

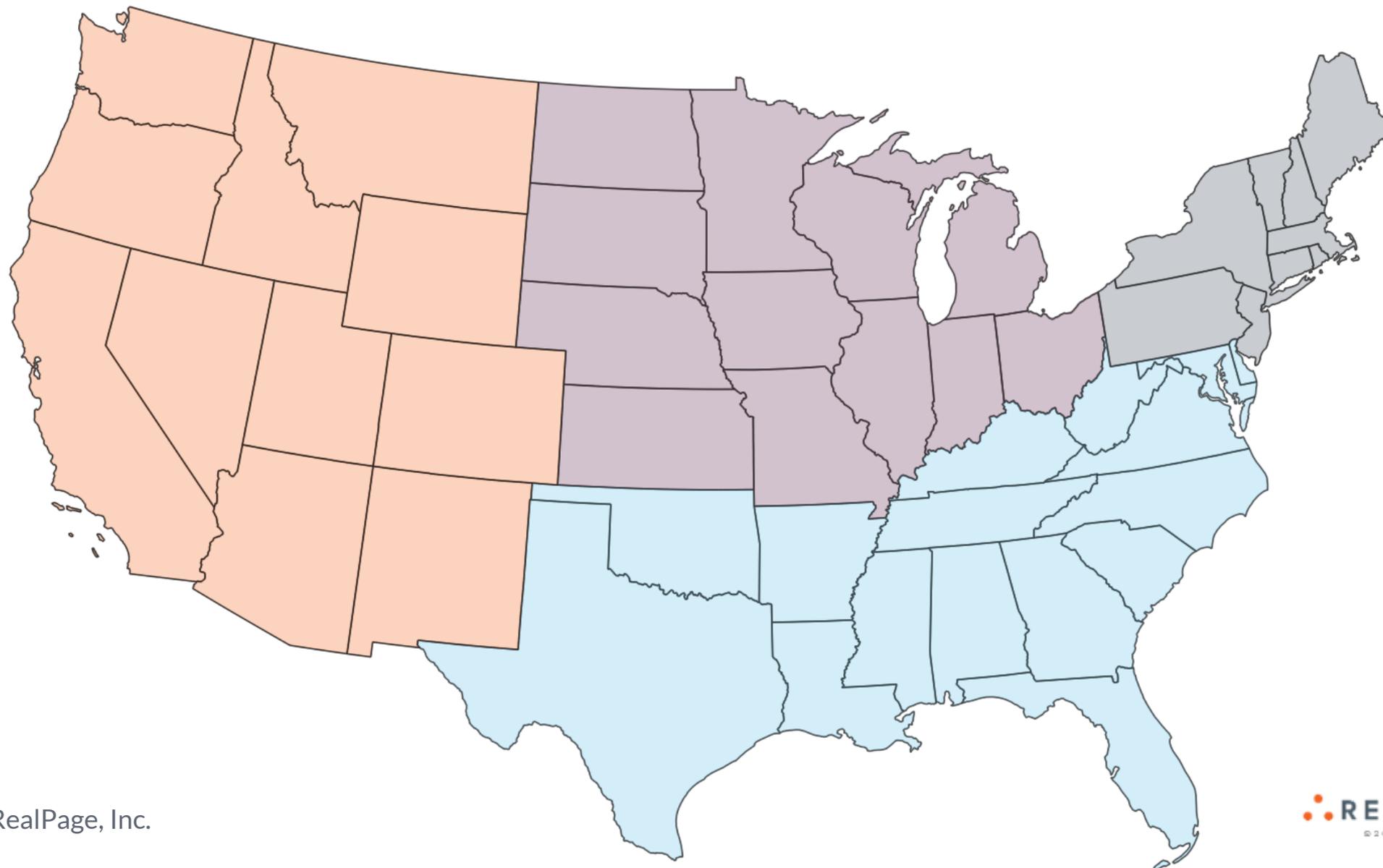


Dallas Association for Business Economics (DABE)

Apartment Market Overview

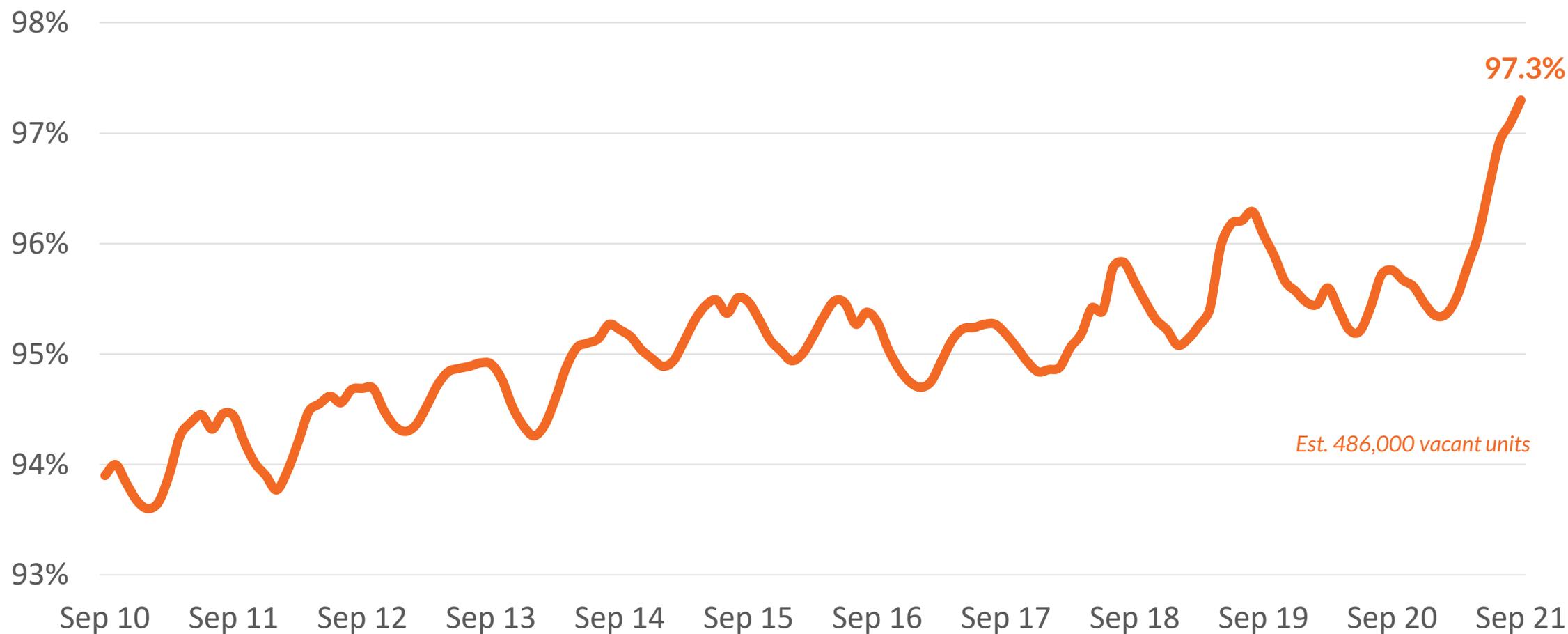
Carl Whitaker, Manager of Market Analytics, RealPage, Inc.

National Overview



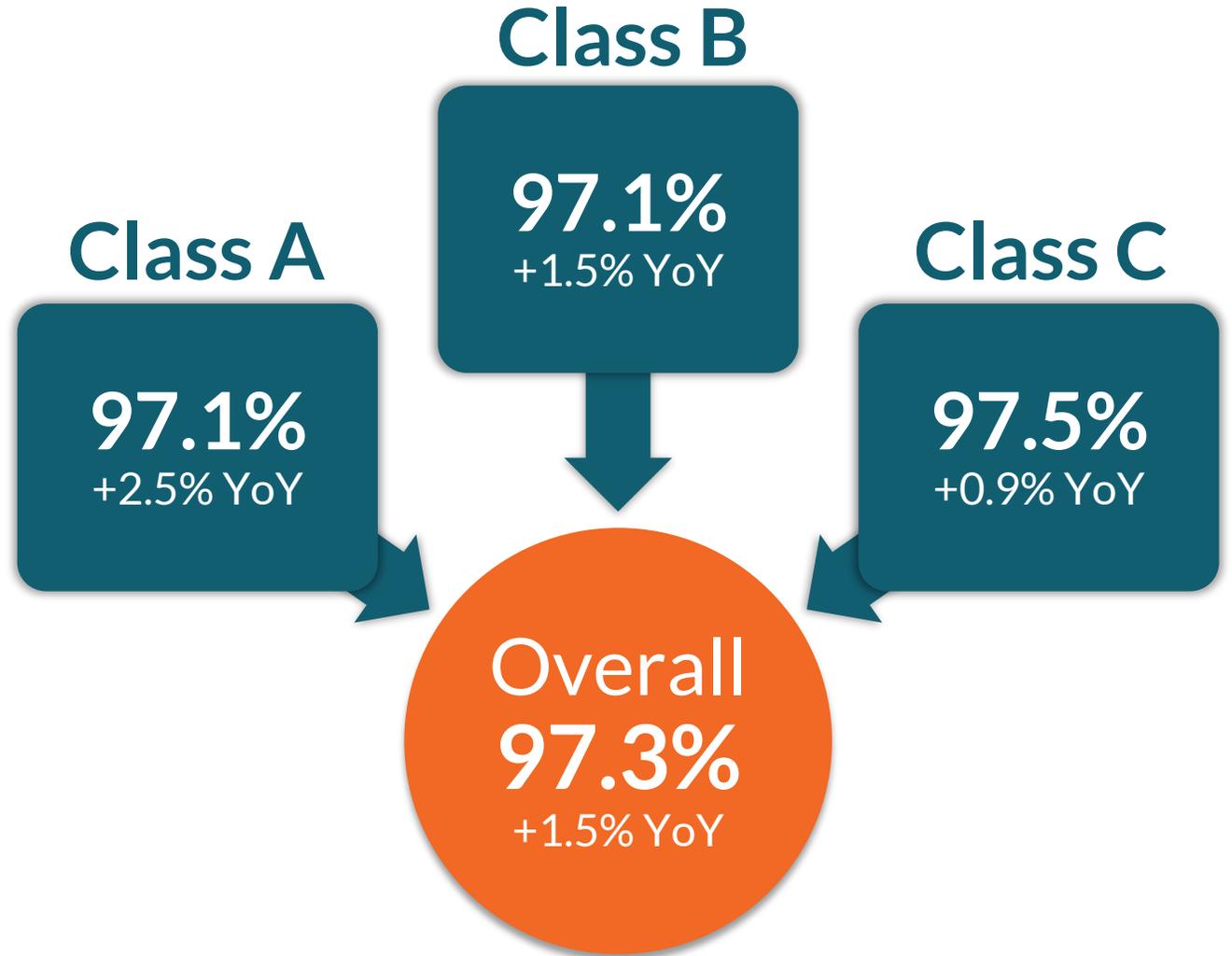
Source: RealPage, Inc.

U.S. apartment occupancy is at an all-time high with fewer than 500k units vacant



Source: RealPage, Inc.

