DELTA ASSOCIATES

26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

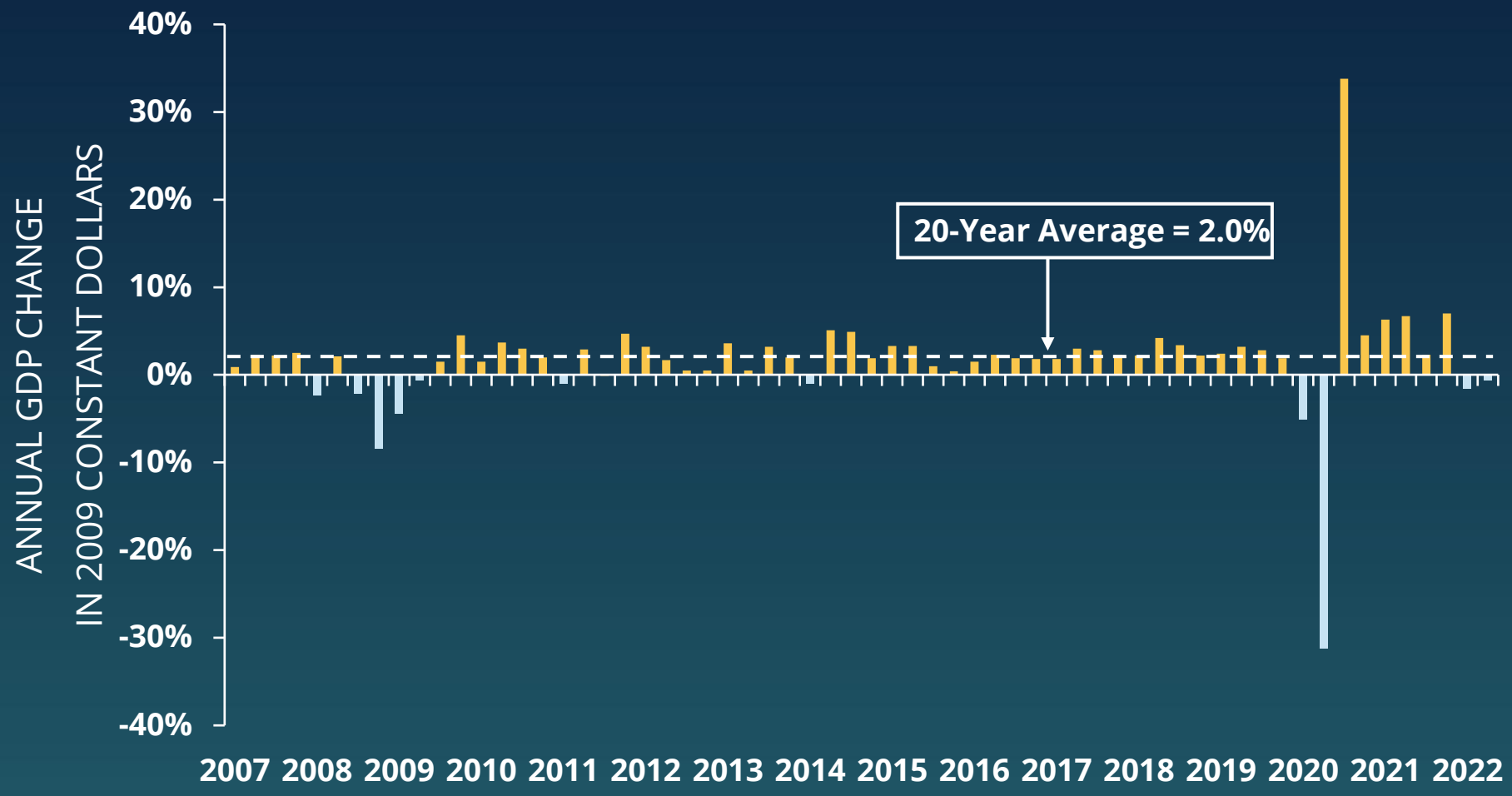
DELTA ASSOCIATES

TRANSWESTERN

THE NATIONAL ECONOMY

QUARTERLY GDP PERCENT CHANGE

United States

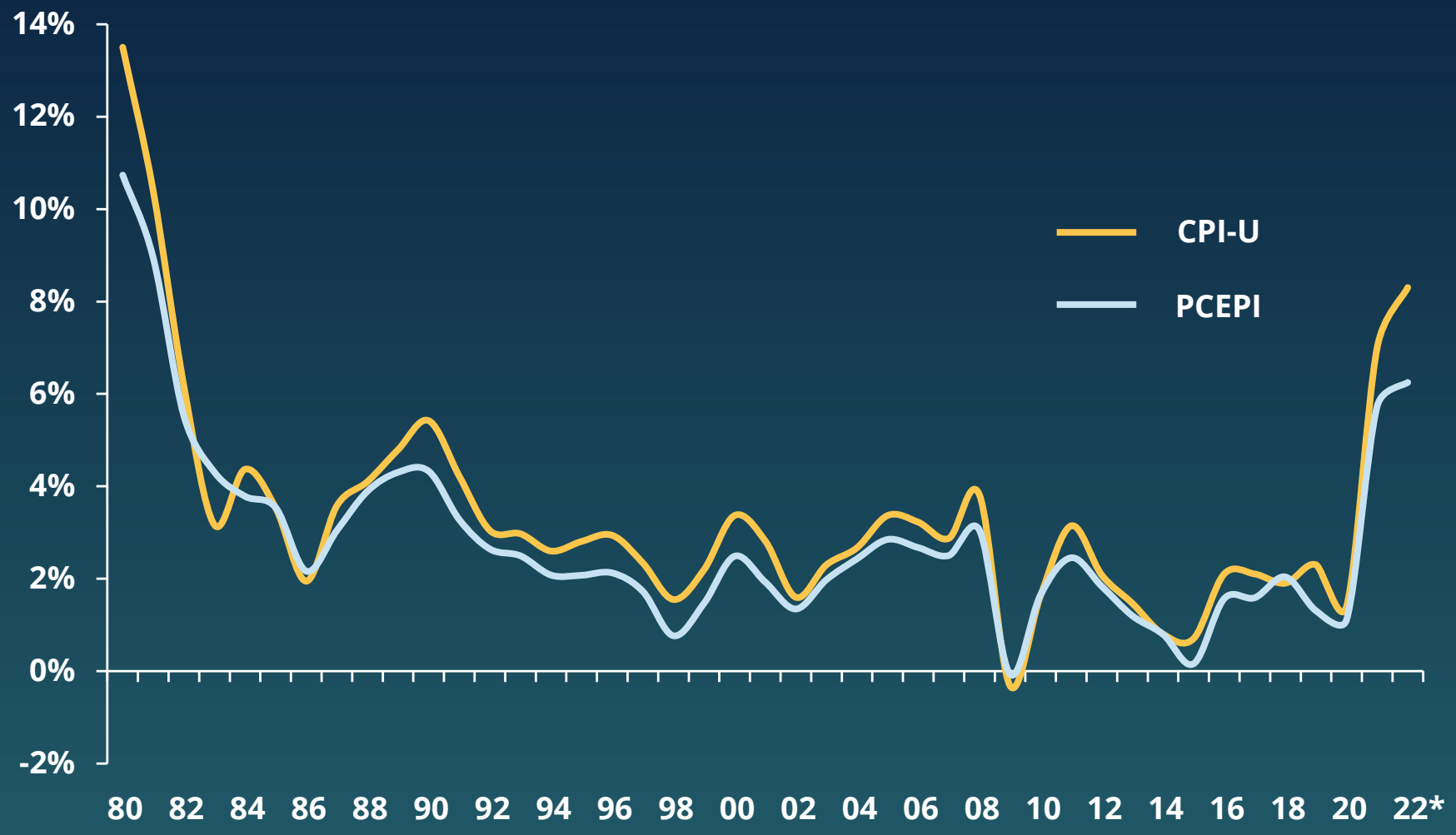


Note: Seasonally adjusted at annual rates.
Source: Bureau of Economic Analysis, Delta Associates; October 2022.

INFLATION & PERSONAL CONSUMPTION EXP. INDEX

United States | 1980 - 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

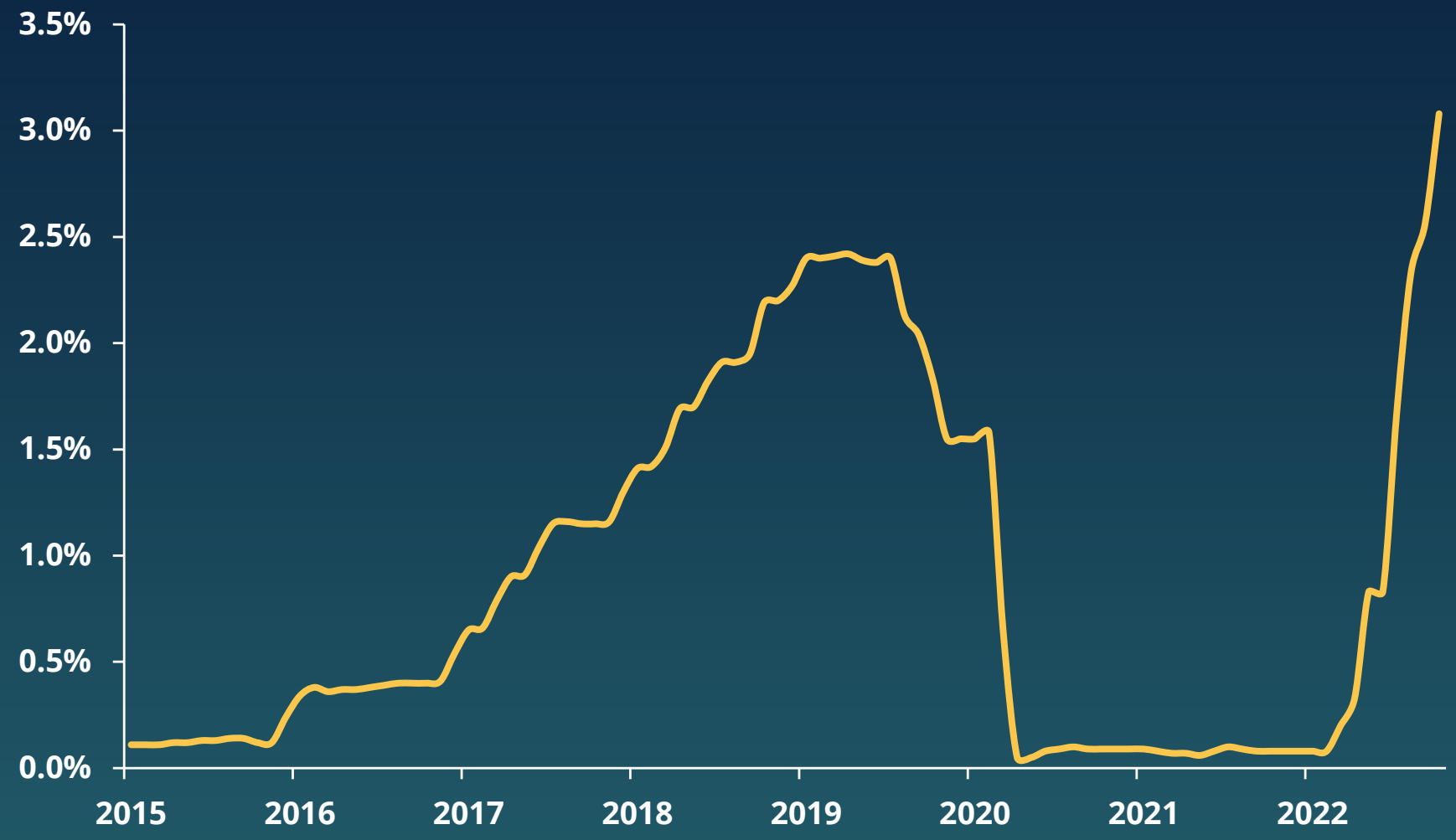


Source: Federal Reserve Economic Database (FRED), Delta Associates; October 2022.

*Note: *CPI-U tand PCEPI through August 2022. Data reflects 12-month percent change.*

EFFECTIVE FEDERAL FUNDS RATE

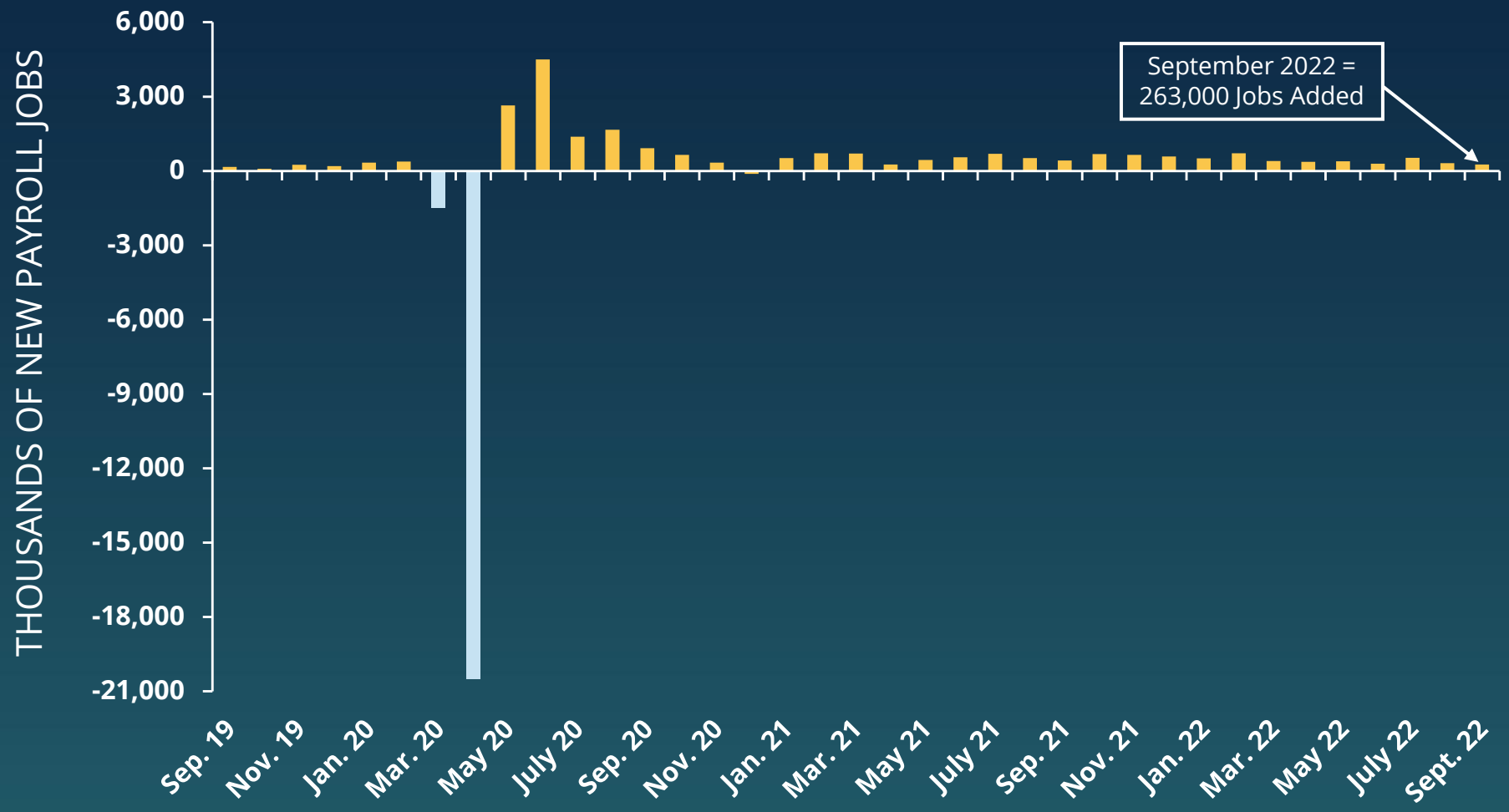
United States | 2015 - 2022



Source: Federal Reserve Economic Database (FRED), Delta Associates; October 2022.

PAYROLL JOB GROWTH

United States | Monthly

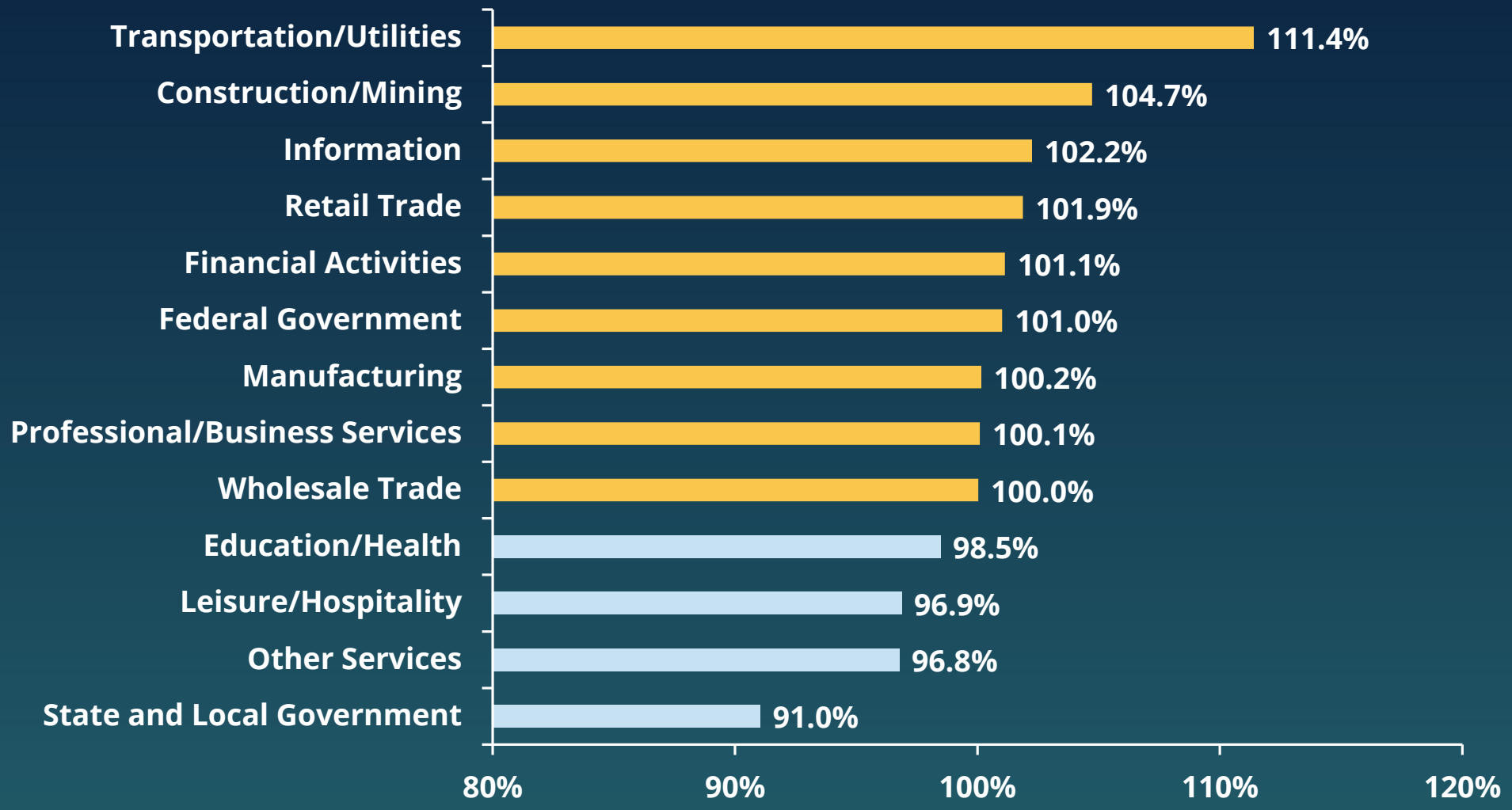


Note: Data is seasonally adjusted.
Source: Bureau of Labor Statistics, Delta Associates; October 2022.

JOB RECOVERY BY SECTOR

United States | August 2022 Employment as a % of February 2020 Employment

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

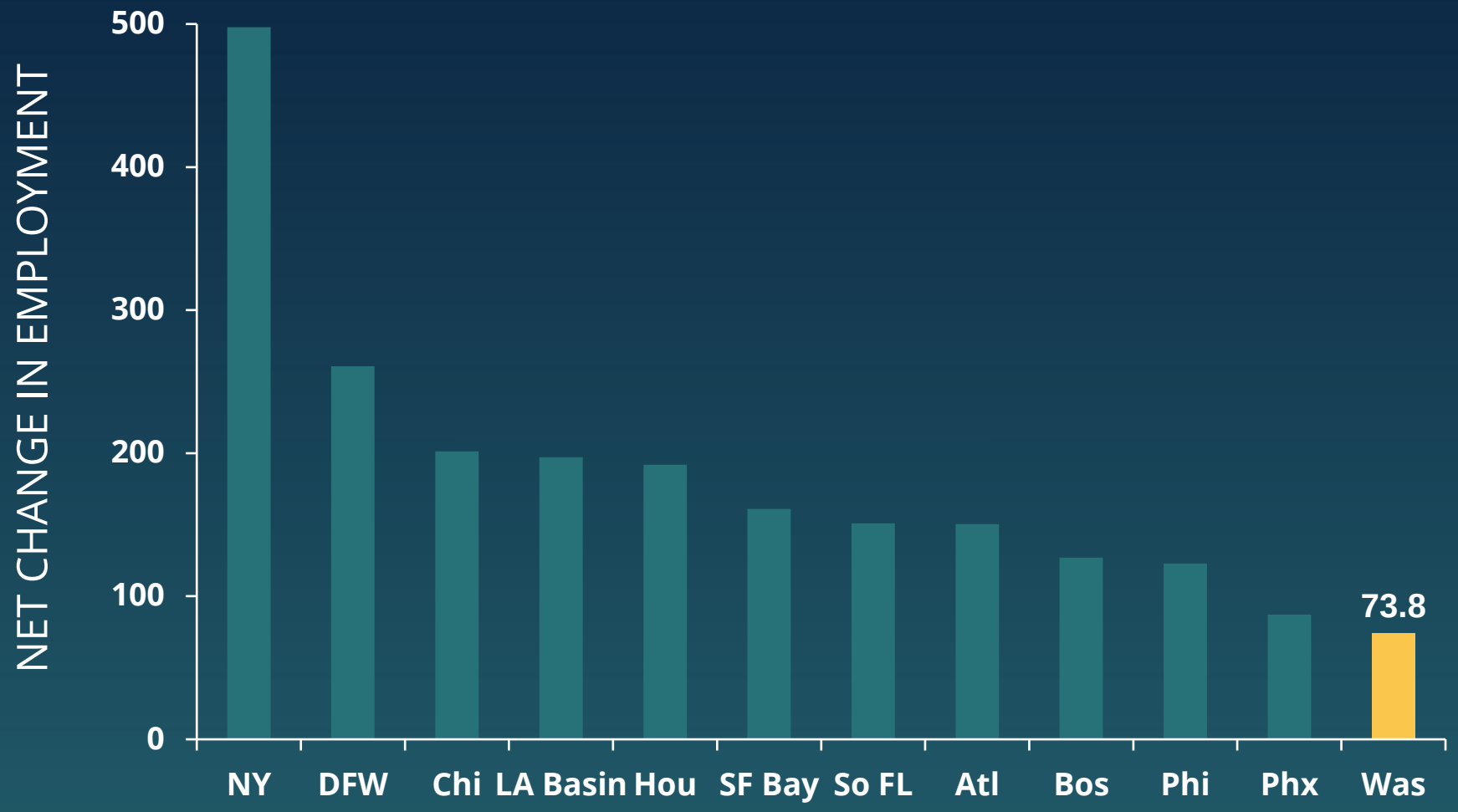


Source: Bureau of Labor Statistics, Delta Associates; October 2022.

THE WASHINGTON ECONOMY

PAYROLL JOB GROWTH

Selected Large Metro Areas | 12 Months Ending August 2022

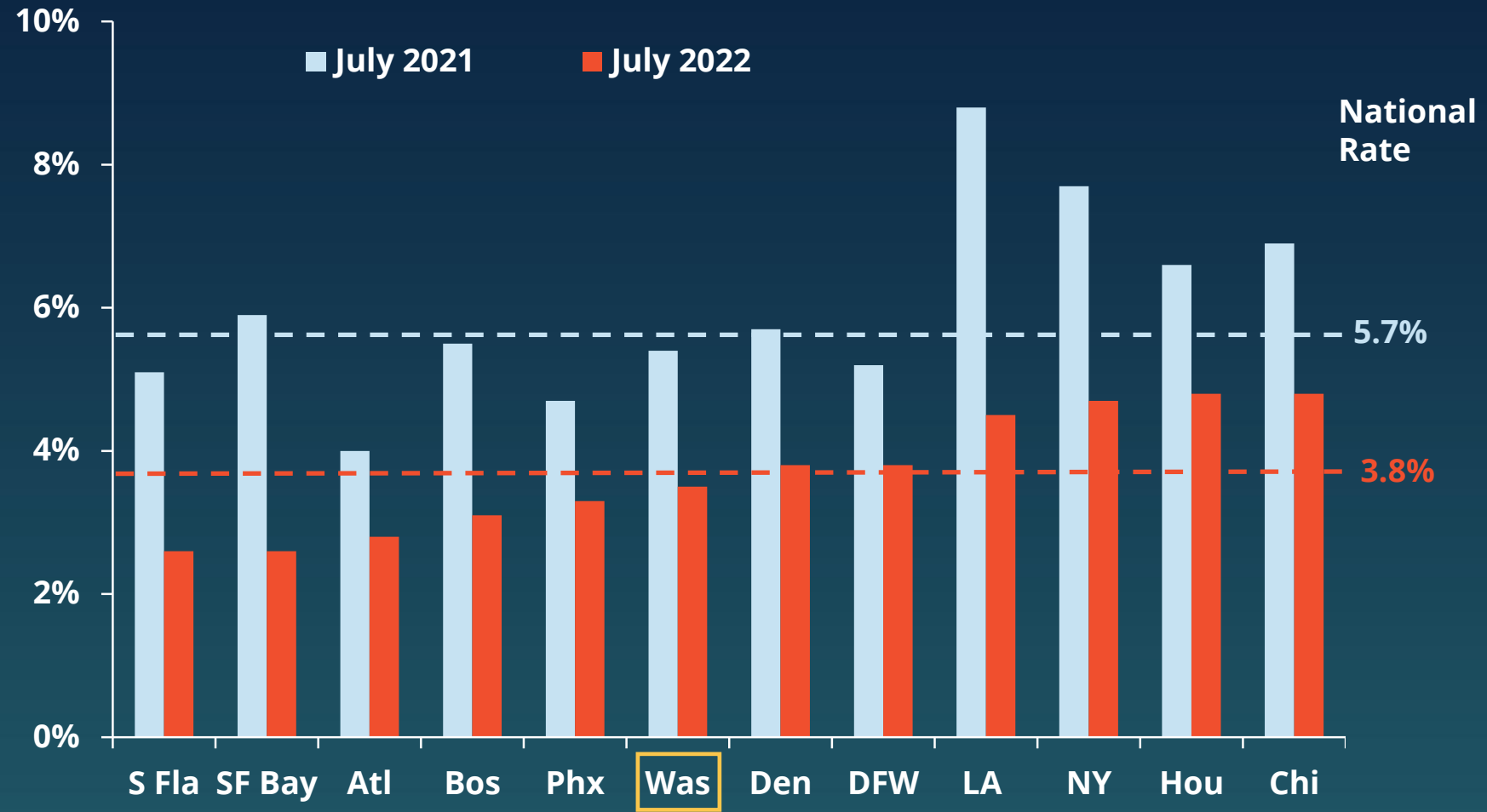


Source: Bureau of Labor Statistics, Delta Associates; October 2022.

