

PHOENIX MSA | MULTIFAMILY | 20, 2013 REPORT



PHOENIX MSA OVERVIEW PHOENIX MSA - PER CITY ANALYSIS MULTIFAMILY PROPERTY ANALYSIS: 100+ & 10-99 UNITS SINGLE FAMILY RESIDENTIAL STATS & HOUSING PERMIT DATA COMPLETED CONSTRUCTION & PLANNED PROJECTS 2Q 2018 SELECT NEWS - PHOENIX MSA ABInsight . 2Q 2018 REVIEW: THE MARKET'S LATERAL LINE ABI COMPARATIVE MARKET REVIEW: 2Q 2018

10	+ UNIT PROPERTIES	2Q 2018 INCREASE/DECREASE	2Q 2017
T	otal Sales Volume	\$1.5B +13% ^	\$1.3B
	□ Price/Unit	\$149,632 +24%	\$120,974
	∝ ≃ Price/SF	\$183.42 +26%	\$145.25
	> < Year Built	1974 -2 yrs 💙	1976
+	Average Rent	\$1,067 +6.4%	\$1003
10+	Occupancy Rate	95.3% +0.2%	95.1%
	Units Delivered	2,380 +47%	1,620

ABI GEONEWS - PHOENIX MSA 2Q 2018 SELECT NEWS CONTINUED ON PAGE 06



Nationwide Insurance development opens 1,000 acres of desert to growth including 5,500 new jobs



Deloitte planning big operations center, 2,500 jobs in Gilbert, office to open by end of 2018



Nikola Motor Co. hiring more than 300 high-paying engineers for Phoenix facility

4,737,270

~ +2.0%

01 02

03

04

05

06

09

07-08



EMPLOYMENT GROWTH

UNEMPLOYMENT AS OF JUNE 2018 Y-O-Y AS OF JUNE 2018 - ADOA

\$55,547 +4.1% \$43,249

MEDIAN HH INCOME 2014-15 ACS 5-YR EST PER CAPITA INCOME 2016 EBRC, DOA, BEA ESTIMATE

16,766



360,362



UNDER CONSTRUCTION

TOTAL INVENTORY AS OF JUNE 2018

PHOENIX MSA - PER CITY ANALYSIS

DUOT	MIN MCV OI	IICV CTATC	UNEARL OVACUE	DATE MEDIAN III	INCOME DED CAN	NITA INCOME	50+	
PHUE	NIX MSA QU		UNEMPLOYMENT				TOTAL INVENTORY	UNDER CONSTRUCTION
	P	hoenix MS/	4.2%	\$55,	547 \$4	3,249	303,404	16,766
Îm.	P	hoenix	3.5%	\$49,3	328 \$2	5,213	132,462	5,648
	N	lesa	3.4%	\$50,6	515 \$2	5,669	36,524	918
	S	cottsdale	2.8%	\$76,	543 \$5	4,060	25,733	1,880
	T	етре	3.1%	\$50,4	174 \$2	7,705	32,968	2,844
	G	ilendale	3.5%	\$46,8	317 \$2	2,452	22,783	340
F	PHOENIX MS	A - PER CITY A	ANALYSIS	Phoenix	Mesa	Scottsdale	Tempe	Glendale
IATS		Average Ren	t (2Q 2018)	\$977	\$944	\$1,363	\$1,279	\$904
S JUN		% Cha	nge (y-o-y)	+6.1%	+5.6%	+5.3%	+5.8%	+6.6%
RENT & OCCUPANCY STATS	C	Occupancy Rate	e (2Q 2018)	95.3%	96.1%	95.1%	94.0%	95.7%
% 0C		% Cha	nge (y-o-y)	+0.4%	+0.4%	+0.7%	-0.8%	+0.4%
RENT	Units	Delivered (2Q	2018, 50+)	1,253	50	N/A	150	N/A
	Total Sales	s Volume (2Q 2	2018, 100+)	\$512,930,000	\$50,300,000	\$160,100,000	\$186,500,000	\$52,750,000
(+0	Total Sales	S Volume (2Q 2	2017, 100+)	\$487,682,523	\$174,820,716	\$62,500,000	\$220,565,000	\$87,300,000
SALES DATA (100+)		% Cha	nge (y-o-y)	+5%	-71%	+156%	-15%	-40%
S DA		Avg P/U (2Q 2	2018, 100+)	\$140,992	\$138,567	\$217,527	\$207,222	\$119,344
SALI		Avg P/U (2Q 2	2017, 100+)	\$121,284	\$115,393	\$200,321	\$123,221	\$110,646
		% Cha	nge (y-o-y)	+16%	+20%	+9%	+68%	+8%
	Total Sales	Volume (2Q 20	018, 10-99)	\$86,927,410	\$11,787,500	\$15,160,000	\$27,320,000	\$32,395,000
(66-	Total Sales	Volume (2Q 20	017, 10-99)	\$74,378,760	\$16,925,000	\$17,650,000	\$34,675,000	\$9,420,000
SALES DATA (10-99)		% Cha	nge (y-o-y)	+17%	-30%	-14%	-21%	+244%
		Avg P/U (2Q 20	018, 10-99)	\$84,642	\$86,673	\$120,317	\$117,253	\$109,074
		Avg P/U (2Q 20	017, 10-99)	\$82,369	\$86,352	\$103,216	\$174,246	\$56,747
		% Cha	nge (y-o-y)	+3%	N/A	+17%	-33%	+92%

