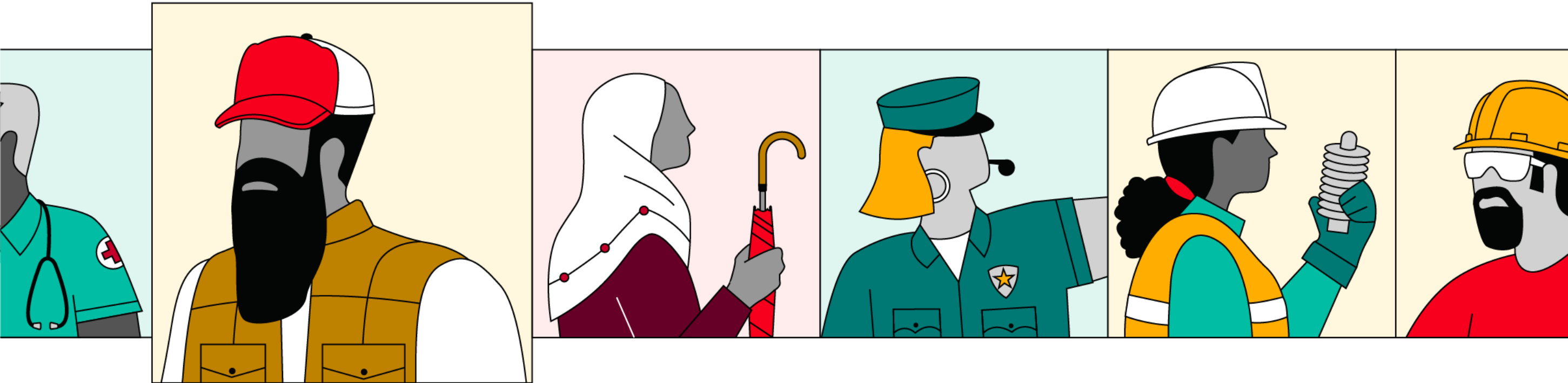


Transportation and warehousing



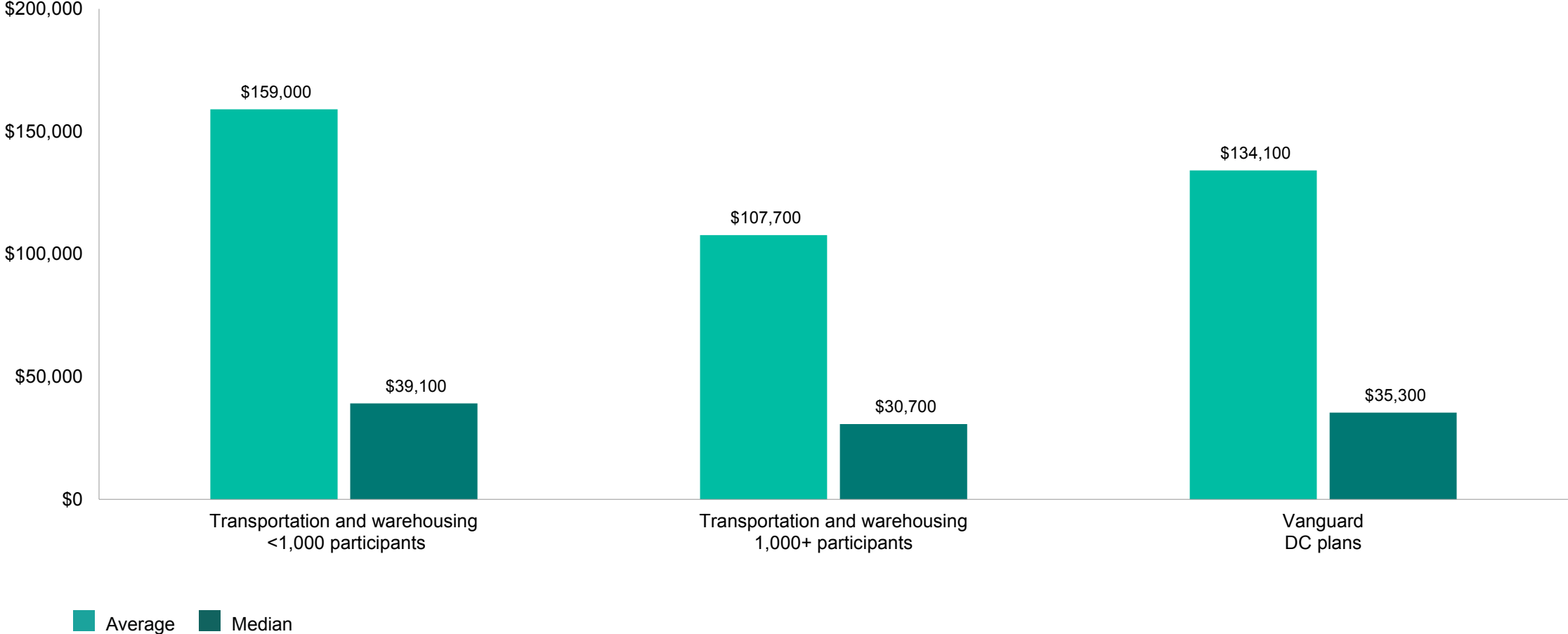
Benchmark population

	Transportation and warehousing <1,000 participants	Transportation and warehousing 1,000+ participants	Vanguard DC plans
Number of plans	23	14	1,550
Number of participants	5,270	164,812	4.8 million
Average number of participants	229	11,772	3,100
Median number of participants	158	7,857	610
Amount of assets	\$838.1 million	\$17.8 billion	\$644.7 billion
Average assets	\$36.4 million	\$1.3 billion	\$418.9 million
Median assets	\$32.3 million	\$724 million	\$79.5 million

The transportation and warehousing industry is defined by NAICS (North American Industry Classification System) sectors 48-49.

Source: Vanguard, as of December 31, 2023.