UNEMPLOYMENT RATE

Large Metro Areas | July 2021 vs. July 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



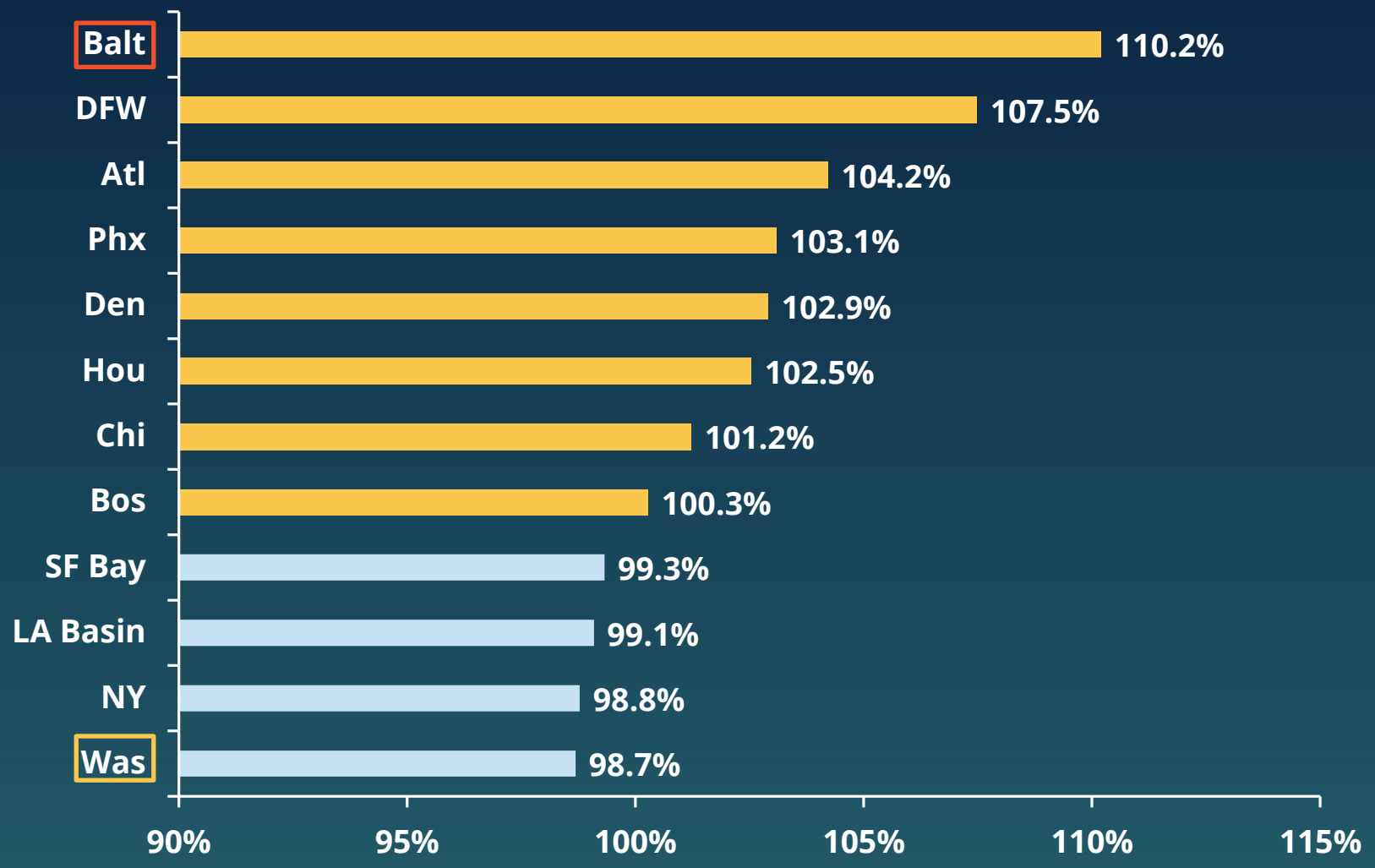
Basis Point Change	S Fla	SF Bay	Atl	Bos	Phx	Was	Den	DFW	LA	NY	Hou	Chi
	-250	-330	-120	-240	-140	-190	-190	-140	-430	-300	-180	-210

Source: Bureau of Labor Statistics, Delta Associates; October 2022.

JOB RECOVERY BY METRO AREA

Selected Metro Areas | Aug. 2022 Employment as a % of Feb. 2020 Emp.

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

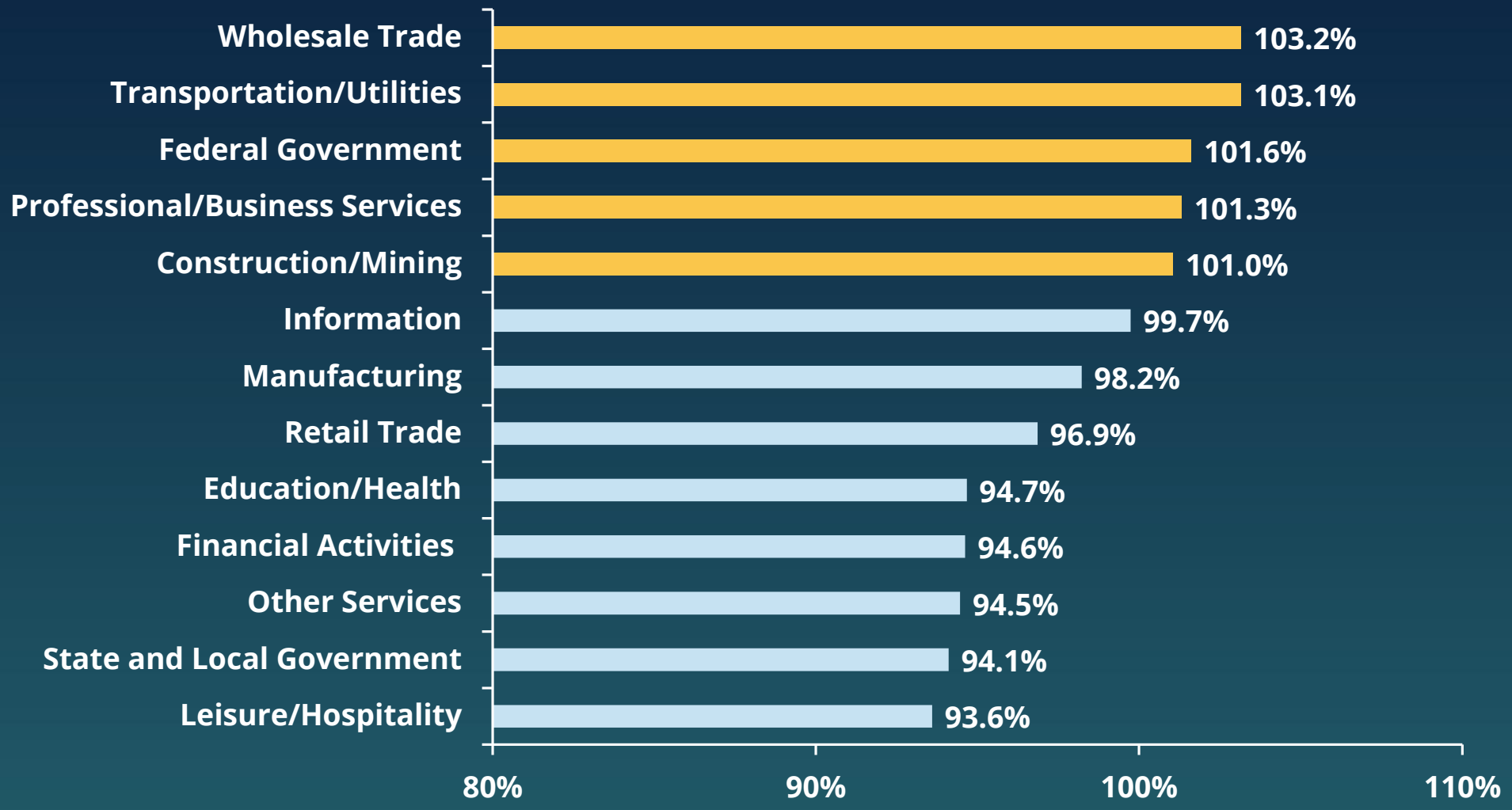


Source: Bureau of Labor Statistics, Delta Associates; October 2022.

JOB RECOVERY BY SECTOR

Washington Metro | Aug. 2022 Employment as a % of Feb. 2020 Employment

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

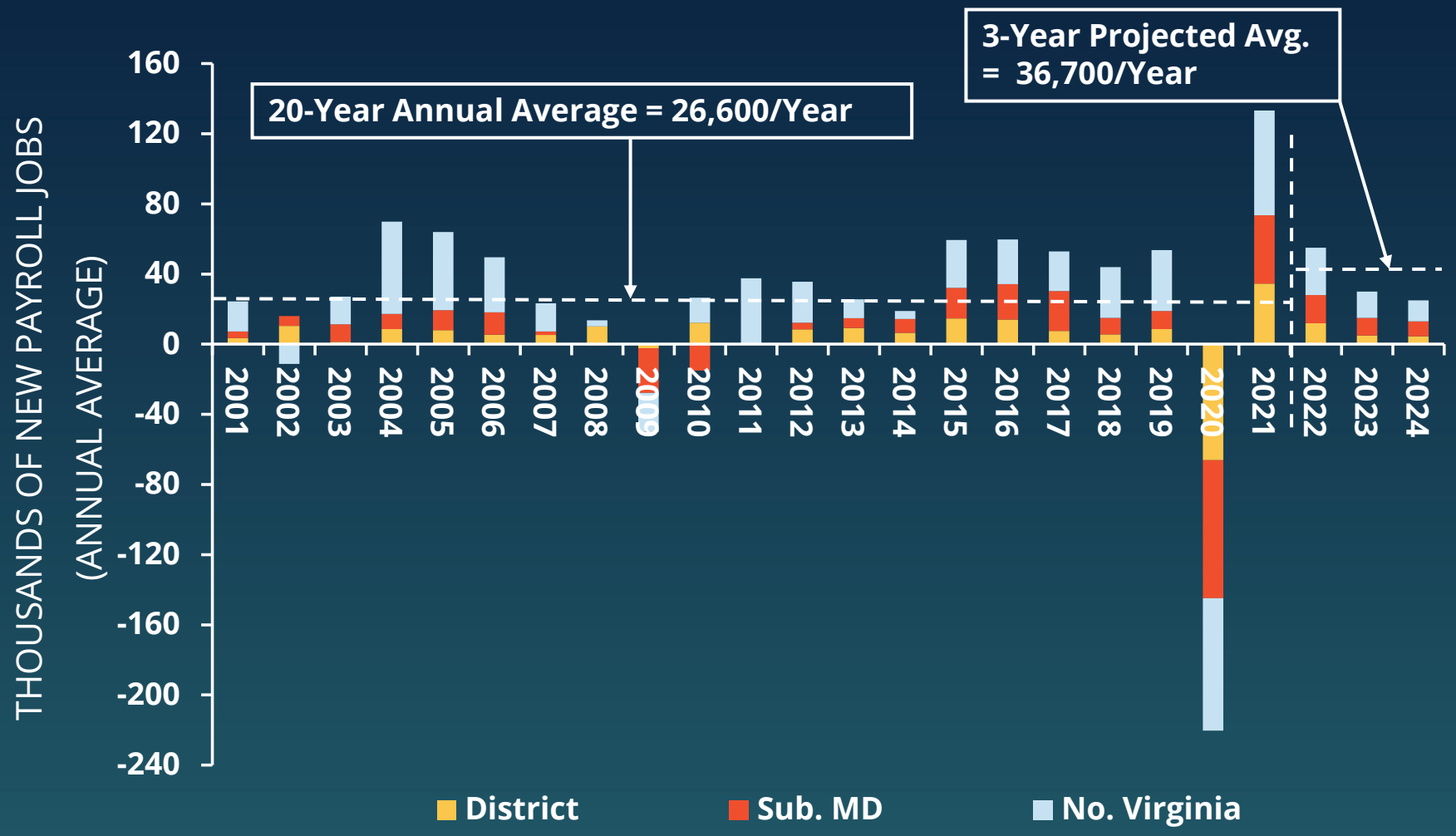


Source: Bureau of Labor Statistics, Delta Associates; October 2022.

PAYROLL JOB GROWTH

Washington Metro Area

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

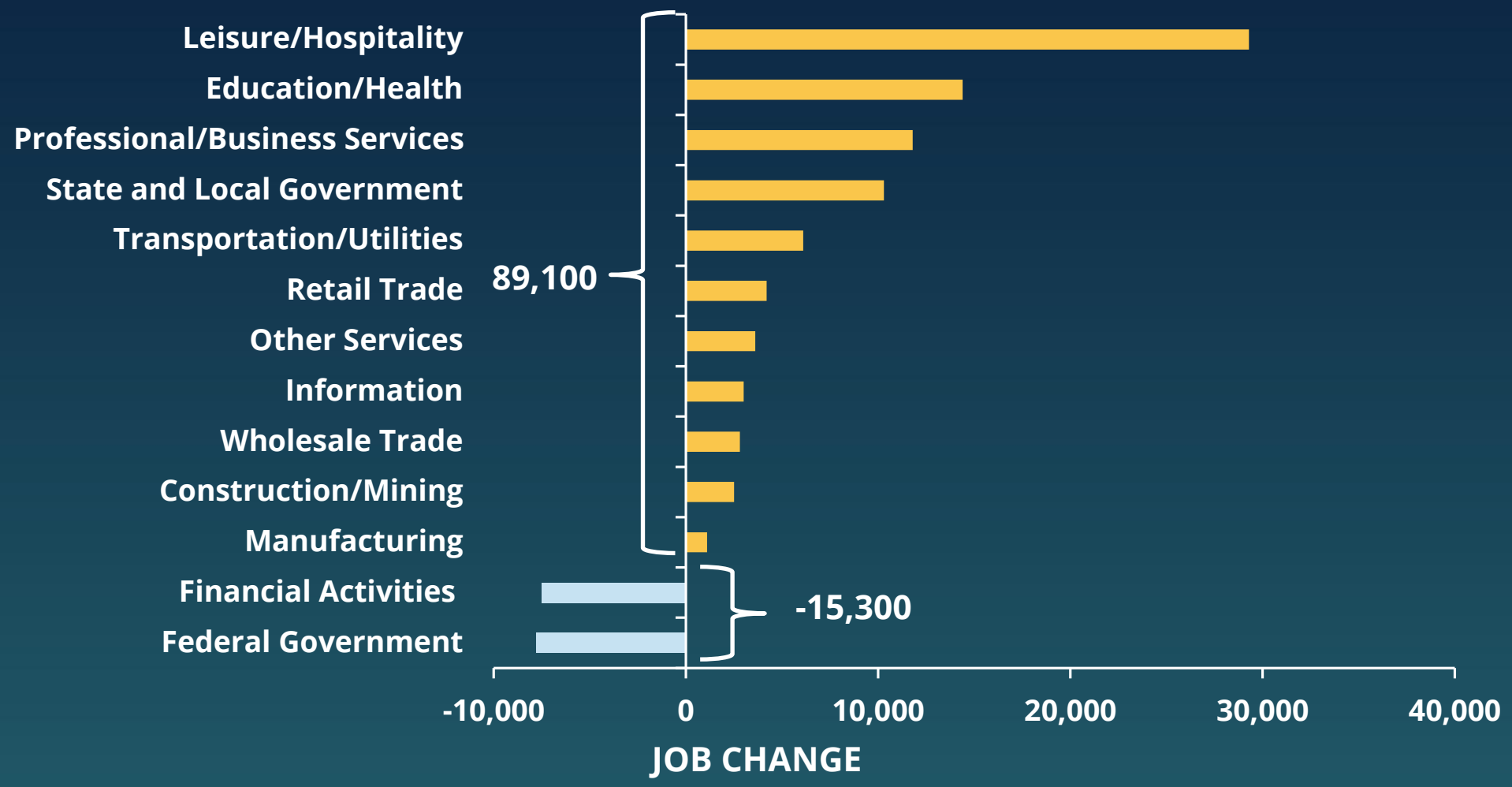


Source: Bureau of Labor Statistics, George Mason University Center for Regional Analysis, Delta Associates; October 2022.

PAYROLL JOB GROWTH

Washington Metro Area | 12 Months Ending August 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

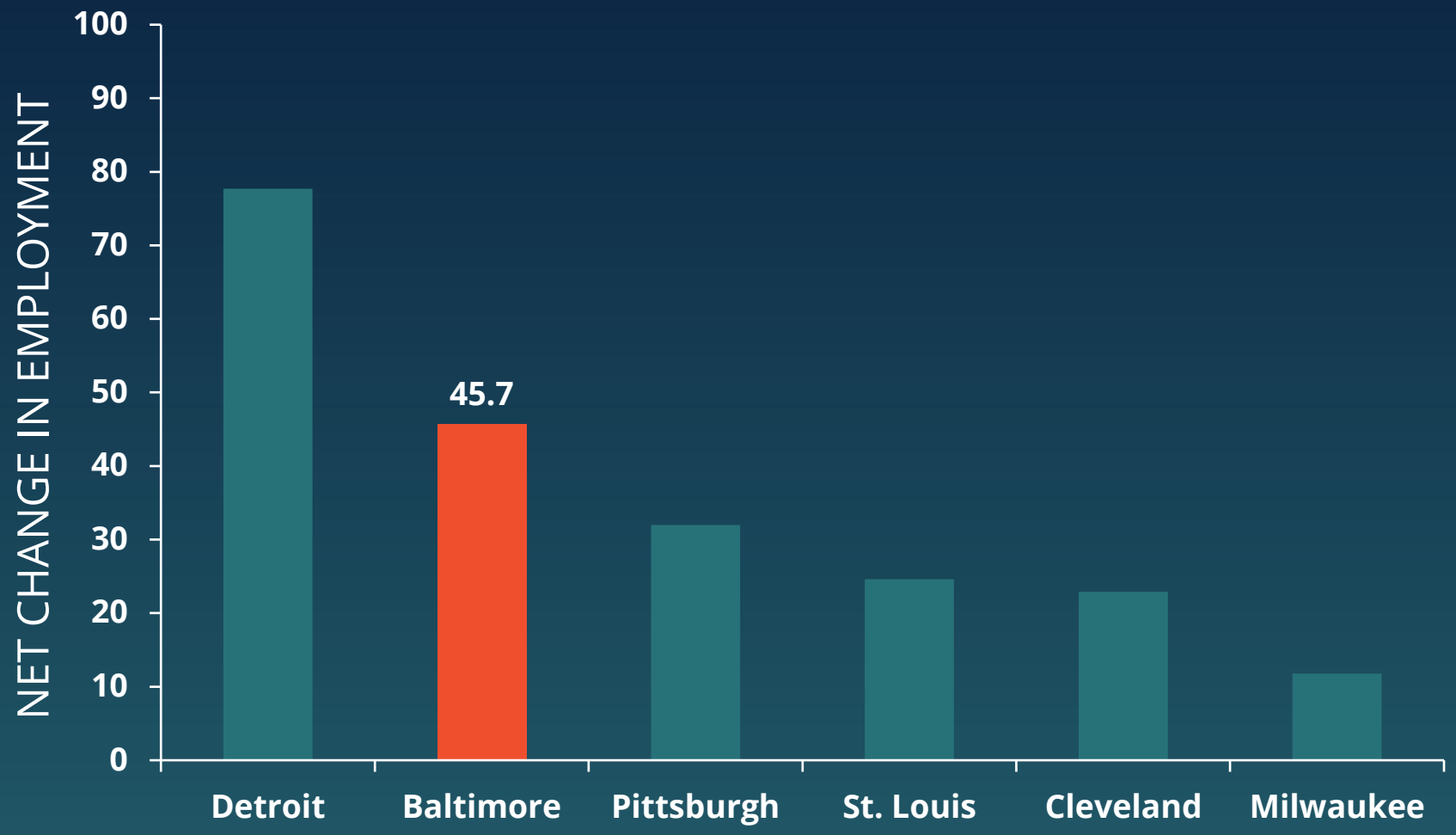


Source: Bureau of Labor Statistics, Delta Associates; October 2022.

THE BALTIMORE ECONOMY

PAYROLL JOB GROWTH

Comparable Metro Areas | 12 Months Ending August 2022

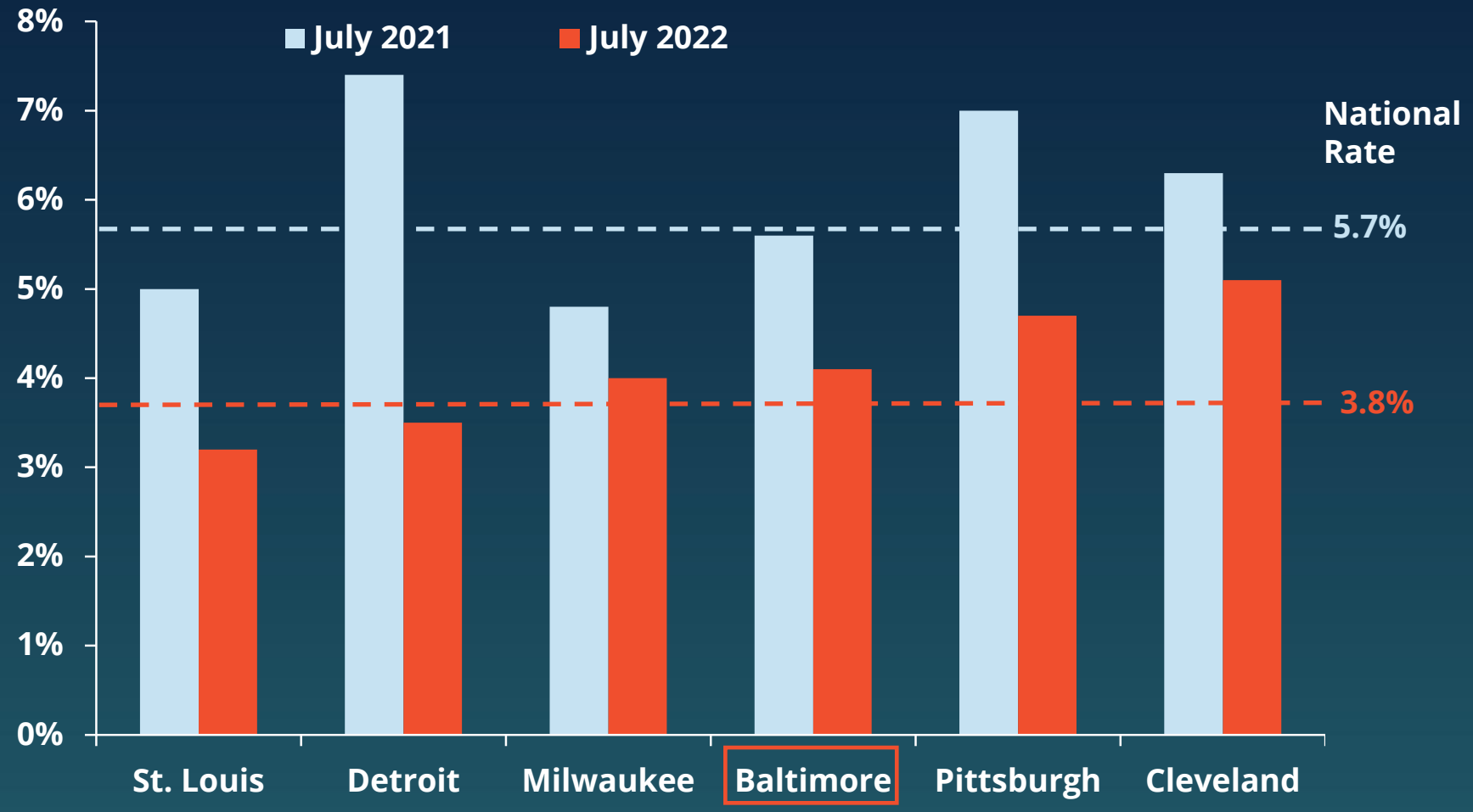


Source: Bureau of Labor Statistics, Delta Associates; October 2022.

