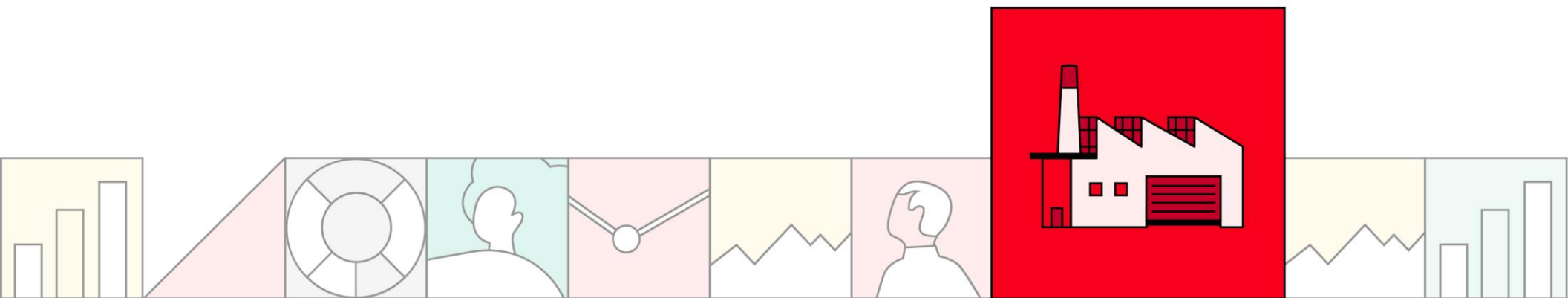


Custom DC plan benchmarks

# Manufacturing

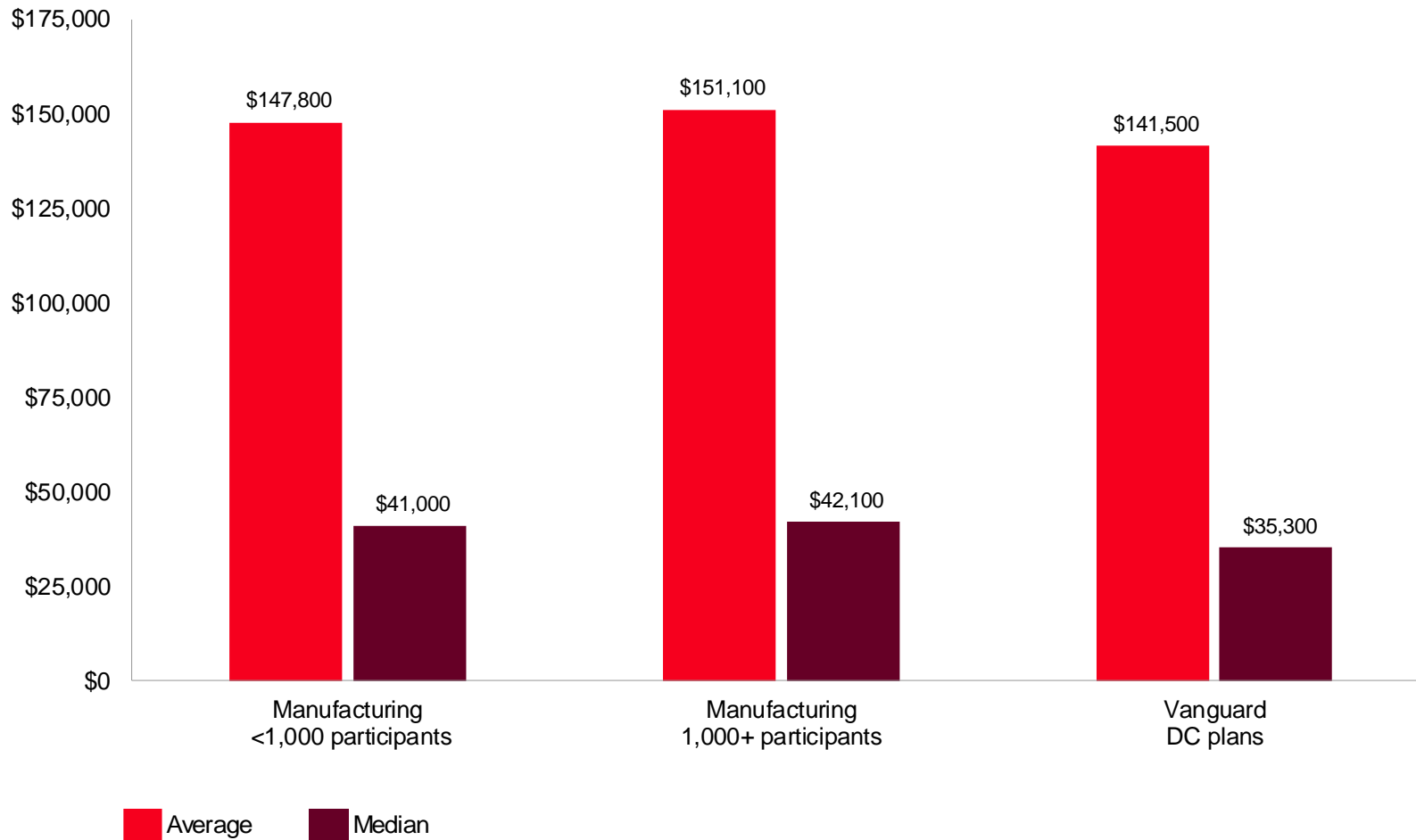


## Benchmark population

	<b>Manufacturing &lt;1,000 participants</b>	<b>Manufacturing 1,000+ participants</b>	<b>Vanguard DC plans</b>
Number of plans	233	171	1,675
Number of participants	87,547	857,610	4.7 million
Average number of participants	376	5,015	2,850
Median number of participants	323	2,926	530
Amount of assets	\$12.9 billion	\$129.6 billion	\$670 billion
Average assets	\$55.5 million	\$758 million	\$401.4 million
Median assets	\$39.3 million	\$354.4 million	\$78.8 million