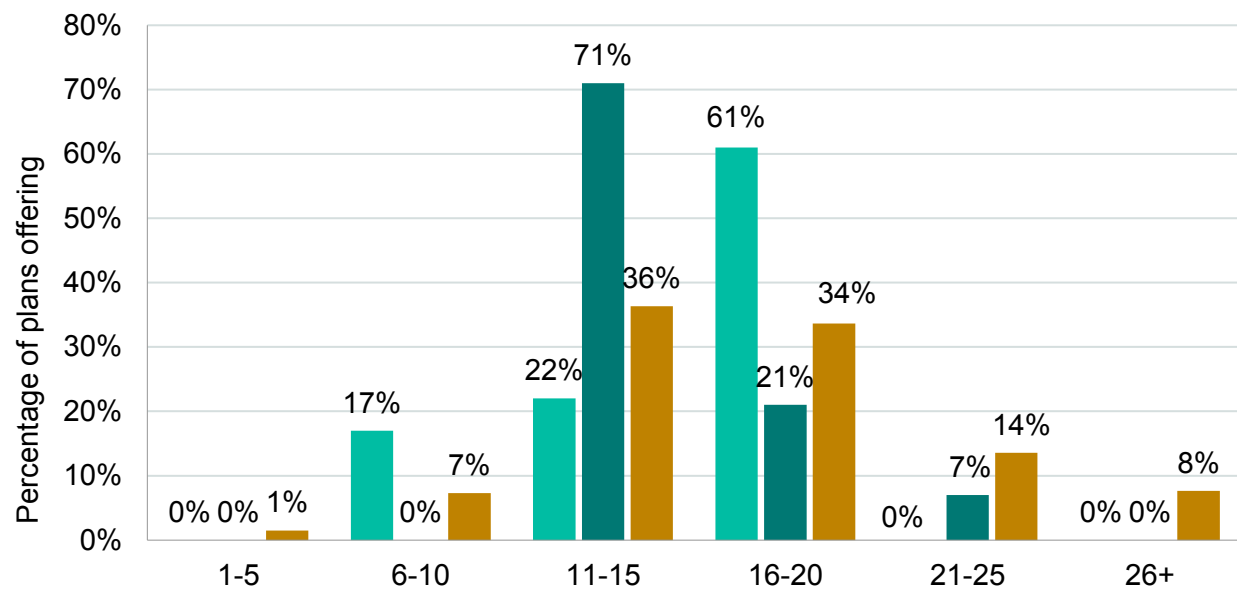
Participant balances



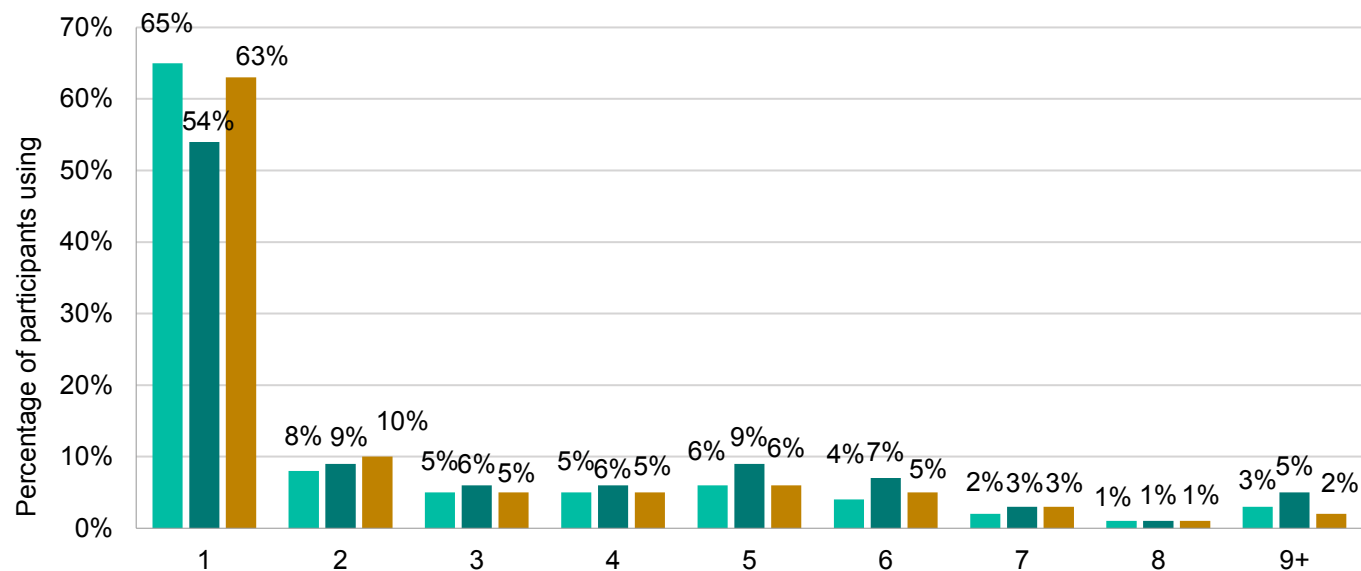
Source: Vanguard, as of December 31, 2023.
Bars in chart may not align precisely with percentages due to rounding.

Number of fund options offered and used

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



Funds used per participant



■ Transportation and warehousing <1,000 participants
 ■ Transportation and warehousing 1,000+ participants
 ■ Vanguard DC plans

Average funds offered	15.4	15.3	17.5
Median funds offered	17	14	16
Average funds used	2.3	2.9	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*

	Transportation and warehousing <1,000 participants		Transportation and warehousing 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%	16%	100%	15%	99%	11%
Money market	57%	12%	36%	1%	71%	6%
Stable value/GIC	83%	12%	100%	15%	68%	10%
Bond funds	100%	15%	100%	23%	99%	17%
Active	78%	10%	93%	8%	80%	7%
Index	78%	15%	100%	20%	90%	14%
Inflation-protected securities	22%	6%	50%	6%	35%	3%
Multisector	9%	1%	0%	0%	7%	2%
High-yield	0%	0%	7%	1%	18%	4%
International	9%	9%	14%	6%	19%	5%
Emerging markets	0%	0%	0%	0%	1%	2%
Balanced funds	100%	83%	93%	88%	99%	86%
Traditional balanced	87%	8%	50%	21%	63%	13%
Target-risk	13%	2%	0%	0%	2%	1%
Target-date	100%	79%	93%	85%	96%	83%
Company stock	9%	100%	50%	41%	8%	23%
Self-directed brokerage	0%	0%	7%	1%	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)

	Transportation and warehousing <1,000 participants		Transportation and warehousing 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%	32%	100%	37%	99%	31%
Domestic equity funds	100%	31%	100%	36%	99%	30%
Large-cap index	100%	23%	100%	30%	99%	14%
Large-cap active	100%	19%	86%	17%	89%	26%
Large-cap value	100%	12%	100%	12%	87%	9%
Large-cap growth	100%	13%	100%	14%	90%	13%
Large-cap blend	100%	23%	100%	29%	99%	24%
Mid-cap index	96%	11%	100%	16%	84%	14%
Mid-cap active	65%	8%	36%	3%	52%	7%
Small-cap index	57%	7%	57%	12%	63%	11%
Small-cap active	52%	9%	43%	10%	64%	7%
Socially responsible	4%	1%	0%	0%	17%	5%
International equity funds	83%	16%	100%	26%	97%	19%
Index international	61%	8%	100%	18%	81%	14%
Active international	78%	14%	86%	15%	83%	9%
Emerging markets	17%	9%	7%	5%	35%	9%
Global equity funds	35%	14%	7%	1%	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)

	Transportation and warehousing <1,000 participants		Transportation and warehousing 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	22%	23%	36%	12%	39%	6%
REIT	13%	4%	21%	29%	33%	5%
Health care	9%	37%	0%	0%	8%	6%
Energy	4%	13%	0%	0%	4%	4%
Precious metals	4%	5%	0%	0%	2%	2%
Transportation and warehousing	0%	0%	0%	0%	3%	5%
Utilities	0%	0%	0%	0%	1%	2%
Natural resources	0%	0%	0%	0%	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

