	16	2.4	1

Source: Vanguard, as of December 31, 2022.

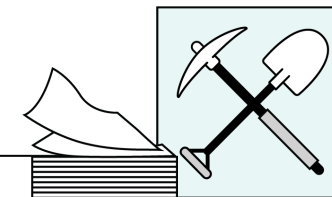
Bar chart may not align precisely with percentages due to rounding.



Types of investment options offered and used*

	Mining <1,000 participants		Mining 1,000+ 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	100%	17%	100%	20%	99%	12%
Money market	64	10	40	19	70	6
Stable value / GIC	72	14	87	16	68	10
Bond	100%	19%	100%	18%	98%	17%
Active	56	11	87	7	80	7
Index	96	16	93	15	89	14
Inflation-protected securities	24	8	27	5	35	3
Multisector	4	4	20	1	8	2
High-yield	12	12	20	8	17	3
International	12	4	27	2	19	3
Emerging markets	0	0	0	0	1	2
Balanced funds	100%	80%	100%	85%	99%	87%
Traditional balanced	52	20	53	13	62	12
Target-risk	16	20	7	2	13	10
Target-date	100	71	100	82	96	83
Company stock	12%	93%	33%	33%	8%	36%
Self-directed brokerage	4%	4%	33%	1%	20%	1%

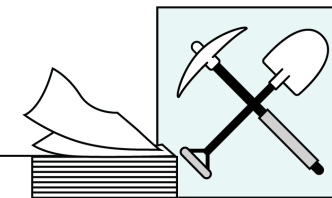
*Among participants offered the option.
Source: Vanguard, as of December 31, 2022.



Types of investment options offered and used* (continued)

	Mining <1,000 participants		Mining 1,000+ 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	100%	39%	100%	32%	99%	30%
Domestic equity funds	100%	38%	100%	31%	99%	29%
Large-cap index	100	24	100	26	98	23
Large-cap active	96	25	87	14	90	16
Large-cap value	92	15	80	8	87	9
Large-cap growth	92	19	80	13	91	13
Large-cap blend	100	24	100	26	98	23
Mid-cap index	72	16	80	18	83	14
Mid-cap active	44	12	80	7	52	7
Small-cap index	48	17	53	15	63	11
Small-cap active	64	10	33	8	63	7
Socially responsible	8	13	13	4	15	5
International equity funds	100%	22%	100%	21%	97%	19%
Index international	76	9	67	17	79	14
Active international	96	17	93	14	83	10
Emerging markets	24	14	40	3	35	8
Global equity funds	20%	12%	13%	12%	17%	3%

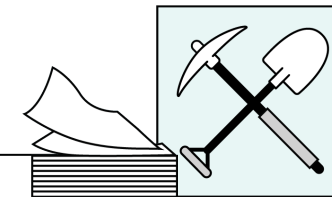
*Among participants offered the option.
Source: Vanguard, as of December 31, 2022.



Types of investment options offered and used* (continued)

	Mining <1,000 participants		Mining 1,000+ 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	24%	7%	33%	6%	38%	6%
REIT	20	4	33	5	32	5
Health care	4	15	0	0	8	7
Energy	4	18	0	0	5	5
Precious metals	0	0	0	0	2	2
Technology	4	6	0	0	3	5
Utilities	0	0	0	0	1	2
Natural resources	0	0	7	2	1	4
Financials	0	0	0	0	<0.5	1
Communications	0	0	0	0	<0.5	1
Consumer	0	0	0	0	<0.5	2
Industrials	0	0	0	0	<0.5	1

*Among participants offered the option.
Source: Vanguard, as of December 31, 2022.



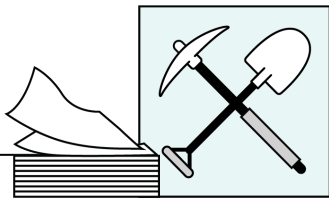
Target-date funds availability and use

	Mining <1,000 participants	Mining 1,000+ participants	Vanguard DC plans
Percentage of plans offering	100%	100%	96%
Plan assets invested*	37%	37%	40%
Percentage of plan assets*			
<10%	8%	0%	5%
10–19%	12%	7%	10%
20–29%	28%	33%	17%
30–39%	12%	27%	21%
40–49%	12%	20%	17%
50%+	28%	13%	30%
Percentage of participants using *	71%	82%	83%
Percentage of participant assets**	65%	54%	61%
Percentage of participant assets in target-date funds**			
1–24%	11%	12%	10%
25–49%	7%	11%	8%
50–74%	5%	5%	4%
75–99%	5%	9%	6%
100%	72%	63%	72%
Percentage of participants owning**			
One target-date fund only	69%	60%	71%
One target-date fund plus other funds	24%	31%	23%
Two or more target-date funds only	3%	2%	2%
Two or more target-date funds plus other funds	4%	7%	4%