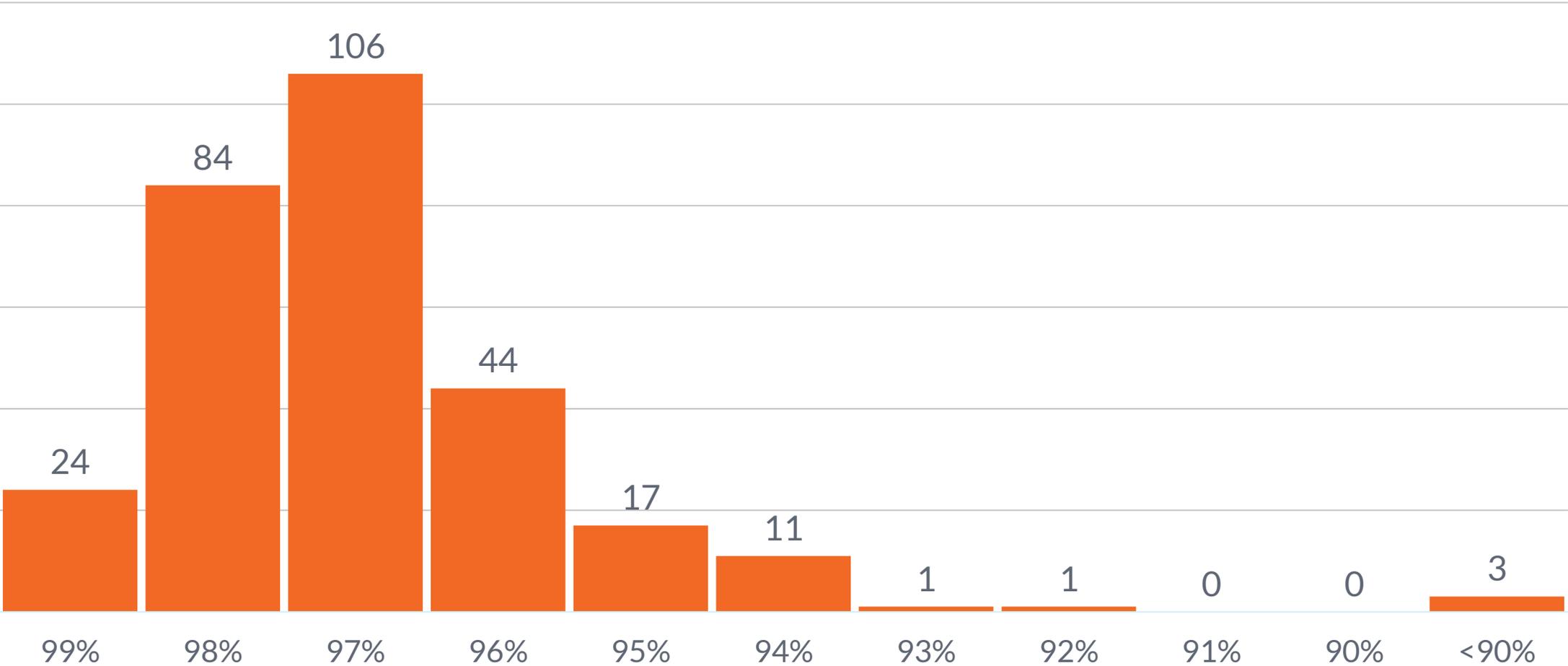
Occupancy is in
great shape across
all asset classes



U.S. September 2021
occupancy

Occupancy rates are ultra high at every price point and in nearly every market

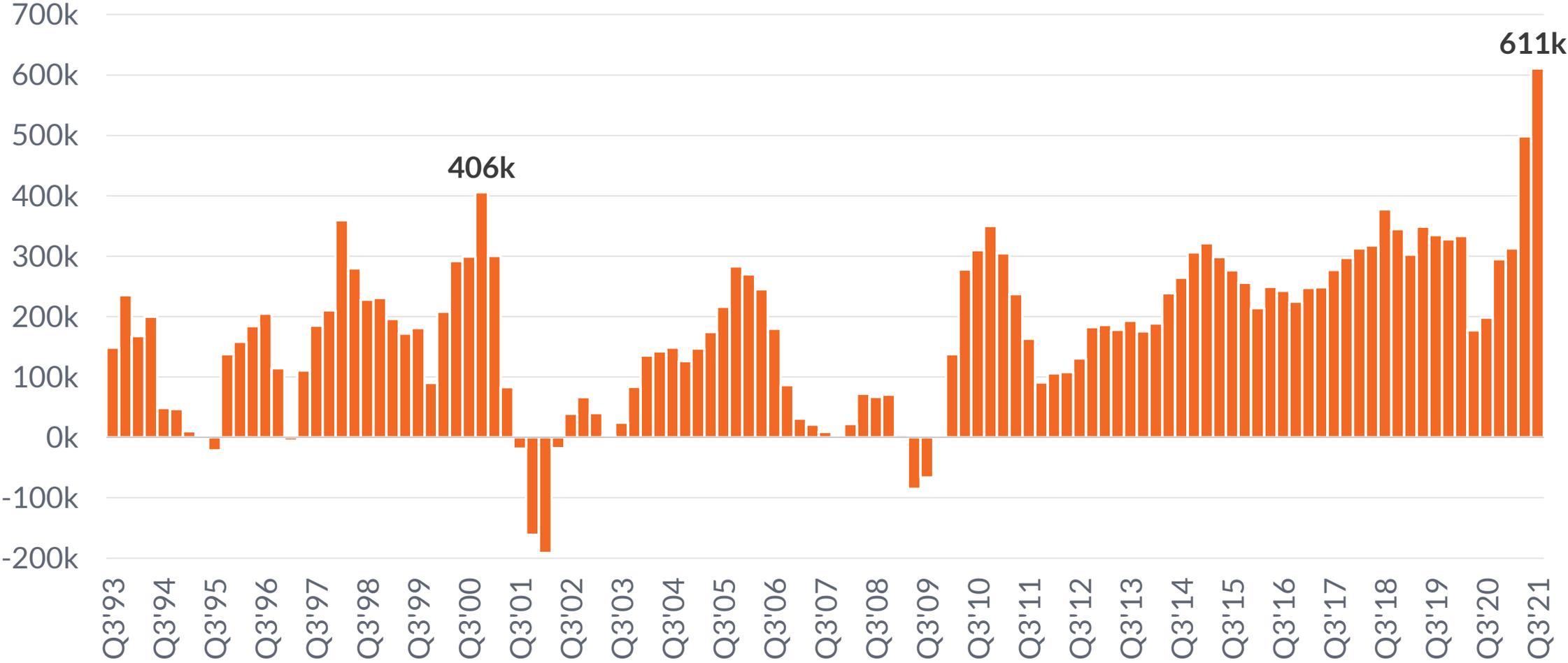
Number of U.S. Metros by Occupancy Rate, September 2021



Source: RealPage, Inc.

Demand for apartments shatters pre-2021 record by an incredible 50%

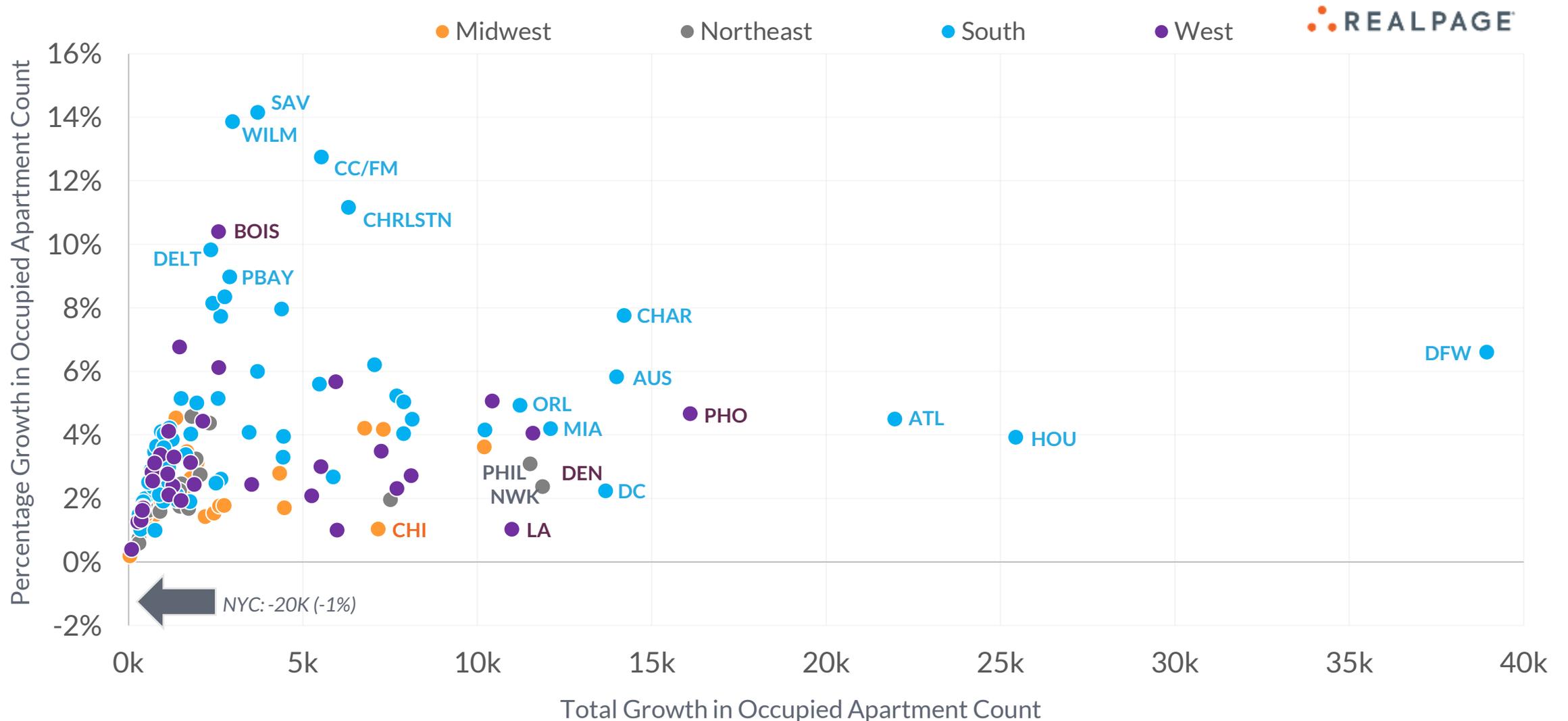
Annual (T-12) Net Apartment Absorption (Units)



Source: RealPage, Inc.

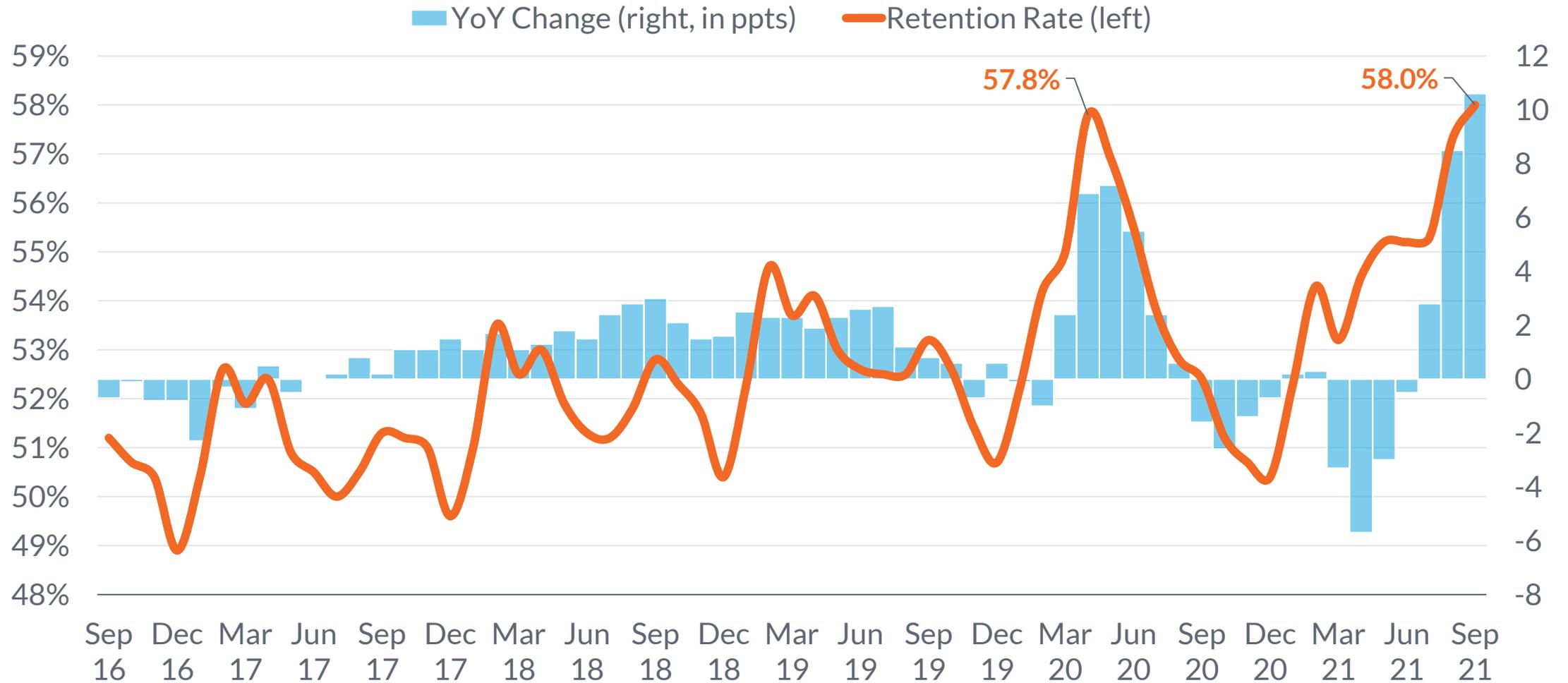
Only one market (NYC) has fewer occupied units today than pre-COVID