100+ UNIT PROPERTY ANALYSIS

	2Q 2018	INCREASE/DECREASE	2Q 2017
Total Sales Volume	\$1.34B	+13%	\$1.19B
☐ Price/Unit	\$162,091	+29%	\$125,794
∝ Price/SF	\$195.69	+31%	\$149.21
→ Year Built	1992	+3 yrs 🖍	1989
			i company

TOP 3 TRANSACTIONS BY PRICE/UNIT (100+)



Hanover Mill Avenue

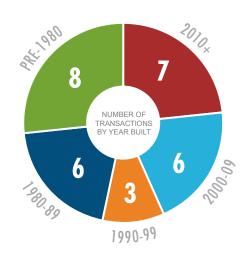
Tempe, 341 Units | \$95,100,000 \$278,886/Unit | \$339.58/SF | Built 2015

Avilla Heights

Chandler, 116 Units | \$27,840,000 \$240,000/Unit | \$253.88/SF | Built 2017

Escape

Phoenix, 244 Units | \$58,350,000 \$239,139/Unit | \$194.89/SF | Built 2016



2Q 2018 Transactions by Year Built

	# of Transactions	Avg Price/Unit	Avg Price/SF
2010+	7	\$237K	\$255
2000-09	6	\$188K	\$192
1990-99	3	\$195K	\$211
1980-89	6	\$114K	\$142
Pre-1980	8	\$102K	\$165

10 - 99 UNIT PROPERTY ANALYSIS

	2Q 2018	INCREASE/DECREASE		2Q 2017
Total Sales Volume	\$183M	+19%		\$154M
□ Price/Unit	\$95,754	+3%		\$93,354
∝ Price/SF	\$125.71	+4%		\$120.54
→ Year Built	1966	-2 yrs	~	1968

TOP 3 TRANSACTIONS BY PRICE/UNIT (10-99)



Arcadia Edge

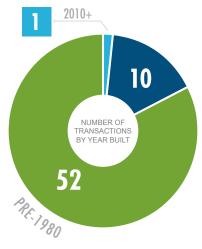
Phoenix, 23 Units | \$4,350,000 \$189,130/Unit | \$253.53/SF | Built 1967

Village Sereno

Glendale, 93 Units | \$16,500,000 \$177,419/Unit | \$148.16/SF | Built 2009

The V on 26th

Phoenix, 11 Units | \$1,900,000 \$172,727/Unit | \$280.73/SF | Built 1962



2Q 2018 Transactions by Year Built

	# of Transactions	Avg Price/Unit	Avg Price/SF
2010+	0	N/A	N/A
2000-09	1	\$177K	\$148
1990-99	0	N/A	N/A
1980-89	10	\$81K	\$120
Pre-1980	52	\$95K	\$125