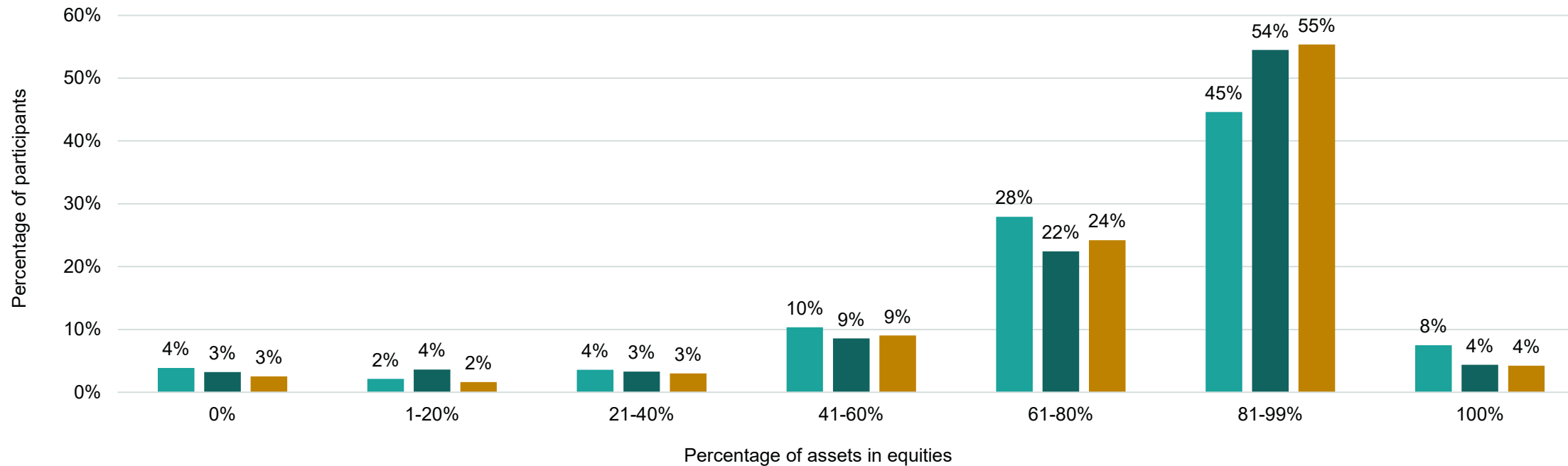
*Among plans offering target-date options.

**Among participants owning target-date options.

Source: Vanguard, as of December 31, 2022.



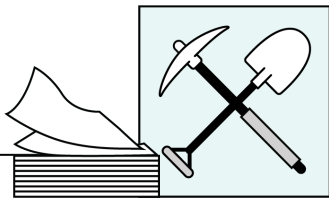
Participant equity exposure



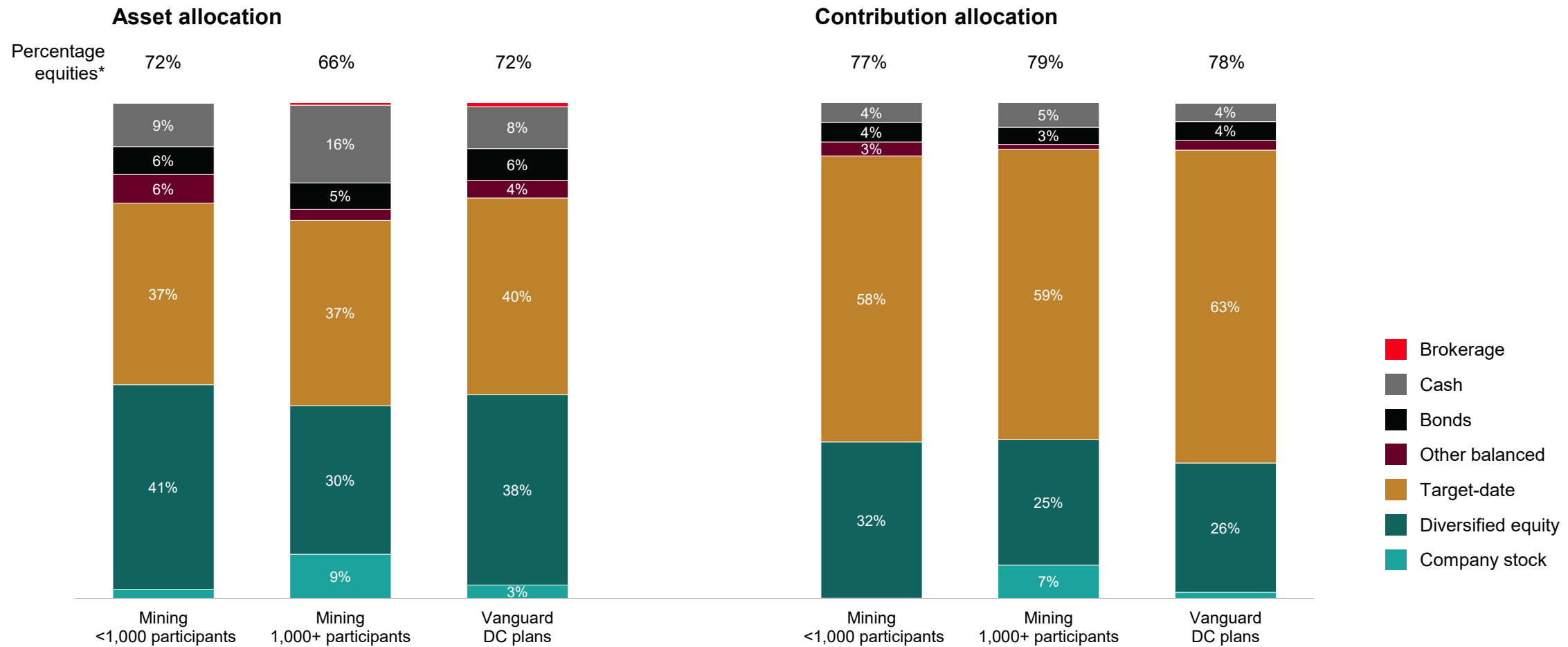
	Average percentage in equities	Median percentage in equities
Mining <1,000 participants	74%	81%
Mining 1,000+ participants	75%	86%
Vanguard DC plans	77%	86%