Six Quarter Net Change in Total Number of Occupied Apartment Units (1Q20 to 3Q21)



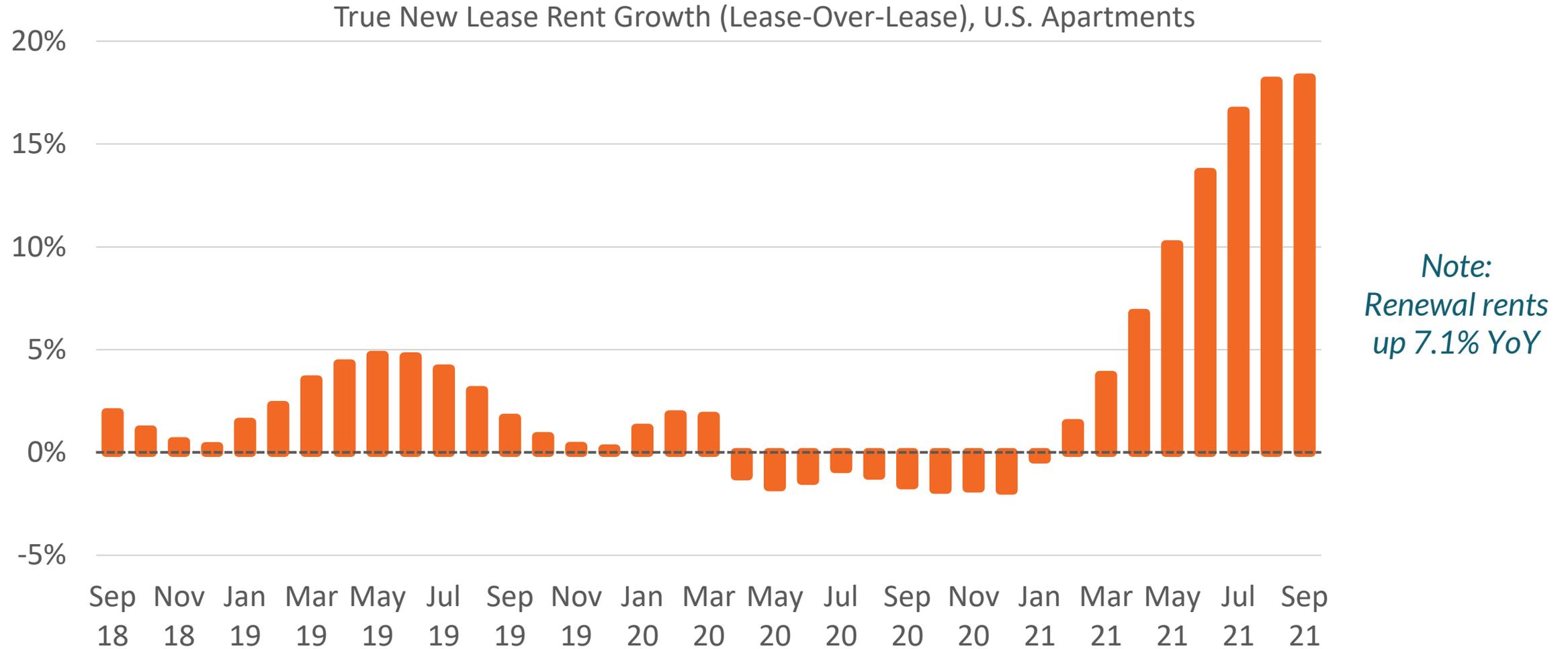
Source: RealPage, Inc.

Apartment resident retention surges: up 10% YoY, surpassing previous peak



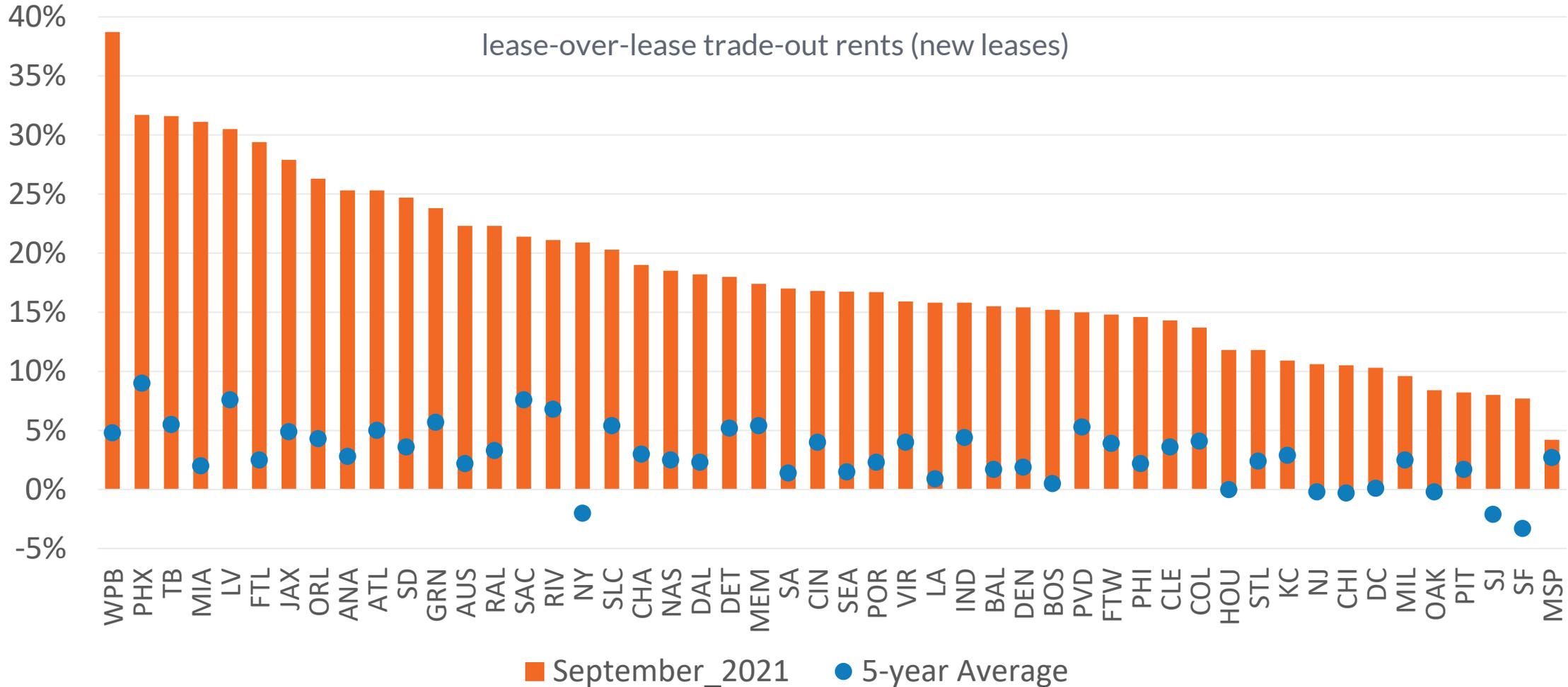
Source: RealPage, Inc.

True rent growth hits another record high, but appears to be peaking



Source: RealPage, Inc.

Apartment true rent growth leaders: big numbers nearly everywhere



Source: RealPage, Inc.

While new lease rents surge, in-place rents take longer to regain momentum

U.S. Revenue Change per Occupied Sq. Foot (Rev/OSF)



Source: RealPage, Inc.

What's driving today's record performance?



Economy recovering lost jobs



Increasing renter retention



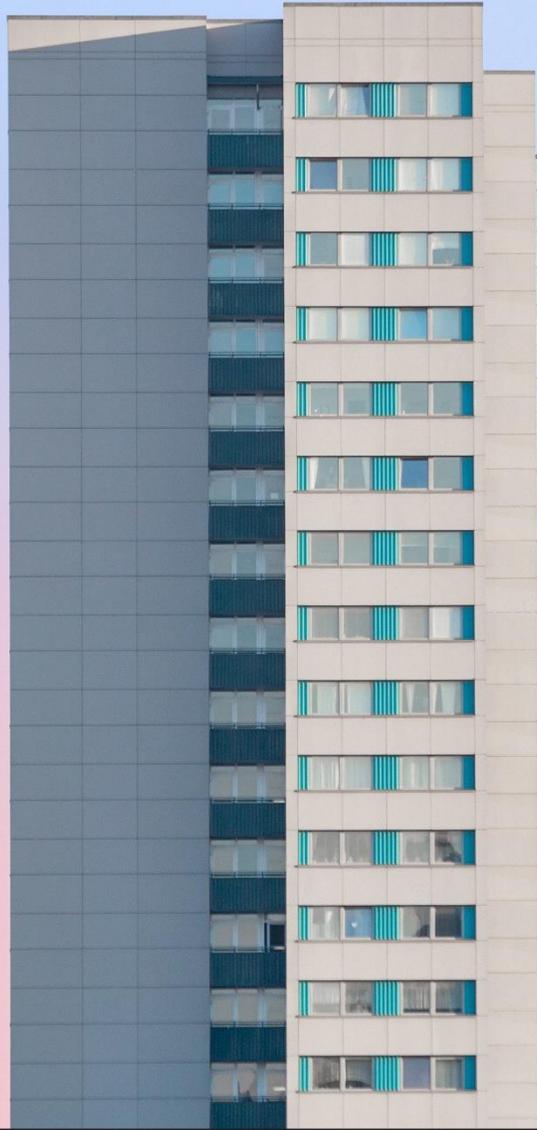
Rising renter incomes



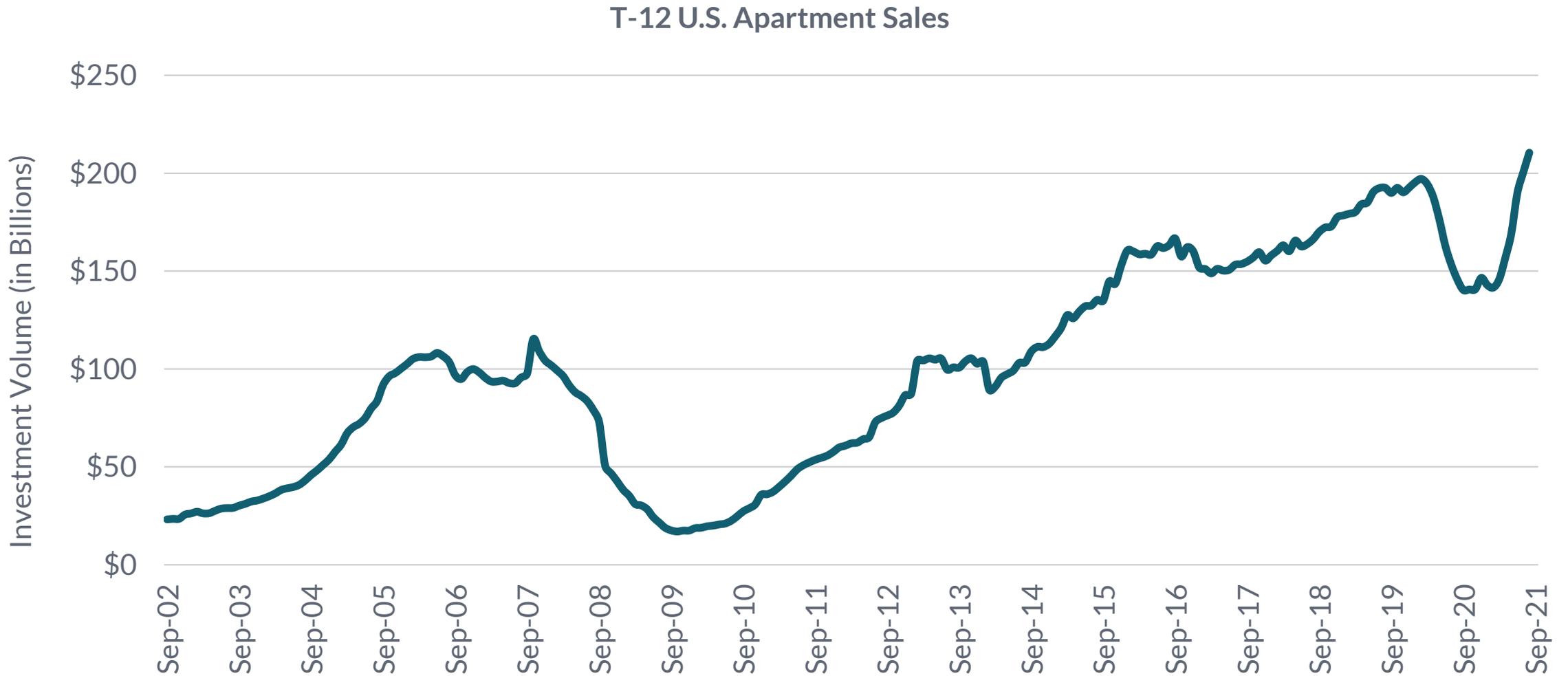
Pent-up demand releasing



Demographics remain favorable



A short-lived dip in apartment investment volumes has been countered recently



Source: Real Capital Analytics (RCA)