UNEMPLOYMENT RATE

Comparable Metro Areas | July 2021 vs. July 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



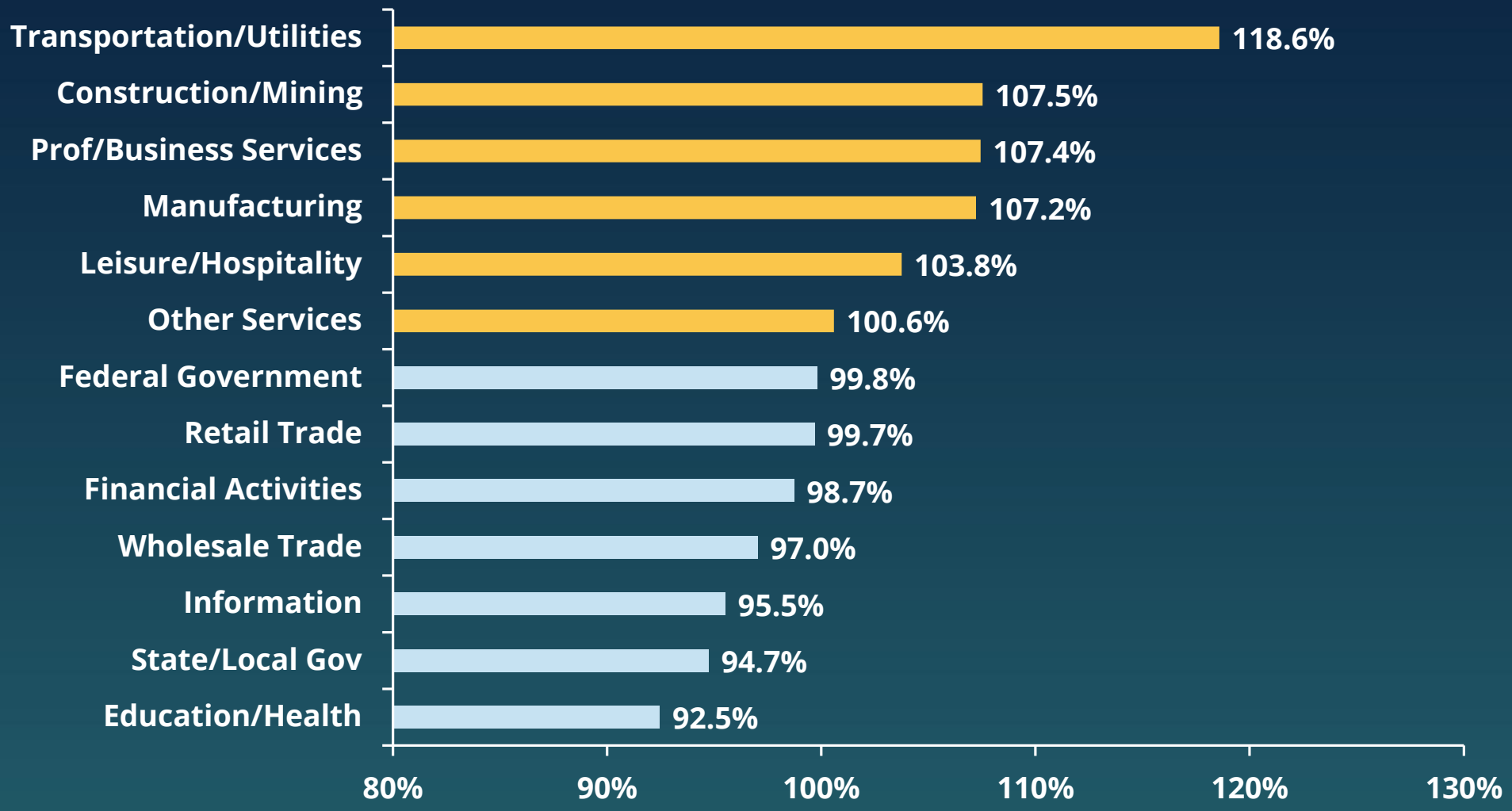
Basis Point Change	St. Louis	Detroit	Milwaukee	Baltimore	Pittsburgh	Cleveland
	-180	-390	-80	-150	-230	-120

Source: Bureau of Labor Statistics, Delta Associates; October 2022.

JOB RECOVERY BY SECTOR

Baltimore Metro | Aug. 2022 Employment as a % of Feb. 2020 Employment

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



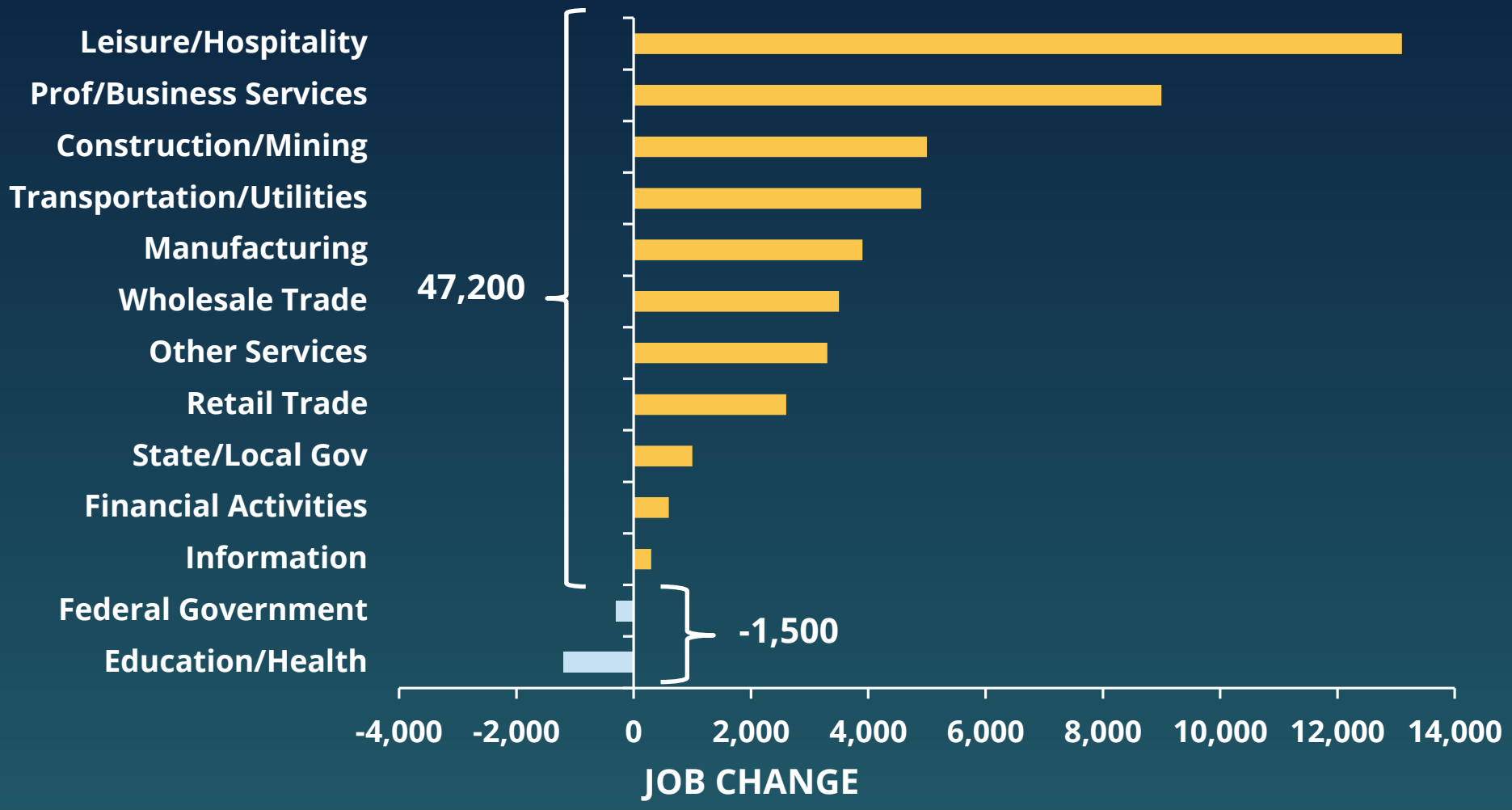
Source: Bureau of Labor Statistics, Delta Associates; October 2022.

Note: Data are not seasonally adjusted.

PAYROLL JOB GROWTH

Baltimore Metro Area | 12 Months Ending August 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

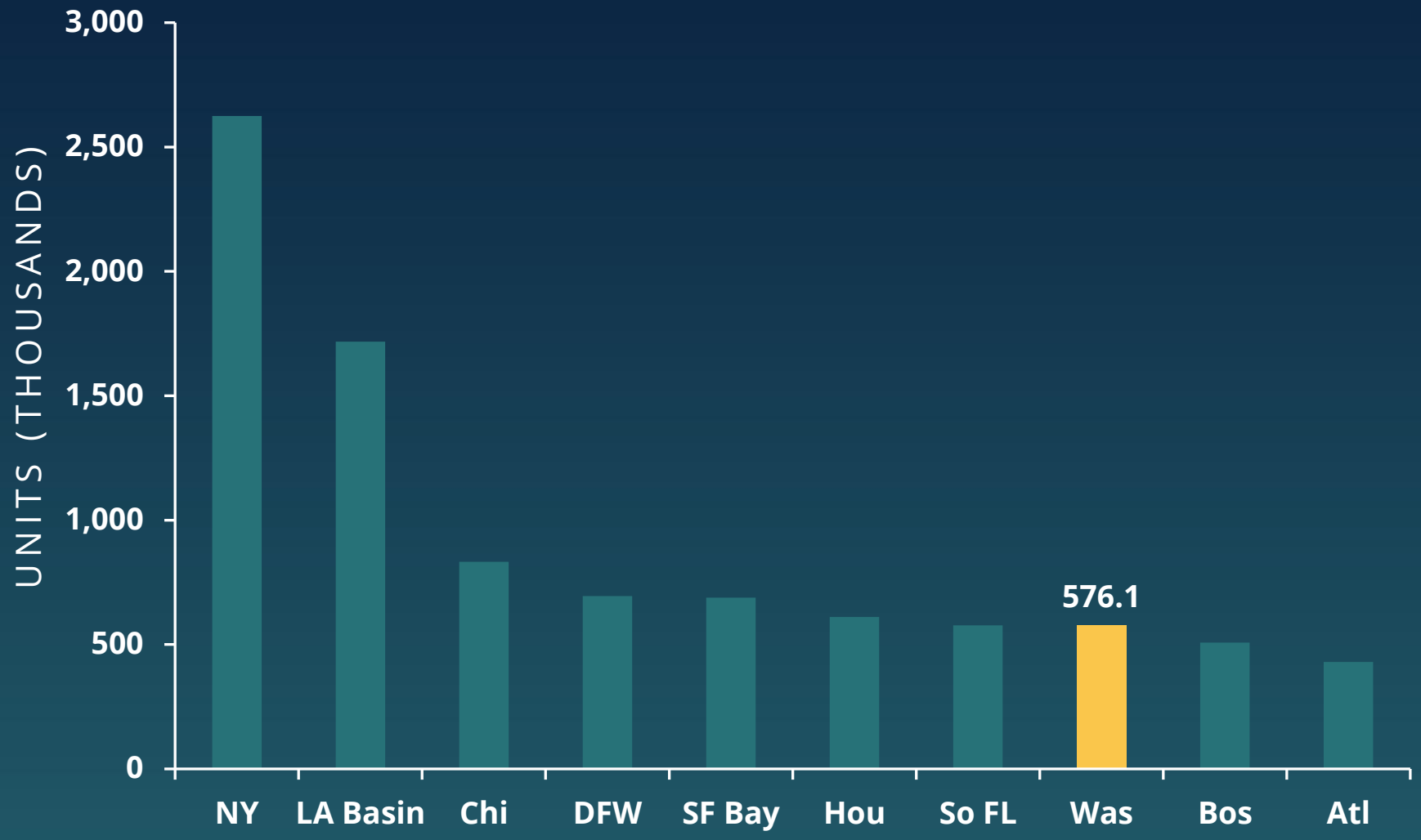


Source: Bureau of Labor Statistics, Delta Associates; October 2022.

THE WASHINGTON METRO AREA APARTMENT MARKET

LARGEST APARTMENT MARKETS

Selected Metro Areas | 2020

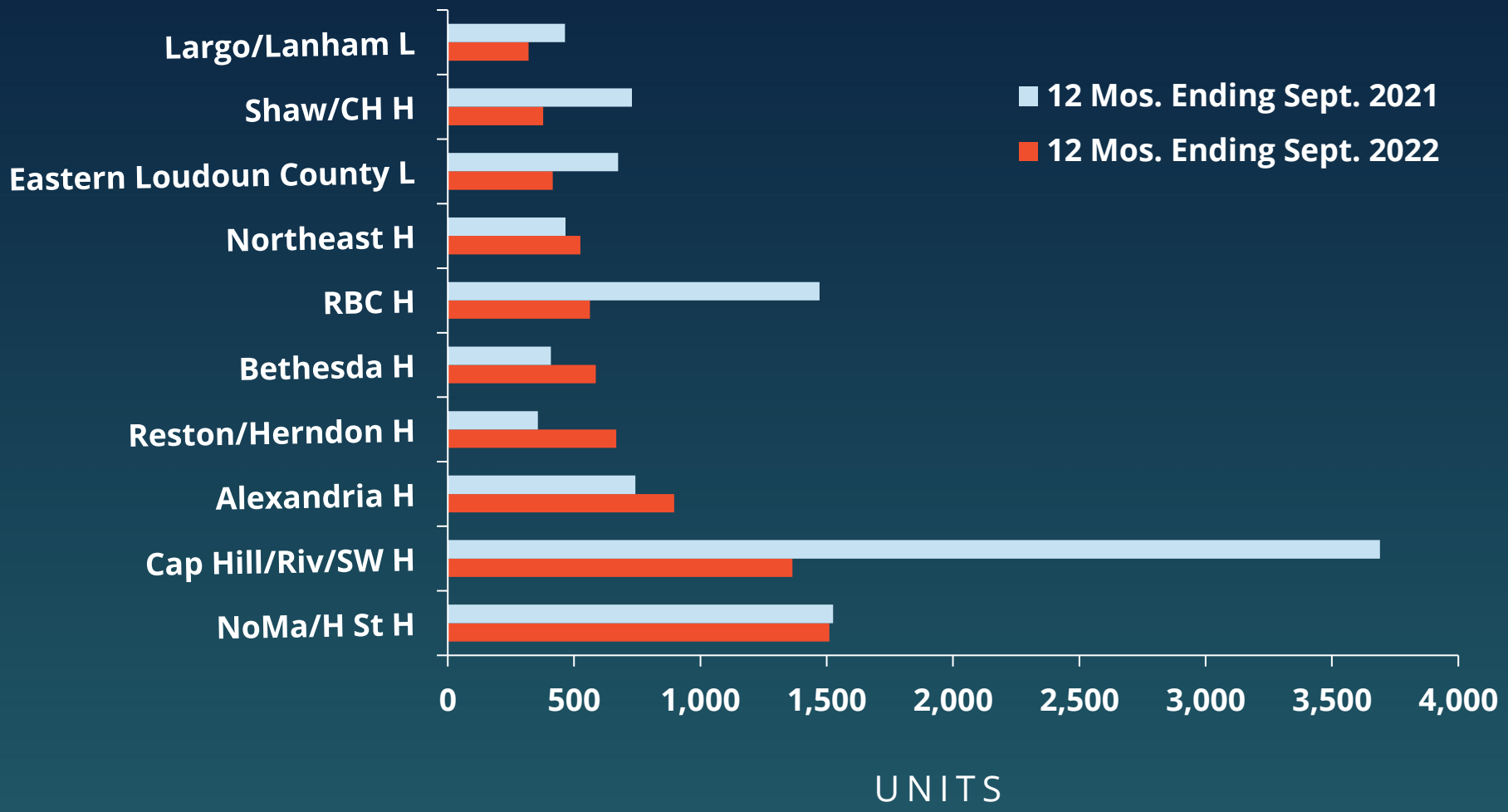


Source: U.S. Census Bureau, Delta Associates; October 2022.

CLASS A APARTMENT ABSORPTION

Top 10 Submarkets in Washington Metro Area | 12 Mo. Ending September 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

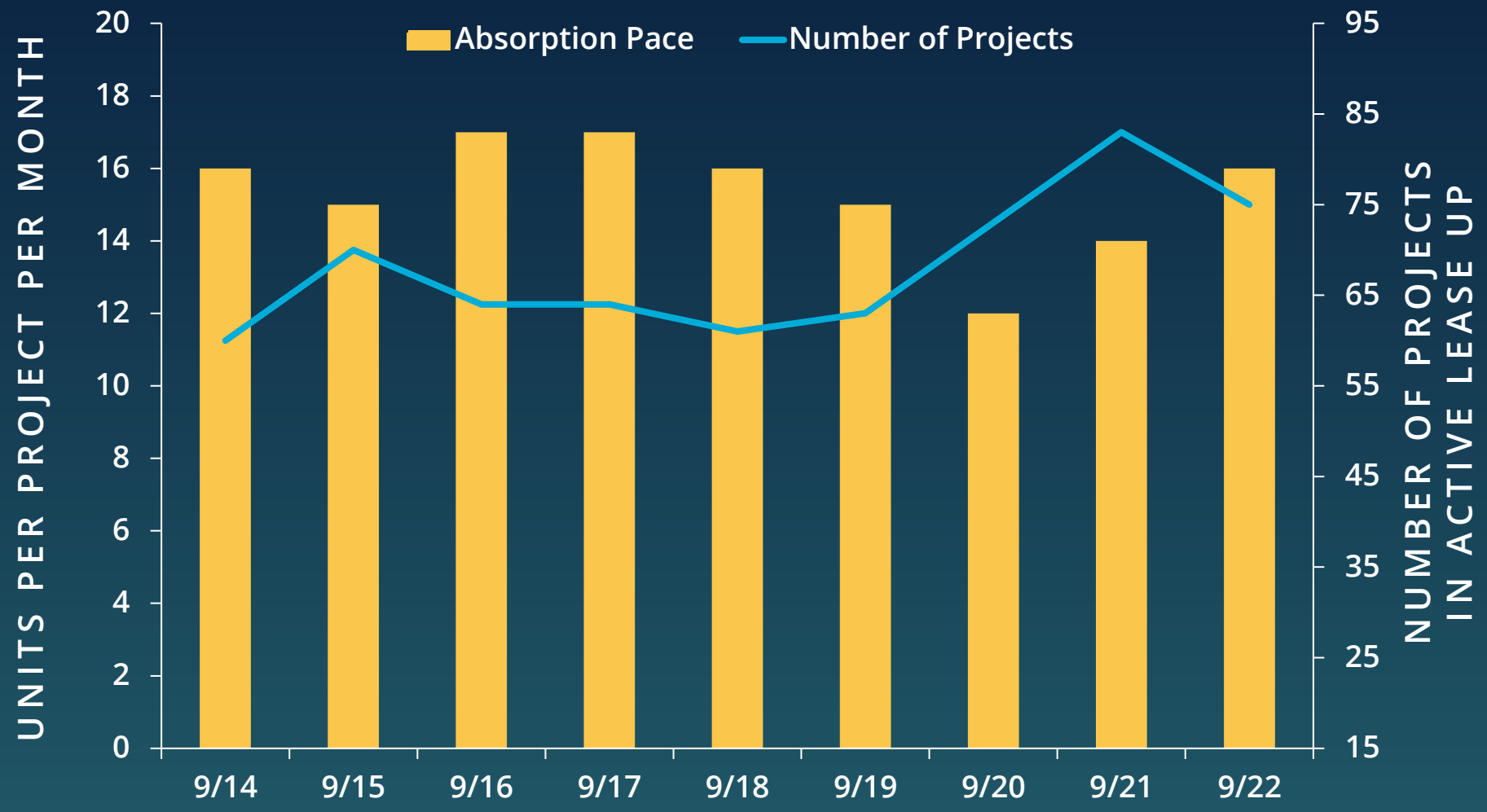


Source: Delta Associates; October 2022.

H= Mid/High-Rise L=Low-Rise

ABSORPTION PACE

Class A Projects in Initial Lease-Up | Washington Metro Area

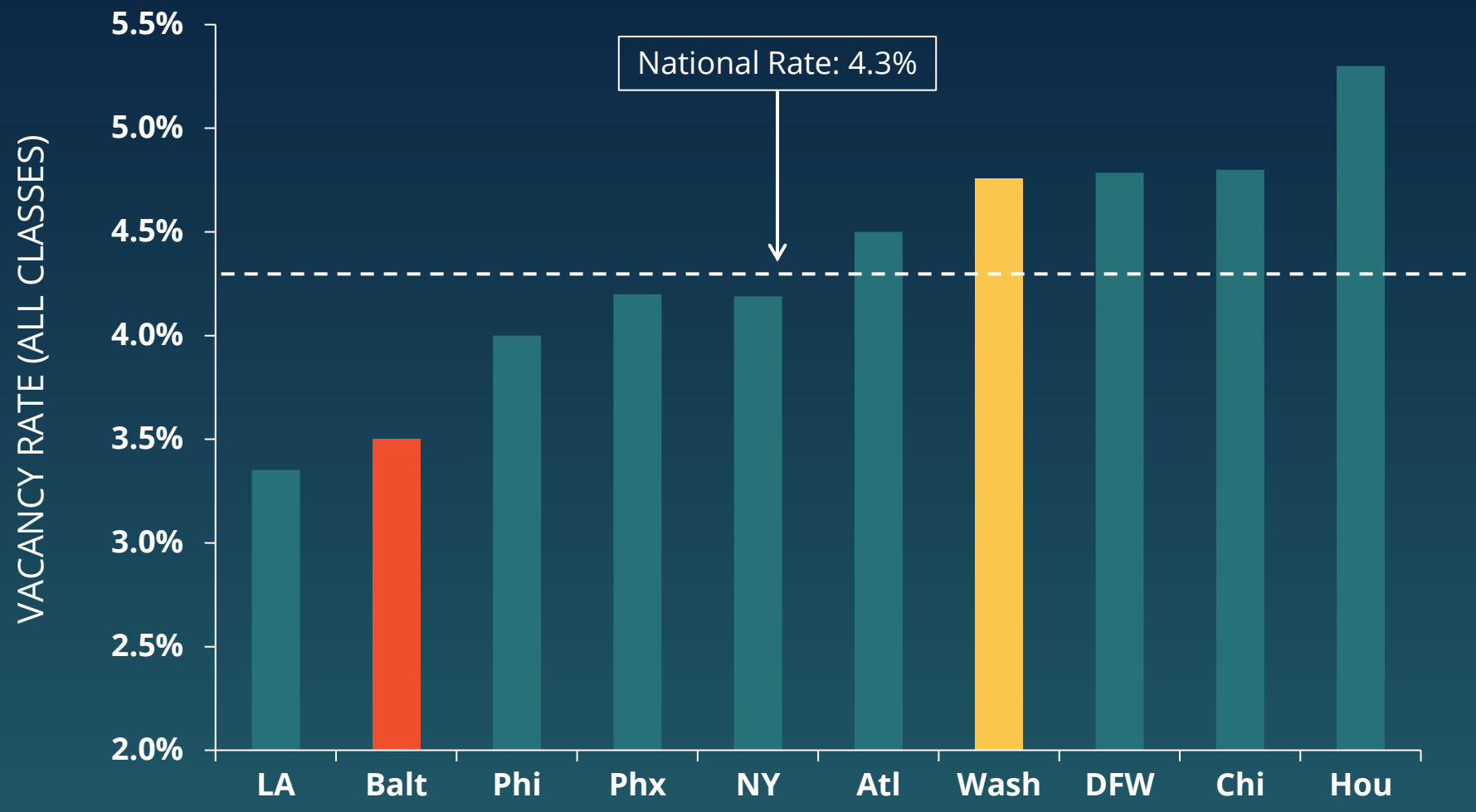


Source: Delta Associates; October 2022.