Source: Vanguard, as of December 31, 2022.

Bar chart may not align precisely with percentages due to rounding.



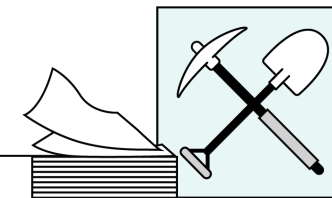
Asset and contribution allocations



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

Source: Vanguard, as of December 31, 2022.

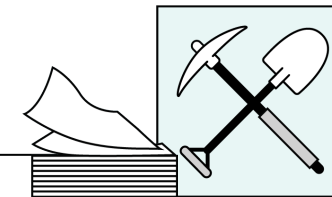
Bar chart may not align precisely with percentages due to rounding.



Participants with professionally managed allocations

	Mining <1,000 participants	Mining 1,000+ participants	Vanguard DC plans
All participants			
Single target-date fund	49%	50%	59%
Single balanced fund	<0.5%	<0.5%	<0.5%
Managed account program	2%	9%	7%
Total	51%	59%	66%
New plan entrants during the year			
Single target-date fund	82%	90%	87%
Single balanced fund	<0.5%	<0.5%	<0.5%
Managed account program	<0.5%	2%	2%
Total	82%	92%	89%

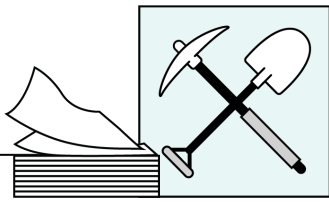
Source: Vanguard, as of December 31, 2022.