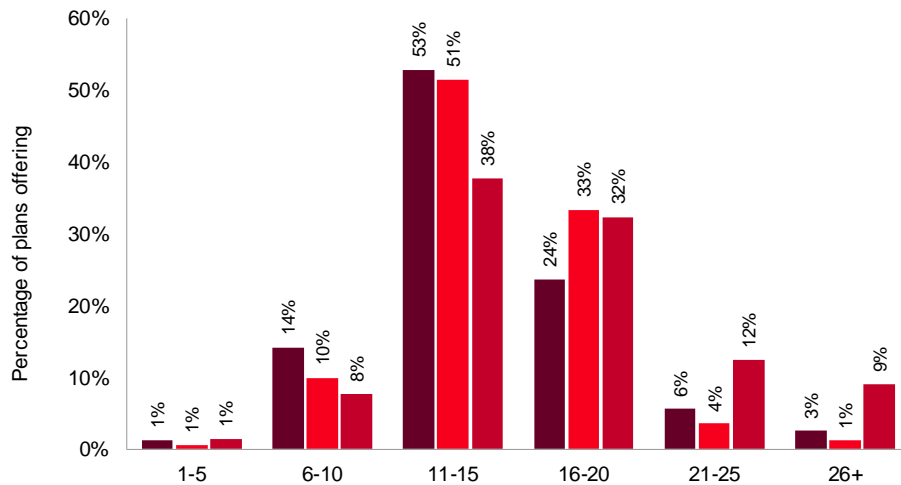
The manufacturing industry is defined as NAICS (North American Industry Classification System) sectors 31, 32, & 33.

## Participant balances

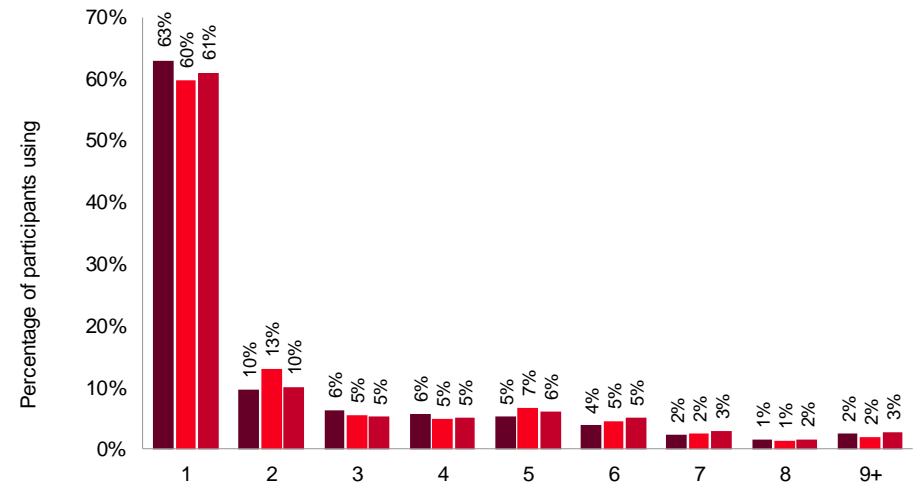


## Number of fund options offered and used

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



Funds used per participant



	Average funds offered	Median funds offered
Manufacturing <1,000 participants	14.4	14
Manufacturing 1,000+ participants	14.9	15
Vanguard DC plans	17.5	16

	Average funds used	Median funds used
Manufacturing <1,000 participants	2.3	1
Manufacturing 1,000+ participants	2.3	1
Vanguard DC plans	2.4	1

## Types of investment options offered and used\*

	Manufacturing <1,000 participants		Manufacturing 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*
<b>Cash</b>	<b>99%</b>	<b>17%</b>	<b>100%</b>	<b>13%</b>	<b>99%</b>	<b>13%</b>
Money market	63	8	66	4	69	6
Stable value / GIC	73	16	82	12	67	11
<b>Bond</b>	<b>97%</b>	<b>16%</b>	<b>99%</b>	<b>17%</b>	<b>98%</b>	<b>18%</b>
Active	70	8	75	6	79	7
Index	86	13	93	14	89	15
Inflation protected securities	20	3	22	3	34	3
Multi-sector	5	2	6	2	7	2
High-yield	8	5	5	4	17	4
International	16	3	17	3	19	3
Global	3	1	6	1	6	2
Emerging markets	0	0	0	0	1	3
<b>Balanced funds</b>	<b>99%</b>	<b>83%</b>	<b>100%</b>	<b>88%</b>	<b>99%</b>	<b>86%</b>
Traditional balanced	64	14	52	11	63	13
Target-risk	10	20	6	5	13	9
Target-date	94	77	99	86	95	82
<b>Company stock</b>	<b>4%</b>	<b>64%</b>	<b>27%</b>	<b>39%</b>	<b>8%</b>	<b>38%</b>
<b>Self-directed brokerage</b>	<b>7%</b>	<b>4%</b>	<b>15%</b>	<b>2%</b>	<b>20%</b>	<b>1%</b>

\*Among participants offered the option.  
Source: Vanguard, as of December 31, 2021.

## Types of investment options offered and used\* (continued)

	Manufacturing <1,000 participants		Manufacturing 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*
<b>Equity funds</b>	<b>100%</b>	<b>32%</b>	<b>100%</b>	<b>30%</b>	<b>99%</b>	<b>32%</b>
<b>Domestic equity funds</b>	<b>100%</b>	<b>31%</b>	<b>100%</b>	<b>29%</b>	<b>99%</b>	<b>31%</b>
Large-cap index	98	23	98	22	98	24
Large-cap active	88	19	87	15	91	17
Large-cap value	85	11	81	9	87	10
Large-cap growth	90	16	87	12	91	14
Large-cap blend	98	22	99	22	99	24
Mid-cap index	82	11	90	14	82	15
Mid-cap active	41	9	40	9	53	8
Small-cap index	58	10	51	11	63	11
Small-cap active	62	9	59	8	64	8
Socially responsible	2	2	5	2	13	6
<b>International equity funds</b>	<b>95%</b>	<b>16%</b>	<b>99%</b>	<b>18%</b>	<b>97%</b>	<b>20%</b>
Index international	64	10	88	12	77	14
Active international	80	12	85	10	83	11
Emerging markets	20	4	26	5	35	9
<b>Global equity funds</b>	<b>14%</b>	<b>6%</b>	<b>9%</b>	<b>4%</b>	<b>18%</b>	<b>4%</b>
<b>Sector funds</b>	<b>20%</b>	<b>7%</b>	<b>20%</b>	<b>6%</b>	<b>36%</b>	<b>7%</b>
REIT	15	5	19	5	32	6
Health care	5	14	1	2	9	6
Energy	2	3	0	0	5	4
Precious metals	<0.5	3	0	0	2	2
Technology	<0.5	3	1	7	3	6
Utilities	2	2	0	0	1	2
Natural resources	<0.5	24	1	14	1	4
Financials	0	0	0	0	<0.5	1
Communications	<0.5	10	0	0	<0.5	1
Commodities	0	0	0	0	<0.5	6
Consumer	<0.5	2	0	0	<0.5	2
Industrials	0	0	0	0	<0.5	1

\* Among participants offered the option.

