## **United States Securities and Exchange Commission**

Washington, D.C. 20549

## **SCHEDULE 13D**

(Rule 13d-101)

Information to be Included in Statements Filed Pursuant to § 240.13d-1(a) and Amendments Thereto Filed Pursuant to § 240.13d-2(a)

Under the Securities Exchange Act of 1934 (Amendment No. 21)\*

## Medpace Holdings, Inc.

(Name of Issuer)

Common Stock (Title of Class of Securities)

58506Q109 (CUSIP Number)

August J. Troendle c/o Medpace Holdings, Inc. 5375 Medpace Way Cincinnati, OH 45227 Tel: (513) 579-9911

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this
schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. □

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 240.13d-7 for other parties to whom copies are to be sent.

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAMES OF REPORTING PERSONS						
	August J. Troendle						
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP  (a) □ (b) ⊠						
3	SEC USE ONLY						
4	SOURCE OF	FUN	DS				
	PF						
5		losure	of legal proceedings is required pursuant to Items 2(d) or 2(e)				
6	CITIZENSHI	P OR	PLACE OF ORGANIZATION				
0	CITIZENSIII	ı or	TEACE OF ORGANIZATION				
	United States						
		7	SOLE VOTING POWER				
N	NUMBER OF		806,643				
BF	SHARES BENEFICIALLY		SHARED VOTING POWER				
	OWNED BY		4,758,019				
Į,	EACH REPORTING		SOLE DISPOSITIVE POWER				
PERSON			806,643				
WITH		10	SHARED DISPOSITIVE POWER				
11	A CCDEC AT	E ANA	4,758,019 OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
11	AGGREGAL	E AIVI	IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	6,071,852						
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES						
13	PERCENT O	F CL	ASS REPRESENTED BY AMOUNT IN ROW (11)				
	19.4%						
14		POR	TING PERSON				
	ny.						
	IN						

1	1 NAMES OF REPORTING PERSONS						
	Medpace Investors, LLC						
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP  (a) □ (b) ⊠						
3	SEC USE ONLY						
4	SOURCE OF FUNDS						
	OO						
5	Check if discl	osure	of legal proceedings is required pursuant to Items 2(d) or 2(e)				
6	CITIZENSHI	P OR	PLACE OF ORGANIZATION				
	Delaware						
		7	SOLE VOTING POWER				
N	NUMBER OF		0				
SHARES		8	SHARED VOTING POWER				
BENEFICIALLY OWNED BY			4,758,019				
EACH REPORTING		9	SOLE DISPOSITIVE POWER				
PERSON							
WITH		10	SHARED DISPOSITIVE POWER				
			4,758,019				
11	AGGREGAT	E AM	OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	4,758,019						
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES						
13	_	F CL	ASS REPRESENTED BY AMOUNT IN ROW (11)				
	15.2%						
14							
	OO (Limited liability company)						
	CO (Emiliar macini)						

This Amendment No. 21 to the Schedule 13D (this "Amendment No. 21") amends and supplements the Statement on Schedule 13D filed with the United States Securities and Exchange Commission on August 26, 2016, as amended by Amendment No. 1 filed on August 8, 2018, Amendment No. 2 filed on October 2, 2018, Amendment No. 3 filed on February 6, 2019, Amendment No. 4 filed on August 5, 2019, Amendment No. 5 filed on August 7, 2019, Amendment No. 6 filed on August 15, 2019, Amendment No. 7 filed on September 17, 2019, Amendment No. 8 filed on May 8, 2020, Amendment No. 9 filed on July 31, 2020, Amendment No. 10 filed on August 14, 2020, Amendment No. 11 filed on December 21, 2020, Amendment No. 12 filed on April 21, 2021, Amendment No. 13 filed on September 1, 2021, Amendment No. 14 filed on December 23, 2021, Amendment No. 15 filed on July 6, 2022, Amendment No. 16 filed on September 13, 2022, Amendment No. 17 filed September 21, 2022, Amendment No. 18 filed September 22, 2023, Amendment No. 19 filed December 5, 2023, and Amendment No. 20 filed February 28, 2024 (collectively, the "Statement"), relating to the common stock (the "Common Stock"), of Medpace Holdings, Inc., a Delaware corporation (the "Issuer"). Capitalized terms used herein without definition shall have the meaning set forth in the Statement.

Item 5. Interest in Securities of the Issuer

Items 5(a) - (b) of the Statement are amended and restated in their entirety as follows:

(a) - (b): See Items 7 - 13 of the cover pages above.

Item 5(c) of the Statement is amended and supplemented by inserting the following information:

(c): Medpace Investors, LLC ("MPI") has sold shares in open market transactions executed pursuant to limit orders between February 28, 2024 and March 7, 2024 as follows:

Trade Date	Shares Sold	Price Per Share
02/28/2024	445	\$400.30 (1)
02/28/2024	10,722	\$402.73 (2)
02/28/2024	12,691	\$403.63 (3)
02/28/2024	18,011	\$404.49 (4)
02/28/2024	3,117	\$405.48 (5)
02/28/2024	4,783	\$406.53 (6)
02/28/2024	231	\$407.20 (7)
02/29/2024	2,058	\$391.13 (8)
02/29/2024	3,328	\$392.04 (9)
02/29/2024	7,001	\$392.91 (10)
02/29/2024	3,025	\$393.87 (11)
02/29/2024	1,540	\$ 394.72 (12)
02/29/2024	689	\$395.92 (13)
02/29/2024	617	\$396.74 (14)
02/29/2024	194	\$398.04 (15)
02/29/2024	291	\$398.76 (16)
02/29/2024	493	\$399.73 (17)
02/29/2024	391	\$400.99 (18)
02/29/2024	373	\$401.70 (19)
03/01/2024	19,793	\$400.51 (20)
03/01/2024	25,593	\$401.44 (21)
03/01/2024	17,469	\$402.56 (22)
03/01/2024	16,532	\$403.41 (23)
03/01/2024	613	\$404.28 (24)
03/04/2024	1,496	\$400.92 (25)
03/04/2024	16,063	\$402.15 (26)
03/04/2024	18,244	\$403.00 (27)
03/04/2024	9,025	\$403.95 (28)
03/04/2024	2,859	\$404.87 (29)
03/04/2024	624	\$405.73 (30)
03/04/2024	927	\$407.11 (31)
03/04/2024	762	\$407.61 (32)
03/05/2024	2,299	\$400.32 (33)
03/05/2024	4,708	\$401.54 (34)
03/05/2024	25,110	\$402.58 (35)
03/05/2024	15,364	\$403.37 (36)
03/05/2024	2,519	\$404.10 (37)
03/06/2024	1,332	\$406.86 (38)
03/06/2024	3,312	\$407.94 (39)
03/06/2024	6,226	\$409.00 (40)
03/06/2024	15,037	\$410.03 (41)

03/06/2024	14,819	\$410.73 (42)
03/06/2024	8,183	\$411.85 (43)
03/06/2024	12,271	\$412.89 (44)
03/06/2024	3,384	\$413.68 (45)
03/06/2024	4,214	\$414.87 (46)
03/06/2024	10,493	\$415.80 (47)
03/06/2024	7,825	\$416.88 (48)
03/06/2024	10,098	\$418.02 (49)
03/06/2024	2,727	\$418.70 (50)
03/06/2024	79	\$ 419.42
03/07/2024	1,094	\$407.07 (51)
03/07/2024	4,202	\$407.78 (52)
03/07/2024	10,881	\$409.01 (53)
03/07/2024	25,514	\$409.71 (54)
03/07/2024	5,710	\$410.67 (55)
03/07/2024	7,190	\$411.89 (56)
03/07/2024	9,949	\$412.83 (57)
03/07/2024	8,890	\$413.74 (58)
03/07/2024	1,249	\$414.64 (59)
03/07/2024	321	\$415.52 (60)

- (1) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$400.105 to \$400.53. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (2) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$402.13 to \$403.10. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (3) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$403.11 to \$404.10. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (4) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$404.12 to \$405.10. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (5) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$405.14 to \$406.01. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (6) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$406.12 to \$407.07. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (7) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$407.13 to \$407.27. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (8) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$390.41 to \$391.38. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (9) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$391.42 to \$392.33. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (10) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$392.46 to \$393.39. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (11) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$393.43 to \$394.27. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (12) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$394.42 to \$395.39. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (13) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$395.44 to \$396.38. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.

- (14) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$396.705 to \$396.77. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (15) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$398.025 to \$398.08. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (16) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$398.52 to \$399.16. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (17) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$399.56 to \$400.00. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (18) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$400.94 to \$401.32. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (19) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$401.615 to \$401.90. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (20) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$400.00 to \$400.96. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (21) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$401.00 to \$401.97. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (22) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$402.02 to \$402.99. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (23) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$403.00 to \$403.99. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (24) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$404.005 to \$404.88. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (25) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$400.52 to \$401.355. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (26) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$401.54 to \$402.515. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (27) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$402.52 to \$403.51. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (28) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$403.52 to \$404.455. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (29) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$404.53 to \$405.27. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (30) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$405.52 to \$406.34. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (31) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$406.64 to \$407.495. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (32) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$407.57 to \$408.21. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (33) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$400.00 to \$400.99. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.

- (34) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$401.13 to \$401.97. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (35) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$402.00 to \$402.99. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (36) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$403.00 to \$403.94. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (37) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$404.02 to \$404.39. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (38) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$406.36 to \$407.35. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (39) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$407.41 to \$408.345. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (40) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$408.355 to \$409.34. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (41) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$409.44 to \$410.35. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (42) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$410.36 to \$411.25. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (43) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$411.38 to \$412.32. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (44) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$412.37 to \$413.35. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (45) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$413.36 to \$414.25. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (46) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$414.46 to \$415.30. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (47) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$415.48 to \$416.35. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (48) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$416.36 to \$417.35. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (49) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$417.39 to \$418.34. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (50) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$418.45 to \$419.23. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (51) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$406.33 to \$407.31. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (52) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$407.33 to \$408.32. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (53) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$408.345 to \$409.32. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.

- (54) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$409.33 to \$410.32. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (55) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$410.33 to \$411.32. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (56) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$411.33 to \$412.29. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (57) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$412.35 to \$413.32. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (58) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$413.34 to \$414.285. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (59) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$414.375 to \$415.01. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.
- (60) The reported price is a weighted average price. These shares were sold in multiple transactions ranging from \$415.475 to \$415.64. The Reporting Person undertakes to provide full pricing information to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission upon request.

Item 7. Materials to be Filed as Exhibits

Exhibit Number Description

1 Joint Filing Agreement\*

2 Registration Rights Agreement\*

Filed in the Statement.

## SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: March 8, 2024

/s/ August J. Troendle

August J. Troendle

Medpace Investors, LLC

/s/ August J. Troendle

Name: August J. Troendle Title: Sole Manager