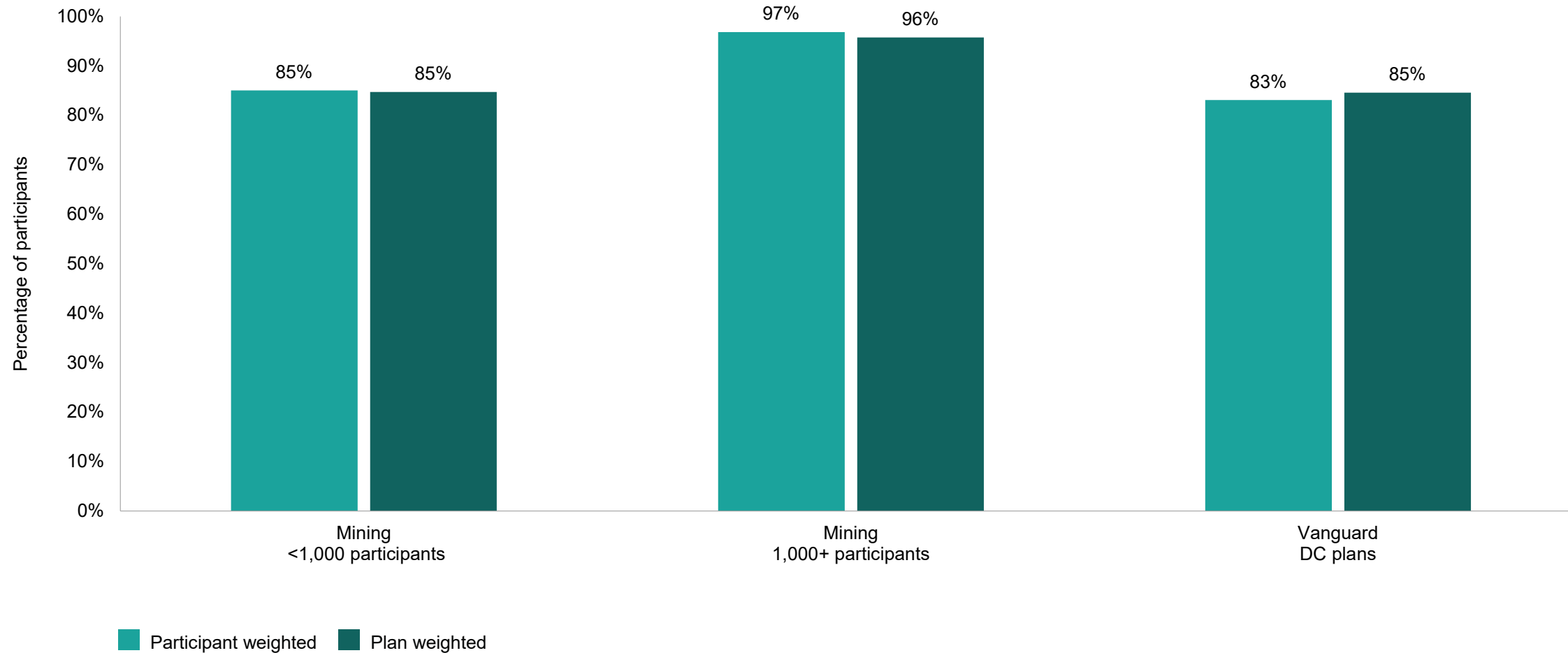
Automatic enrollment options*

	Mining <1,000 participants	Mining 1,000+ participants	Vanguard DC plans
Automatic enrollment*			
Number of plans	6	12	884
Percentage of plans	25%	80%	58%
Default automatic enrollment rate			
1 percent	0%	0%	2%
2 percent	0%	0%	5%
3 percent	17%	33%	34%
4 percent	33%	0%	14%
5 percent	17%	8%	17%
6 percent or more	33%	58%	28%
Default automatic increase rate			
1 percent	67%	42%	66%
2 percent	0%	0%	3%
Voluntary election	17%	58%	25%
Service feature not offered	17%	0%	6%
Default automatic increase cap			
<6 percent	0%	0%	2%
6 to 9 percent	50%	0%	17%
10 to 14 percent	25%	60%	48%
15 to 19 percent	25%	20%	22%
20+ percent	0%	20%	6%
No cap	0%	0%	5%
Default fund			
Target-date fund	100%	100%	98%
Other balanced fund	0%	0%	1%
Money market or stable value fund	0%	0%	1%

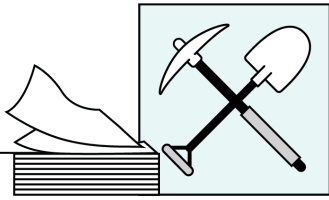
*Limited to plans using Vanguard's automatic enrollment service.
Source: Vanguard, as of December 31, 2022.



Participation rates



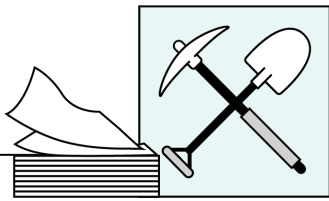
Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Bar chart may not align precisely with percentages due to rounding.



Participant deferral rates

	Mining <1,000 participants	Mining 1,000+ participants	Vanguard DC plans
Deferral rates			
Average	8.1%	8.6%	7.4%
Median	6.9%	8.0%	6.4%
Distribution of rates			
<4.0%	12%	14%	25%
4.0% – 6.0%	23%	15%	19%
6.1% – 9.9%	39%	37%	32%
10.0% – 14.9%	19%	26%	17%
15.0%+	7%	8%	7%

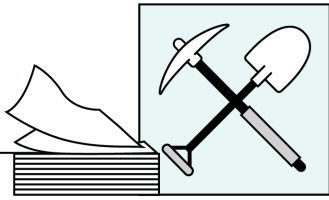
Source: Vanguard active plans with nondiscrimination testing completed during the past two years.



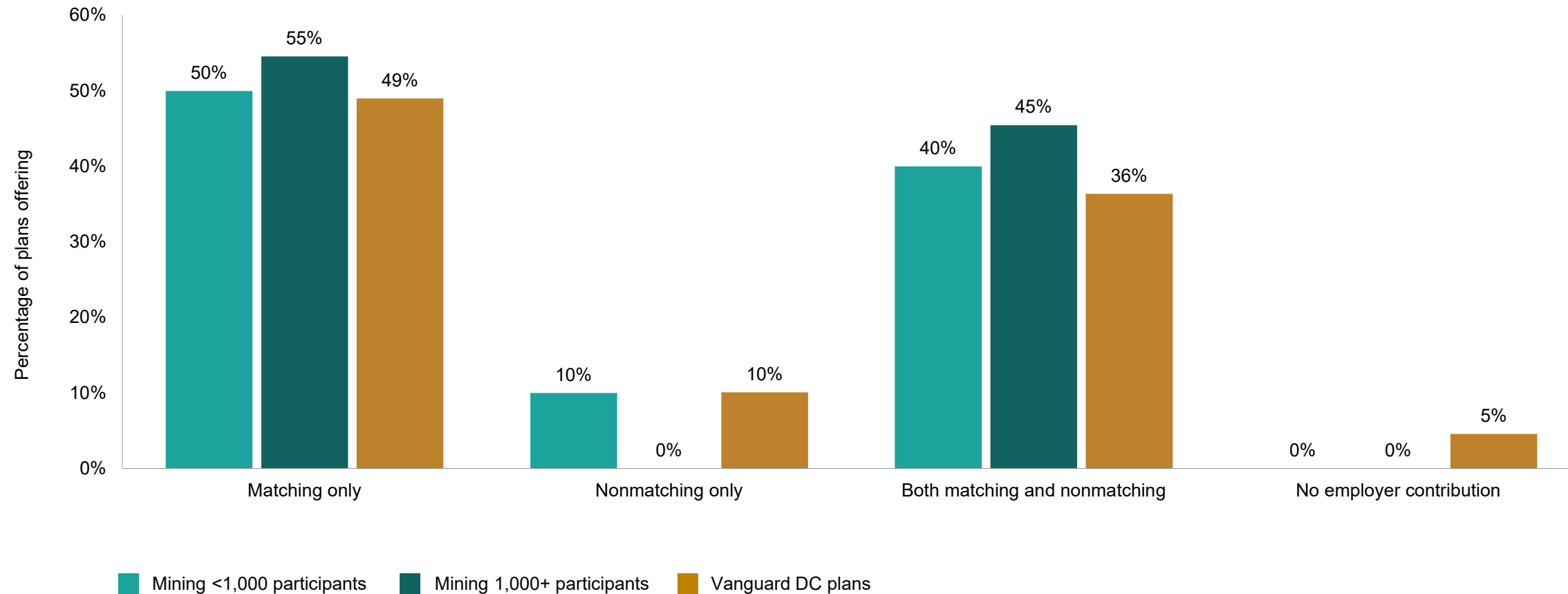
Aggregate participant and employer contribution rates