		Transportation and warehousing <1,000 participants	Transportation and warehousing 1,000+ participants	Vanguard DC plans
Percentage of plans offering		100%	93%	96%
Plan assets invested*		33%	38%	41%
Percentage of plan assets*	<10%	13%	0%	5%
	10%–19%	22%	0%	8%
	20%–29%	9%	23%	17%
	30%–39%	17%	31%	20%
	40%–49%	22%	8%	18%
	50%+	17%	38%	32%
Percentage of participants using*		79%	85%	83%
Percentage of participant assets**		59%	53%	62%
Percentage of participant assets in target-date funds**	1%–24%	8%	12%	10%
	25%–49%	7%	14%	8%
	50%–74%	4%	6%	4%
	75%–99%	3%	7%	6%
	100%	78%	61%	72%
Percentage of participants owning**	One target-date fund only	75%	59%	70%
	One target-date fund plus other funds	20%	31%	24%
	Two or more target-date funds only	2%	1%	2%
	Two or more target-date funds plus other funds	3%	9%	4%

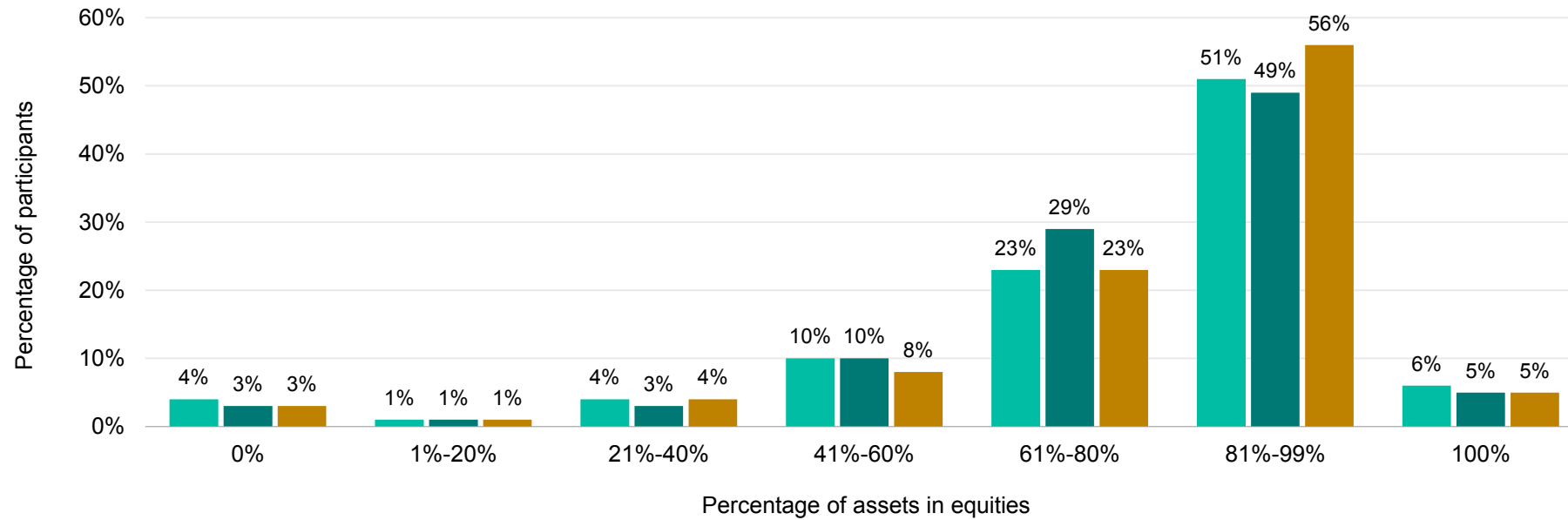
* Among plans offering target-date options.

** Among participants owning target-date options.

Source: Vanguard, as of December 31, 2023.

Percentages may not total 100% because of rounding.

Participant equity exposure

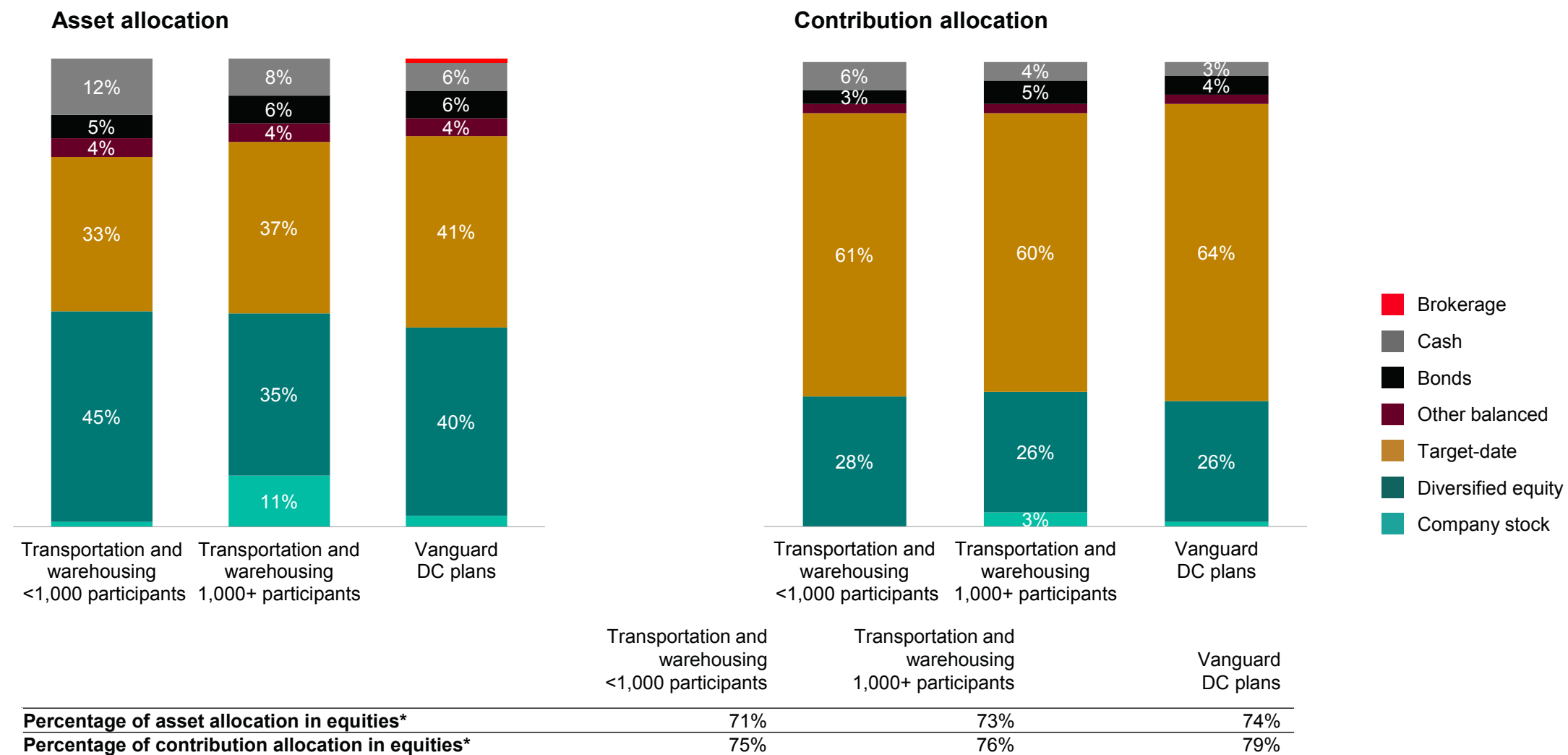


	Transportation and warehousing <1,000 participants	Transportation and warehousing 1,000+ participants	Vanguard DC plans
Average percentage in equities	74%	75%	78%
Median percentage in equities	84%	84%	87%