Source: Vanguard, as of December 31, 2021.

## Target-date funds availability and use

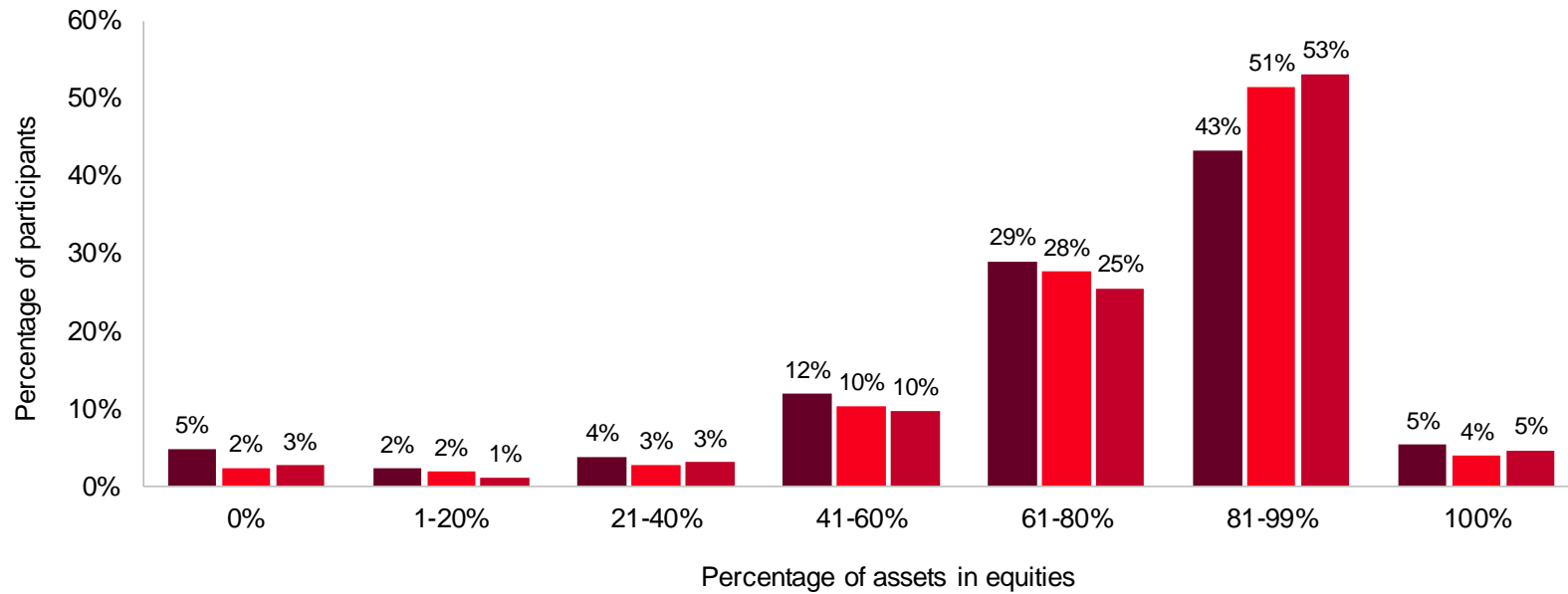
	Manufacturing <1,000 participants	Manufacturing 1,000+ participants	Vanguard DC plans
Percentage of plans offering	94%	99%	95%
Plan assets invested*	38%	42%	38%
<b>Percentage of plan assets*</b>			
<10%	4%	0%	5%
10–19%	11%	2%	11%
20–29%	23%	12%	19%
30–39%	22%	33%	23%
40–49%	10%	26%	14%
50%+	31%	27%	28%
Percentage of participants using *	77%	86%	82%
Percentage of participant assets**	63%	60%	60%
<b>Percentage of participant assets in target-date funds**</b>			
1–24%	9%	10%	10%
25–49%	7%	9%	9%
50–74%	4%	4%	4%
75–99%	4%	10%	6%
100%	76%	67%	71%
<b>Percentage of participants owning**</b>			
One target-date fund only	74%	66%	69%
One target-date fund plus other funds	20%	28%	25%
Two or more target-date funds only	3%	2%	2%
Two or more target-date funds plus other funds	4%	4%	4%

\*Among plans offering target-date options.

\*\*Among participants owning target-date options.

Source: Vanguard, as of December 31, 2021.