Key Takeaways



- ✓ Record highs abound: new lease trade out, occupancy, and demand at **all-time highs**
- ✓ **Urban & Class A rebound** is underway – today’s performance improving quickly, but will take time for rent rolls to reflect improvement
- ✓ **Sun Belt** markets remain strongest, with desert/mountain; Florida markets leading
- ✓ Performance within sector drawing in lots of **investment activity**: up 60% YoY and accounts for 40% of CRE investment (source: RCA)
- ✓ **Construction** remains elevated **and supply delays** could become more challenging

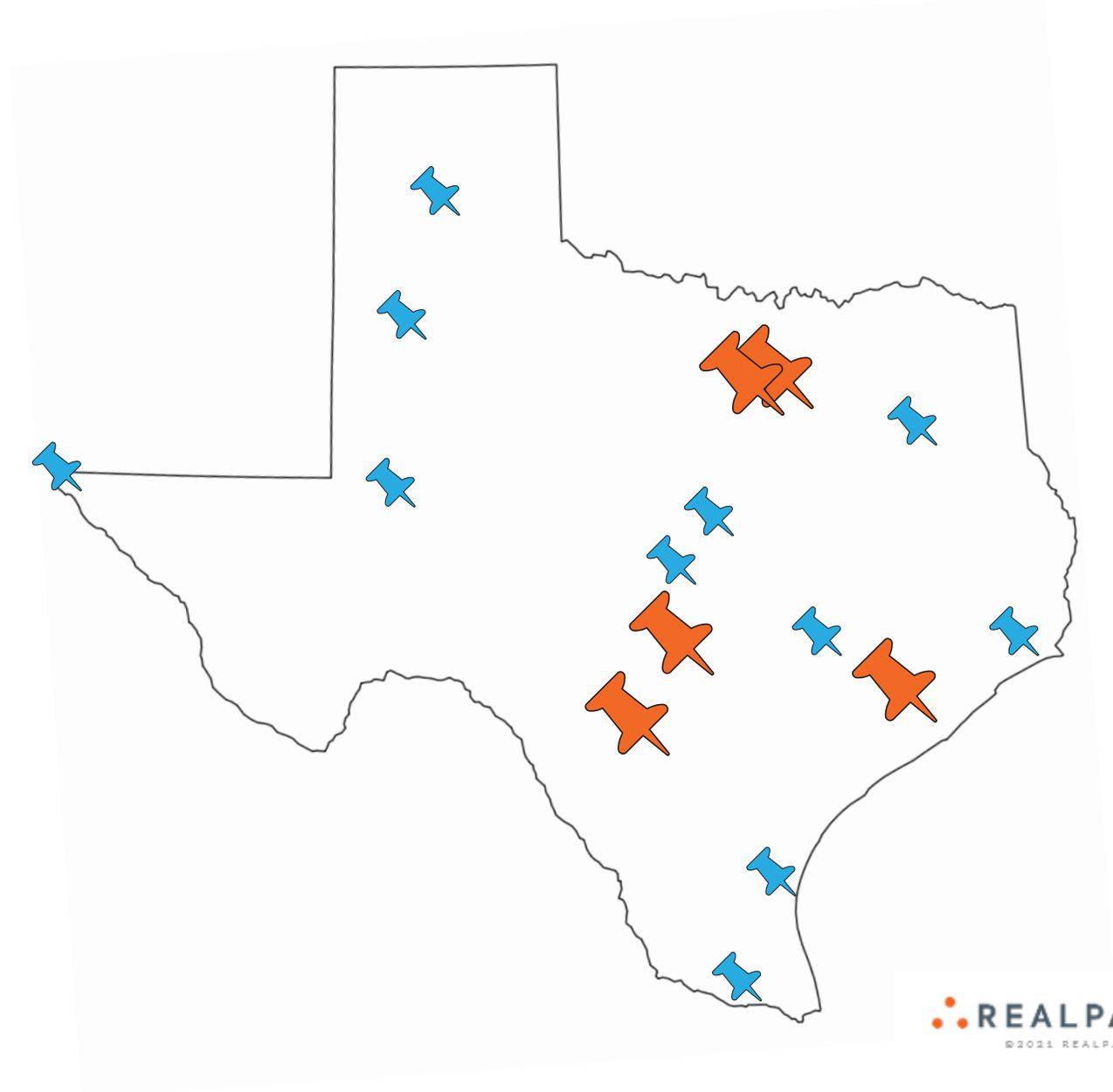
Texas & DFW Overview

Primary Markets

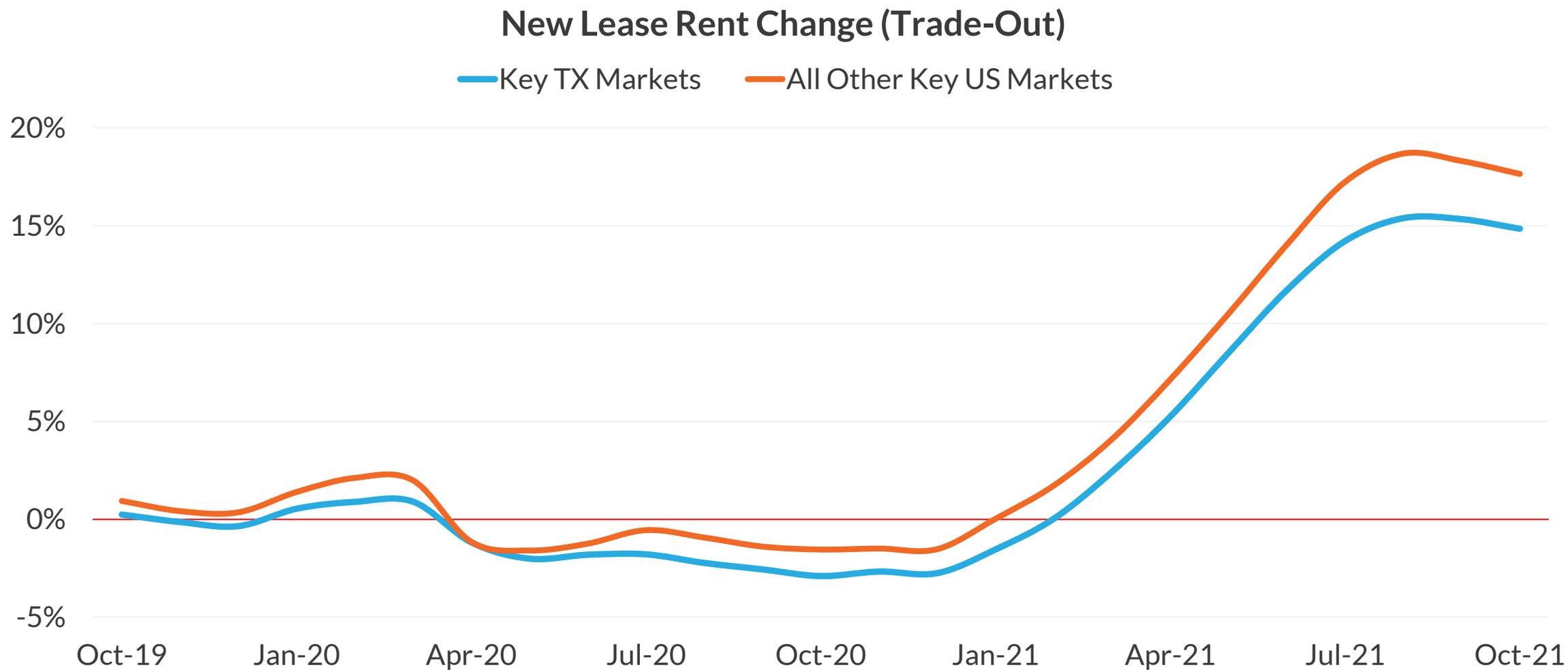
Austin
Dallas
Fort Worth
Houston
San Antonio

Secondary Markets

Amarillo
Beaumont
College Station
Corpus Christi
El Paso
Killeen/Temple
Lubbock
McAllen/Brownsville
Midland/Odessa
Tyler
Waco



New lease rent growth has surged in 2021, but Texas lags the nation overall



Source: RealPage, Inc.

New lease rent growth has surged in 2021, but Texas lags the nation overall

Market	New Lease Trade Out (Oct. '21)
Austin	21.4%
Dallas	17.8%
Tyler	16.9%
Killeen	15.5%
Waco	15.5%
San Antonio	15.1%
Fort Worth	14.7%
El Paso	10.9%
Houston	10.7%
Amarillo	10.5%
McAllen/Brownsville	9.2%
Lubbock	7.6%
Corpus Christi	7.5%
Beaumont	3.5%
College Station	2.1%
Midland/Odessa	-0.6%

1. High in-migration markets leading demand surge
2. Energy-dependent markets lagging
3. Many secondary markets continue “slow but steady” trajectory
4. Only Austin & Dallas outpacing U.S. rent growth

Source: RealPage, Inc.