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

		Transportation and warehousing <1,000 participants	Transportation and warehousing 1,000+ participants	Vanguard DC plans
All participants	Single target-date fund	59%	49%	58%
	Single balanced fund	0%	0%	1%
	Managed account program	5%	11%	7%
	Total	64%	60%	66%
New plan entrants during the year	Single target-date fund	90%	80%	86%
	Single balanced fund	0%	0%	1%
	Managed account program	1%	4%	2%
	Total	91%	84%	89%

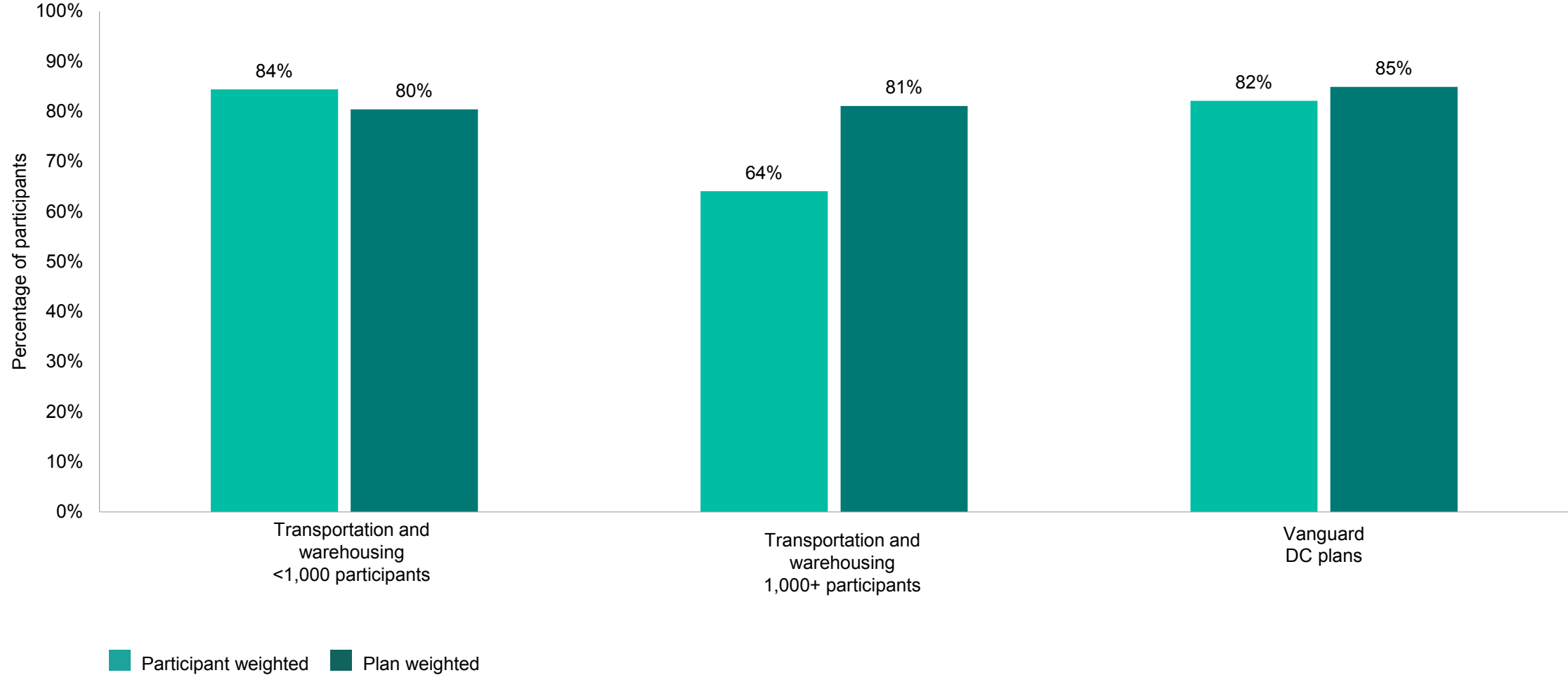
Source: Vanguard, as of December 31, 2023.
Percentages may not total 100% because of rounding.

Automatic enrollment options*

		Transportation and warehousing <1,000 participants	Transportation and warehousing 1,000+ participants	Vanguard DC plans
Automatic enrollment*	Number of plans	11	10	842
	Percentage of plans	55%	77%	59%
Default automatic enrollment rate	1 percent	0%	0%	2%
	2 percent	18%	20%	5%
	3 percent	55%	20%	33%
	4 percent	18%	10%	14%
	5 percent	9%	0%	17%
	6 percent or more	0%	50%	29%
Default automatic increase rate	1 percent	91%	50%	67%
	2 percent	0%	10%	2%
	Voluntary election	9%	40%	25%
	Service feature not offered	0%	0%	6%
Default automatic increase cap	<6 percent	0%	0%	2%
	6 to 9 percent	80%	17%	17%
	10 to 14 percent	20%	83%	49%
	15 to 19 percent	0%	0%	22%
	20+ percent	0%	0%	6%
	No cap	0%	0%	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

		Transportation and warehousing <1,000 participants	Transportation and warehousing 1,000+ participants	Vanguard DC plans
Deferral rates	Average	8.6%	7.0%	7.4%
	Median	6.5%	6.0%	6.2%
Distribution of rates	<4.0%	24%	27%	24%
	4.0%–6.0%	18%	23%	20%
	6.1%–9.9%	25%	26%	32%
	10.0%–14.9%	20%	17%	17%
	15.0%+	12%	7%	7%