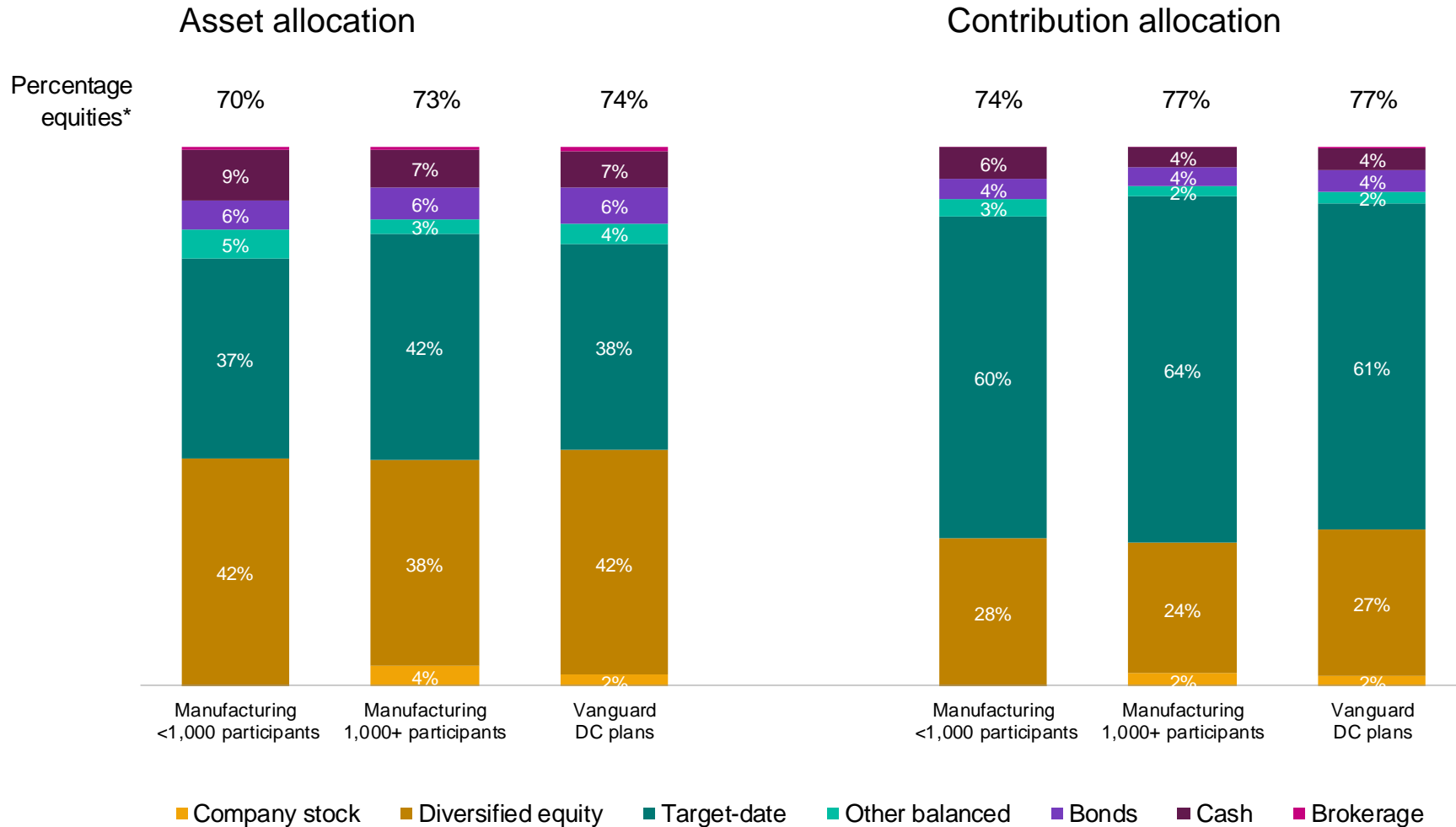
## Participant equity exposure



	Average percentage in equities	Median percentage in equities
Manufacturing <1,000 participants	72%	80%
Manufacturing 1,000+ participants	76%	87%
Vanguard DC plans	77%	87%



## Asset and contribution allocations



\*Equities include company stock, diversified equity, and the equity portion of balanced funds.  
Source: Vanguard, as of December 31, 2021.

## Participants with professionally managed allocations

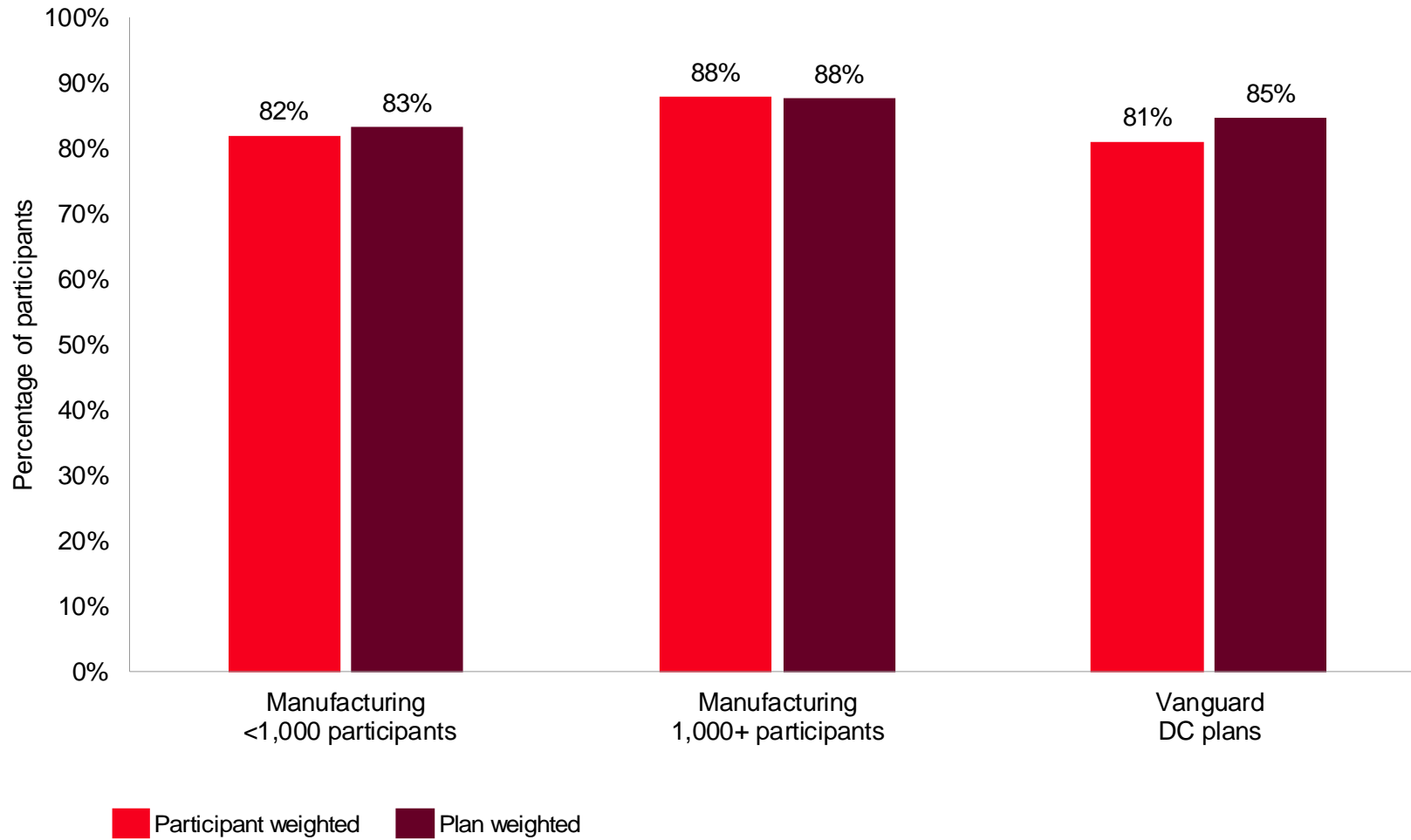
	Manufacturing <1,000 participants	Manufacturing 1,000+ participants	Vanguard DC plans
<b>All participants</b>			
Single target-date fund	56%	56%	56%
Single balanced fund	1%	1%	1%
Managed account program	3%	7%	7%
Total	60%	64%	64%
<b>New plan entrants during the year</b>			
Single target-date fund	88%	89%	85%
Single balanced fund	<0.5%	1%	1%
Managed account program	1%	2%	2%
Total	89%	92%	88%