STABILIZED APARTMENT VACANCY RATES

Major Apartment Markets | Second Quarter 2022

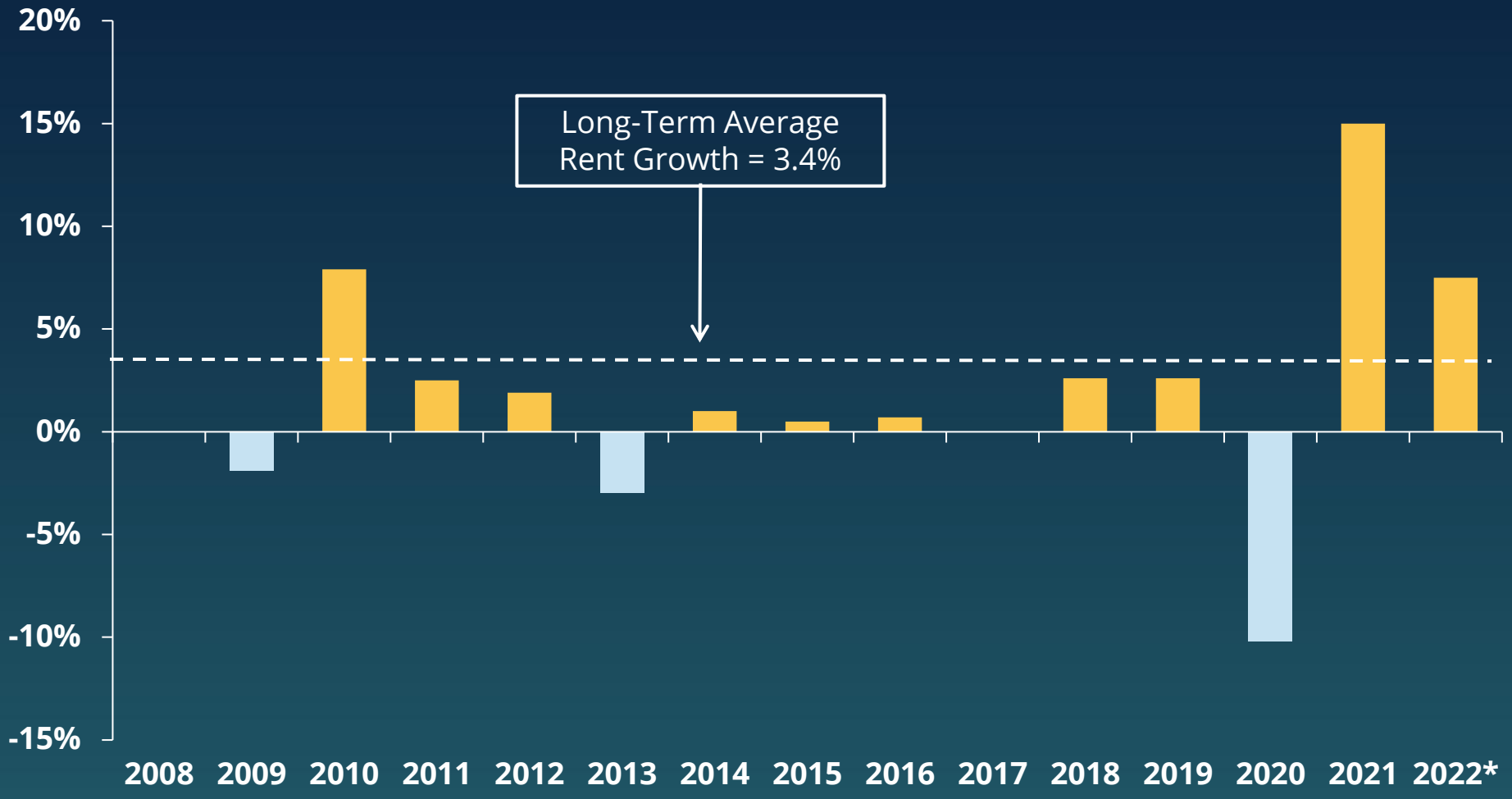
DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



Source: Reis, Delta Associates; October 2022.

ANNUAL EFFECTIVE RENT GROWTH

Class A Apartments| Washington Metro Area | 2008 - 2022

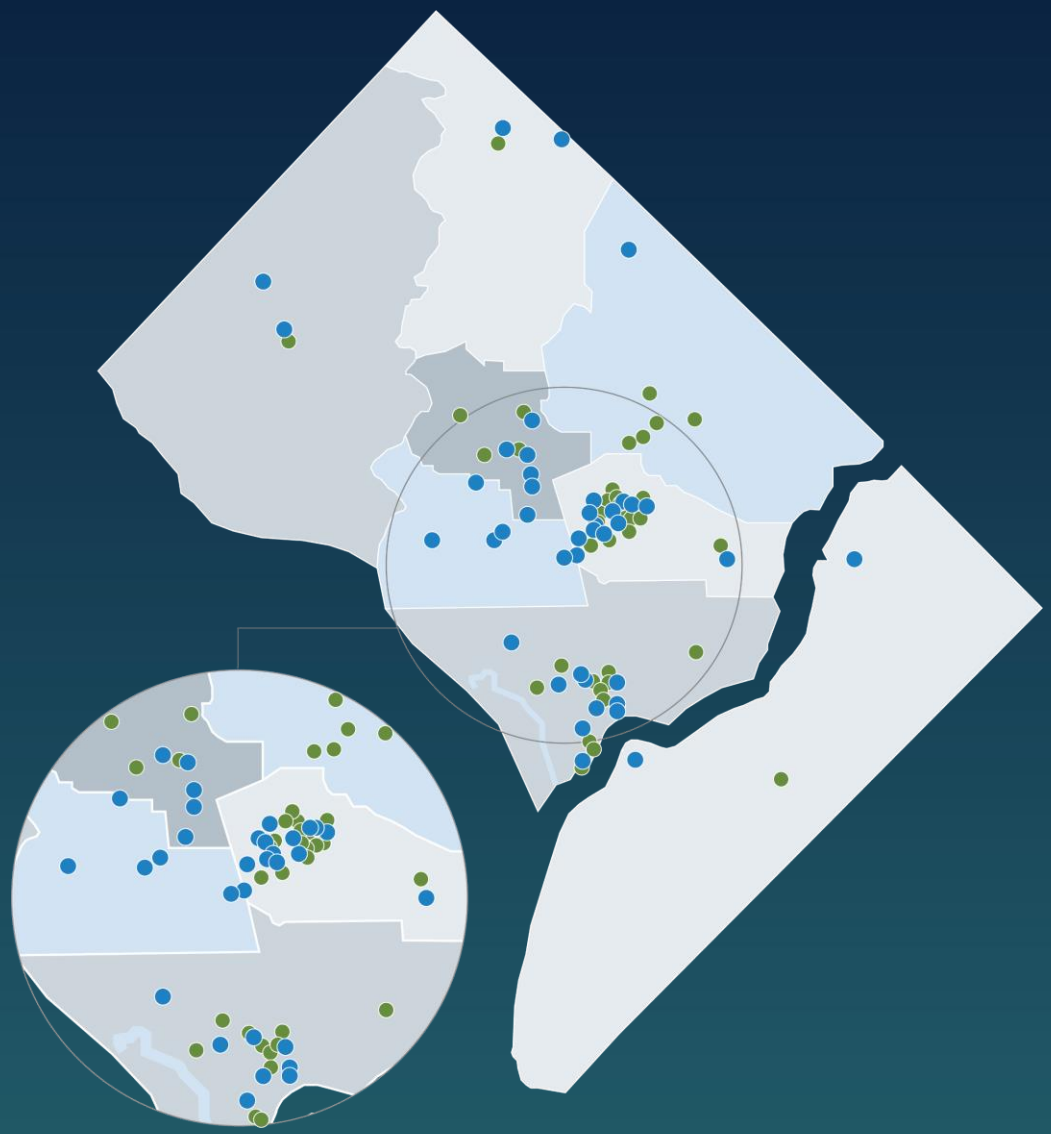


Source: Delta Associates; October 2022.

**12 months ending September 2022.*

PROJECTS CURRENTLY UNDER CONSTRUCTION

District of Columbia



In Lease-up

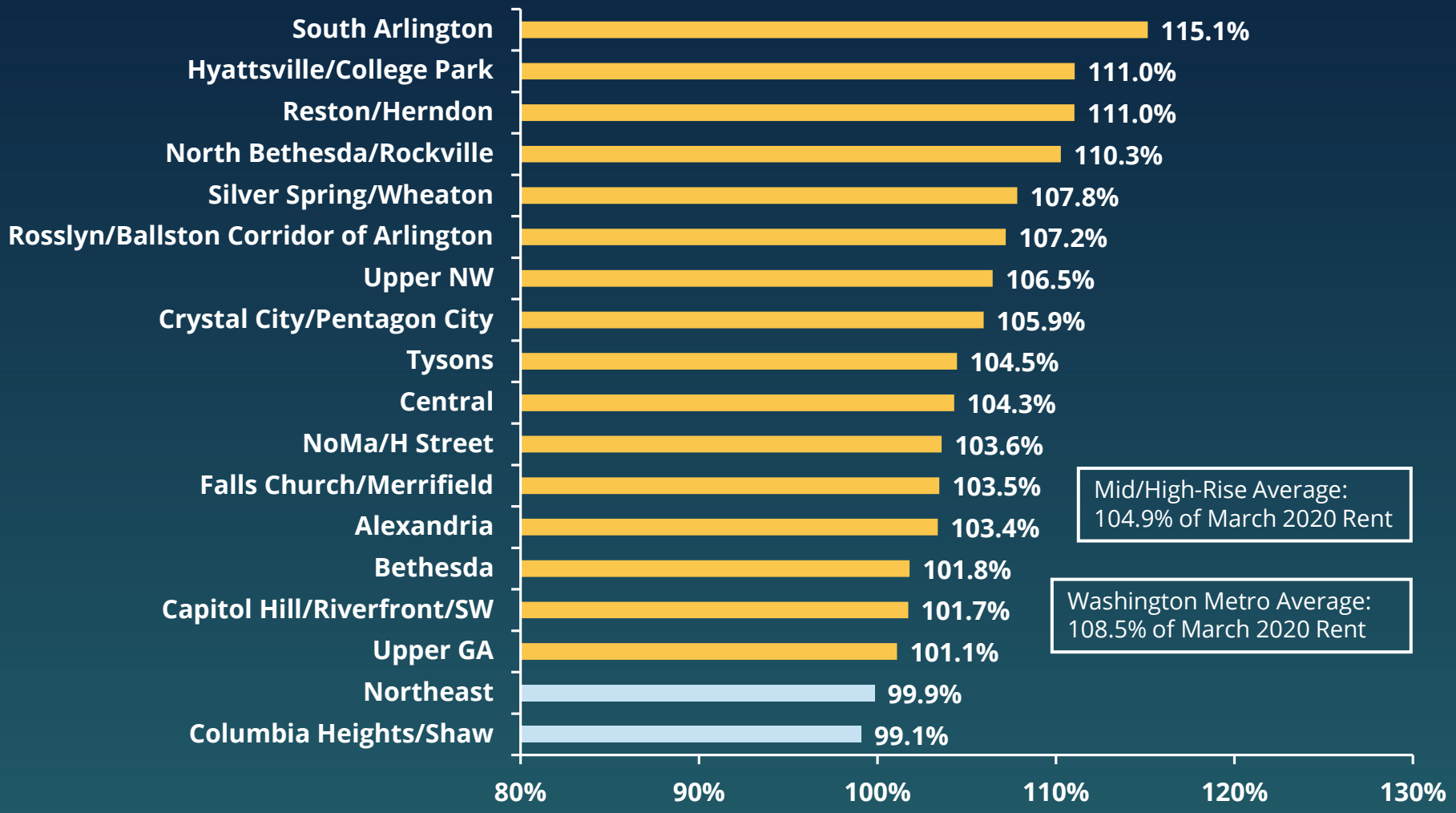
Not Yet Leasing

Source: Delta Associates; October 2022.

CLASS A APARTMENT RENT RECOVERY

Mid/High-Rise Submarkets | Q3 2022 Rent as a Percentage of March 2020 Rent

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



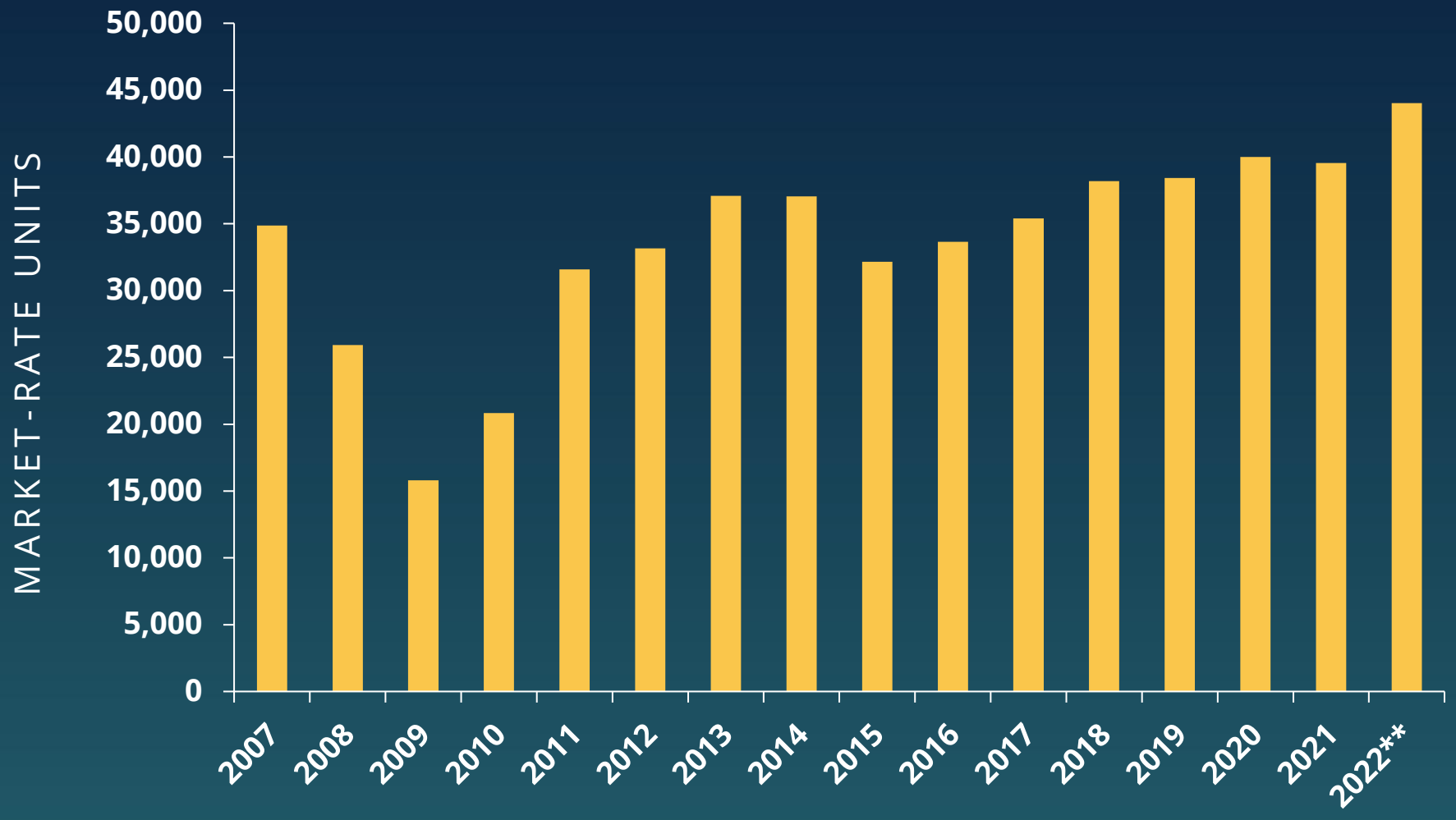
Source: Delta Associates; October 2022.

Note: Same-store rents from March 2020 to Q3 2022.

36-MONTH APARTMENT DEVELOPMENT PIPELINE*

Washington Metro Area | 2007 - 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

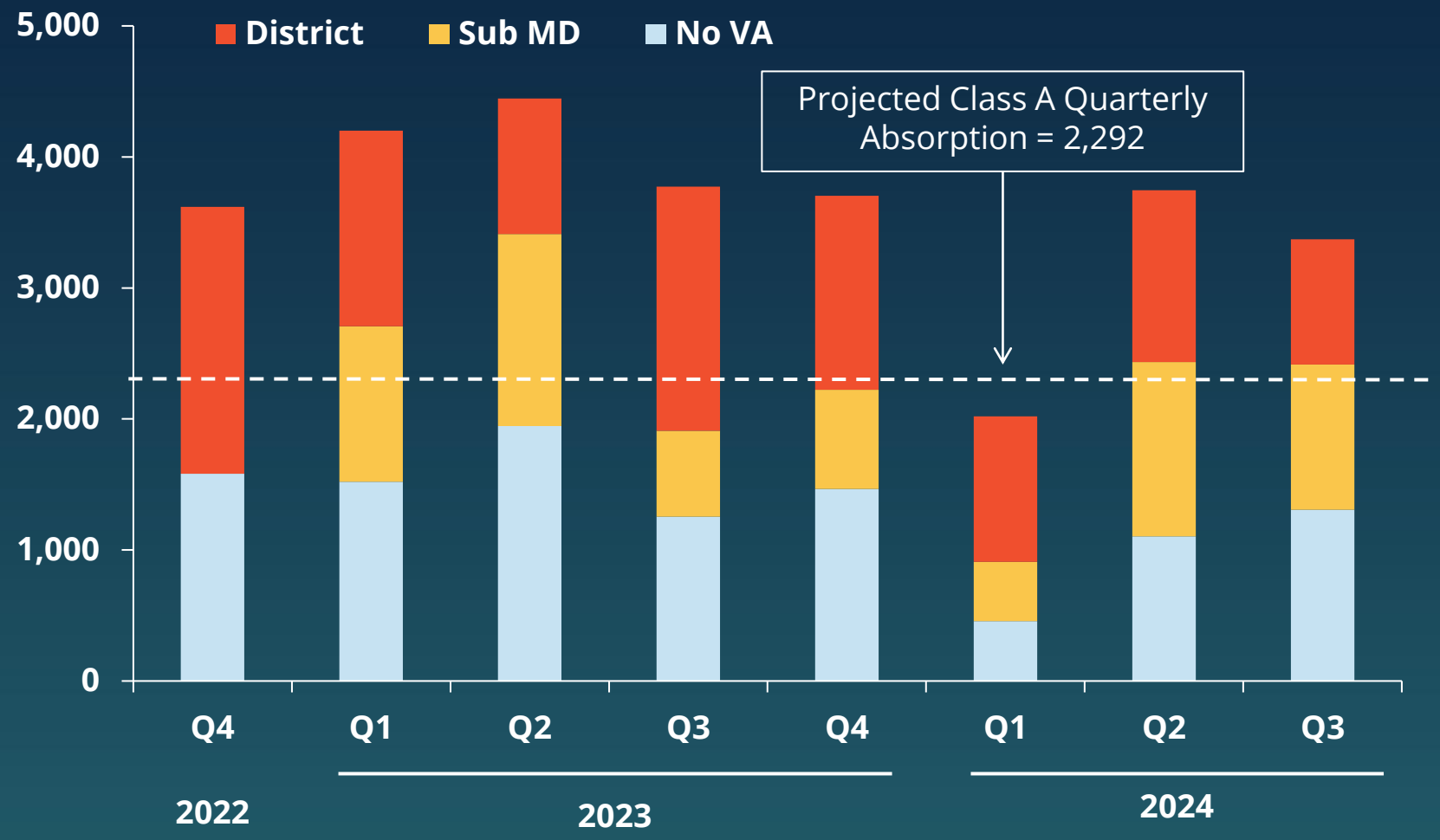


Source: Delta Associates; October 2022.

**Market-Rate Units Planned and Under Construction After Attrition.*
***As of Third Quarter.*

PROJECTED DELIVERIES

Washington Metro | 2022 – 2024

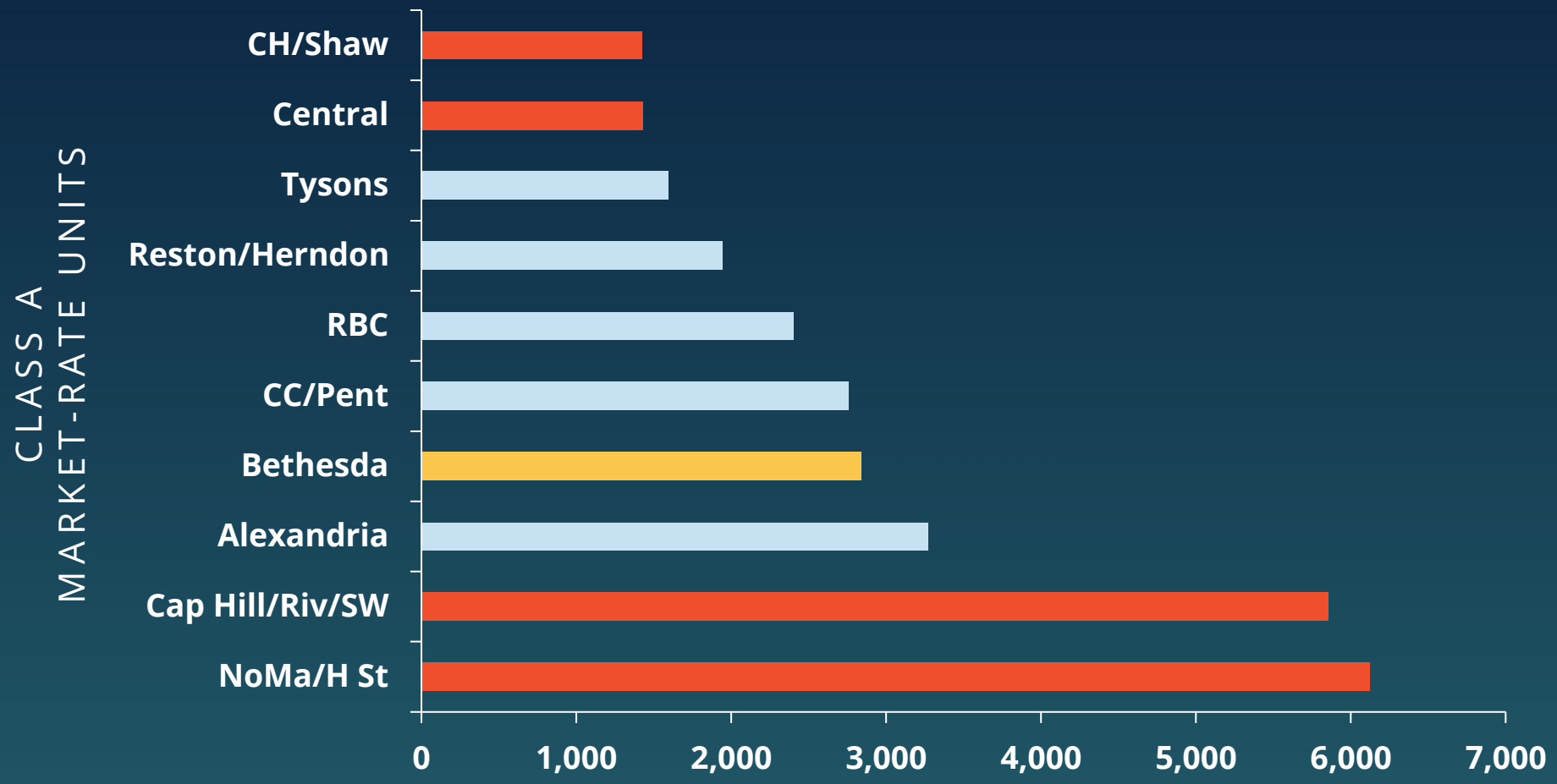


Source: Delta Associates; October 2022.

36-MONTH APARTMENT DEVELOPMENT PIPELINE

Top 10 HR Submarkets in Washington Metro Area | Third Quarter 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

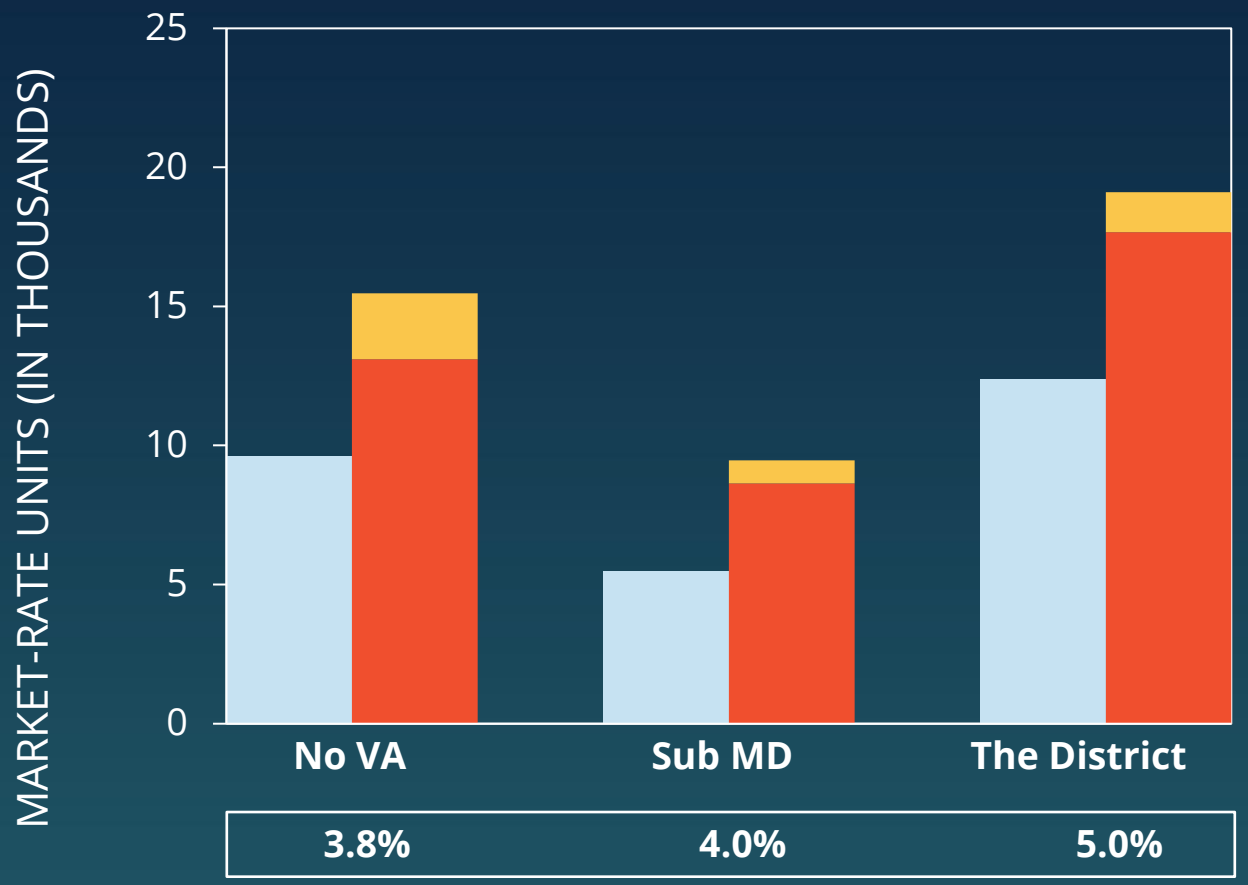


Source: Delta Associates; October 2022.