= ABI Multifamily

SINGLE FAMILY RESIDENTIAL - FOR SALE/LEASE

AVG SALES PRICE \$333,600

+9.7%, YEAR-OVER-YEAR AVERAGE

MEDIAN SALES PRICE \$268,000

+9.4%, YEAR-OVER-YEAR MEDIAN

SFR SALES TRENDS *

MONTHLY SALES 9,079

-3.3%, YEAR-OVER-YEAR

-8.4%, MONTH-OVER-MONTH

AVG DAYS ON MARKET 62

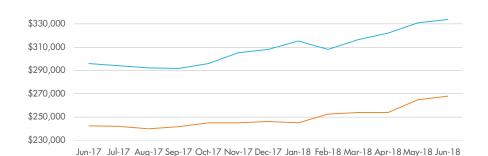
- -15 DAYS, YEAR-OVER-YEAR
- -1 DAYS, MONTH-OVER-MONTH

FORECLOSURES PENDING 2,701

- -13.7%, YEAR-OVER-YEAR
- -1.6%, MONTH-OVER-MONTH

) [

* As of June 2018



SFR - FOR LEASE

2Q 2018

Median Lease:\$1,445Average Lease:\$1,618Avg. Days on Market:26Rent Check Quotient TM :3:10

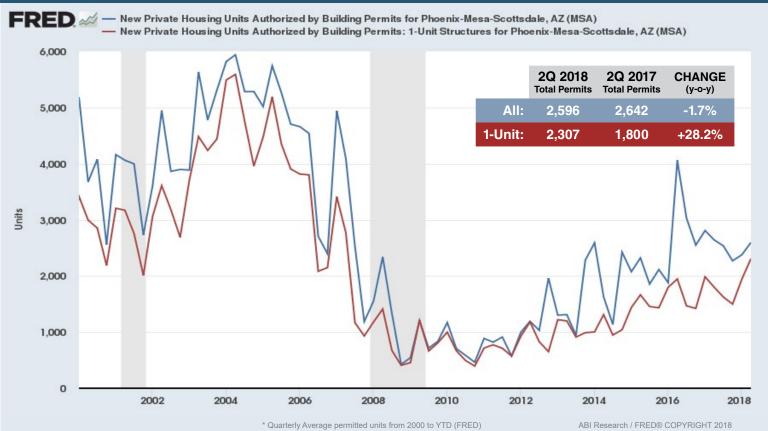
2Q 2017

Median Lease:\$1,376Average Lease:\$1,559Avg. Days on Market:27Rent Check Quotient TM :3:10

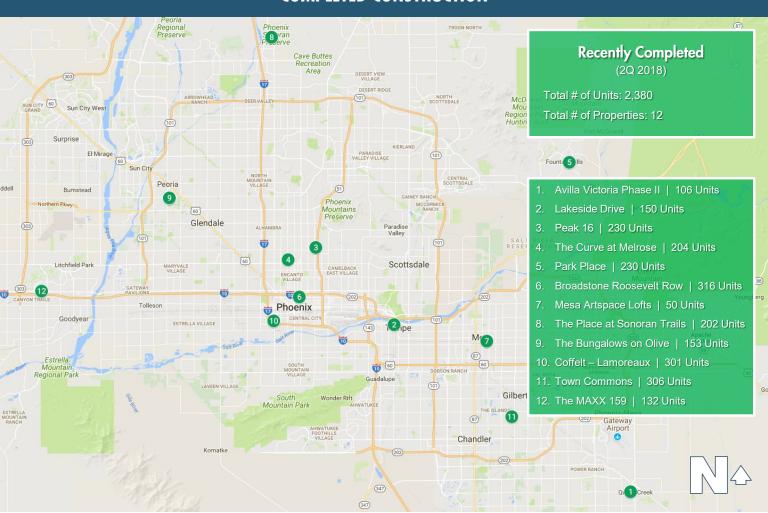
RENT Check Quotient (RCQ) is the ratio of closed rentals to closed sales. For example, 1:2 (one to two) would mean for every 1 rental, there are 2 closed sales. 1:1 (one to one) would mean that the number of closed rentals and closed sales are the same.