New Lease Trade Out: DFW Submarkets (Oct. 2021)

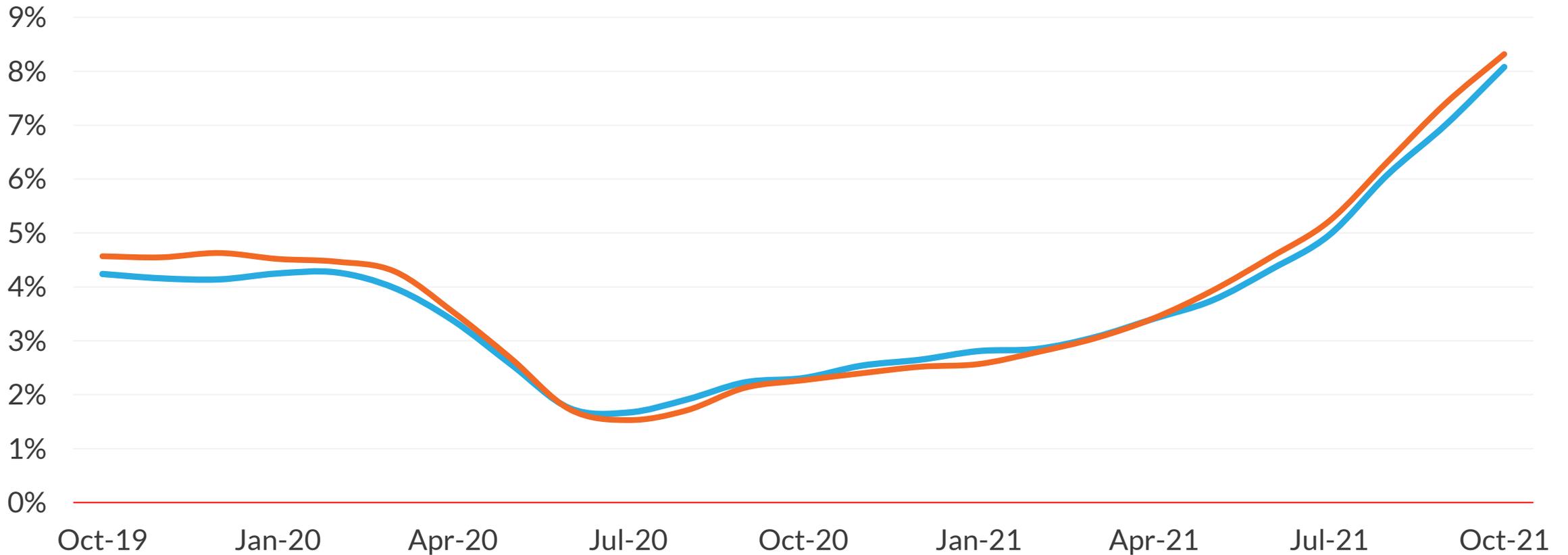
1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
Between 19% & 29%	Between 15% & 19%	Between 12% & 15%	Between 7% & 12%
South Fort Worth	Carrollton/Farmers Branch	Rockwall/Rowlett/Wylie	Zang Triangle/Cedars/Fair Park
Allen/McKinney	North Dallas	North Fort Worth/Keller	Southern Dallas County
East Dallas	Love Field/Medical District	Intown Fort Worth/University	Southwest Fort Worth
West Plano	Richardson	Oak Lawn/Park Cities	Northwest Dallas
Far North Dallas	South Arlington/Mansfield	Denton	Ellis County
The Colony/Far North Carrollton	North Arlington	North Irving	Burleson/Johnson County
Frisco	Northeast Fort Worth/North Richland Hills	North Oak Cliff/West Dallas	East Fort Worth
Lewisville/Flower Mound	South Irving	Grapevine/Southlake	Haltom City/Meacham
Central/East Plano	Hurst/Eules/Bedford	Far East Dallas	West Fort Worth/Parker County
Addison/Bent Tree	Central Arlington	Northeast Dallas	Kaufman County
Grand Prairie	Garland	Mesquite	Hunt County
Las Colinas/Coppell	Intown Dallas	Southwest Dallas	

Source: RealPage, Inc.

Rent growth on lease renewals is also at an all-time high

Renewal Lease Rent Change (Trade-Out)

Key TX Markets All Other Key US Markets



Source: RealPage, Inc.

Rent growth on lease renewals is also at an all-time high

Market	Renewal Trade Out (Oct. '21)
Austin	12.6%
Midland/Odessa	8.8%
Dallas	8.5%
San Antonio	7.7%
Waco	7.3%
Fort Worth	7.3%
Houston	6.7%
El Paso	5.8%
Lubbock	5.8%
Tyler	5.7%
Killeen/Temple	5.0%
McAllen/Brownsville	5.0%
Beaumont	4.5%
Corpus Christi	4.3%
College Station	4.0%
Amarillo	3.7%

1. Renewal rent growth highest in big demand markets (e.g. Austin, Dallas)
2. Blue collar dominated markets generally trailing statewide norms
3. Renewal spread between markets w/highest and lowest growth tends to be tighter than that of new leases

Source: RealPage, Inc.

Renewal Lease Trade Out: DFW Submarkets (Oct. 2021)

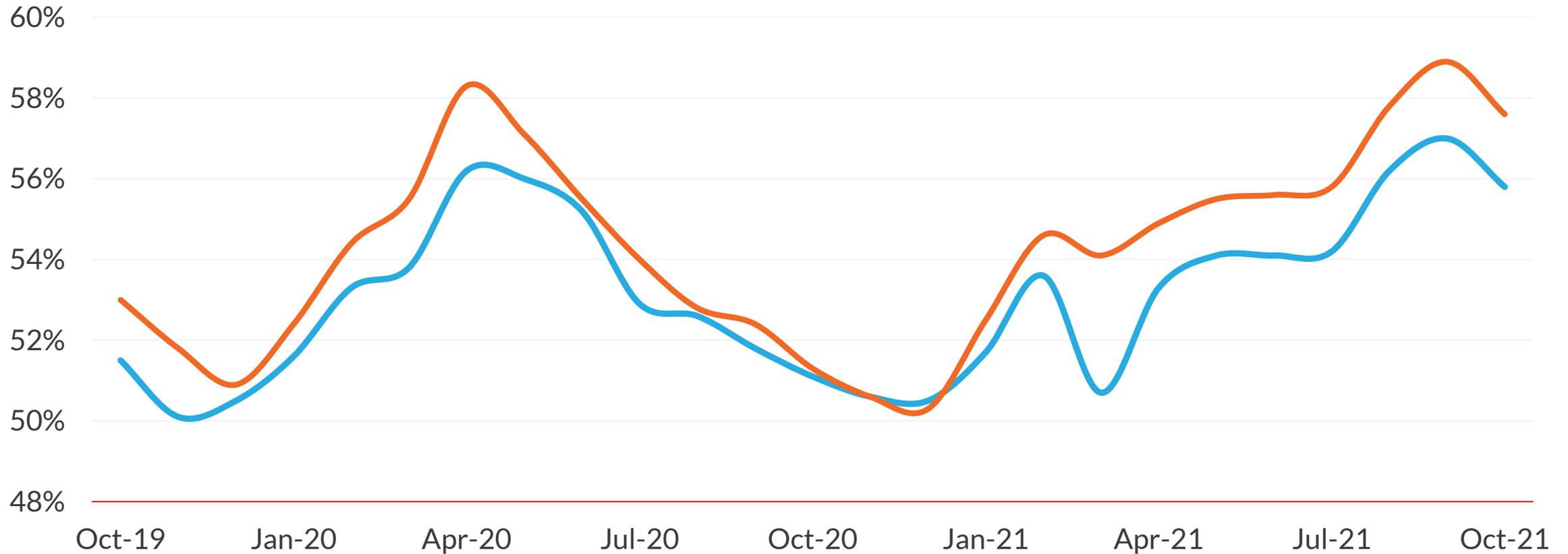
1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
Between 9% & 13%	Between 7.5% & 9%	Between 6% & 7.5%	Between 7% & 12%
Frisco	Grapevine/Southlake	Burleson/Johnson County	Denton
Las Colinas/Coppell	North Arlington	Intown Fort Worth/University	East Fort Worth
Intown Dallas	Grand Prairie	Hurst/Euless/Bedford	Zang Triangle/Cedars/Fair Park
West Plano	Rockwall/Rowlett/Wylie	North Oak Cliff/West Dallas	South Irving
Richardson	South Arlington/Mansfield	Central Arlington	Southeast Dallas
The Colony/Far North Carrollton	Central/East Plano	South Fort Worth	Haltom City/Meacham
Allen/McKinney	North Irving	Garland	Far East Dallas
North Dallas	Northeast Fort Worth/North Richland Hills	Southwest Fort Worth	Hunt County
Addison/Bent Tree	East Dallas	Northwest Dallas	Ellis County
Carrollton/Farmers Branch	Love Field/Medical District	West Fort Worth/Parker County	Kaufman County
Oak Lawn/Park Cities	Northeast Dallas	North Fort Worth/Keller	Southwest Dallas
Lewisville/Flower Mound	Far North Dallas	Mesquite	Southern Dallas County

Source: RealPage, Inc.

Renewal conversions in Texas tend to run below U.S. levels

Renewal Conversion (% of Expiring Leases Renewed)

Key TX Markets All Other Key US Markets



Source: RealPage, Inc.

Renewal conversions in Texas tend to run below U.S. levels

Market	Renewal Conv. (Oct. '21)	YoY Chg.
Dallas	57.8%	5.3%
Fort Worth	57.7%	1.3%
Houston	56.4%	5.4%
Tyler	55.4%	1.0%
Austin	53.8%	6.4%
Amarillo	53.5%	8.7%
San Antonio	52.6%	4.8%
McAllen/Brownsville	52.2%	-1.7%
Beaumont	51.3%	-3.8%
El Paso	50.0%	2.0%
Midland/Odessa	48.6%	3.1%
Corpus Christi	46.9%	0.3%
Waco	46.5%	-6.3%
Killeen/Temple	46.4%	1.7%
Lubbock	46.0%	-1.5%
College Station	39.0%	13.0%

1. Renewal conversions trending slightly higher in faster new lease growth markets
2. College towns tend to see lower renewal rates (high turnover)
3. Only a handful of markets seeing fewer renewals today than Oct. 2020 (note Oct. 2020 was below Oct. 2019, likely due to many shorter lease terms expiring*)

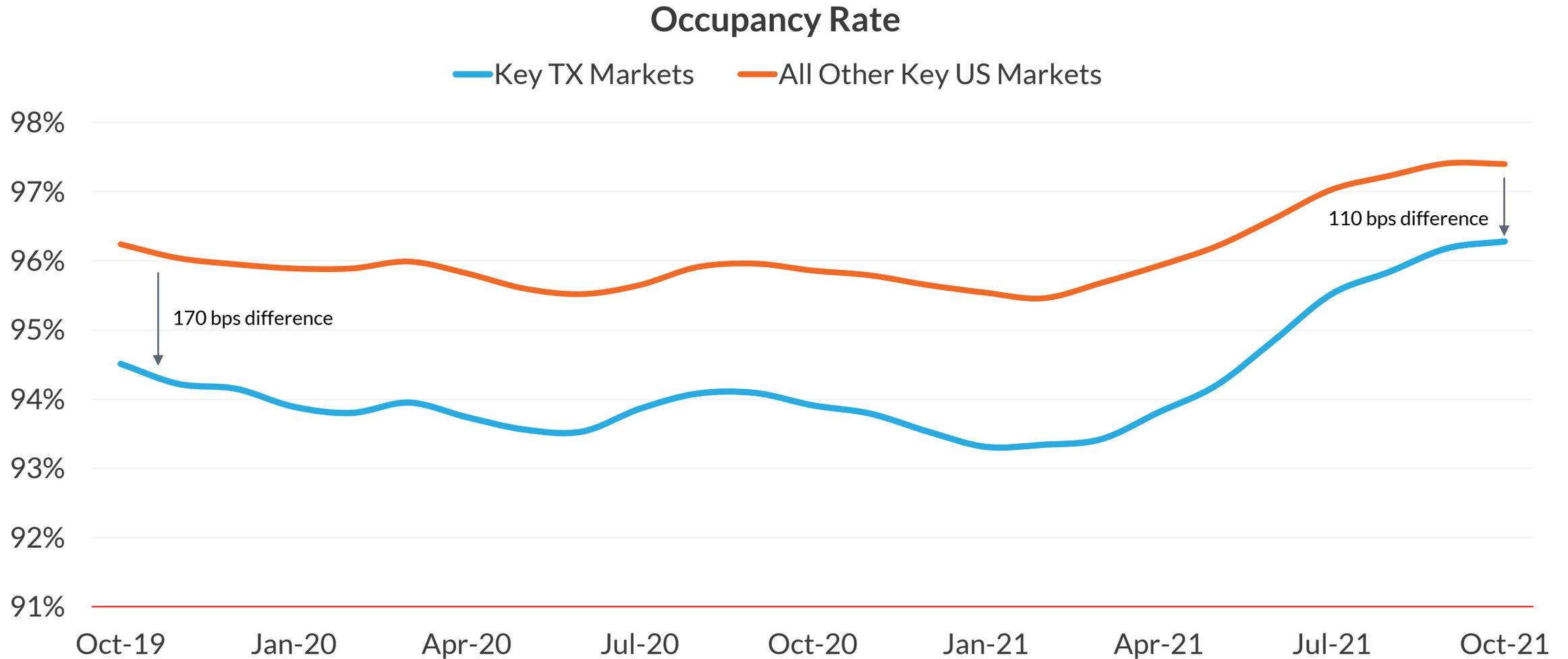
Source: RealPage, Inc.