DEMAND AND SUPPLY PROJECTIONS

Washington Metro Class A Apartment Market | 36 Mo. Ending September 2025

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



Projected Stabilized Vacancy % at September 2025

Projected Metro Average = 4.2%

DEMAND

Net Absorption: 9,167/Year = 27,500

SUPPLY [1]

Planned and may deliver by 9/25: 4,625 units

Under construction supply: 39,409 units [2]

Total = 44,034 units

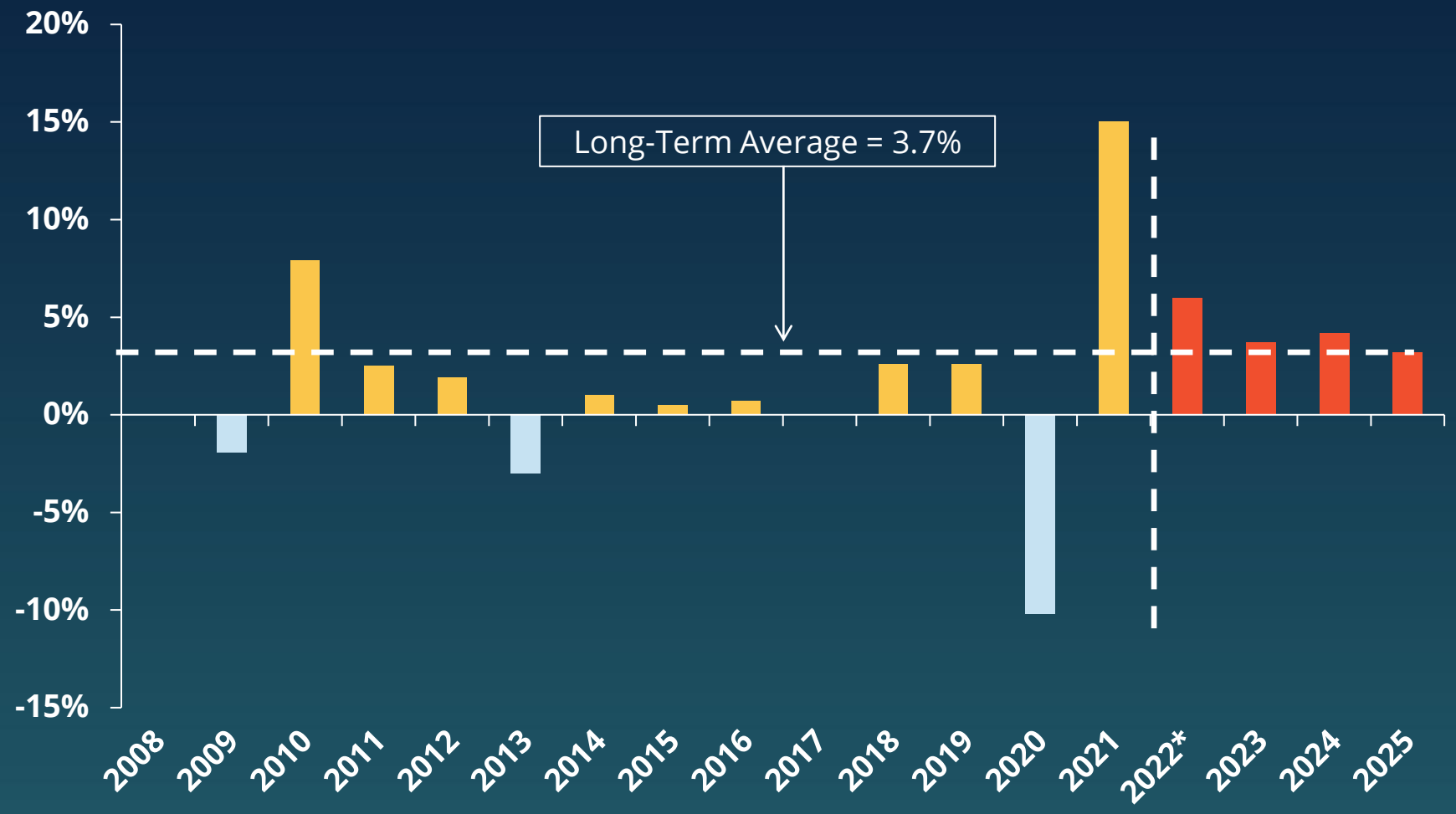
[1] Probable supply after projected attrition.
[2] Includes unleased units at projects in lease-up.

Source: Delta Associates; October 2022.

ANNUAL CLASS A APARTMENT RENT GROWTH

Class A Apartments | Washington Metro Area | 2008 - 2025

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



Source: Delta Associates; October 2022.

**Annual rent increase of 7.5% as of Q3 2022.*

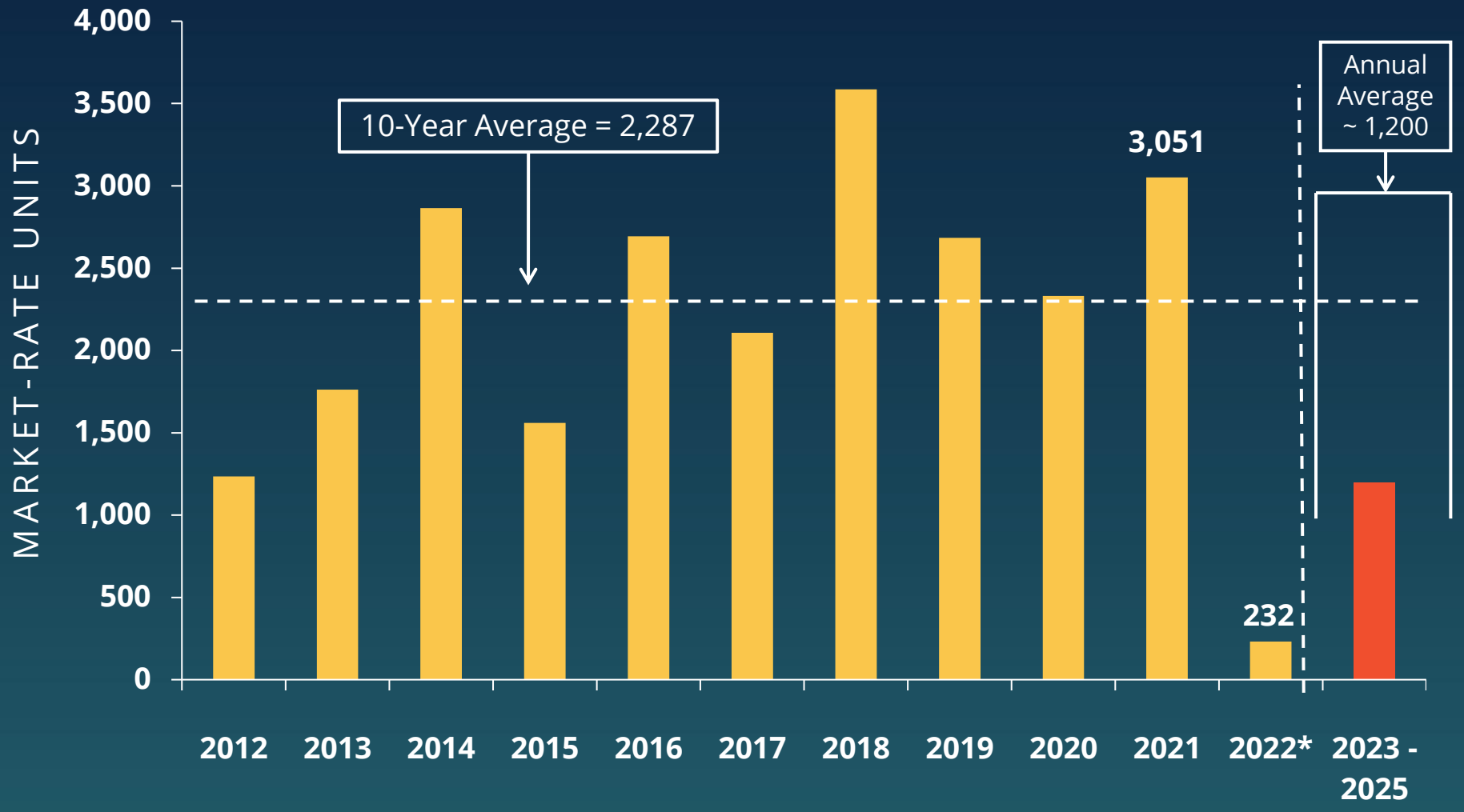
THE BALTIMORE METRO AREA

APARTMENT MARKET

CLASS A APARTMENT ABSORPTION

Class A Apartments | Baltimore Metro | 2012 - 2025

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



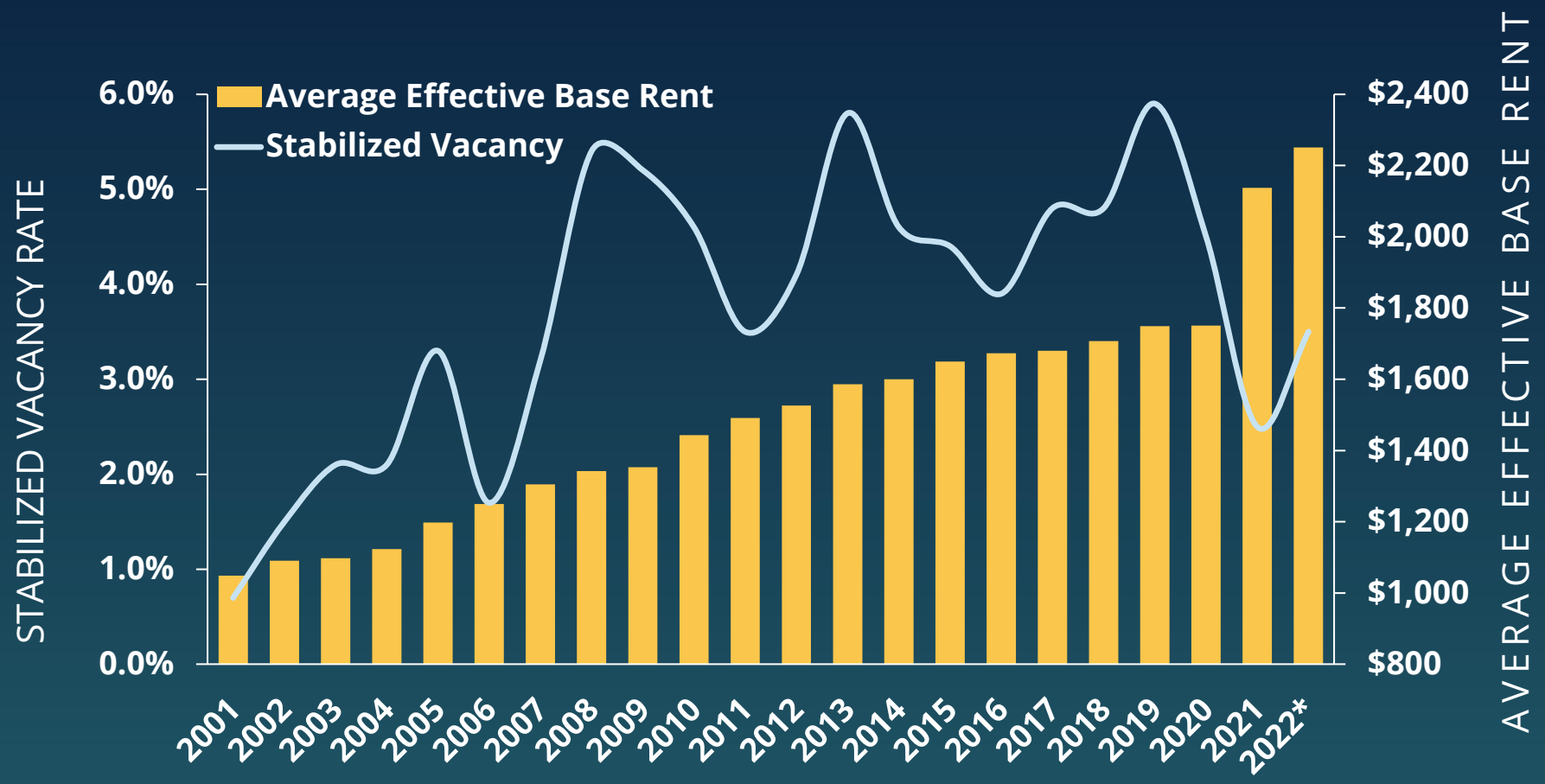
Source: Delta Associates; October 2022.

**12 months ending September 2022.*

EFFECTIVE RENT AND VACANCY RATE

Class A Apartments | Baltimore Metro | 2001 - 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



3.2% / YEAR
LONG-TERM RENT GROWTH

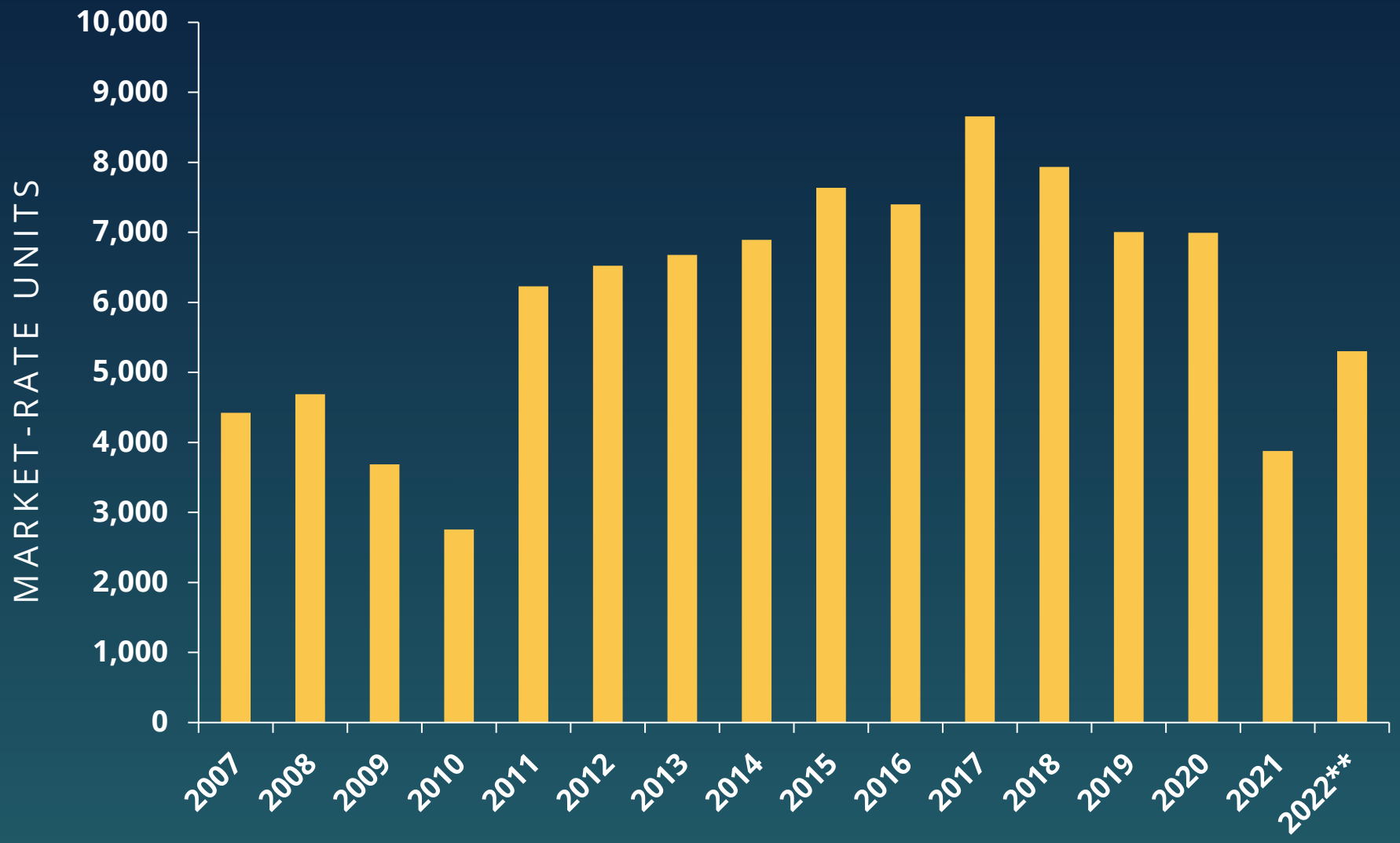
Source: Delta Associates; October 2022.

**As of Third Quarter.*

36-MONTH APARTMENT DEVELOPMENT PIPELINE*

Baltimore Metro Area | 2007 - 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



Source: Delta Associates; October 2022.

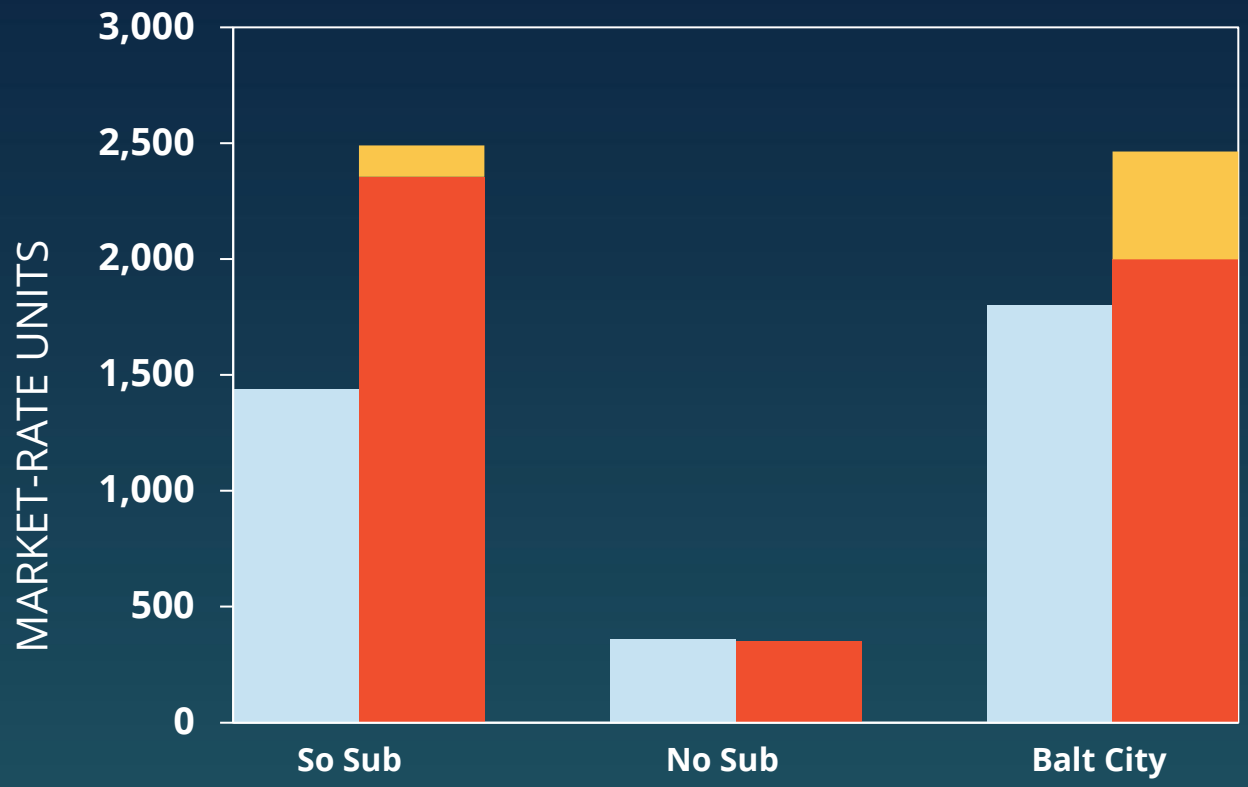
**Market-Rate Units Planned and Under Construction After Attrition.*

***As of Third Quarter.*

DEMAND AND SUPPLY PROJECTIONS

Baltimore Metro Class A Apartment Market | 36 Mo. Ending September 2025

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



So Sub	No Sub	Balt City
4.0%	1.9%	4.2%

Projected Stabilized Vacancy % at September 2025

Projected Metro Average = 3.5%

DEMAND

Net Absorption: 1,200/Year = 3,600

SUPPLY [1]

Planned and may deliver by 9/25: 600 units

Under construction supply: 4,704 units [2]

Total = 5,304 units

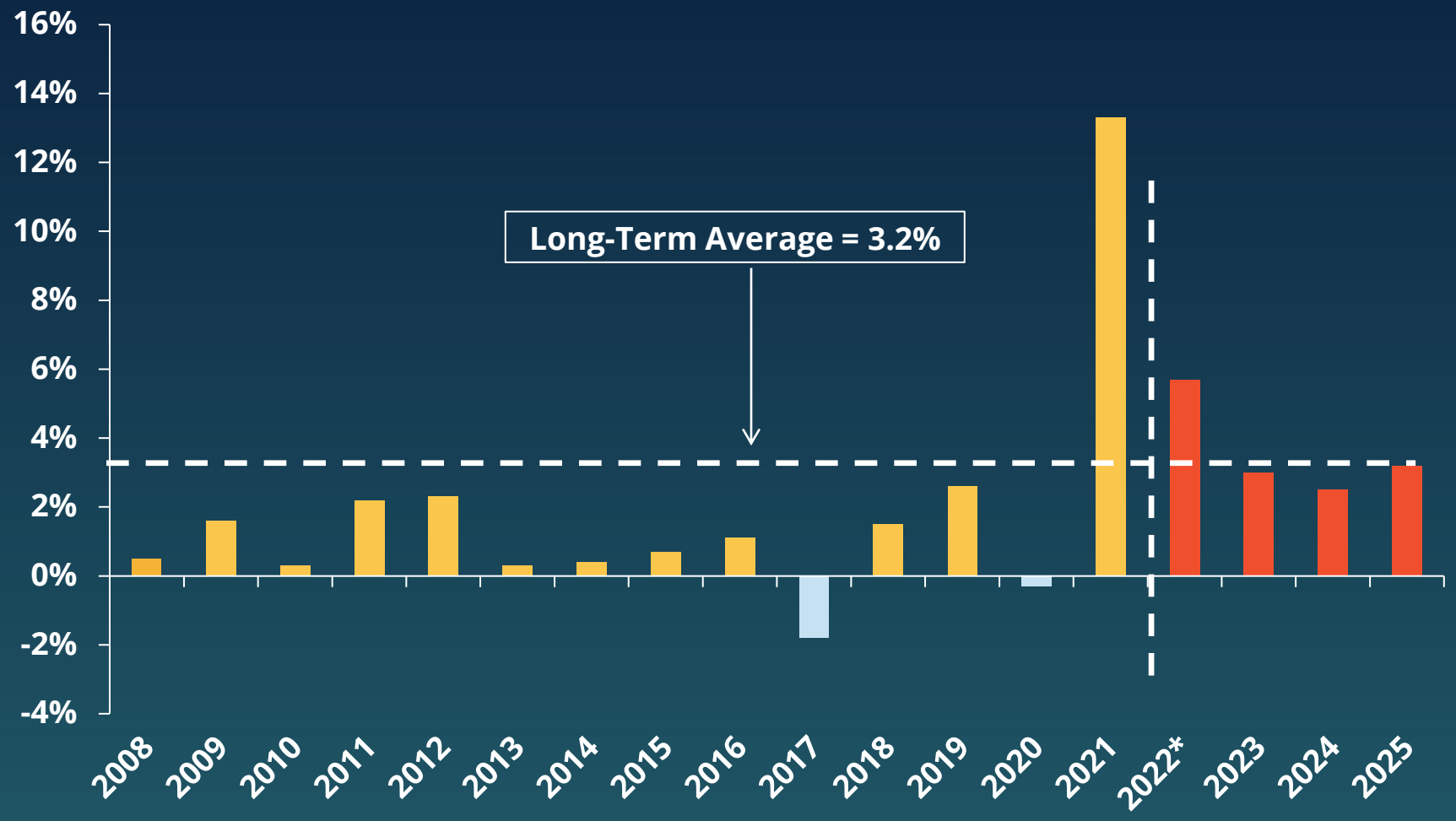
[1] Probable supply after projected attrition.
[2] Includes unleased units at projects in lease-up.

Source: Delta Associates; October 2022.

ANNUAL CLASS A APARTMENT RENT GROWTH

Class A Apartments | Baltimore Metro Area | 2008 - 2025

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



Source: Delta Associates; October 2022.