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HOUSING PERMIT DATA - SFR/MF *



COMPLETED CONSTRUCTION





11,000 10,000 9,315 9,000 8,533 7,912 _{7,785} 8,000 7,261 6,902 7,000 20 Year Average: 5,342 6,385 6,000 5,431 5.003 5,000 4,661 4,527 4.010 4,000 3,683 3,569 3,281 2,751 3,000 2,593 2 000 1 668 1.000 2012

TOTAL UNIT INVENTORY

10 + UNIT PROPERTIES: 360,362

50+ UNIT PROPERTIES: 303,404

PRE-LEASE

ABSORPTION RATE

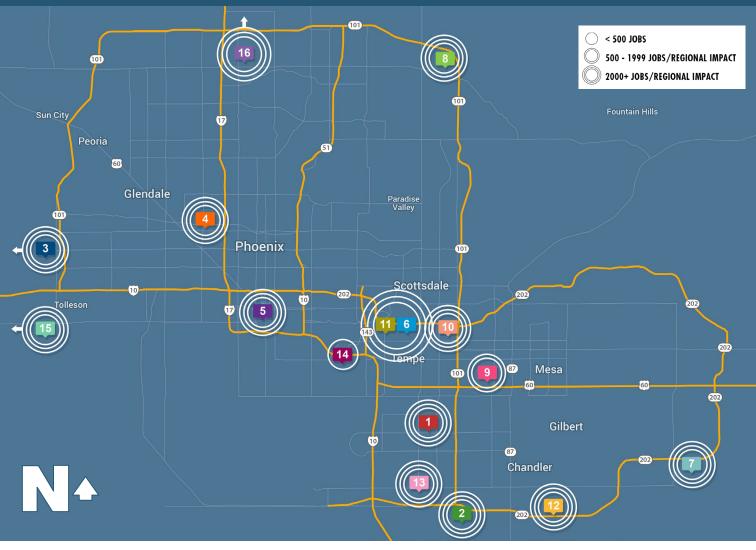
Under Construction

Planned

Total # of Units: 16,761 Total # of Properties: 81

^{*} Project Units Delivered. Project units delivered is based on when the total project is completed, not as individual buildings/units are delivered

2Q 2018 SELECT NEWS



- Northern Trust | Opening \$95M regional operations center in Tempe | Hiring 1,000
- Wells Fargo opening new regional office in Price Corridor to bring 1,200 jobs, Liberty Mutual opening new office to bring 750 jobs
- New UPS Hub to add processing capacity for e-commerce, add 1,500 jobs at Goodyear PV303
- GCU continues massive campus expansion | 3,000+ employees and 14,000+ students expected by 2020
- Quicken Loans finalizes deal to move 1,100-plus jobs to Downtown Phoenix
- 6 State Farm Regional Headquarters: Brings total State Farm Phoenix area employment to 3,000+
- SkyBridge Arizona, nation's first international air cargo hub to house both Mexican and United States customs, expected to create 17,000 new jobs
- Nationwide Insurance development opens 1,000 acres of desert to growth including 5,500 new jobs

- Santander Consumer USA to hire 1,000+ workers for new regional operations center in Mesa's Fiesta District with avg salary of \$51,000
- Freedom Financial Network expected to bring 3,200 jobs to East Valley hub after lease signing
- 11 New ADP office to bring 1,500 jobs to Tempe, AZ
- Deloitte planning big operations center, 2,500 jobs in Gilbert, office to open by end of 2018
- Intel to invest \$7 billion in new factory in Chandler, employ 3,000 workers
- Nikola Motor Co. hiring more than 300 high-paying engineers for Phoenix facility
- Bill Gates invests \$80 million in real estate on Phoenix area's western edge to build smart city
- 16 USAA adding 1,000 tech jobs in Phoenix in next 3 years