	Mining <1,000 participants	Mining 1,000+ participants	Vanguard DC plans
Total saving rate			
Average	14.6%	15.0%	11.3%
Median	14.5%	14.8%	10.6%
Distribution of rates			
<5.0%	5%	3%	18%
5.0% – 8.9%	17%	13%	20%
9.0% – 11.9%	18%	15%	21%
12.0% – 14.9%	17%	20%	17%
15.0% +	42%	49%	23%

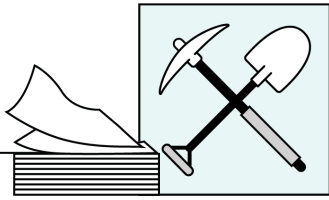
Source: Vanguard active plans with nondiscrimination testing completed during the past two years.



Types of employer contributions

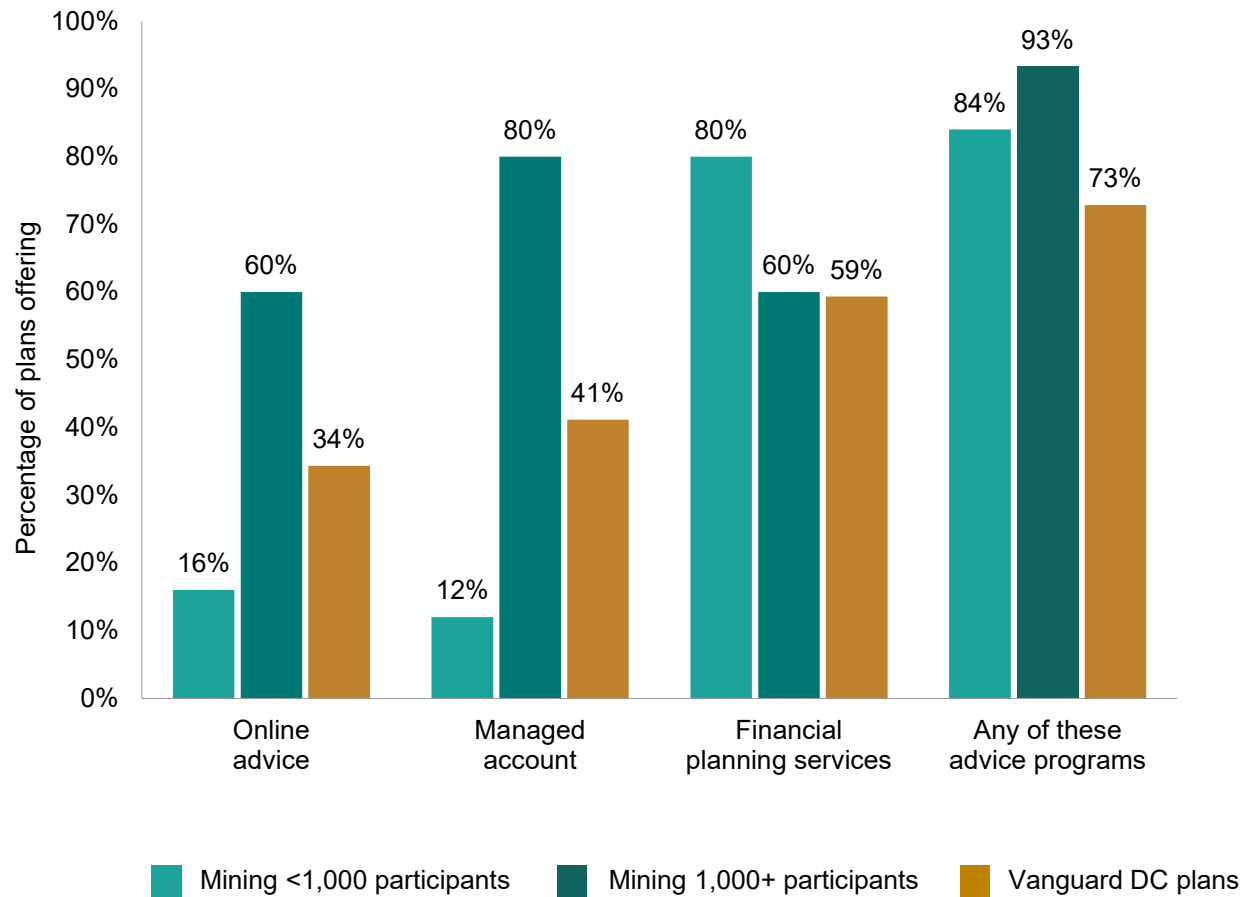


Source: Vanguard active plans with nondiscrimination testing completed during the past two years.
Bar chart may not align precisely with percentages due to rounding.