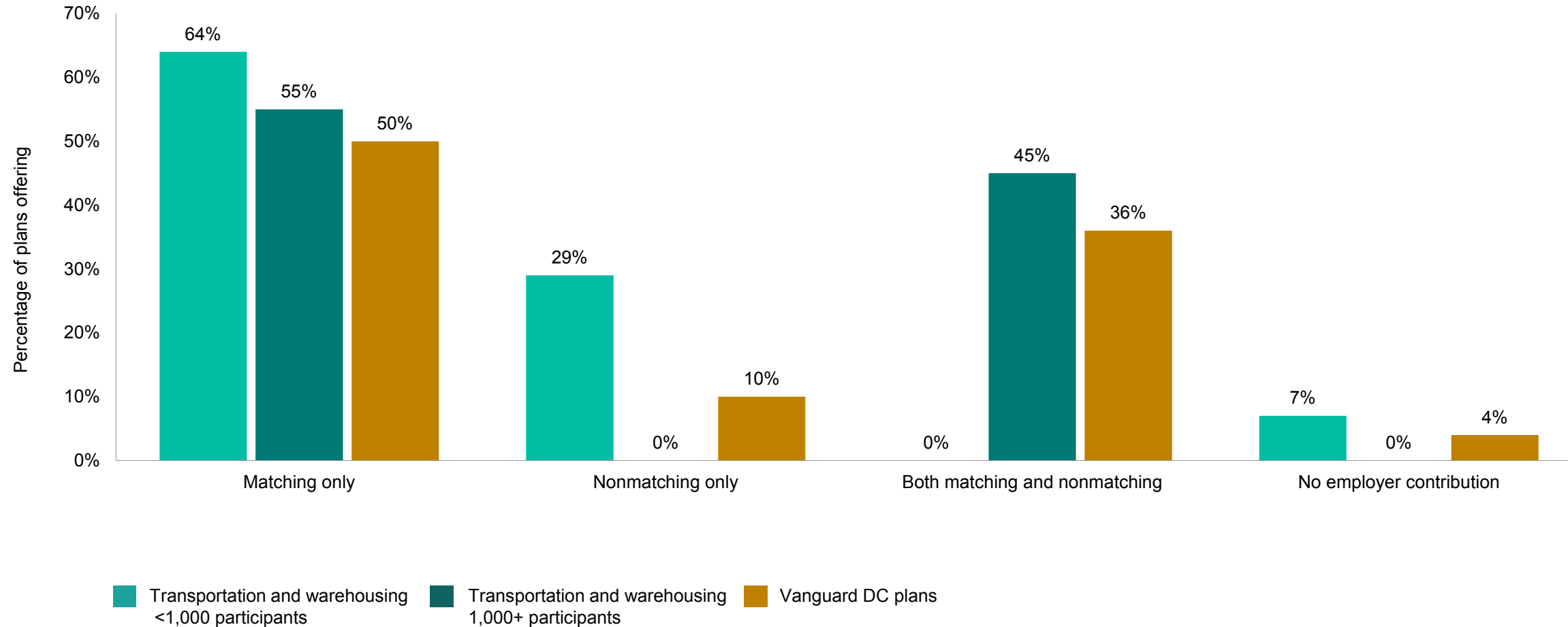
Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Percentages may not total 100% because of rounding.

Aggregate participant and employer contribution rates

		Transportation and warehousing <1,000 participants	Transportation and warehousing 1,000+ participants	Vanguard DC plans
Total saving rate	Average	14%	9%	12%
	Median	12%	9%	11%
Distribution of rates	<5.0%	18%	26%	14%
	5.0%–8.9%	20%	26%	20%
	9.0%–11.9%	13%	19%	21%
	12.0%–14.9%	12%	14%	20%
	15.0%+	38%	15%	25%

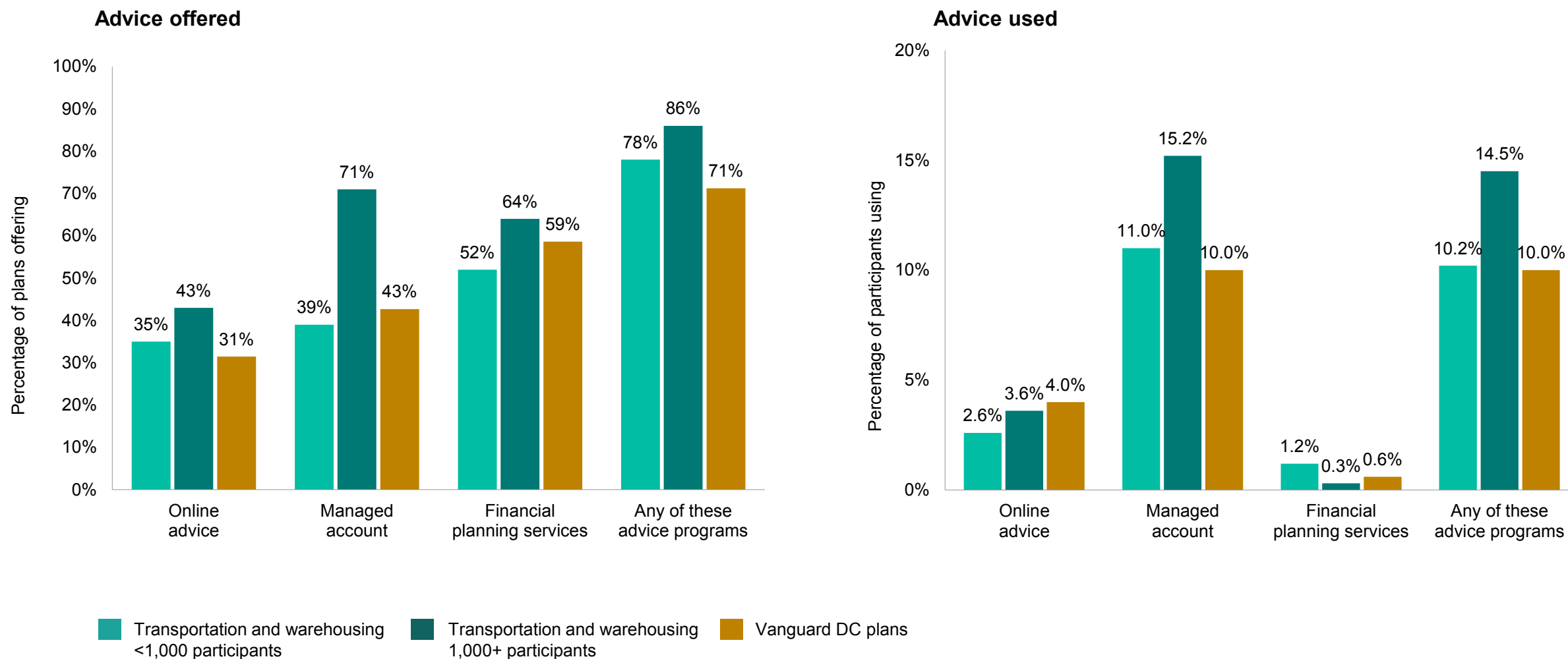
Source: Vanguard active plans with nondiscrimination testing completed during the past two years
Percentages may not total 100% because of rounding.

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.