Renewal Conversion: DFW Submarkets (Oct. 2021)

1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
Between 63% & 73%	Between 58% & 63%	Between 56% & 58%	Between 39% & 56%
Southern Dallas County	East Fort Worth	Denton	South Arlington/Mansfield
Hunt County	Northeast Fort Worth/North Richland Hills	The Colony/Far North Carrollton	Northeast Dallas
Southwest Dallas	East Dallas	Las Colinas/Coppell	Rockwall/Rowlett/Wylie
Southeast Dallas	Far East Dallas	Richardson	Intown Fort Worth/University
Garland	Haltom City/Meacham	Carrollton/Farmers Branch	Frisco
Ellis County	South Fort Worth	Central/East Plano	Far North Dallas
Kaufman County	Lewisville/Flower Mound	North Arlington	Love Field/Medical District
Central Arlington	West Plano	Grand Prairie	North Oak Cliff/West Dallas
Mesquite	Addison/Bent Tree	Grapevine/Southlake	Oak Lawn/Park Cities
Zang Triangle/Cedars/Fair Park	Hurst/Euless/Bedford	Southwest Fort Worth	Intown Dallas
Northwest Dallas	Allen/McKinney	North Fort Worth/Keller	West Fort Worth/Parker County
South Irving	North Irving	North Dallas	Burleson/Johnson County

Source: RealPage, Inc.

Occupancy rates have sharply risen across the state (up 240 bps YoY)



Source: RealPage, Inc.

Occupancy rates have sharply risen across the state (up 240 bps YoY)

Market	Occ. Rate (Oct. '21)	YoY Chg.
Waco	98.1%	1.9%
El Paso	97.9%	1.2%
McAllen/Brownsville	97.9%	2.0%
Tyler	97.4%	2.3%
Killeen/Temple	97.2%	0.5%
Austin	96.9%	3.0%
Dallas	96.8%	2.5%
Fort Worth	96.7%	1.8%
San Antonio	96.3%	2.4%
College Station	96.2%	3.1%
Lubbock	96.1%	0.8%
Amarillo	95.9%	2.8%
Houston	95.5%	2.4%
Corpus Christi	95.4%	1.2%
Beaumont	95.2%	2.8%
Midland/Odessa	89.5%	4.2%

1. Occupancy rates sit at all-time highs for most major TX metros
2. Class A improvement in high supply markets indicates solid demand across all product types
3. Midland/Odessa is one of only six metros (out of 321) w/occupancy below 95% as of Oct. '21.

Source: RealPage, Inc.

Occupancy: DFW Submarkets (Oct. 2021)

1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
Between 97.4% & 98.4%	Between 97.0% & 97.4%	Between 96.4% & 97.0%	Between 94.1% & 96.4%
Ellis County	Grapevine/Southlake	North Irving	North Arlington
Zang Triangle/Cedars/Fair Park	Addison/Bent Tree	Central/East Plano	Richardson
Burleson/Johnson County	Frisco	Far East Dallas	East Fort Worth
West Plano	Southern Dallas County	North Dallas	Intown Dallas
Allen/McKinney	South Irving	Far North Dallas	Southeast Dallas
Hurst/Euless/Bedford	Lewisville/Flower Mound	Las Colinas/Coppell	North Oak Cliff/West Dallas
Carrollton/Farmers Branch	South Arlington/Mansfield	Haltom City/Meacham	Oak Lawn/Park Cities
Rockwall/Rowlett/Wylie	South Fort Worth	West Fort Worth/Parker County	Southwest Dallas
Mesquite	Northwest Dallas	North Fort Worth/Keller	Southwest Fort Worth
Grand Prairie	Love Field/Medical District	The Colony/Far North Carrollton	Northeast Dallas
Kaufman County	Denton	Northeast Fort Worth/North Richland Hills	Burleson/Johnson County
East Dallas	Garland	Hunt County	

Source: RealPage, Inc.

YoY Occupancy Change: DFW Submarkets (Oct. 2021)

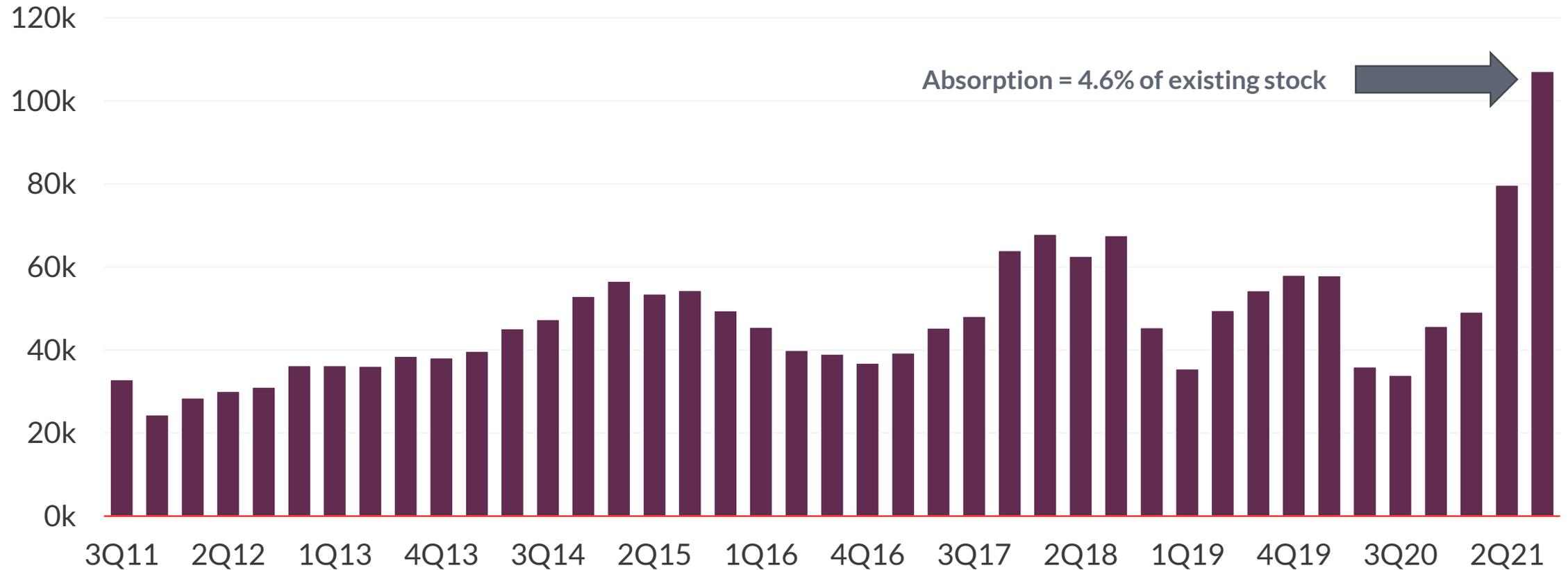
1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
Between 3.0% & 4.6%	Between 2.3% & 2.9%	Between 1.7% & 2.2%	Between 0% & 1.7%
Oak Lawn/Park Cities	Central/East Plano	Addison/Bent Tree	Northeast Fort Worth/North Richland Hills
Zang Triangle/Cedars/Fair Park	Las Colinas/Coppell	South Irving	The Colony/Far North Carrollton
Denton	Grapevine/Southlake	Garland	North Fort Worth/Keller
Carrollton/Farmers Branch	Allen/McKinney	East Fort Worth	Burleson/Johnson County
Intown Dallas	Lewisville/Flower Mound	Southeast Dallas	Northeast Dallas
North Dallas	Far East Dallas	Richardson	South Arlington/Mansfield
West Plano	Rockwall/Rowlett/Wylie	Hunt County	Southwest Fort Worth
Love Field/Medical District	Haltom City/Meacham	Mesquite	Ellis County
Intown Fort Worth/University	North Irving	Southern Dallas County	North Oak Cliff/West Dallas
Kaufman County	Far North Dallas	Northwest Dallas	North Arlington
East Dallas	Hurst/Eules/Bedford	West Fort Worth/Parker County	Southwest Dallas
Frisco	South Fort Worth	Grand Prairie	Burleson/Johnson County

Source: RealPage, Inc.

Excellent demand is fueling strong performance across Texas

Trailing 12 Month Demand (Units Absorbed)

■ Key TX Markets



Source: RealPage, Inc.

Excellent demand is fueling strong performance across Texas

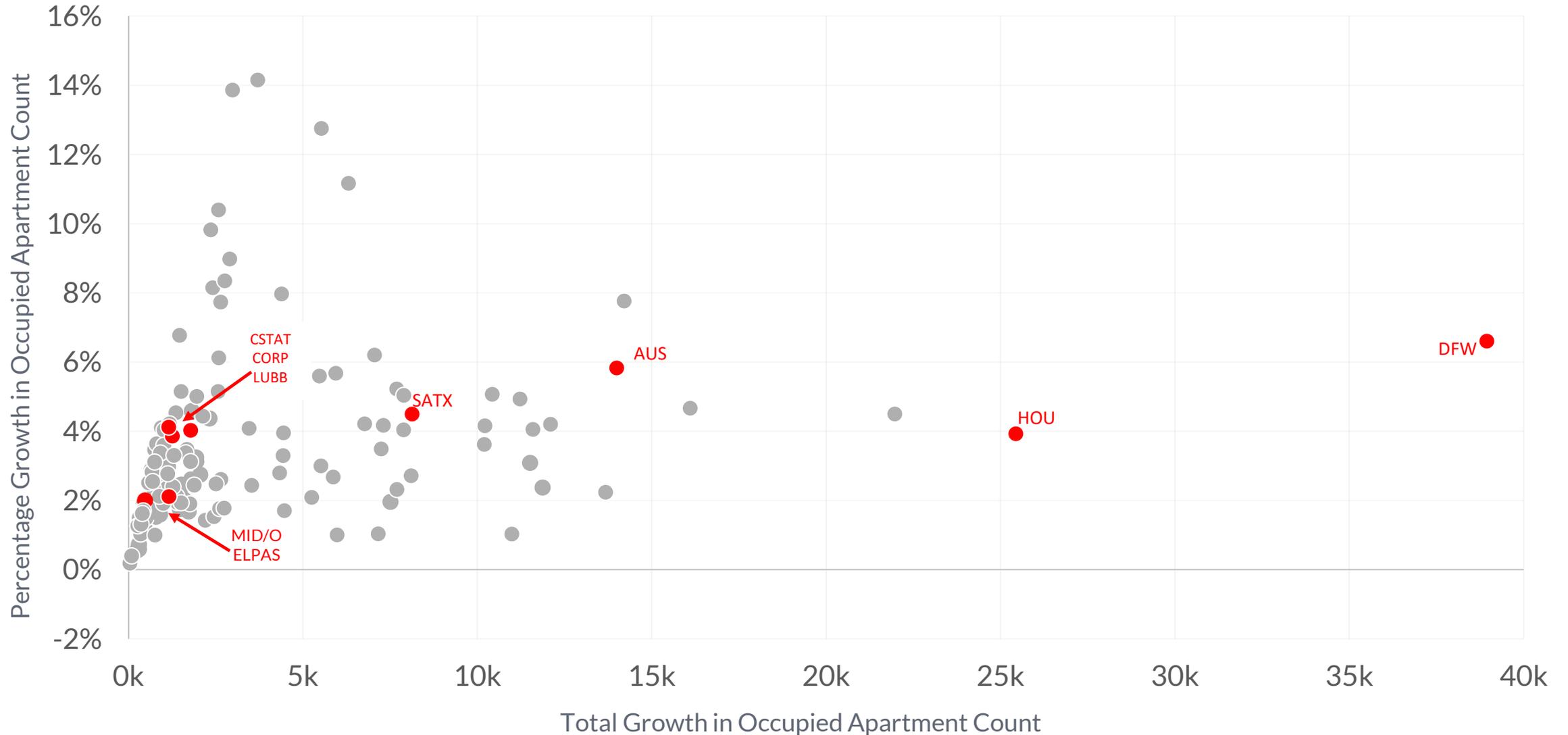
Market	T-12 Demand (Units)	% of Existing Stock
Midland/Odessa	2,350	9.0%
Austin	17,037	6.4%
Dallas	32,236	5.0%
Fort Worth	10,415	4.8%
Houston	31,418	4.4%
San Antonio	8,843	4.1%
Corpus Christi	1,273	3.5%
College Station	861	3.3%
Tyler	334	3.2%
Amarillo	417	2.6%
Lubbock	518	2.1%
Waco	387	2.1%
Beaumont	426	2.0%
Killeen/Temple	331	1.6%
El Paso	314	0.6%

1. Statewide demand (~108k units) accounts for almost 18% of all US demand in 3Q21
2. DFW and Houston rank among the nation's biggest demand metros
3. Only Killeen/Temple and El Paso saw relative absorption of less than 2%

Source: RealPage, Inc.