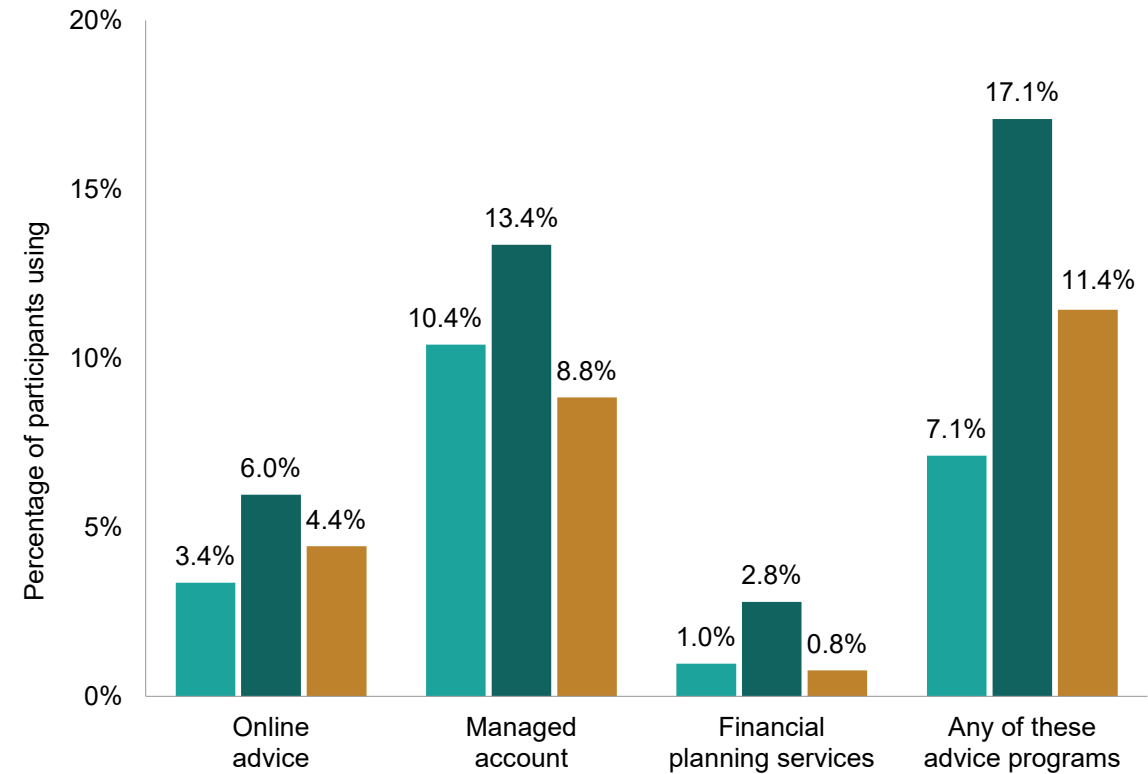


Advice services

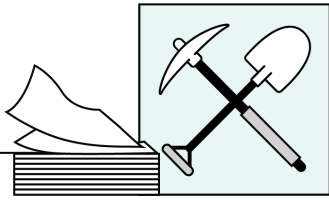
Advice offered



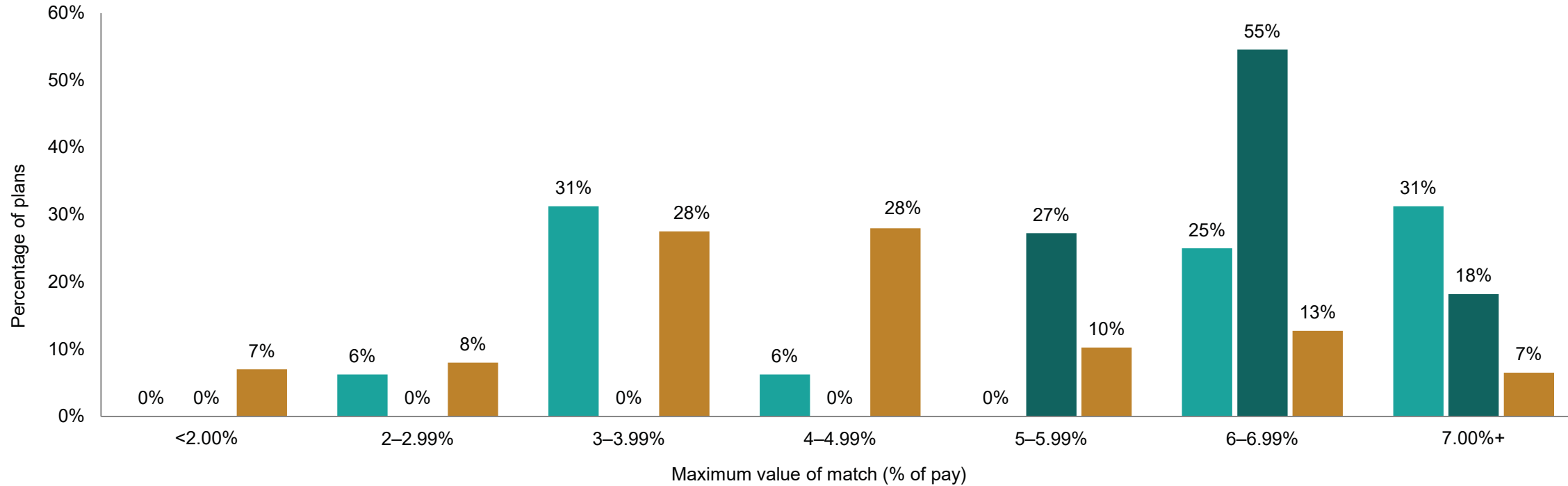
Advice used



Source: Vanguard, as of December 31, 2022.
 Bar chart may not align precisely with percentages due to rounding.

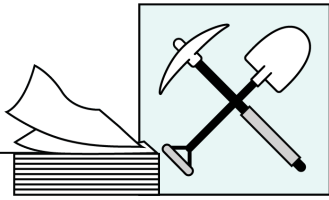


Matching contributions