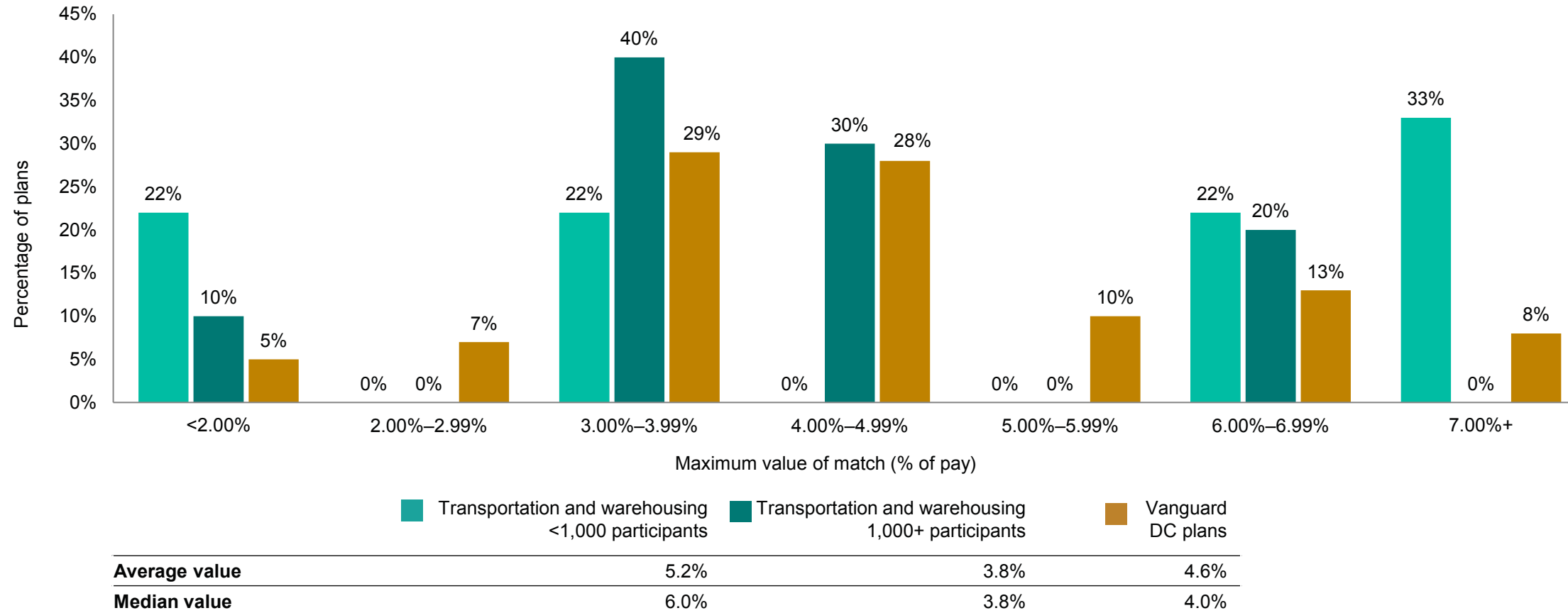
Advice services



Source: Vanguard, as of December 31, 2023.

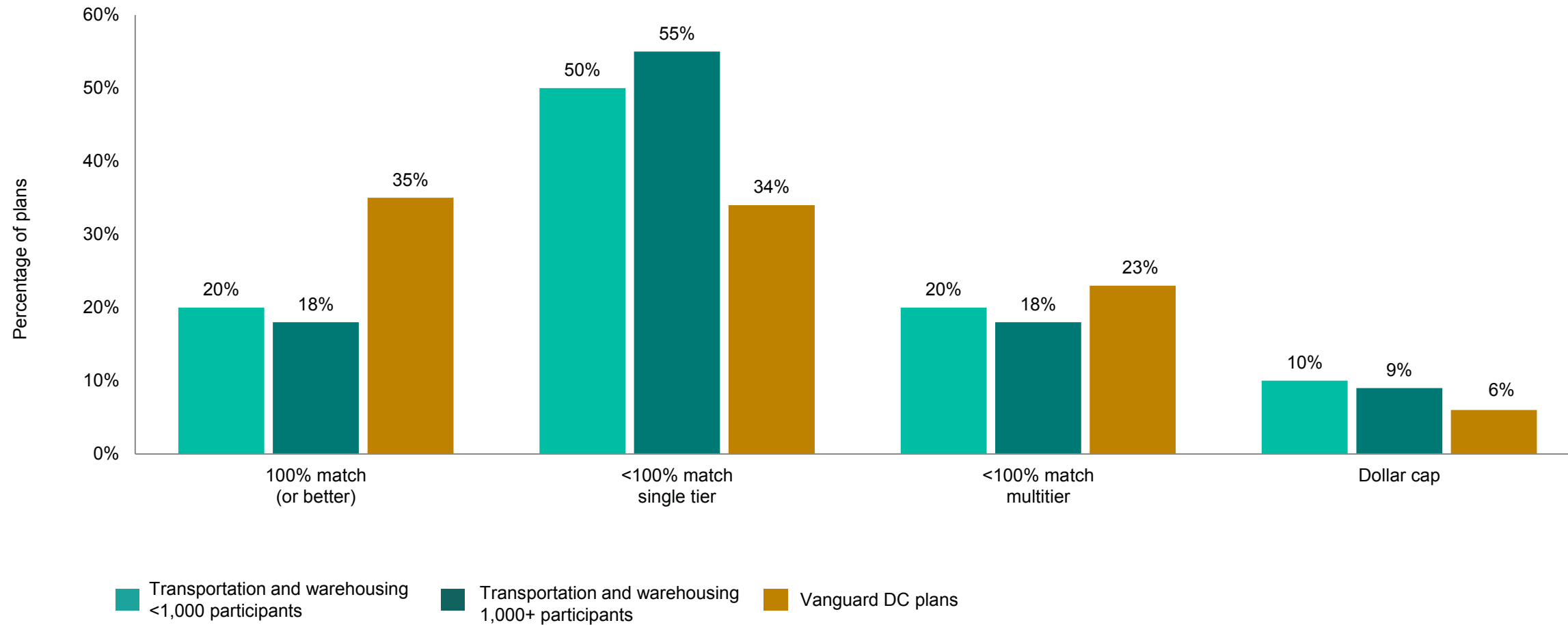
Bars in chart may not align precisely with percentages due to rounding.

Matching contributions



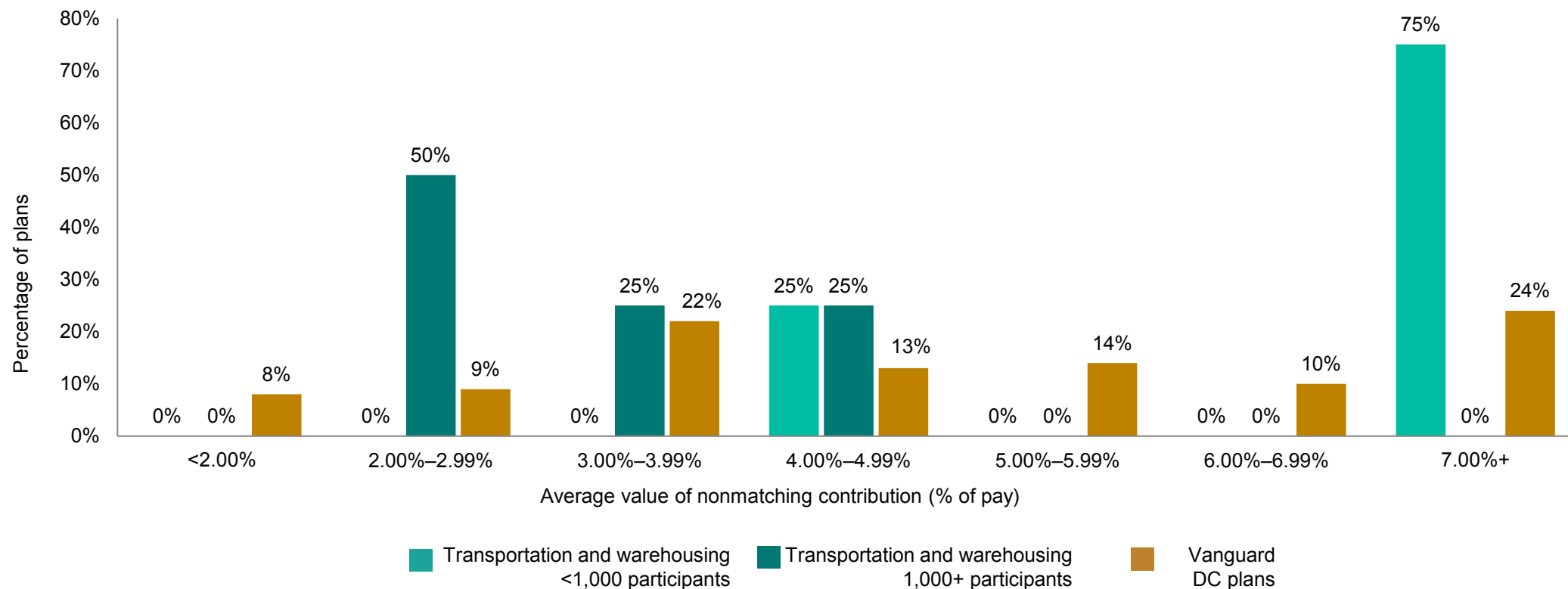
Source: Vanguard active plans with nondiscrimination testing completed during the past two years. Bars in chart may not align precisely with percentages due to rounding.