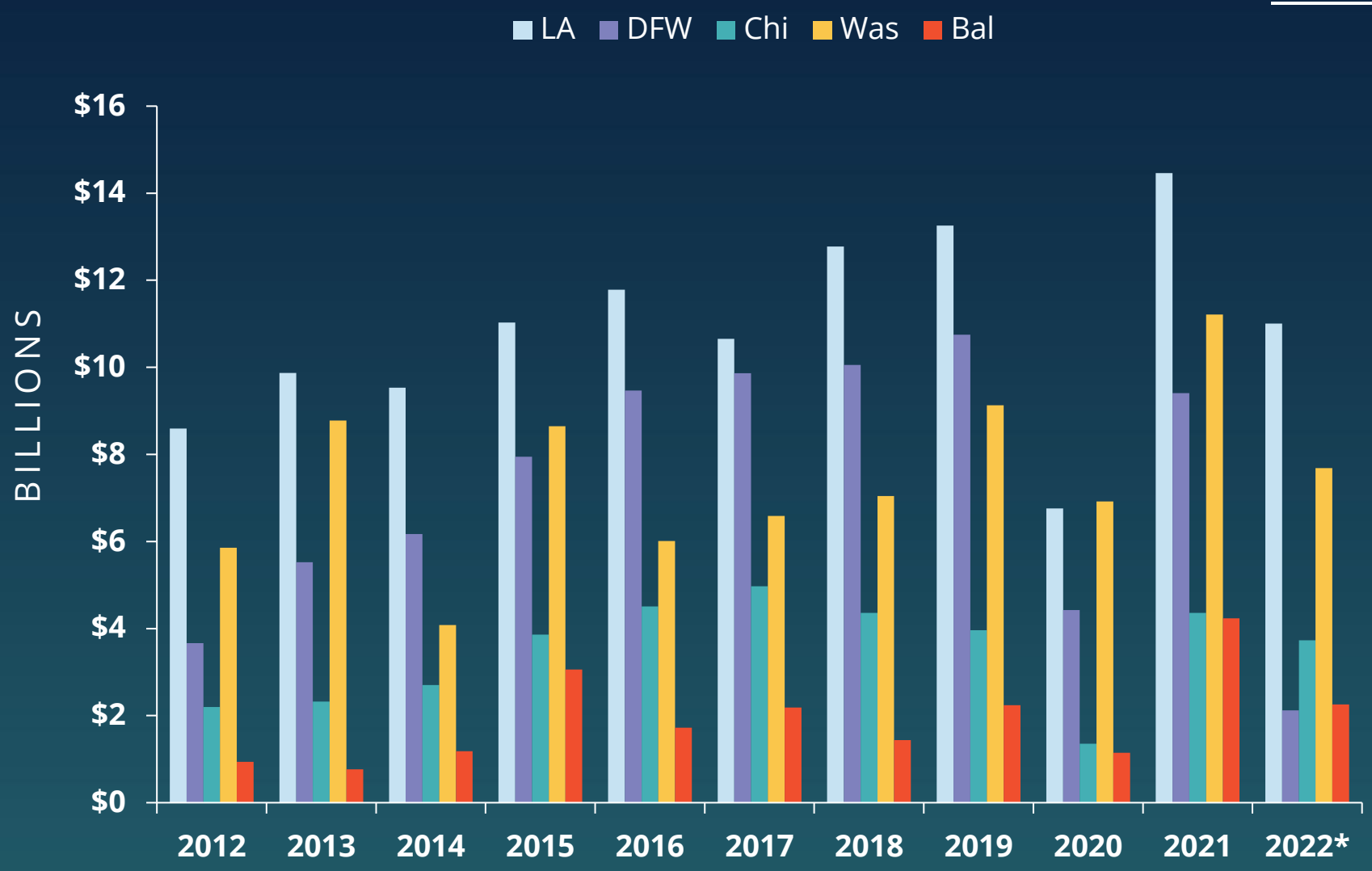
**Annual rent increase of 5.7% as of Q3 2022.*

THE WASHINGTON/ BALTIMORE AREA

CAPITAL MARKETS

APARTMENT INVESTMENT SALES

Selected Metro Areas | 2012 - 2022



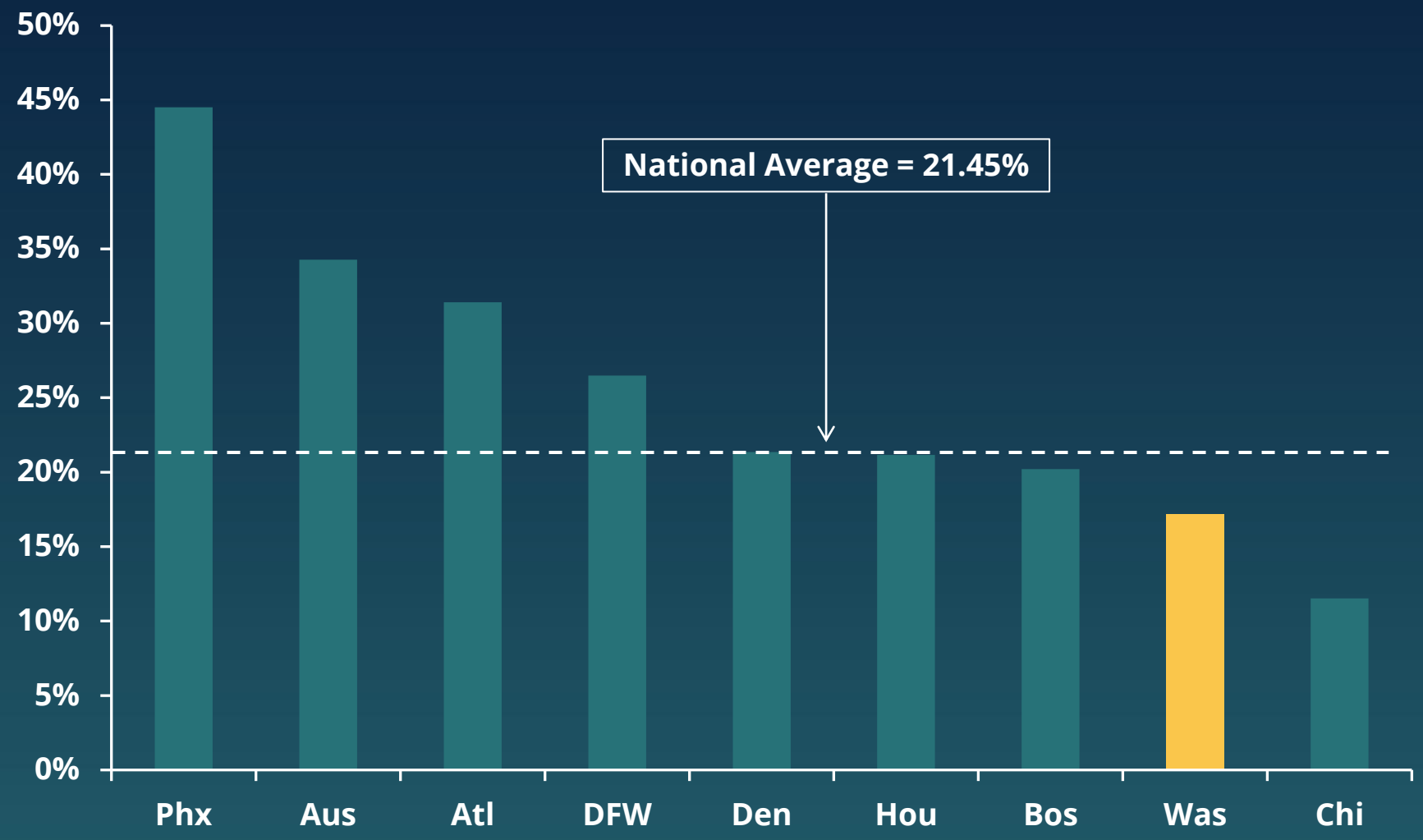
Source: Real Capital Analytics, Delta Associates; October 2022.

**Sales through September annualized.*

NCREIF RETURN INDEX FOR INVESTMENT-GRADE APARTMENTS

Selected Large Metro Areas | 12 Months Ending June 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

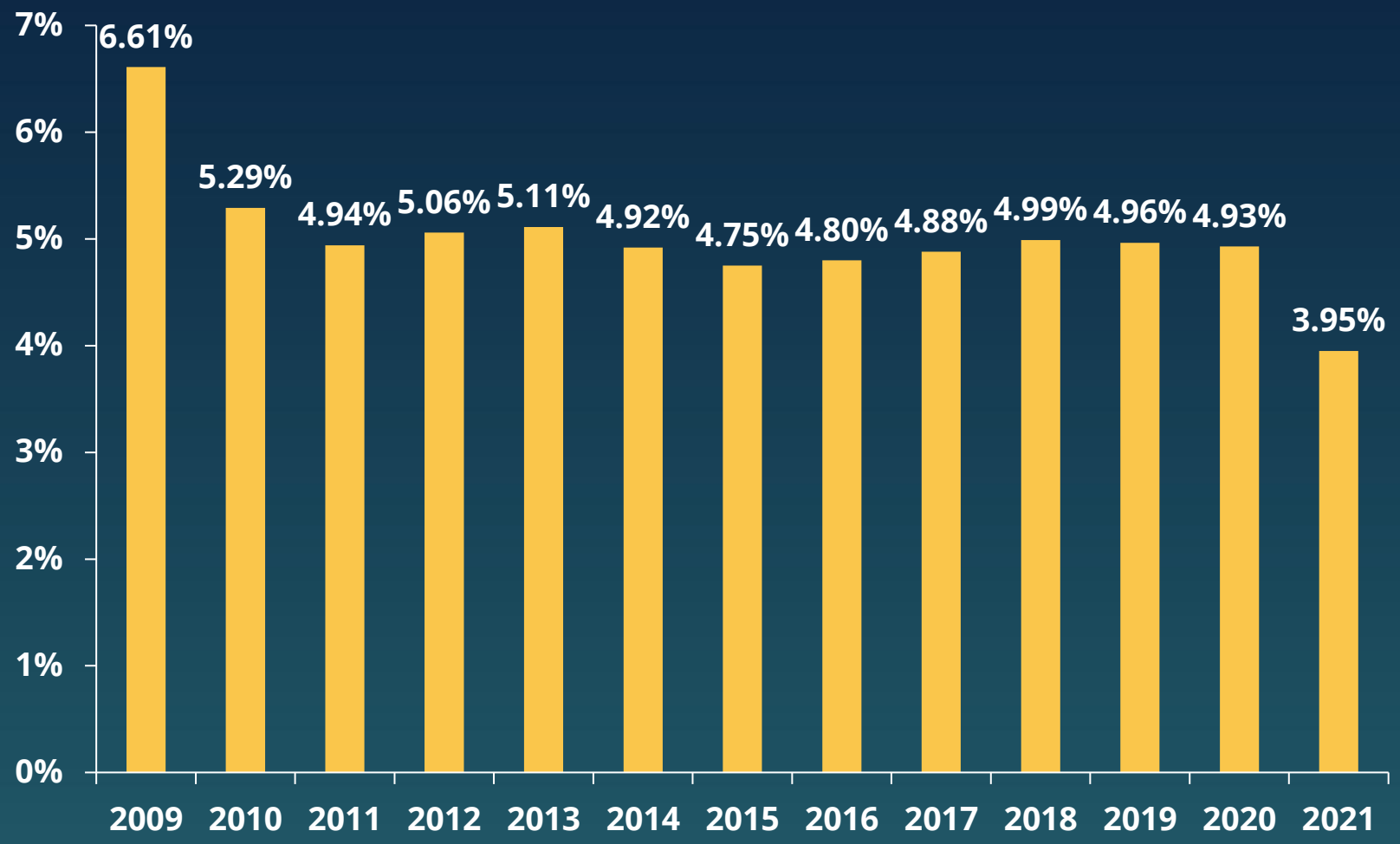


Source: NCREIF, Delta Associates; October 2022.

CLASS A HIGH-RISE APARTMENT CAP RATES

Washington Metro Area | 2009 - 2021

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



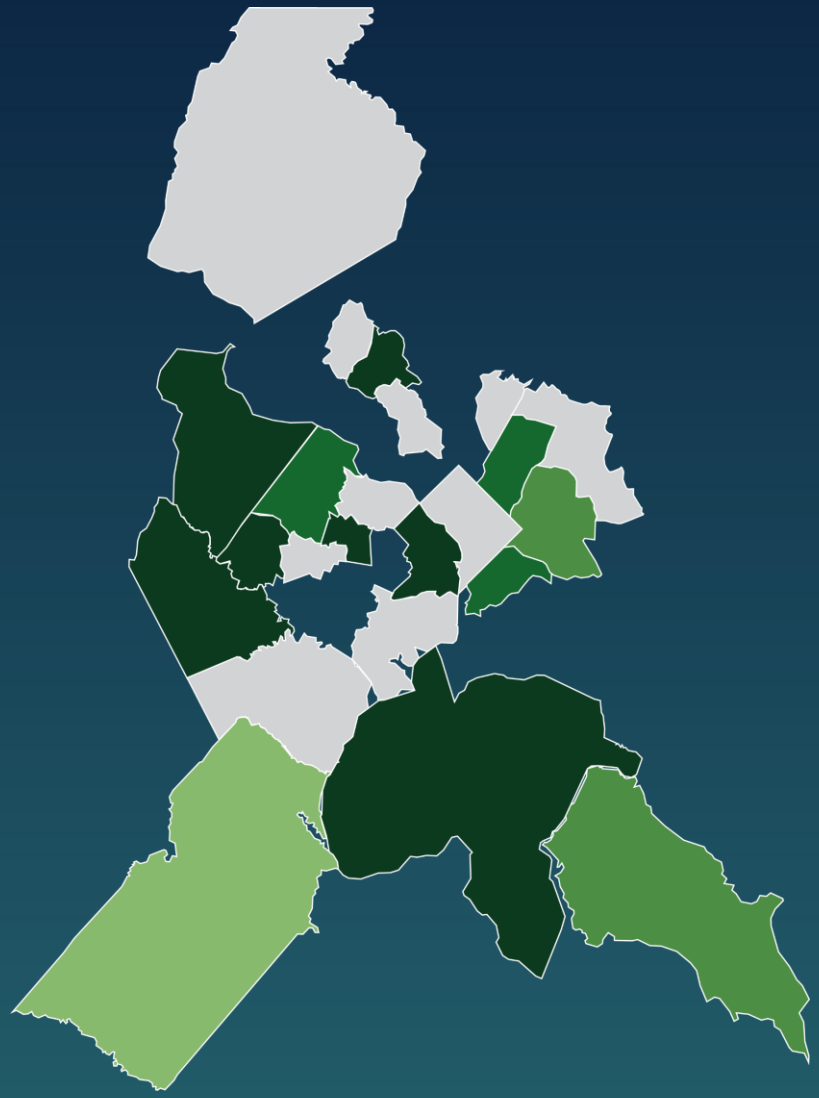
Source: Delta Associates Market Maker Survey; October 2022.

THE WASHINGTON/ BALTIMORE AREA APARTMENT MARKET TAKEAWAYS

YEARS OF SUPPLY

Low-Rise Class A Submarkets | Washington Metro Area

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



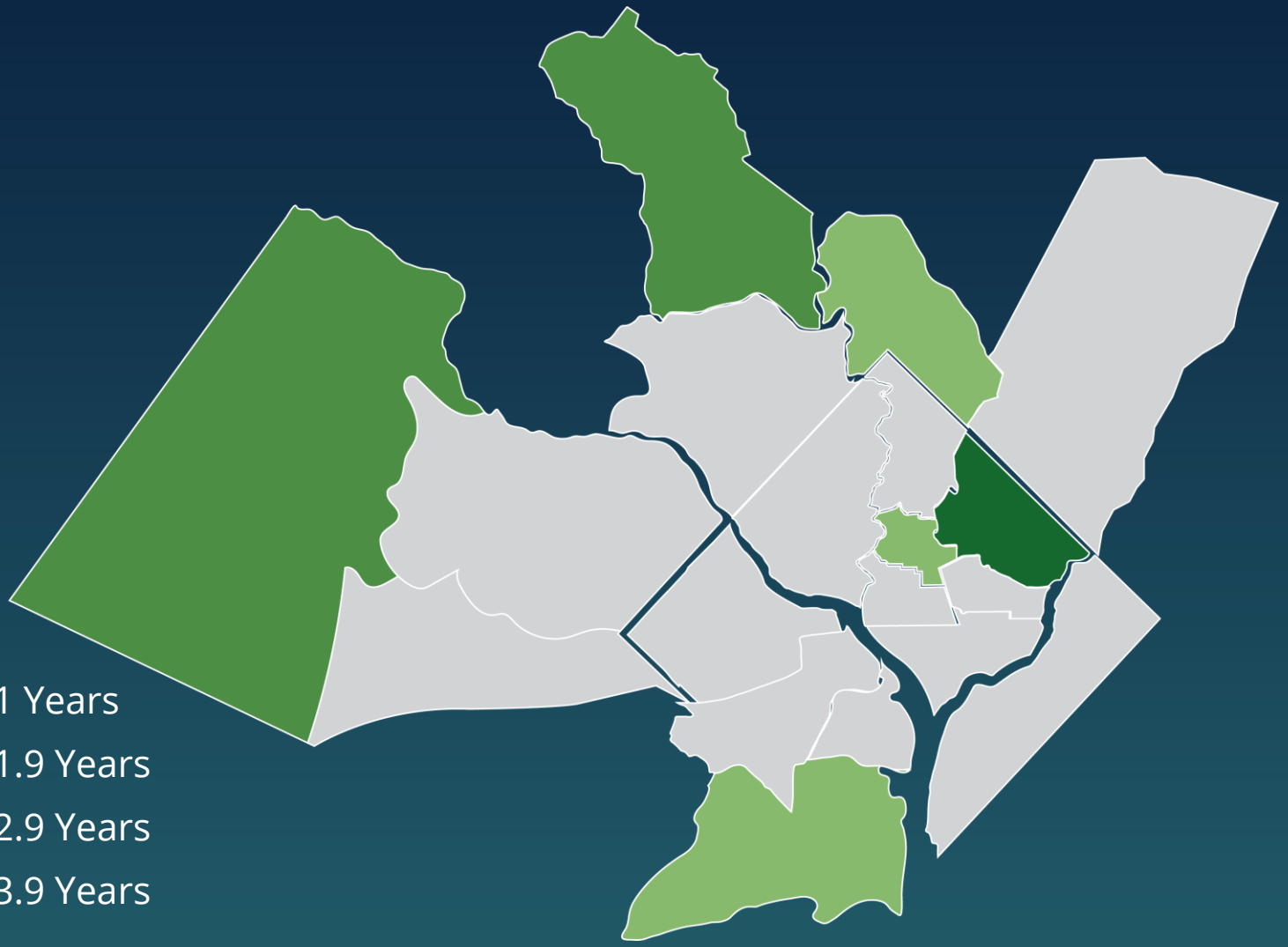
- 0 – 1 Years
- 1 – 1.9 Years
- 2 – 2.9 Years
- 3 – 3.9 Years

Source: Delta Associates; October 2022.

YEARS OF SUPPLY

High-Rise Class A Submarkets | Washington Metro Area

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



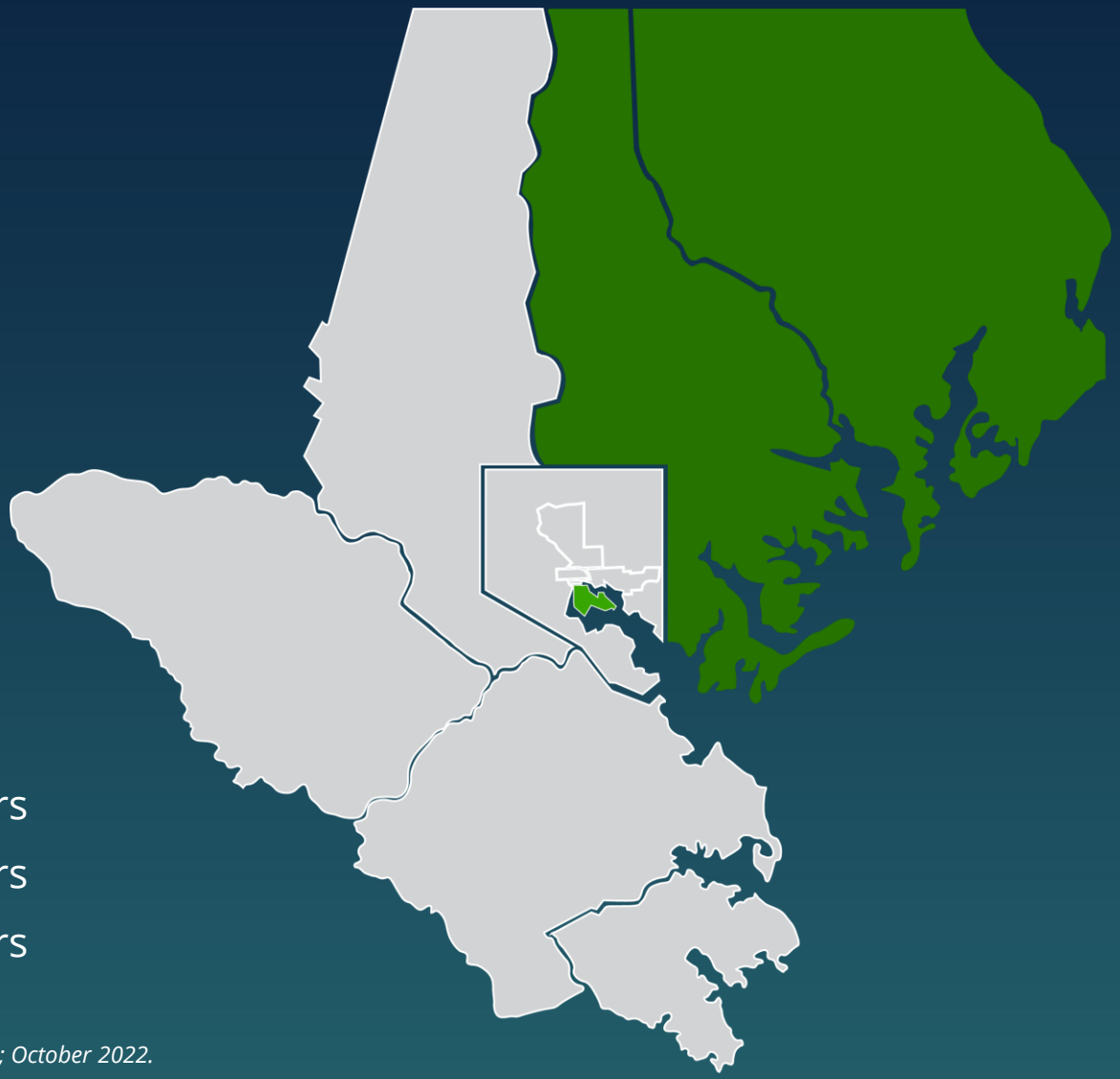
- 0 – 1 Years
- 1 – 1.9 Years
- 2 – 2.9 Years
- 3 – 3.9 Years

Source: Delta Associates; October 2022.

YEARS OF SUPPLY

Class A Submarkets | Baltimore Metro Area

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



- 0 – 1 Years
- 1 – 1.9 Years
- 2 – 2.9 Years
- 3 – 3.9 Years

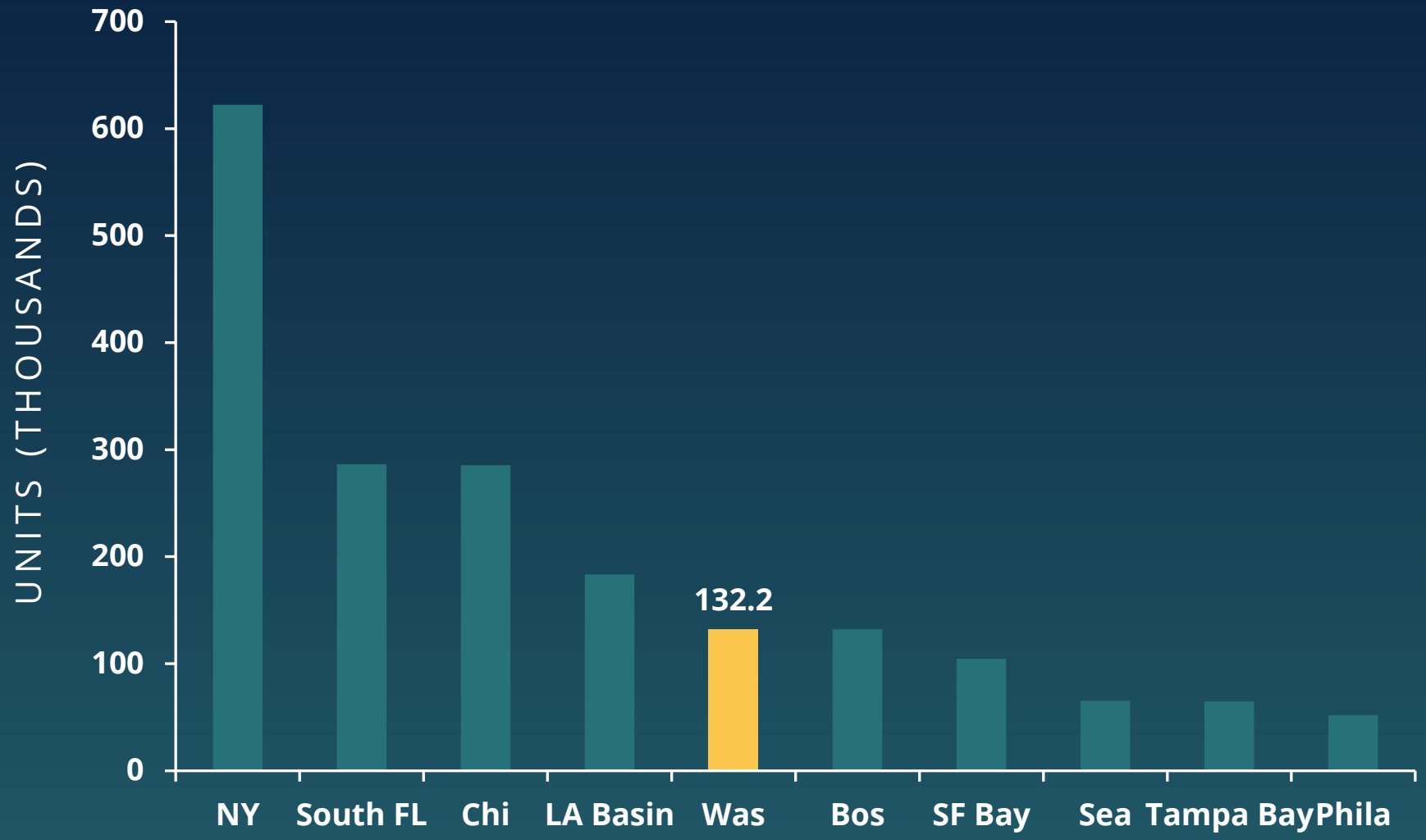
Source: Delta Associates; October 2022.