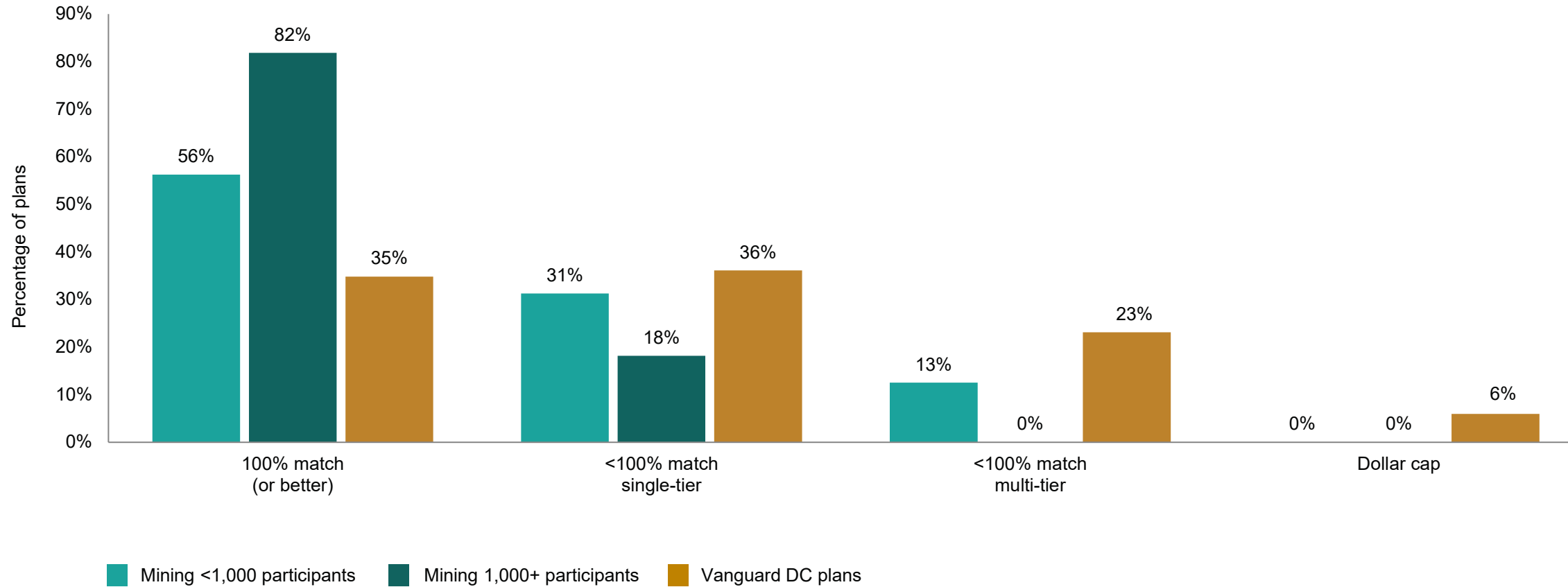


	Average value	Median value
Mining <1,000 participants	6.3%	6.0%
Mining 1,000+ participants	6.4%	6.0%
Vanguard DC plans	4.5%	4.0%

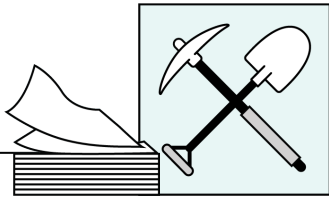
Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Bar chart may not align precisely with percentages due to rounding.