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



	Transportation and warehousing <1,000 participants	Transportation and warehousing 1,000+ participants	Vanguard DC plans
Average value	11.3%	3.3%	5.4%
Median value	9.6%	3.2%	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

		Transportation and warehousing <1,000 participants	Transportation and warehousing 1,000+ participants	Vanguard DC plans
Percentage of plans offering Roth (among plans with elective deferrals)		65%	100%	82%
Percentage of plan assets invested in Roth*		2.6%	4.2%	4.4%
Distribution of percentage of plan assets in Roth	<1%	15%	8%	9%
	1%–2%	46%	8%	34%
	3%–5%	23%	54%	33%
	6%–9%	15%	31%	15%
	10%–14%	0%	0%	5%
	15%+	0%	0%	3%
Percentage of participants with assets in Roth*		14%	20%	18%
Percentage of participant assets in Roth**		15%	18%	18%
Distribution of participant assets in Roth	1%–24%	58%	53%	50%
	25%–49%	21%	23%	24%
	50%–74%	12%	11%	14%
	75%–99%	8%	8%	6%
	100%	2%	5%	3%
Percentage of participants making Roth contributions (past 12 months)***		15%	19%	17%
Percentage of participant contributions going to Roth**		49%	49%	54%
Distribution of percentage of participant contributions to Roth	1%–24%	25%	23%	22%
	25%–49%	32%	29%	26%
	50%–74%	18%	17%	15%
	75%–99%	5%	5%	7%
	100%	21%	26%	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

		Transportation and warehousing <1,000 participants	Transportation and warehousing 1,000+ participants	Vanguard DC plans
Outstanding loans*	Percentage of participants with outstanding loans	18%	23%	13%
	Percentage of account balance in loans	10%	13%	9%
	Average loan balance	\$11,506	\$10,739	\$10,708
Percentage of active participants with outstanding loans*	No loans	82%	77%	87%
	One loan	11%	14%	10%
	Two loans	7%	9%	3%
	Three+ loans	0%	0%	0%
Loans issued past 12 months*	Average per 1,000 active participants	124	198	105
	Average loan amount	\$11,107	\$9,717	\$10,646
Nonhardship withdrawals taken past 12 months**	Average per 1,000 active participants	45	129	113
	Average withdrawal amount	\$27,873	\$11,969	\$17,112
Hardship withdrawals taken past 12 months**	Average per 1,000 active participants	79	64	68
	Average withdrawal amount	\$6,149	\$5,774	\$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

For more information about any fund, visit institutional.vanguard.com or call 866-499-8473 to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information are contained in the prospectus; read and consider it carefully before investing.

Vanguard ETF® Shares are not redeemable with the issuing fund other than in very large aggregations worth millions of dollars. Instead, investors must buy or sell Vanguard ETF Shares in the secondary market and hold those shares in a brokerage account. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

Mutual funds and all investments are subject to risk, including the possible loss of the money you invest. Prices of mid- and small-cap stocks often fluctuate more than those of large-company stocks. Investments in stocks or bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk. These risks are especially high in emerging markets. Funds that concentrate on a relatively narrow sector face the risk of higher share-price volatility. It is possible that tax-managed funds will not meet their objective of being tax-efficient. Because company stock funds concentrate on a single stock, they are considered riskier than diversified stock funds.

Investments in bond funds are subject to the risk that an issuer will fail to make payments on time and that bond prices will decline because of rising interest rates or negative perceptions of an issuer's ability to make payments. High-yield bonds generally have medium- and lower-range credit quality ratings and are therefore subject to a higher level of credit risk than bonds with higher credit quality ratings. Although the income from a municipal bond fund is exempt from federal tax, you may owe taxes on any capital gains realized through the fund's trading or through your own redemption of shares. For some investors, a portion of the fund's income may be subject to state and local taxes, as well as to the federal Alternative Minimum Tax. Diversification does not ensure a profit or protect against a loss. 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.

While U.S. Treasury or government agency securities provide substantial protection against credit risk, they do not protect investors against price changes due to changing interest rates. Unlike stocks and bonds, U.S. Treasury bills are guaranteed as to the timely payment of principal and interest.

Investments in Target Retirement Funds and Trusts are subject to the risks of their underlying funds. The year in the fund or trust name refers to the approximate year (the target date) when an investor in the fund or trust would retire and leave the workforce. The fund/trust will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. The Income Trust/Fund and Income and Growth Trust have fixed investment allocations and are designed for investors who are already retired. An investment in a Target Retirement Fund or Trust is not guaranteed at any time, including on or after the target date.

Vanguard is responsible only for selecting the underlying funds and periodically rebalancing the holdings of target-date investments. The asset allocations Vanguard has selected for the Target Retirement Funds are based on our investment experience and are geared to the average investor. Investors should regularly check the asset mix of the option they choose to ensure it is appropriate for their current situation.

Vanguard collective trusts are not mutual funds. They are collective trusts available only to tax-qualified plans and their eligible participants. Investment objectives, risks, charges, expenses, and other important information should be considered carefully before investing. The collective trust mandates are managed by Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc.

A stable value investment is neither insured nor guaranteed by the U.S. government. There is no assurance that the investment will be able to maintain a stable net asset value, and it is possible to lose money in such an investment.

Vanguard Digital Advisor® and Vanguard Personal Advisor® services are provided solely by Vanguard Advisers, Inc. (VAI), a registered investment advisor. Please review the Vanguard Digital Advisor and Personal Advisor brochure (<https://personal.vanguard.com/pdf/vanguard-digital-advice-brochure.pdf>) for important details about these services, including Personal Advisor's asset-based service levels. Vanguard Digital Advisor's and Personal Advisor's financial planning tools provide projections and goal forecasts, which are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Vanguard Situational Advisor™ is provided by Vanguard Advisers, Inc. (VAI), a federally registered investment advisor. Eligibility restrictions may apply.

VAI is a subsidiary of The Vanguard Group, Inc., and an affiliate of Vanguard Marketing Corporation. Neither VAI nor its affiliates guarantee profits or protection from losses.