## Automatic enrollment options\*

	Manufacturing <1,000 participants	Manufacturing 1,000+ participants	Vanguard DC plans
<b>Automatic enrollment*</b>			
Number of plans	126	146	859
Percentage of plans	57%	86%	56%
<b>Default automatic enrollment rate</b>			
1 percent	0%	1%	1%
2 percent	4%	5%	5%
3 percent	40%	36%	36%
4 percent	11%	10%	14%
5 percent	24%	17%	17%
6 percent or more	21%	29%	27%
<b>Default automatic increase rate</b>			
1 percent	66%	77%	67%
2 percent	2%	1%	2%
Voluntary election	25%	18%	24%
Service feature not offered	7%	3%	7%
<b>Default automatic increase cap</b>			
<6 percent	0%	3%	2%
6 to 9 percent	19%	14%	18%
10 to 14 percent	48%	46%	48%
15 to 19 percent	20%	25%	18%
20+ percent	5%	11%	6%
No cap	8%	2%	8%
<b>Default fund</b>			
Target-date fund	100%	99%	98%
Other balanced fund	0%	1%	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, 2021.

## Participation rates



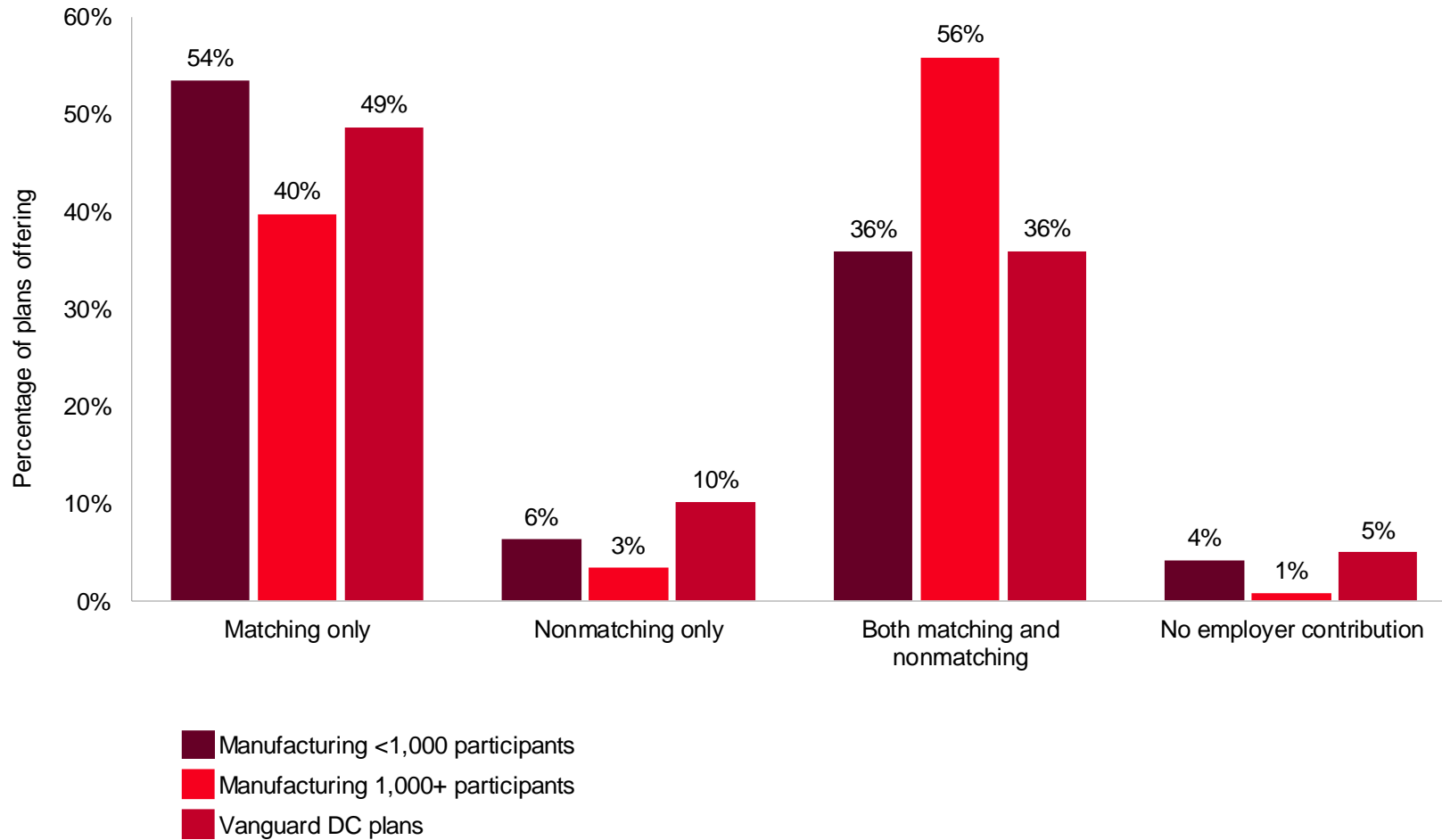
## Participant deferral rates

	Manufacturing <1,000 participants	Manufacturing 1,000+ participants	Vanguard DC plans
<b>Deferral rates</b>			
Average	7.4%	7.6%	7.3%
Median	6.0%	6.7%	6.1%
<b>Distribution of rates</b>			
<4.0%	24%	21%	26%
4.0% – 6.0%	23%	21%	20%
6.1% – 9.9%	30%	34%	31%
10.0% – 14.9%	16%	17%	16%
15.0%+	7%	7%	7%