THE WASHINGTON METRO AREA

CONDOMINIUM MARKET

LARGEST CONDOMINIUM MARKETS

Selected Metro Areas | 2020

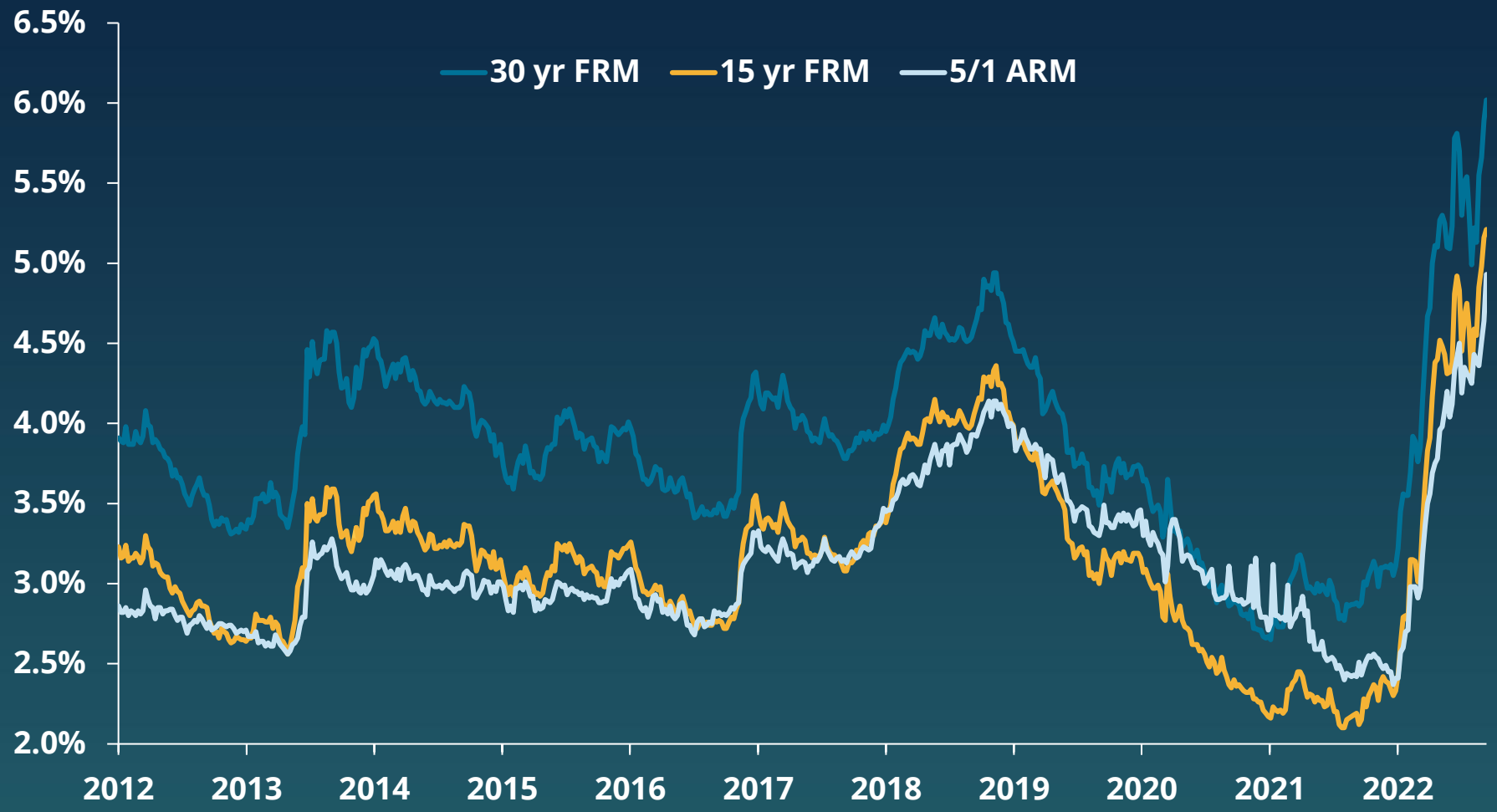


Source: U.S. Census Bureau, Delta Associates; October 2022.

PRIMARY MORTGAGE INTEREST RATES

National Market Survey | 2012 – 2022*

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



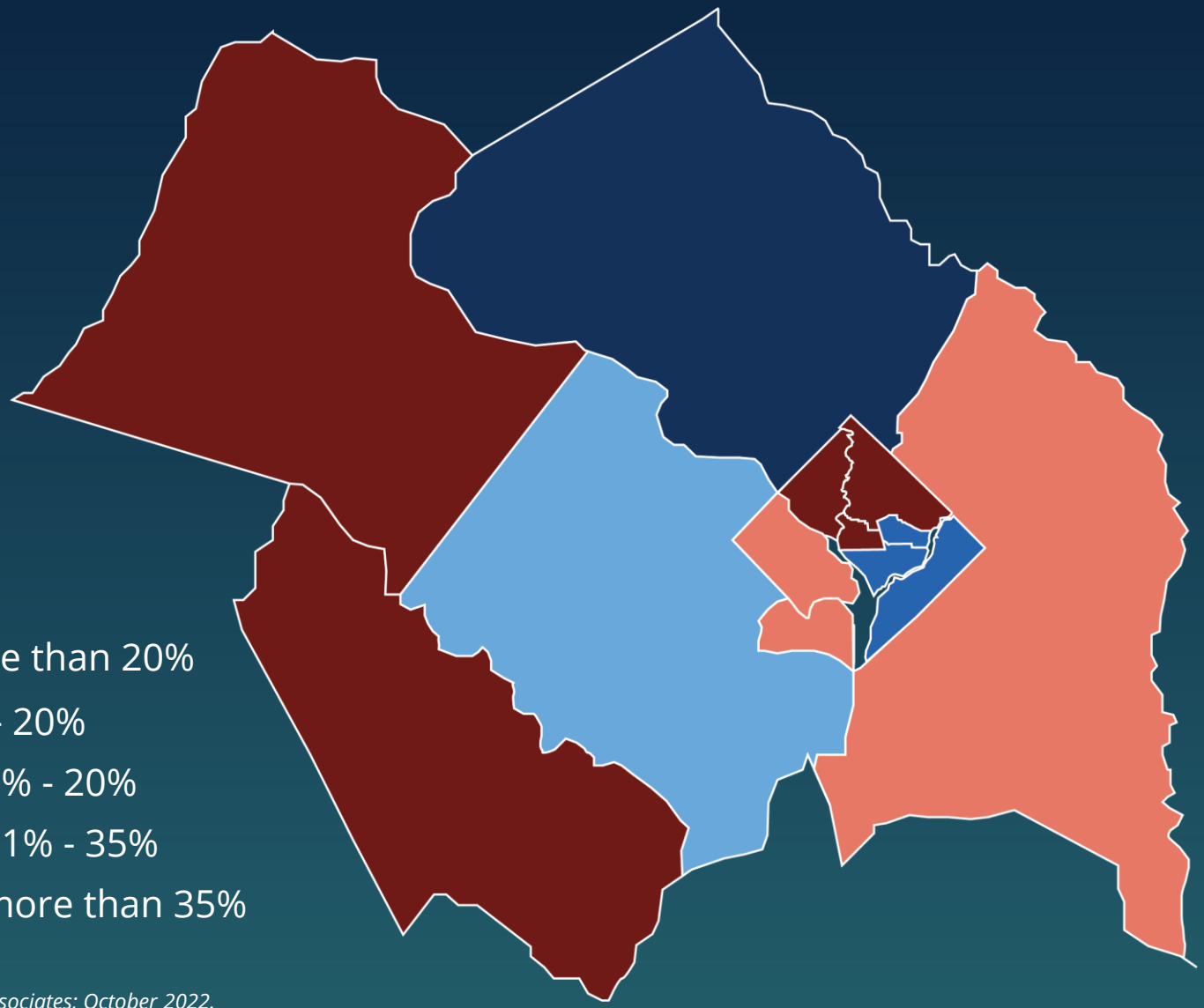
Source: Freddie Mac, Delta Associates; October 2022.

**As of September 2022.*

CONDOMINIUM SALES ACTIVITY

Washington Metro Area | 12 Mo. Ending Sept. 2022 Compared to Prior Year

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



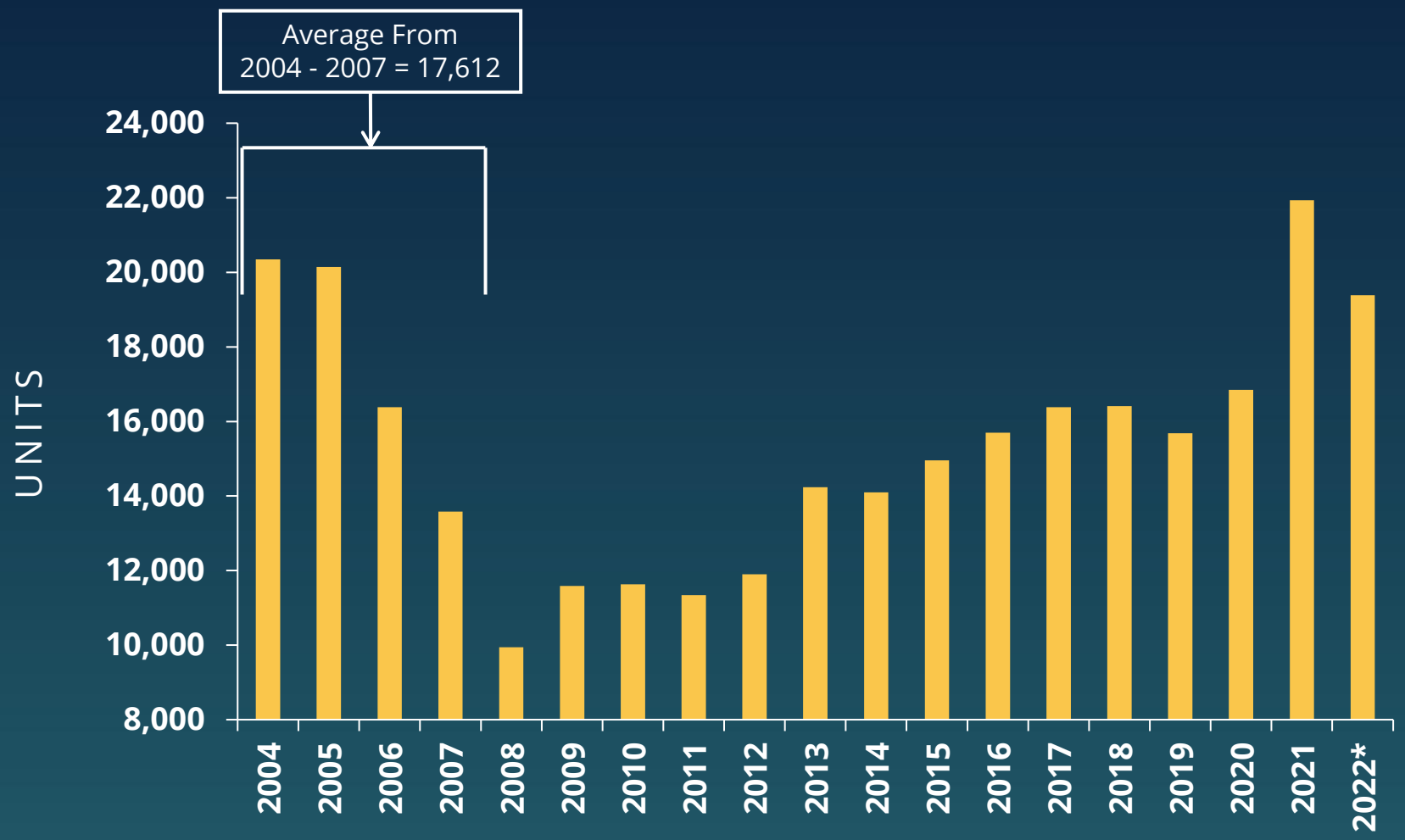
- Up more than 20%
- Up 0% - 20%
- Down 1% - 20%
- Down 21% - 35%
- Down more than 35%

Source: Delta Associates; October 2022.

ANNUAL CONDOMINIUM RESALES

Washington Metro Area | 2004 - 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



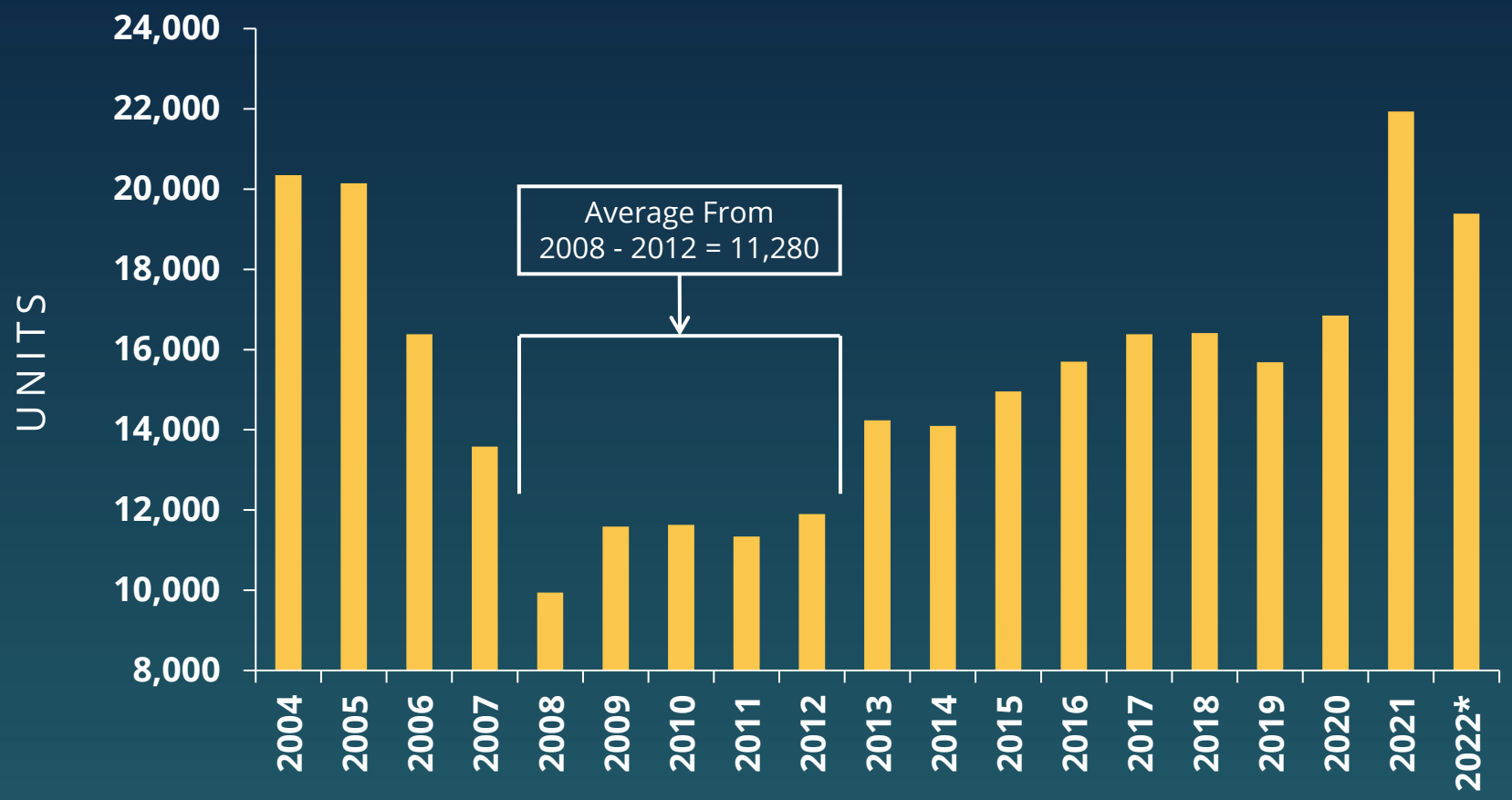
Source: Bright MLS, Delta Associates; October 2022.

**12 months ending August 2022.*

ANNUAL CONDOMINIUM RESALES

Washington Metro Area | 2004 - 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



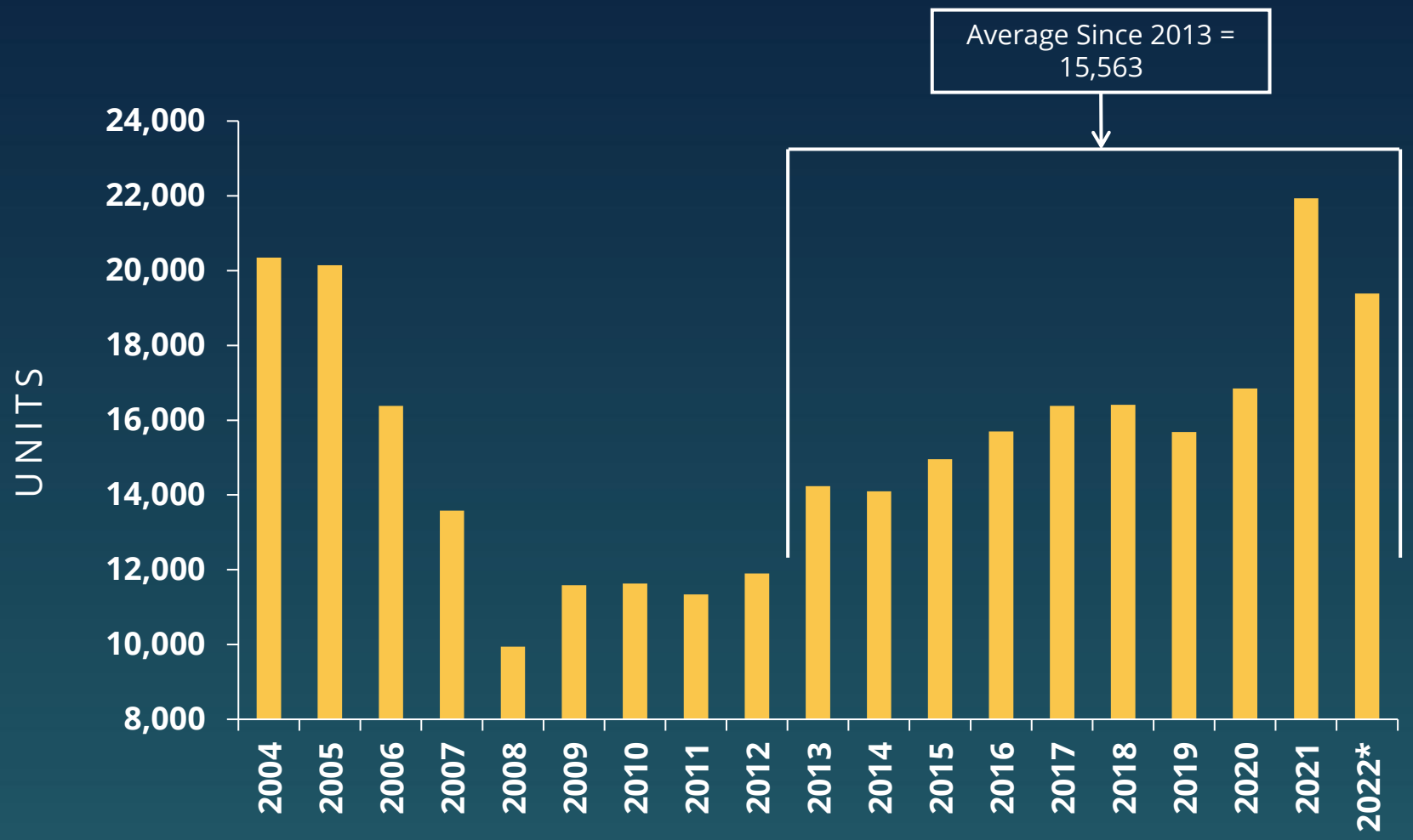
Source: Bright MLS, Delta Associates; October 2022.

**12 months ending August 2022.*

ANNUAL CONDOMINIUM RESALES

Washington Metro Area | 2004 - 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



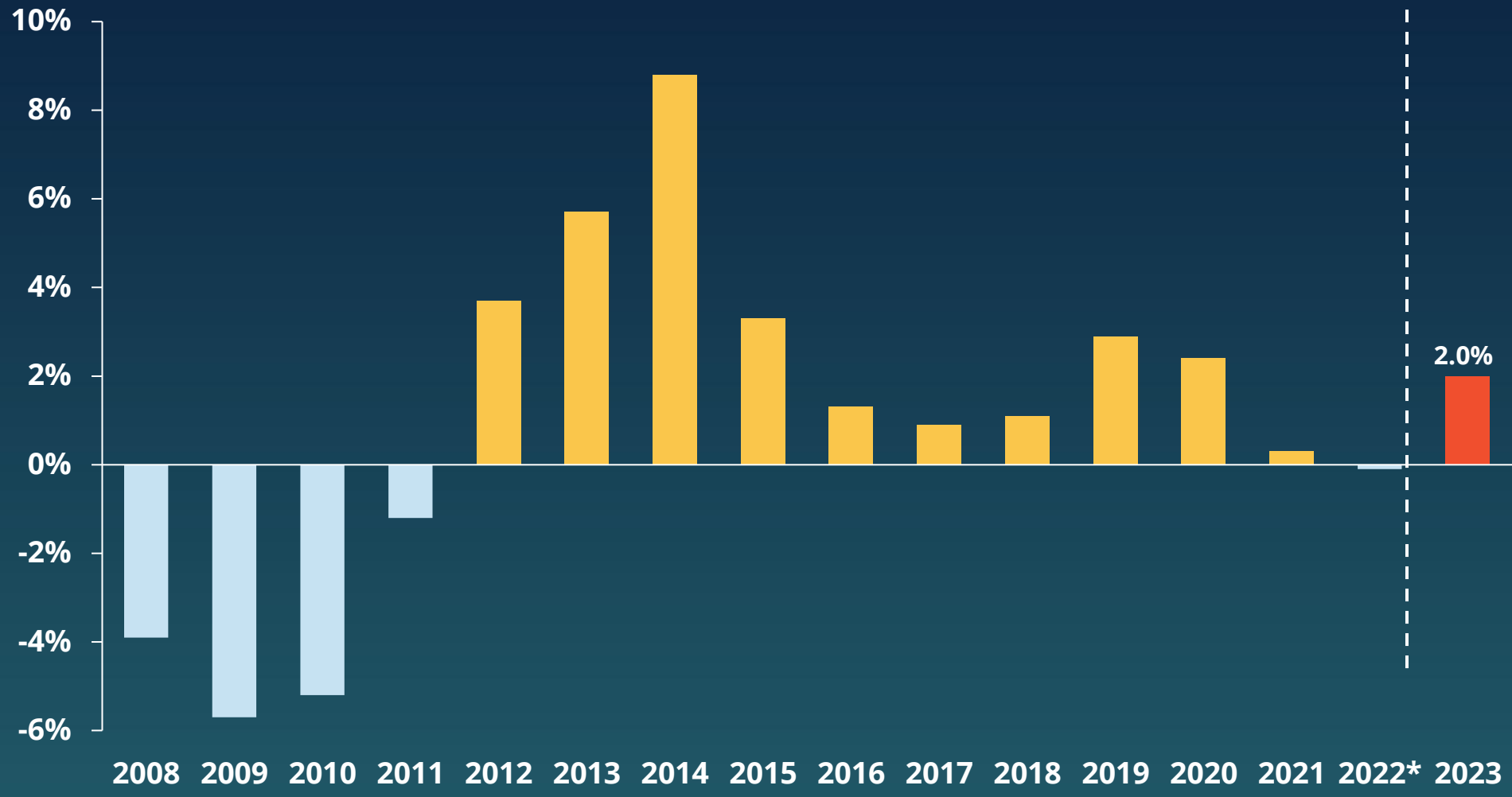
Source: Bright MLS, Delta Associates; October 2022.

**12 months ending August 2022.*

EFFECTIVE NEW CONDOMINIUM SALES PRICE CHANGE

Washington Metro Area | 2008 - 2023

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



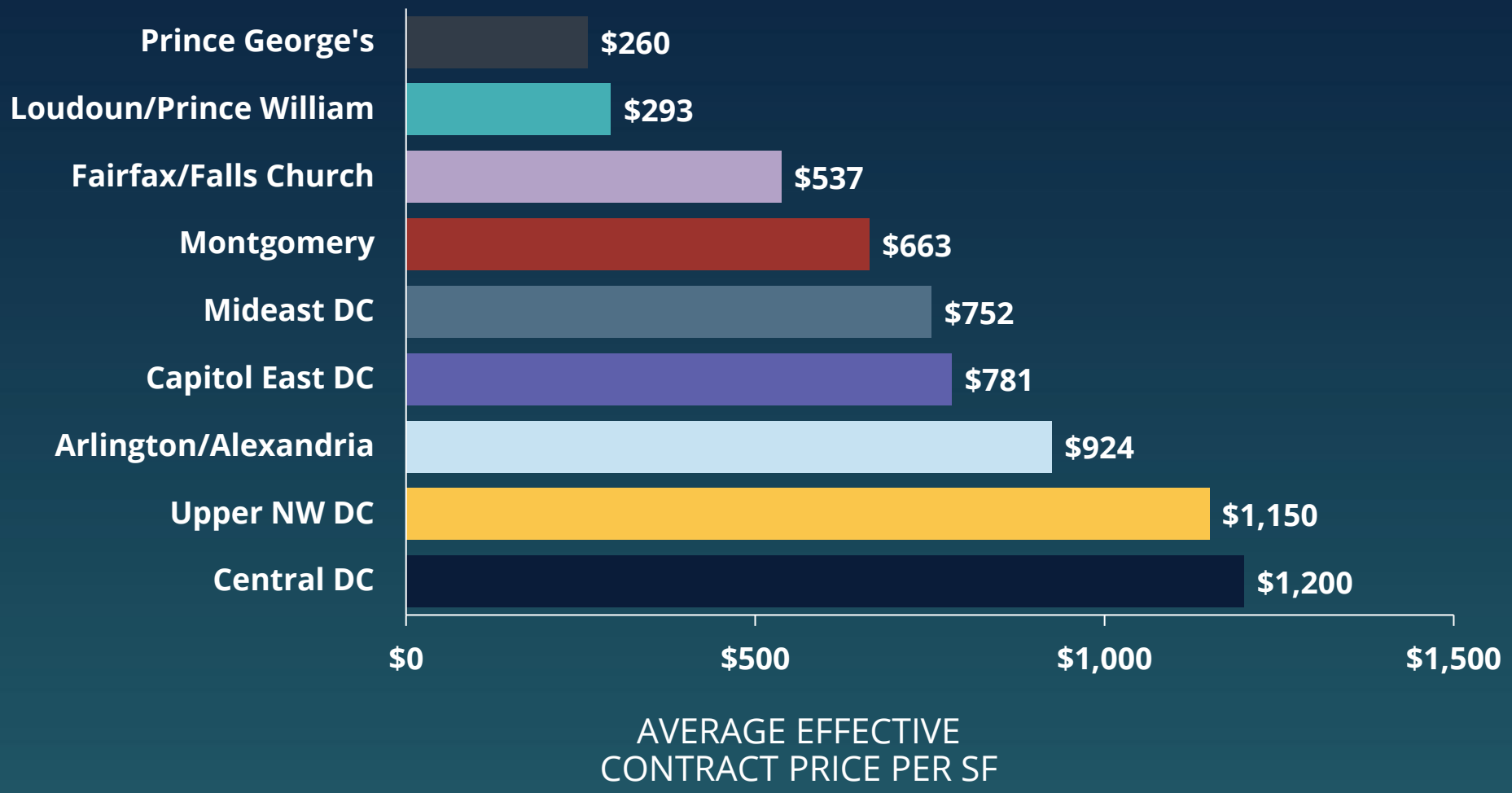
Source: Delta Associates; October 2022.