Many TX markets have considerably more occupied units today than pre-pandemic

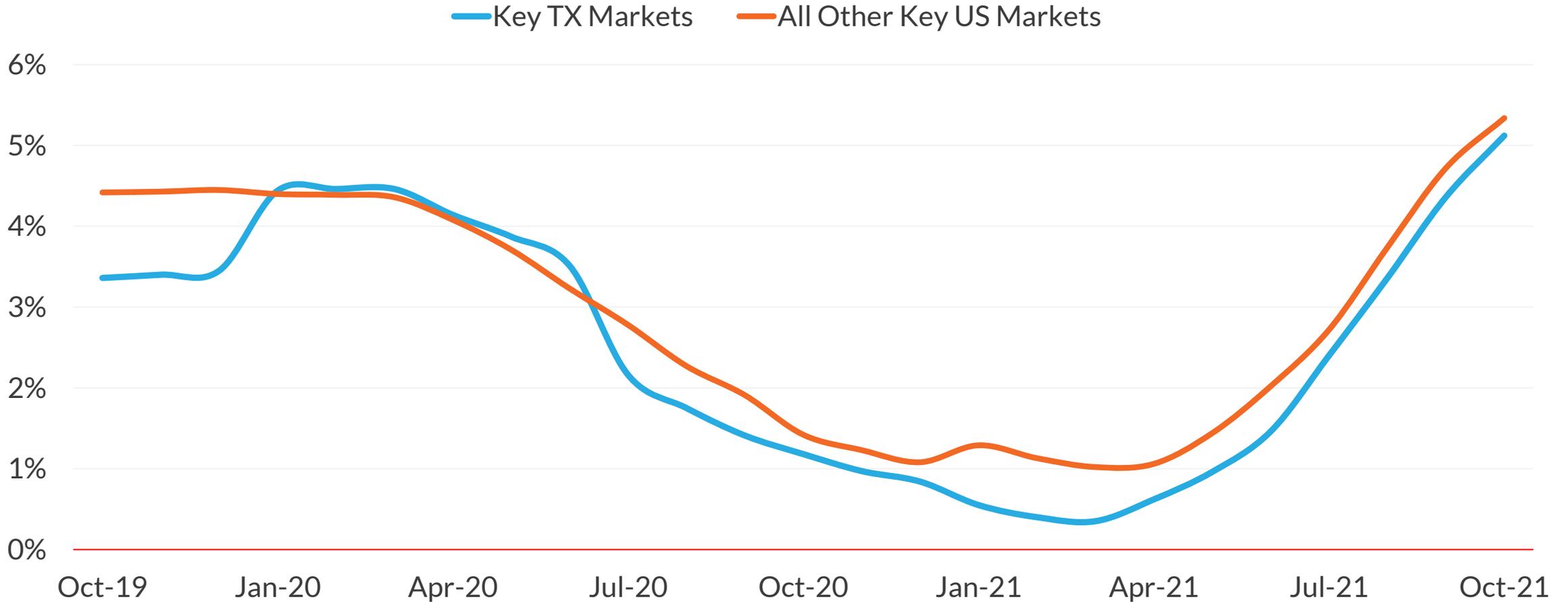
Six Quarter Net Change in Total Number of Occupied Apartment Units (1Q20 to 3Q21)



Source: RealPage, Inc.

Revenue growth for Texas markets closely matches the national norm

Revenue Growth (Measured by YoY Change in Rent Roll or Rev/Occ Sq. Ft.)



Source: RealPage, Inc.

YoY Revenue Growth per Occupied Sq. Ft: DFW Submarkets (Oct. 2021)

1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
Between 8% and 15%	Between 6% and 8%	Between 4.5% and 6%	Between 1.0% and 4.5%
Burleson/Johnson County	North Dallas	Hunt County	Addison/Bent Tree
Kaufman County	Allen/McKinney	Intown Fort Worth/University	Lewisville/Flower Mound
Garland	Central/East Plano	Mesquite	East Fort Worth
Ellis County	Intown Dallas	North Oak Cliff/West Dallas	East Dallas
Southern Dallas County	Southeast Dallas	North Irving	Love Field/Medical District
South Arlington/Mansfield	Frisco	West Fort Worth/Parker County	Far East Dallas
Grand Prairie	Las Colinas/Coppell	Hurst/Euless/Bedford	Southwest Dallas
The Colony/Far North Carrollton	Northeast Fort Worth/North Richland Hills	Southwest Fort Worth	Northeast Dallas
South Fort Worth	Richardson	Grapevine/Southlake	Haltom City/Meacham
Zang Triangle/Cedars/Fair Park	Oak Lawn/Park Cities	Far North Dallas	Rockwall/Rowlett/Wylie
South Irving	West Plano	Northwest Dallas	North Fort Worth/Keller
North Arlington	Carrollton/Farmers Branch	Denton	

Source: RealPage, Inc.