## Aggregate participant and employer contribution rates

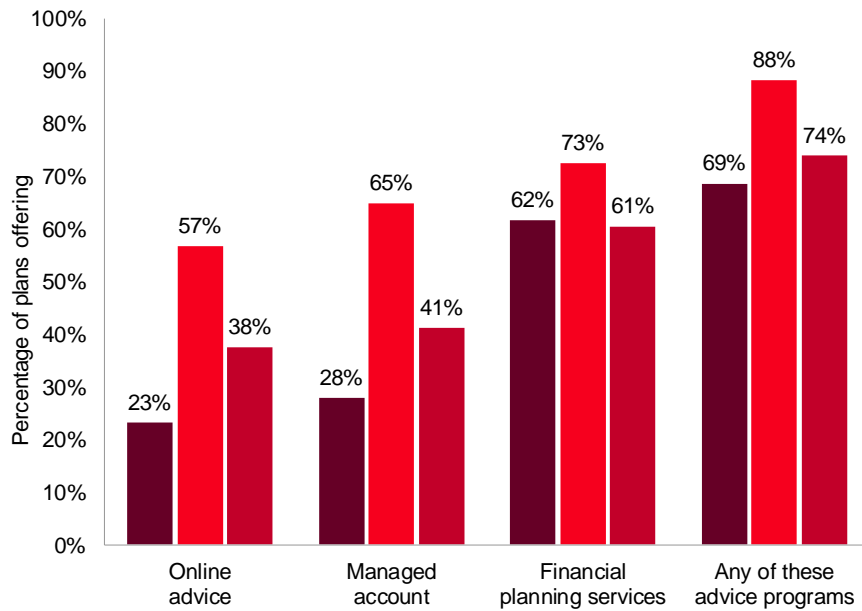
	Manufacturing <1,000 participants	Manufacturing 1,000+ participants	Vanguard DC plans
<b>Total savings rate</b>			
Average	11.4%	12.3%	11.2%
Median	10.7%	11.9%	10.4%
<b>Distribution of rates</b>			
<5.0%	15%	11%	18%
5.0% – 8.9%	23%	19%	21%
9.0% – 11.9%	19%	21%	22%
12.0% – 14.9%	18%	19%	16%
15.0% +	25%	30%	23%