Important information

The Factor Funds are subject to investment style risk, which is the chance that returns from the types of stocks in which a Factor Fund invests will trail returns from U.S. stock markets. The Factor Funds are also subject to manager risk, which is the chance that poor security selection will cause a Factor Fund to underperform its relevant benchmark or other funds with a similar investment objective, and sector risk, which is the chance that significant problems will affect a particular sector in which a Factor Fund invests, or that returns from that sector will trail returns from the overall stock market.

The information contained herein does not constitute tax advice and cannot be used by any person to avoid tax penalties that may be imposed under the Internal Revenue Code. We recommend that you consult a tax or financial advisor about your individual situation.

Schwab Personal Choice Retirement Account® (PCRA) is offered through Charles Schwab & Co., Inc. (Member SIPC), the registered broker/dealer, which also provides other brokerage and custody services to its customers.

Charles Schwab & Co., Inc., and Vanguard are not affiliated and are not responsible for the products and services provided by the other. CFA® and Chartered Financial Analyst® are trademarks owned by CFA Institute.

The Vanguard Group has partnered with Financial Engines Advisors L.L.C. (FEA) to provide subadvisory services to the Vanguard Managed Account Program and Personal Online Advisor. FEA is an independent, federally registered investment advisor that does not sell investments or receive commission for the investments it recommends with respect to the services which it is engaged in as subadvisor for Vanguard Advisers, Inc. (VAI). Advice is provided by Vanguard Advisers, Inc. (VAI), a federally registered investment advisor and an affiliate of The Vanguard Group, Inc. (Vanguard). Vanguard is owned by the Vanguard funds, which are distributed by Vanguard Marketing Corporation, a registered broker-dealer affiliated with VAI and Vanguard. Neither Vanguard, FEA, nor their respective affiliates guarantee future results. Vanguard will use your information in accordance with Vanguard's Privacy Policy.

Edelman Financial Engines® is a registered trademark of Edelman Financial Engines, LLC. All rights reserved. Used with permission.

CGS identifiers have been provided by CUSIP Global Services, managed on behalf of the American Bankers Association by Standard & Poor's Financial Services, LLC, and are not for use or dissemination in a manner that would serve as a substitute for any CUSIP service. The CUSIP Database, © 2023 American Bankers Association. "CUSIP" is a registered trademark of the American Bankers Association.

"Bloomberg®" is a service mark of Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited ("BISL"), the administrator of the index (collectively, "Bloomberg") and have been licensed for use for certain purposes by Vanguard. Bloomberg is not affiliated with Vanguard, and Bloomberg does not approve, endorse, review, or recommend the Vanguard funds. Bloomberg does not guarantee the timeliness, accurateness, or completeness of any data or information relating to the Vanguard funds.

Apple®, iPhone®, and iPad® are trademarks of Apple Inc., registered in the United States and other countries. App Store is a service mark of Apple Inc. Android™ is a trademark of Google Inc.

Morningstar data © 2023 Morningstar, Inc. All rights reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete, or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. Past performance is no guarantee of future results.

Private investments involve a high degree of risk and, therefore, should be undertaken only by prospective investors capable of evaluating and bearing the risks such an investment represents. Investors in private equity generally must meet certain minimum financial qualifications that may make it unsuitable for specific market participants.

Access to annuities is provided on a rollover (out-of-plan) basis and is offered in collaboration with Hueler Investment Services, Inc., through the Income Solutions platform. Income Solutions® is a registered trademark of Hueler Investment Services, Inc., and used under license. United States Patent No. 7,653,560.

Important information



London Stock Exchange Group companies include FTSE International Limited ("FTSE"), Frank Russell Company ("Russell"), MTS Next Limited ("MTS"), and FTSE TMX Global Debt Capital Markets Inc. ("FTSE TMX"). All rights reserved. "FTSE®," "Russell®," "MTS®," "FTSE TMX®," and "FTSE Russell," and other service marks and trademarks related to the FTSE or Russell Indexes are trademarks of the London Stock Exchange Group companies and are used by FTSE, MTS, FTSE TMX, and Russell under license. All information is provided for information purposes only. No responsibility or liability can be accepted by the London Stock Exchange Group companies nor its licensors for any errors or for any loss from use of this publication. Neither the London Stock Exchange Group companies nor any of its licensors make any claim, prediction, warranty, or representation whatsoever, expressly or impliedly, either as to the results to be obtained from the use of the FTSE Indexes or the fitness or suitability of the indexes for any particular purpose to which they might be put.

The index is a product of S&P Dow Jones Indices LLC ("SPDJI") and has been licensed for use by Vanguard. Standard & Poor's® and S&P® are registered trademarks of Standard & Poor's Financial Services LLC ("S&P"); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"); S&P® and S&P 500® are trademarks of S&P; and these trademarks have been licensed for use by SPDJI and sublicensed for certain purposes by Vanguard. Vanguard product(s) are not sponsored, endorsed, sold, or promoted by SPDJI, Dow Jones, S&P, or their respective affiliates, and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions, or interruptions of the index.

Center for Research in Security Prices, LLC (CRSP®) and its third-party suppliers have exclusive proprietary rights in the CRSP® Index Data, which has been licensed for use by Vanguard but is and shall remain valuable intellectual property owned by, and/or licensed to, CRSP®. The Vanguard Funds are not sponsored, endorsed, sold, or promoted by CRSP®, The University of Chicago, or The University of Chicago Booth School of Business, and neither CRSP®, The University of Chicago, nor The University of Chicago Booth School of Business makes any representation regarding the advisability of investing in the Vanguard Funds.

The Russell Indexes and Russell® are registered trademarks of Russell Investments and have been licensed for use by The Vanguard Group. The products are not sponsored, endorsed, sold, or promoted by Russell Investments, and Russell Investments makes no representation regarding the advisability of investing in the products.

"Dividend Achievers" is a trademark of The NASDAQ OMX Group, Inc. (collectively, with its affiliates, "NASDAQ OMX") and has been licensed for use by The Vanguard Group, Inc. Vanguard mutual funds are not sponsored, endorsed, sold, or promoted by NASDAQ OMX, and NASDAQ OMX makes no representation regarding the advisability of investing in the funds. NASDAQ OMX MAKES NO WARRANTIES AND BEARS NO LIABILITY WITH RESPECT TO THE VANGUARD MUTUAL FUNDS.

The funds or securities referred to herein are not sponsored, endorsed, or promoted by MSCI, and MSCI bears no liability with respect to any such funds or securities. The prospectus or the Statement of Additional Information contains a more detailed description of the limited relationship MSCI has with Vanguard and any related funds.

The Global Industry Classification Standard ("GICS") was developed by and is the exclusive property and a service mark of MSCI Inc. ("MSCI") and Standard and Poor's, a division of McGraw-Hill Companies, Inc. ("S&P") and is licensed for use by Vanguard. Neither MSCI, S&P, nor any third party involved in making or compiling the GICS or any GICS classification makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability, or fitness for a particular purpose with respect to any such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of its affiliates, or any third party involved in making or compiling the GICS or any GICS classification have any liability for any direct, indirect, special, punitive, consequential, or any other damages (including lost profits) even if notified of the possibility of such damages.

Vanguard Marketing Corporation, Distributor of the Vanguard Funds.

© 2024 The Vanguard Group, Inc. All rights reserved.

Rev_012024