ABInsight PHOENIX MSA 2Q 2018: THE MARKET'S LATERAL LINE

BY: THOMAS M. BROPHY, DIRECTOR OF RESEARCH

THE MARKET'S LATERAL LINE



Phoenix MSA 2Q 2018

The lateral line, in aquatic vertebrates such as sharks, is a system of sense organs which is used to detect movement, vibration, and pressure gradients in the surrounding water. As Discovery Channel's 'Shark Week' detailed, sharks use changes in their environment, specifically sensing electro-magnetic waves/pulses via their lateral lines, to better position themselves to strike at prey. In more laymen terms, the lateral line enables the shark to detect its prey without seeing it.

today's data-rich, information light, central banker skewed-market environment sometimes the only thing investors can truly count on is gut instinct and inspection of the market's tea leaves. By all accounts the economy is firing on all cylinders with GDP at 4.1%, inflation just a tick over 2%, National unemployment at 4% and interest rates still hovering near historic lows. As Elliott D. Pollack opined in his July 31st Monday Morning Quarterback newsletter, "most economists expect GDP this year to come in at or above 3.0%. And while how sustainable this is over the long run is open to debate (there are good demographic reasons to doubt that it is), the economy is doing just fine, thank you. Enjoy the party."

Phoenix Market Metrics:

By the Numbers

The MSA's total sales volume (10+ unit properties) increased 13%, y-o-y, to \$1.52 billion across 94 transactions representing 10,182 total units sold. California-based investors continue to be the dominant buyer of multifamily properties in the Valley accounting for 40% of total units transacted, or 4,101 units. Canada-based investors came in 2nd with 1,109 units purchased. New York-based investors came in 3rd with 1,074 units purchased and rounding out the top five: (#4) Arizona-investors with

1,044 units purchased and (#5) Pacific Northwest-based investors with 704 units.

Sales of 100+ unit properties witnessed a 13% y-o-y increase to \$1.34 billion, although still below 2Q 2016's peak of \$1.69B. Average Price-Per-Unit (PPU) amount increased as well rising 29% to \$162,091. 10 to 99 unit properties saw sales volume increase as well rising 19% y-o-y to \$183M with a +3% in average PPU amount to \$95,754.

In regards to new construction, developers delivered 2,380 units in the 2Q, a 47% y-o-y increase. For 2018, developers are on track to deliver 9,000+ new units, the most since 2009's 9,315 unit delivery high. Planned unit construction increased 36% y-o-y, or 21% q-o-q, to 16,761, as developers gradually increased their purchase of developable land.

The MSA's occupancy rate ended 2Q up at 95.3%, a 0.2% y-o-y increase with average rent increasing 6.4% y-o-y to \$1,067. City of Glendale and Phoenix claimed the top spots in the MSA for rent growth at 6.6% and 6.1% respectively, followed by Tempe at 5.8%, Mesa at 5.6% and Scottsdale at 5.3%. Scottsdale still claims the top spot in actual average rent which at \$1,363 is the highest in the region.

Institutional Investors Lead the Way

As Oliver Senchal noted in the forward to Preqin's Real Estate Funding 2Q report, "concerns over a downturn are still evident, not only from the increase in appetite for debt funds we have seen in recent years and the downside risk protection they offer, but also from the mandates that institutional investors are putting out. Indicators appear to be moving from opportunity funds down the spectrum towards value added and coreplus vehicles." In fact, value add funds accounted for ~66% of fund closures

and capital raised with the majority of those funds focused on North America.