RealPage Forecast & Outlook for 2022

New Supply

Demand/Absorption

Rent Growth

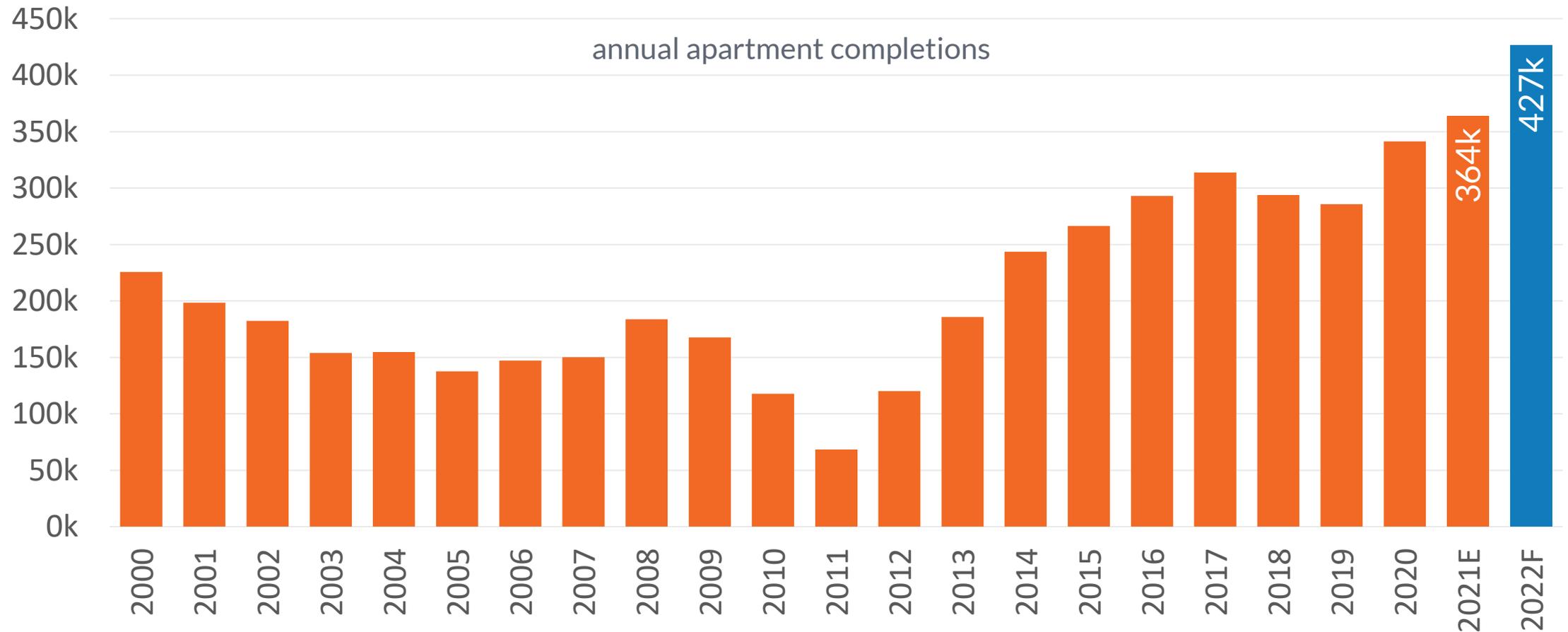
Occupancy

Market Leaders/Laggards

Urban/Suburban

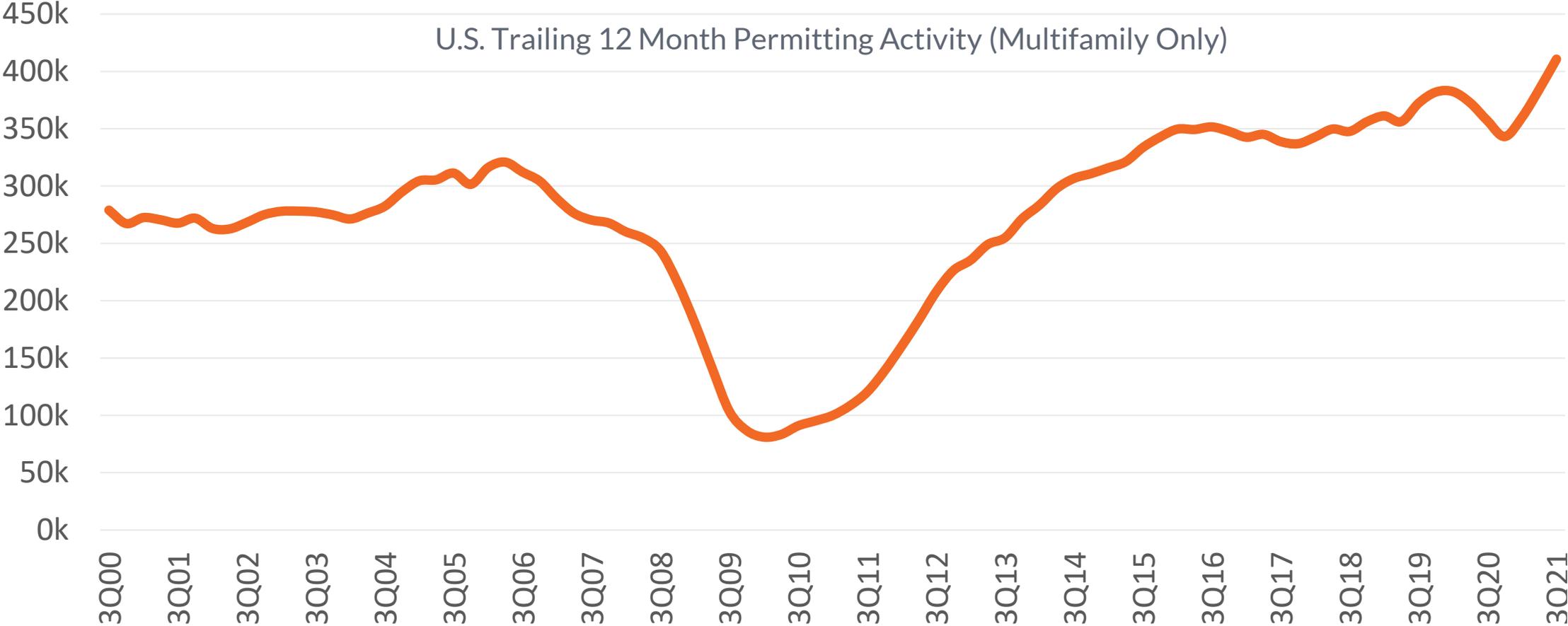


The 2022 forecast shows supply will set a multi-decade, up 17% vs. 2021's total



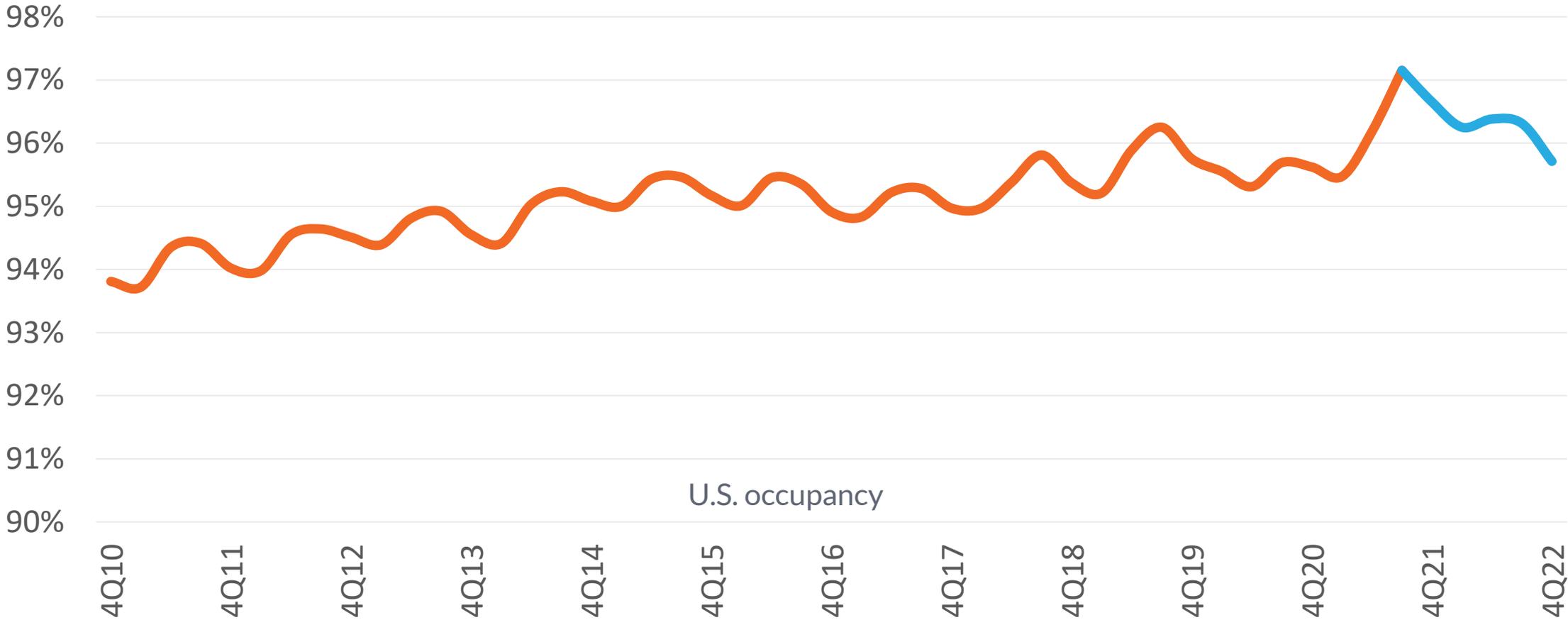
Source: RealPage, Inc.

Permitting briefly dipped in 2020, but today's volumes show more supply on the way



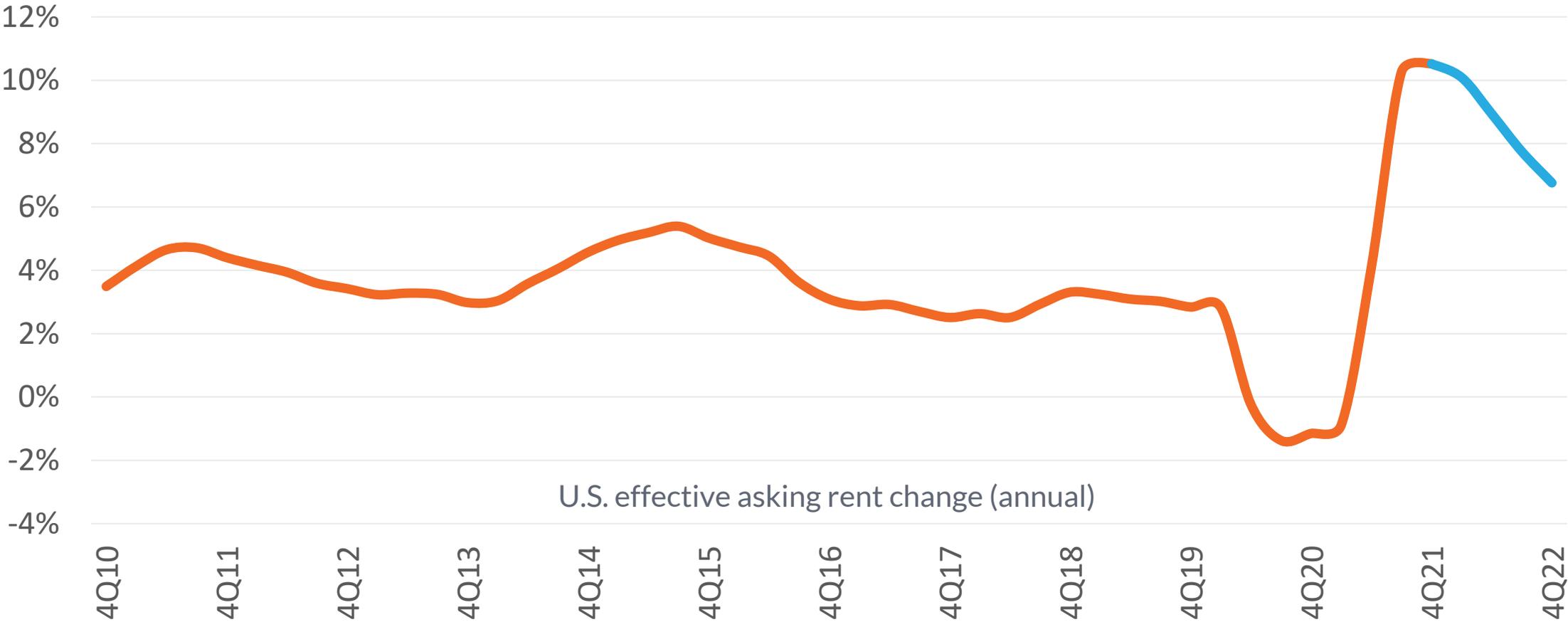
Sources: US Census; RealPage, Inc.

Expect occupancy to remain excellent through 2022, but likely tapering from 2021



Source: RealPage, Inc.

Rent growth should remain well-above typical, but moderate from 2021 levels



Source: RealPage, Inc.

Effective asking rent growth forecast (2022) by market

>10%	8% to 10%	6% to 8%	4% to 6%	<4%
Phoenix	San Francisco	Indianapolis	Nashville	Cleveland
Tampa	Raleigh/Durham	San Diego	Los Angeles	Pittsburgh
West Palm Beach	Denver	Oakland	Seattle	Houston
Las Vegas	Memphis	Miami	Washington, DC	Milwaukee
Atlanta	San Jose	Anaheim	Columbus	Newark
Jacksonville	Charlotte	Baltimore	Providence	
Riverside	Greensboro	Detroit	Chicago	
Ft. Lauderdale	Virginia Beach	Dallas	Cincinnati	
Sacramento	Austin	Ft. Worth	Kansas City	
Salt Lake City	Orlando	San Antonio	Portland	
	New York	Philadelphia	Minneapolis	
		Boston	St. Louis	

Blue cells =
2022 > 2021

2022 Annual Supply: DFW Submarkets

Frisco	3,550	Zang Triangle/Cedars/Fair Park	529	Kaufman County	200	Northeast Fort Worth/North Richland Hills	58
Allen/McKinney	1,987	Rockwall/Rowlett/Wylie	528	North Dallas	167	West Plano	32
Grand Prairie	1,814	Central/East Plano	396	Hunt County	152	Mesquite	25
South Arlington/Mansfield	1,706	Northeast Dallas	394	The Colony/Far North Carrollton	149	North Irving	25
Denton	1,250	Grapevine/Southlake	389	Addison/Bent Tree	147	Northwest Dallas	25
Burleson/Johnson County	1,227	Ellis County	354	Intown Fort Worth/University	120	Southeast Dallas	25
North Fort Worth/Keller	1,047	South Irving	325	North Arlington	120	Southwest Dallas	25
Intown Dallas	954	South Fort Worth	298	Hurst/Eules/Bedford	114	Central Arlington	0
Haltom City/Meacham	847	Garland	274	Love Field/Medical District	113	East Fort Worth	0
Oak Lawn/Park Cities	782	East Dallas	250	Southwest Fort Worth	98	Far North Dallas	0
Las Colinas/Coppell	568	Far East Dallas	231	North Oak Cliff/West Dallas	74	Southern Dallas County	0
Carrollton/Farmers Branch	533	Richardson	230	Lewisville/Flower Mound	66	West Fort Worth/Parker County	0

Source: RealPage, Inc.

2022 Forecast Rent Change: DFW Submarkets

1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
Between 7.6% and 8.6%	Between 6.8% and 7.6%	Between 5.8% and 6.8%	Between 3.4% and 5.8%
Burleson/Johnson County	North Dallas	Hunt County	Addison/Bent Tree
Kaufman County	Allen/McKinney	Intown Fort Worth/University	Lewisville/Flower Mound
Garland	Central/East Plano	Mesquite	East Fort Worth
Ellis County	Intown Dallas	North Oak Cliff/West Dallas	East Dallas
Southern Dallas County	Southeast Dallas	North Irving	Love Field/Medical District
South Arlington/Mansfield	Frisco	West Fort Worth/Parker County	Far East Dallas
Grand Prairie	Las Colinas/Coppell	Hurst/Euless/Bedford	Southwest Dallas
The Colony/Far North Carrollton	Northeast Fort Worth/North Richland Hills	Southwest Fort Worth	Northeast Dallas
South Fort Worth	Richardson	Grapevine/Southlake	Haltom City/Meacham
Zang Triangle/Cedars/Fair Park	Oak Lawn/Park Cities	Far North Dallas	Rockwall/Rowlett/Wylie
South Irving	West Plano	Northwest Dallas	North Fort Worth/Keller
North Arlington	Carrollton/Farmers Branch	Denton	

Source: RealPage, Inc.

2022 Rental Rates (End of Year): DFW Submarkets

Oak Lawn/Park Cities	\$2,098	North Fort Worth/Keller	\$1,503	Kaufman County	\$1,340	South Irving	\$1,181
Intown Dallas	\$1,928	Intown Fort Worth/University	\$1,500	Southern Dallas County	\$1,327	Haltom City/Meacham	\$1,181
West Plano	\$1,710	Carrollton/Farmers Branch	\$1,489	North Irving	\$1,324	Mesquite	\$1,170
The Colony/Far North Carrollton	\$1,660	Lewisville/Flower Mound	\$1,488	Ellis County	\$1,320	Southwest Fort Worth	\$1,153
Las Colinas/Coppell	\$1,638	Addison/Bent Tree	\$1,468	Burleson/Johnson County	\$1,300	Northeast Dallas	\$1,129
Frisco	\$1,629	Love Field/Medical District	\$1,442	Garland	\$1,298	Northwest Dallas	\$1,128
Richardson	\$1,582	North Oak Cliff/West Dallas	\$1,434	Hurst/Euless/Bedford	\$1,291	South Fort Worth	\$1,125
Grapevine/Southlake	\$1,577	South Arlington/Mansfield	\$1,420	Denton	\$1,276	Far East Dallas	\$1,120
Allen/McKinney	\$1,573	Grand Prairie	\$1,395	Far North Dallas	\$1,267	Southwest Dallas	\$1,102
Central/East Plano	\$1,562	Northeast Fort Worth/North Richland Hills	\$1,393	North Arlington	\$1,246	East Fort Worth	\$1,071
East Dallas	\$1,546	North Dallas	\$1,346	Central Arlington	\$1,244	Southeast Dallas	\$1,010
Rockwall/Rowlett/Wylie	\$1,528	Zang Triangle/Cedars/Fair Park	\$1,342	West Fort Worth/Parker County	\$1,193	Hunt County	\$997

Source: RealPage, Inc.

2022 Forecast Summary



- ✓ **Rent growth:** excellent by typical standards, but likely tapers off from 2021
- ✓ **Occupancy:** holds well-above normal, but unlikely to match 2021's record level of 97%-plus
- ✓ **Supply:** more than 420k units to deliver, marking a multi-decade high (barring delays)
- ✓ **Demand:** essentially matches decade average, but likely to moderate from current levels
- ✓ **Investment:** apartments well-positioned within CRE and will continue attracting capital