## Types of employer contributions

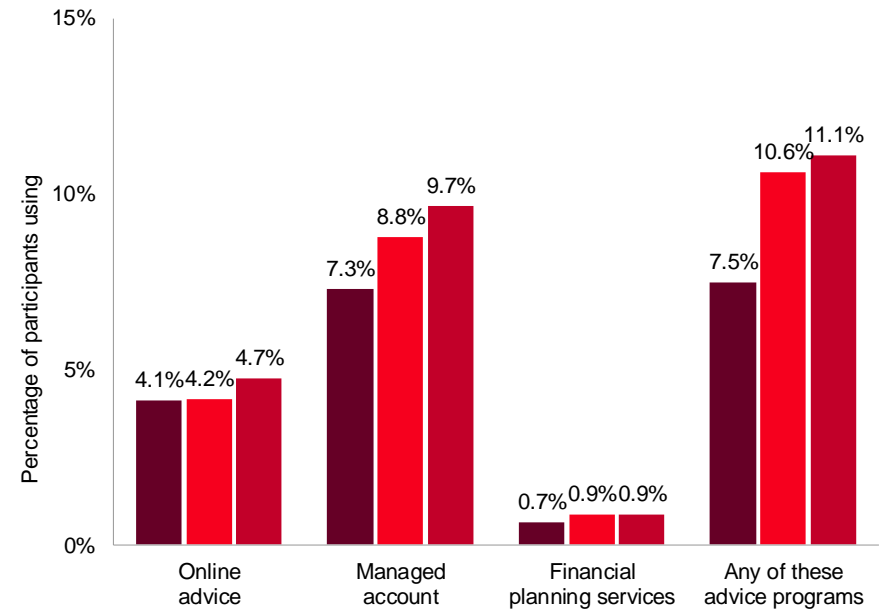


## Advice services

### Advice offered



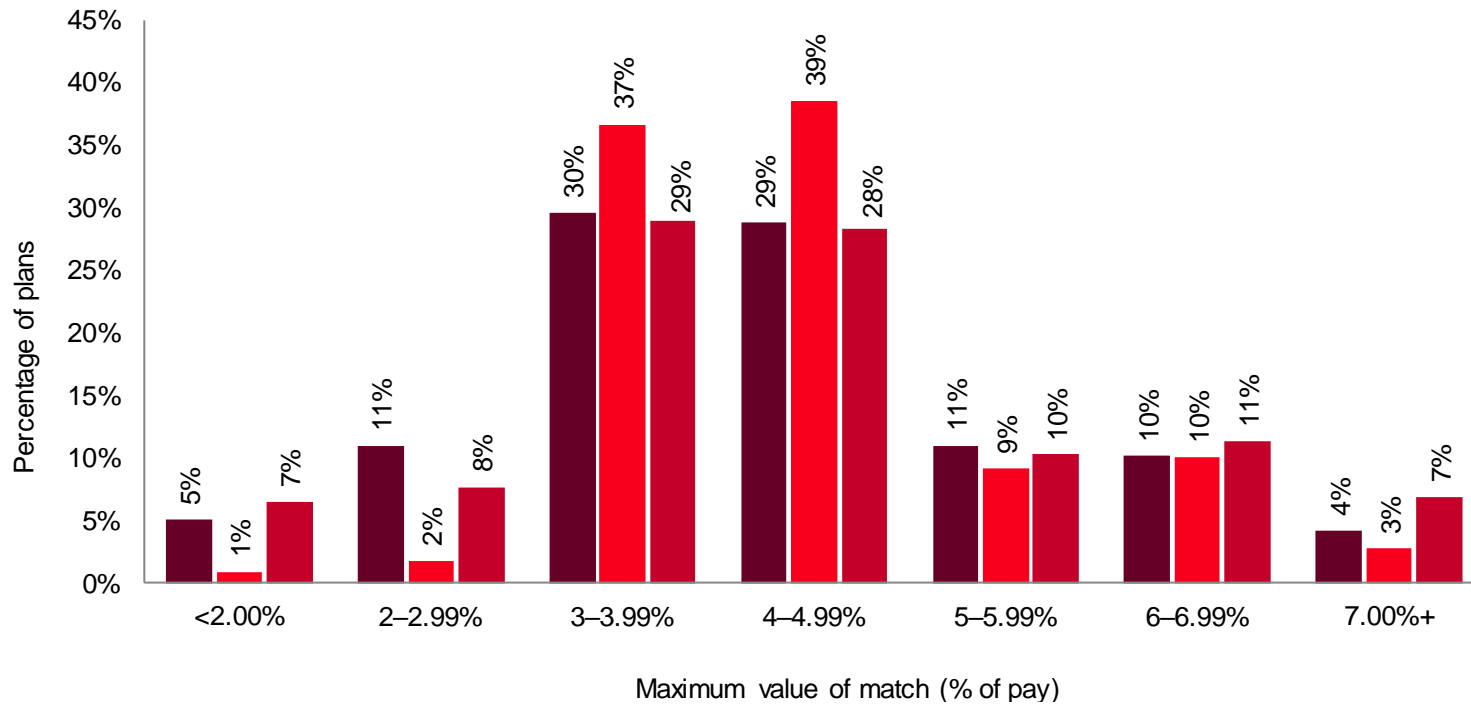
### Advice used



- Manufacturing <1,000 participants
- Manufacturing 1,000+ participants
- Vanguard DC plans