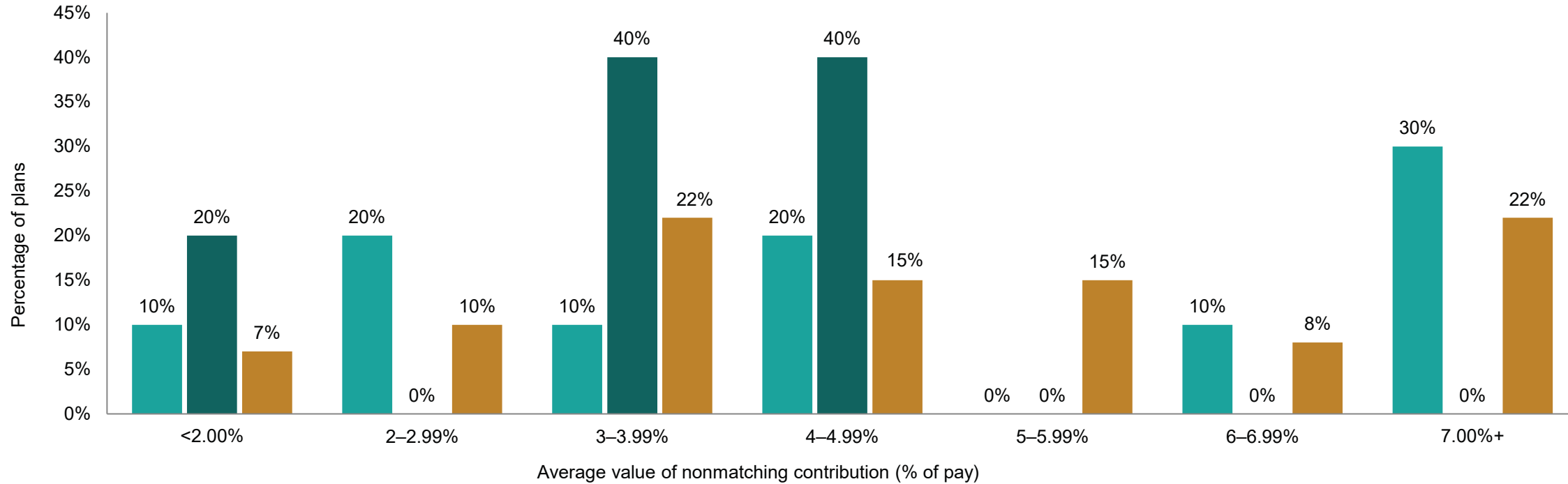
Matching formulas



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

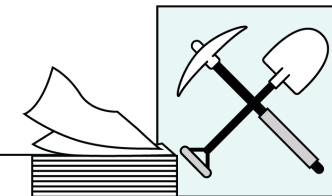


Nonmatching/Profit-sharing employer contributions



	Average value	Median value
Mining <1,000 participants	6.0%	4.7%
Mining 1,000+ participants	3.6%	3.8%
Vanguard DC plans	5.1%	4.1%

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



Roth availability and use

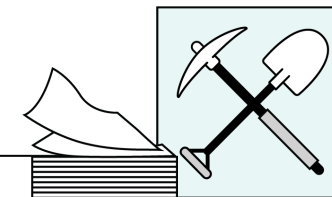
	Mining <1,000 participants	Mining 1,000+ participants	Vanguard DC plans
Percentage of plans offering Roth (among plans with elective deferrals)	79%	87%	80%
Percentage of plan assets invested in Roth*	3.6%	2.3%	3.8%
Distribution of percentage of plan assets in Roth			
<1%	21%	23%	19%
1–2%	21%	31%	36%
3–5%	32%	38%	27%
6–9%	21%	8%	13%
10–14%	0%	0%	4%
15%+	5%	0%	2%
Percentage of participants with assets in Roth*	21%	15%	16%
Percentage of participant assets in Roth**	15%	11%	17%
Distribution of participant assets in Roth			
1–24%	63%	75%	54%
25–49%	26%	17%	23%
50–74%	9%	6%	14%
75–99%	2%	1%	6%
100%	0%	1%	3%
Percentage of participants making Roth contributions (past 12 mo)***	23%	15%	15%
Percentage of participant contributions going to Roth**	61%	47%	55%
Distribution of percentage of participant contributions to Roth			
1–24%	17%	36%	22%
25–49%	23%	23%	26%
50–74%	17%	10%	15%
75–99%	4%	9%	7%
100%	39%	22%	30%

*Among plans offering Roth.

**Among participants using Roth.

***Among participants making elective deferrals.

Source: Vanguard, as of December 31, 2022.



Participant loans and in-service withdrawals

	Mining <1,000 participants	Mining 1,000+ participants	Vanguard DC plans
Outstanding loans*			
Percentage of participants with outstanding loans	12%	20%	12%
Percentage of account balance in loans	9%	8%	11%
Average loan balance	\$13,710	\$14,922	\$10,369
Number of outstanding loans per participant*			
No loans	88%	80%	88%
One loan	10%	10%	10%
Two loans	2%	8%	2%
Three+ loans	0%	2%	0%
Loans issued past 12 months*			
Average per 1,000 active participants	99	193	93
Average loan amount	\$17,742	\$12,779	\$10,701
Nonhardship withdrawals taken past 12 months**			
Average per 1,000 active participants	94	406	93
Average withdrawal amount	\$37,673	\$13,988	\$17,560
Hardship withdrawals taken past 12 months**			
Average per 1,000 active participants	41	52	49
Average withdrawal amount	\$9,805	\$8,221	\$5,126

*Among plans allowing loans.

**Among participants allowed in-service withdrawals.

Source: Vanguard, as of December 31, 2022.

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