**12 months ending September 2022*

NEW CONDOMINIUM PRICES

Washington Metro Area | Third Quarter 2022*

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



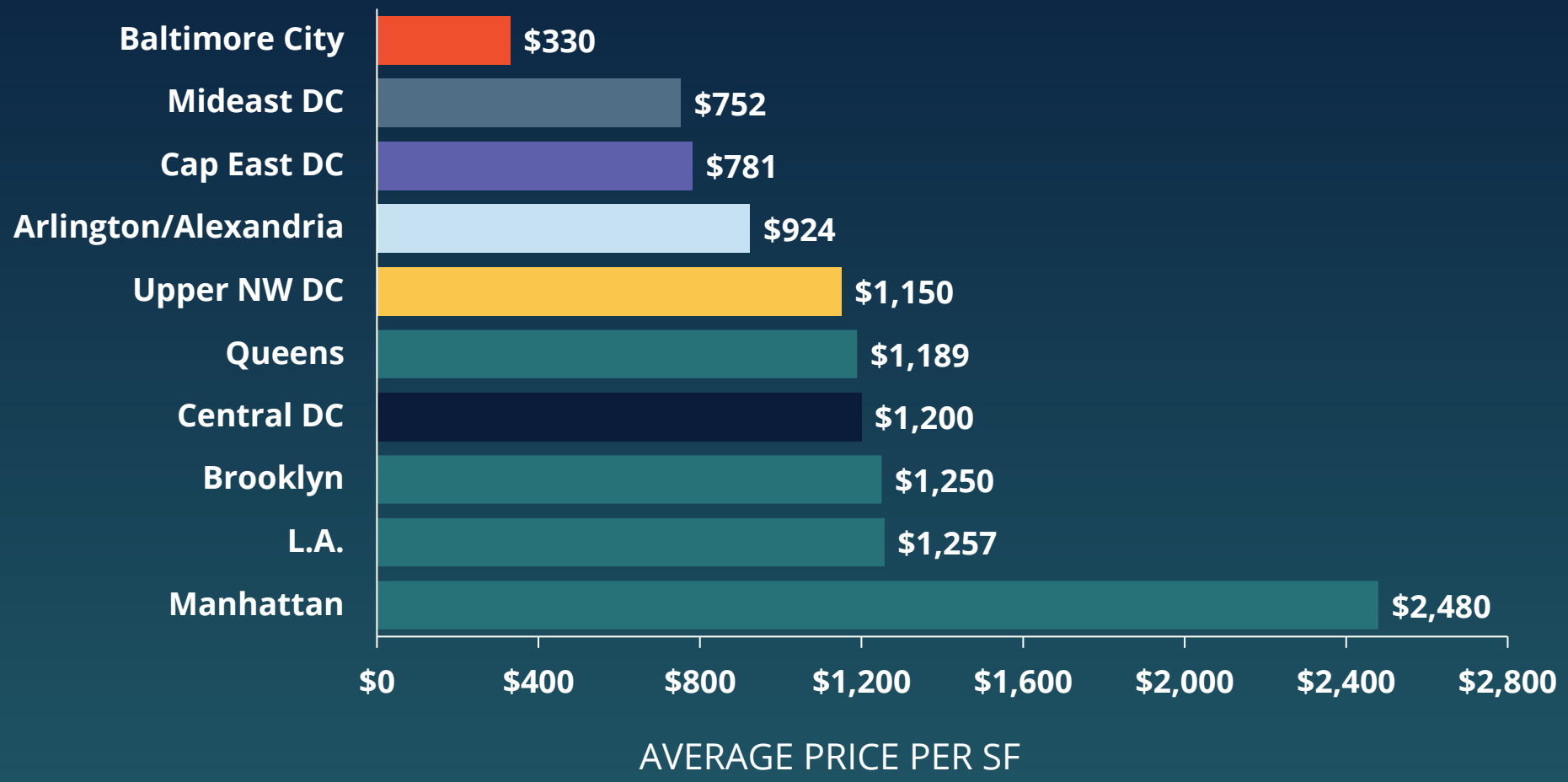
Source: Delta Associates; October 2022.

** Reflects prices of condo projects currently selling, so averages should not be compared from quarter to quarter since locations of projects change each quarter.*

NEW CONDOMINIUM PRICES

Selected Cities in the U.S. | Third Quarter 2022*

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



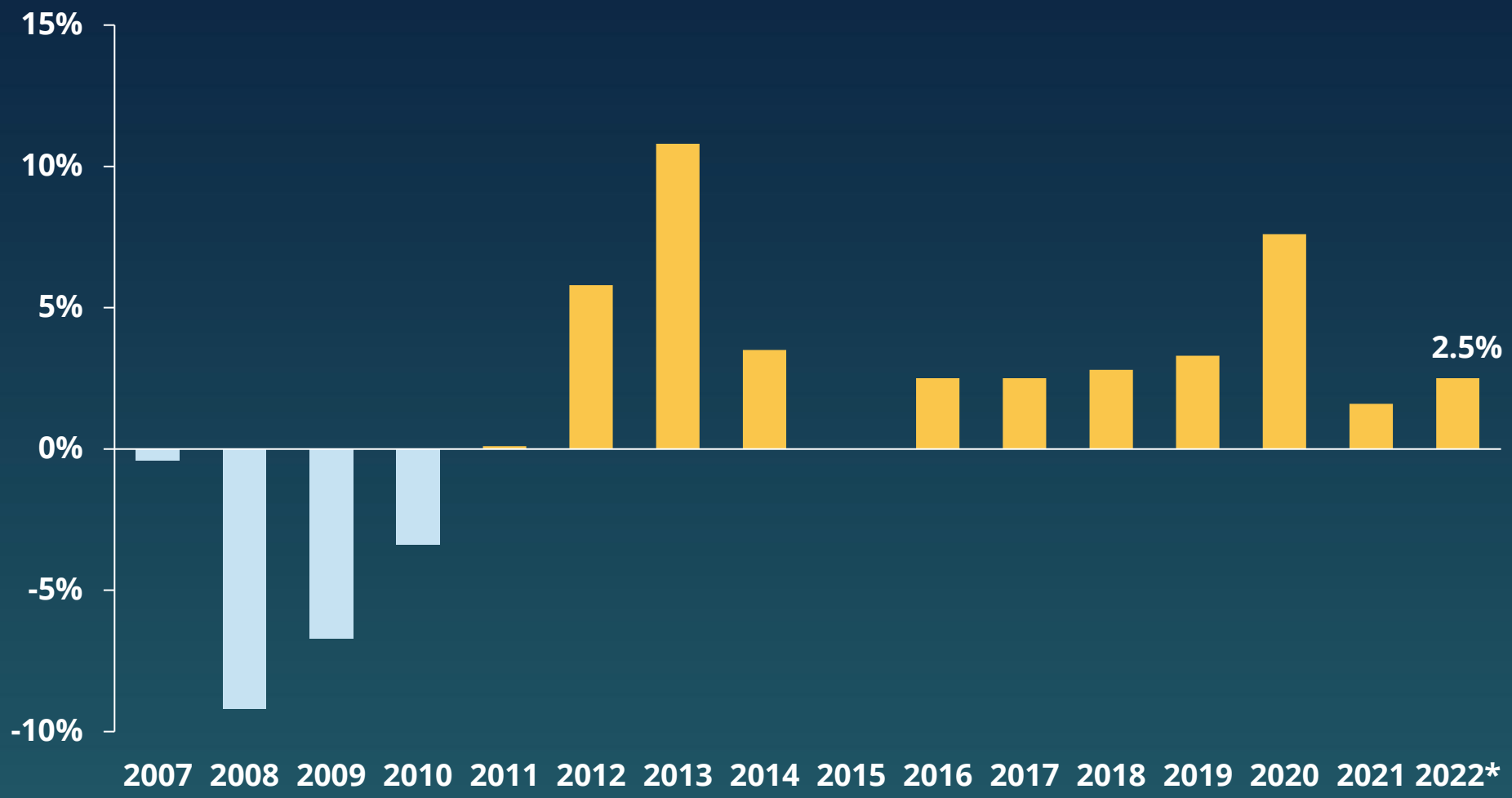
Source: Miller Samuel, Delta Associates; October 2022.

**Condo prices in Manhattan, Brooklyn, Queens, and Los Angeles are as of Q2 2022.*

RESALE CONDOMINIUM SALES PRICE CHANGE

Washington Metro Area | 2007 - 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



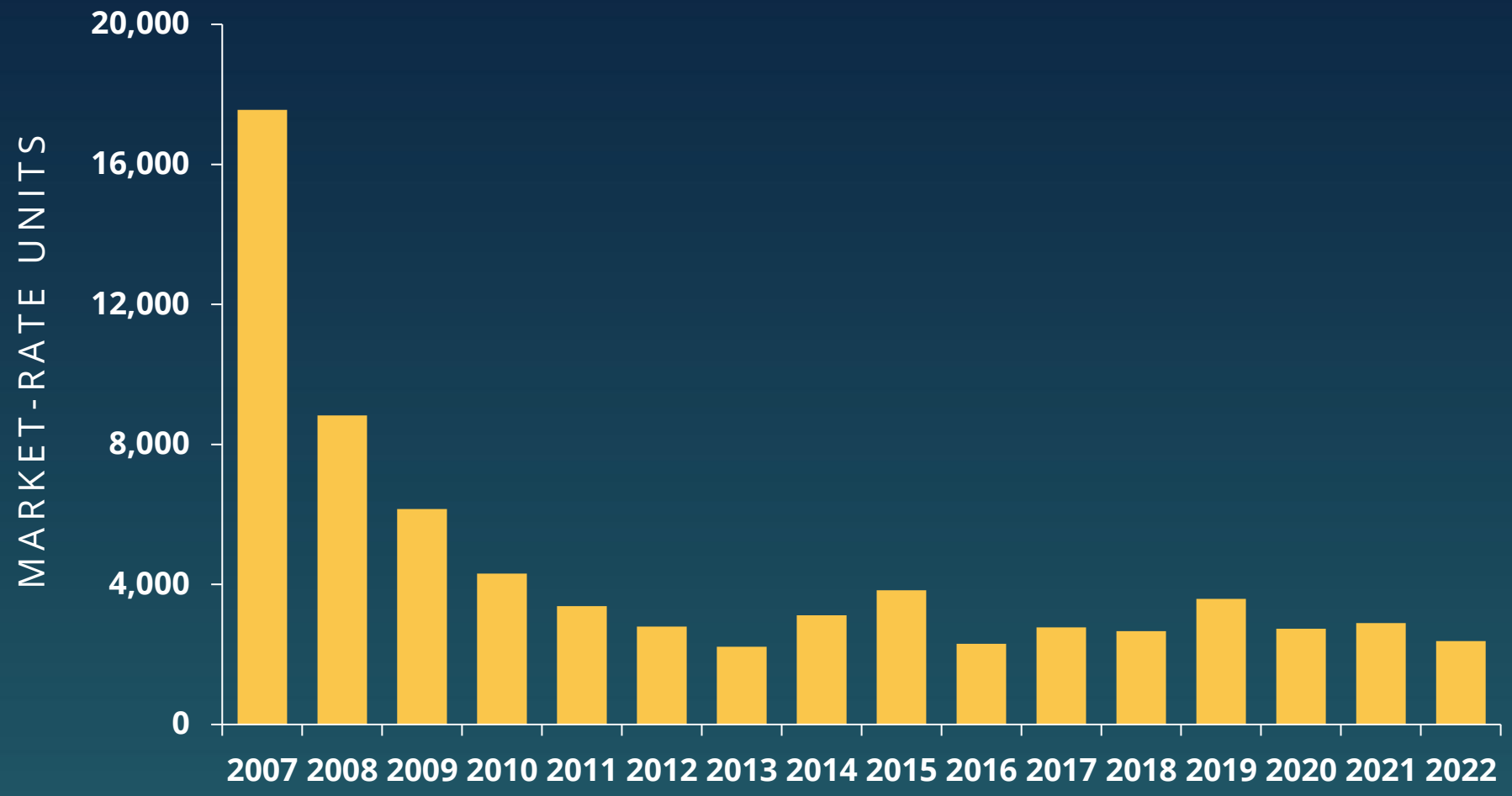
Source: Bright MLS, Delta Associates; October 2022.

** 12 months ending August 2022.*

UNSOLD CONDO UNITS ACTIVELY MARKETING

Washington Metro Area | 2007 - 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



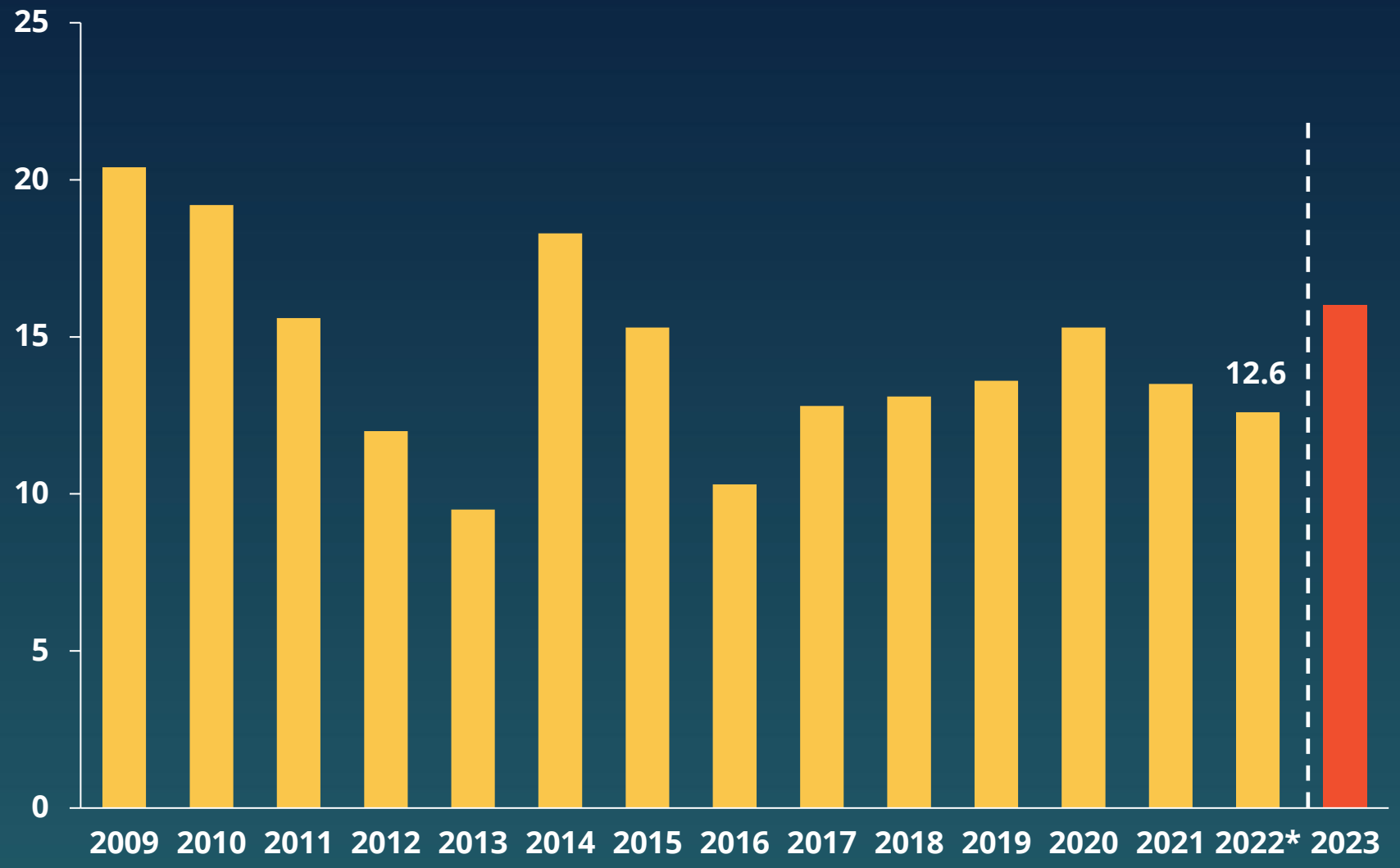
Source: Delta Associates; October 2022.

Note: Number of units are for September of each year.

MONTHS OF NEW CONDOMINIUM SUPPLY

Washington Metro Area | 2009 - 2023

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



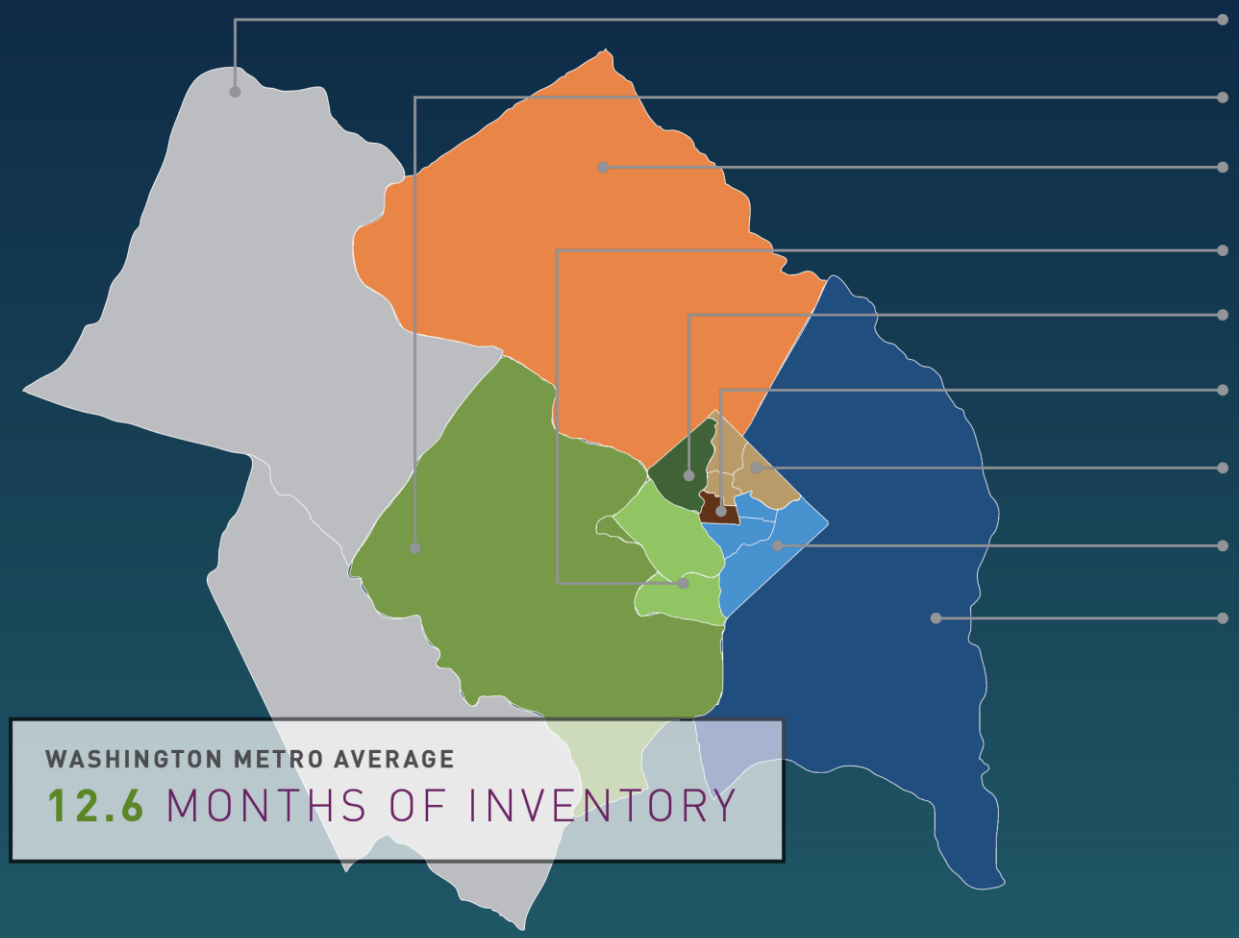
Source: Delta Associates; October 2022.

**as of Third Quarter 2022.*

MONTHS OF NEW CONDOMINIUM SUPPLY BY MARKET

Washington Metro Area | Third Quarter 2022

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



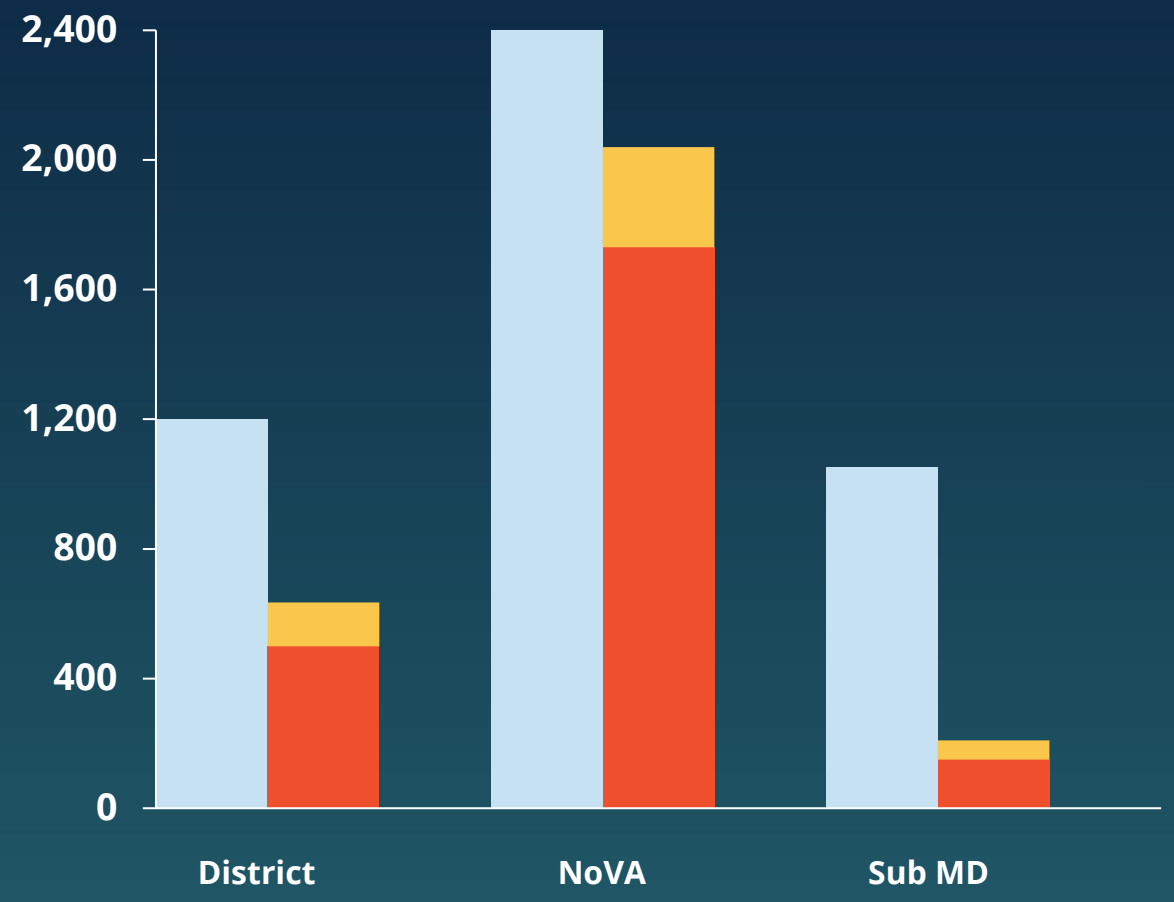
22.7	Loudoun/Prince William
7.1	Fairfax/Falls Church
3.5	Montgomery
11.0	Arlington/Alexandria
3.0	Upper Northwest DC
3.7	Central DC
19.7	Mideast DC
12.0	Capitol East DC
4.6	Prince George's

Source: Delta Associates; October 2022.

DEMAND AND SUPPLY PROJECTIONS

Washington Metro Area Condominiums | 36 Months Ending September 2025

DELTA ASSOCIATES
26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE



DEMAND

Net Sales:
1,550Year = 4,650 units

SUPPLY [1]

Planned and May Begin Marketing by 9/25: 503 units

Under Construction and/or Marketing: 2,380 units [2]

Total = 2,883 units

[1] Probable supply after projected attrition.
[2] Includes unsold units at projects selling.

Source: Delta Associates; October 2022.

DELTA ASSOCIATES

26TH ANNUAL MARKET OVERVIEW + AWARDS FOR EXCELLENCE

DELTA ASSOCIATES

TRANSWESTERN