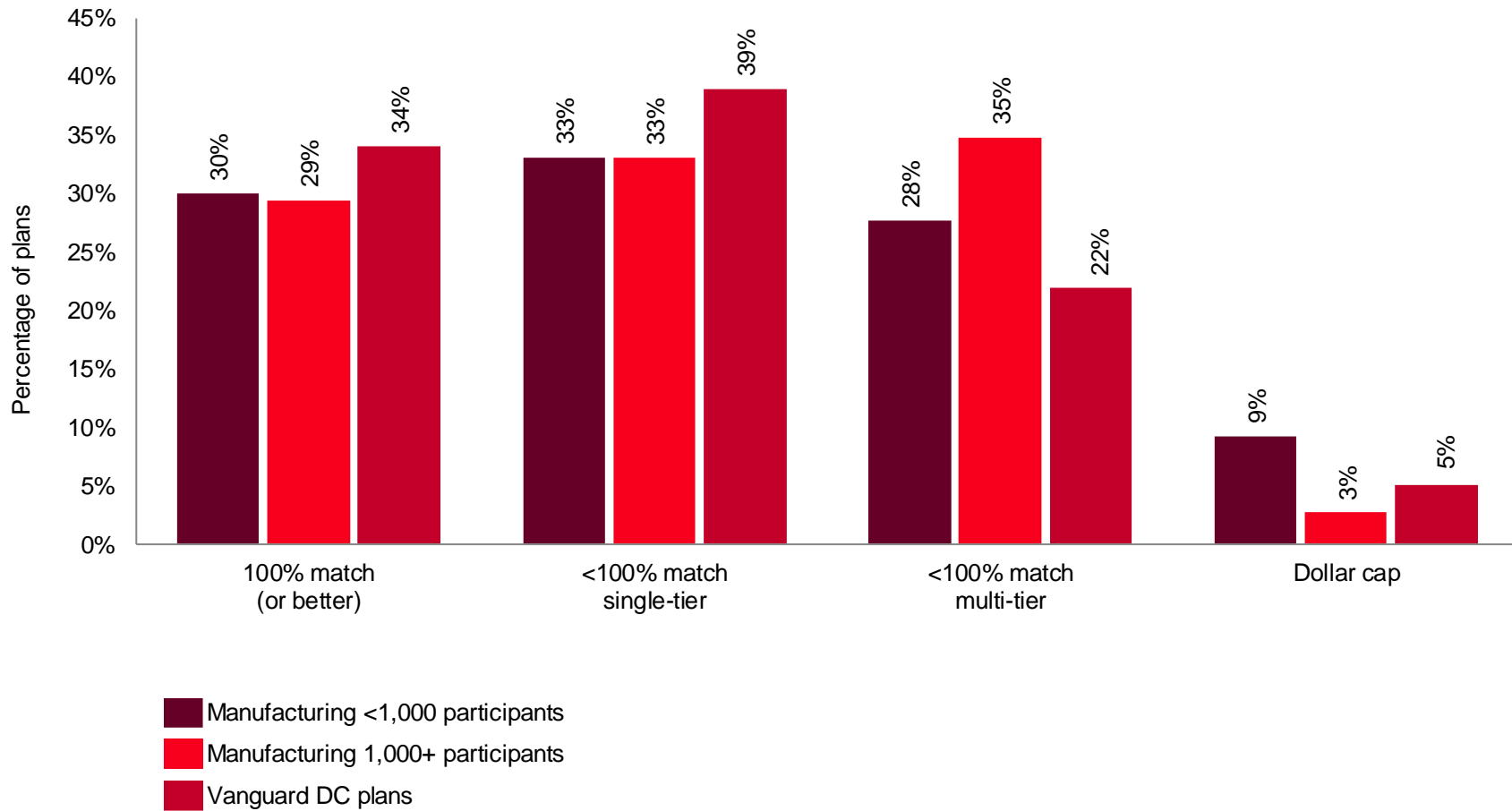


## Matching contributions

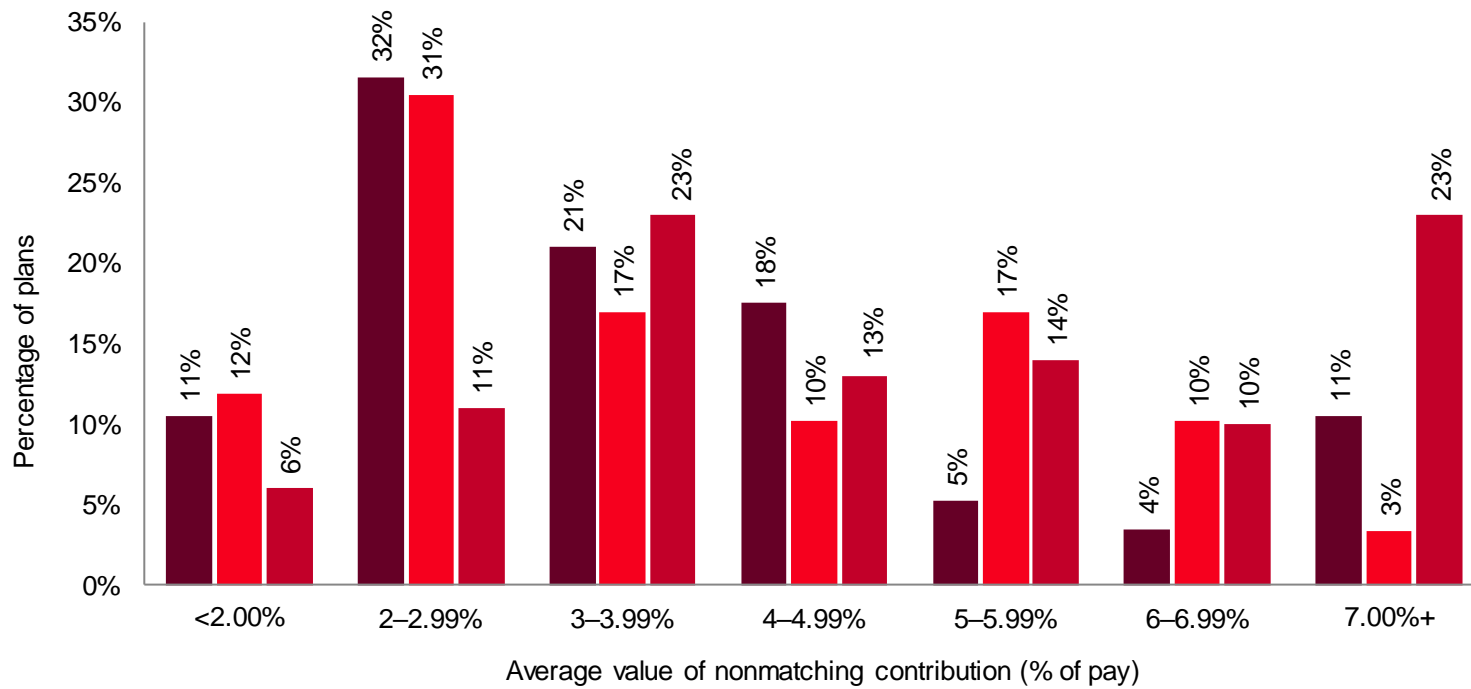


	Average value	Median value
Manufacturing <1,000 participants	4.0%	4.0%
Manufacturing 1,000+ participants	4.3%	4.0%
Vanguard DC plans	4.4%	4.0%

## Matching formulas



## Nonmatching / profit-sharing employer contributions



	Average value	Median value
Manufacturing <1,000 participants	4.1%	3.4%
Manufacturing 1,000+ participants	3.9%	3.3%
Vanguard DC plans	5.1%	4.2%

## Roth availability and use

	Manufacturing <1,000 participants	Manufacturing 1,000+ participants	Vanguard DC plans
<b>Percentage of plans offering Roth</b>	<b>57%</b>	<b>89%</b>	<b>77%</b>
<b>Percentage of plan assets invested in Roth*</b>	<b>2.3%</b>	<b>2.0%</b>	<b>3.5%</b>
<b>Distribution of percentage of plan assets in Roth</b>			
<1%	33%	24%	20%
1–2%	39%	55%	38%
3–5%	17%	20%	25%
6–9%	9%	1%	12%
10–14%	2%	0%	3%
15%+	1%	0%	2%
<b>Percentage of participants with assets in Roth*</b>	<b>13%</b>	<b>13%</b>	<b>16%</b>
<b>Percentage of participant assets in Roth**</b>	<b>14%</b>	<b>12%</b>	<b>17%</b>
<b>Distribution of participant assets in Roth</b>			
1–24%	59%	65%	55%
25–49%	21%	20%	22%
50–74%	16%	12%	14%
75–99%	3%	3%	6%
100%	1%	1%	3%
<b>Percentage of participants making Roth contributions (past 12 mo)***</b>	<b>14%</b>	<b>14%</b>	<b>16%</b>
<b>Percentage of participant contributions going to Roth**</b>	<b>53%</b>	<b>50%</b>	<b>53%</b>
<b>Distribution of percentage of participant contributions to Roth</b>			
1–24%	22%	27%	23%
25–49%	24%	26%	25%
50–74%	17%	15%	15%
75–99%	6%	7%	7%
100%	32%	25%	30%

\*Among plans offering Roth.

\*\*Among participants using Roth.

\*\*\*Among participants making elective deferrals.

Source: Vanguard, as of December 31, 2021.

## Participant loans and in-service withdrawals

	Manufacturing <1,000 participants	Manufacturing 1,000+ participants	Vanguard DC plans
<b>Outstanding loans*</b>			
Percentage of participants with outstanding loans	15%	15%	13%
Percentage of account balance in loans	8%	8%	8%
Average loan balance	10,336	9,717	10,614
<b>Number of outstanding loans per participant*</b>			
No loans	85%	85%	87%
One loan	13%	13%	10%
Two loans	2%	2%	3%
Three+ loans	0%	0%	0%
<b>Loans issued past 12 months*</b>			
Average per 1,000 active participants	96	99	91
Average loan amount	12,150	11,002	11,498
<b>Nonhardship withdrawals taken past 12 months**</b>			
Average per 1,000 active participants	95	94	96
Average withdrawal amount	30,047	27,837	22,018
<b>Hardship withdrawals taken past 12 months**</b>			
Average per 1,000 active participants	25	57	36
Average withdrawal amount	8,155	5,036	6,074

\*Among plans allowing loans.

\*\*Among participants allowed in-service withdrawals.

Source: Vanguard, as of December 31, 2021.

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## 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.

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