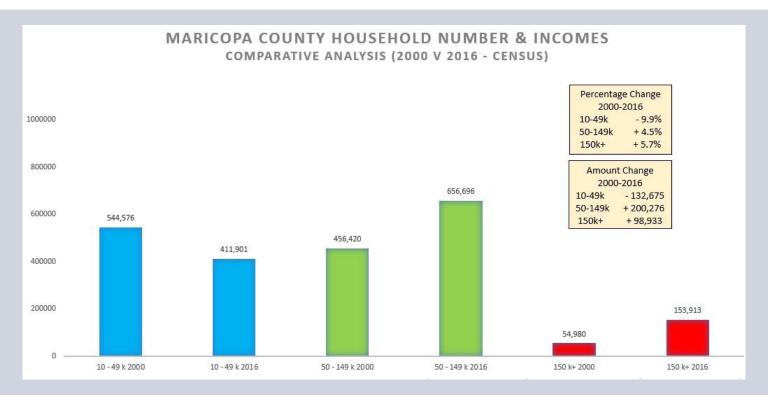
As I've stated many times, large institutional investors are all back in the Phoenix MSA and actively looking to acquire more properties. Largest among them is New York-based, The Blackstone Group, who, since the beginning of 2018, has purchased 2,211 units (across 5 properties). Additionally, Blackstone has been active in the mobile home park/community market acquiring 3,181 units, across 17 properties, over the same time period. In addition to Blackstone, other large institutional players who property in Phoenix purchased include: Goldman Sachs, TruAmerica Multifamily, Eaton Vance, Weidner, Western Wealth Capital, FPA Multifamily and BH Equities to name but a few.

What's driving investor interest in Phoenix? Primarily robust jobs growth, 3.1% y-o-y, and continued population growth. In fact, Phoenix area hiring outpaced Bay Area hiring by 56% in June according to Chamber Business News (CBN). CBN goes on to state, "Valley advanced business services, financial services and technology companies increased workforce by 15,000 jobs over June 2017. The average individual wage, according to the U.S. Bureau of Labor Statistics (BLS) May 2018 data, topped \$60,000 in these sectors." In regards to incomes, and referenced in the following chart, Maricopa County has witnessed a significant increase in households earning above \$50K with the largest percentage increase, rising 5.7% from 2000 to 2016, in those households earning above \$150K.

Lastly, despite the significant increase in quarterly unit deliveries to 2,380, highest since 2Q 2016, occupancy rate increased 20 basis points (bps) to 95.3% which was surprising even to me and suggests that population growth is higher than most are predicting.

ABInsight PHOENIX MSA 2Q 2018: THE MARKET'S LATERAL LINE

BY: THOMAS M. BROPHY, DIRECTOR OF RESEARCH



The Market's Lateral Line – Yield Curve Inversion?

The 2-year/10-year spread refers to the divergence between the 10-year US Treasury bond and the 2-year Treasury note. Generally speaking the yield on the 10-year should be greater than the 2-year based simply on the fact that more adverse economic events are likelier to transpire over a longer time frame than a shorter one. Why all the noise? During the past three recessions, the 2/10 year US Treasury yield spread went negative about a year before the onset of the economic slowdown; which, as far as economic indicators go, has been as prescient an indicator as we've had over the last several decades. As of July 31st, the 2/10 spread was a mere 32 bps.

Despite the long list of notable bond traders who firmly believe the 2/10 spread is a true market indicator, I tend to agree with traders such as John Mauldin and Kevin Muir, of TheMacroTourist.com, who assert that massive Central Bank QE (Quantitative Easing) and real

negative rates has rendered the spread less effective. I would further assert, not only has it made the spread less effective, it has also distorted R-star or natural rate of interest. Given the past decade of zero-to-negative interest rates the entire developed world over, central banks have artificially thrust R-star downward causing investors, whether knowing or unknowingly, to increase risk in order to attain greater yields.

I still believe we are closer to negative rates than we are to 4%+ rates. Why do I think this? Given the length of our current recovery, second longest on record, we are probably closer to a correction than continued expansion. The caveat emptor, current growth has been spurred by tax cuts and deregulation which could certainly extend the bull market's rally longer than what many are predicting. Nonetheless, in previous recessions central bankers have, on average, needed to cut interest rates ~5% before normalizing policy. Given the Fed's current 1.5 to 1.75% target, with two more rate hikes expected this year

moves the target to 2 to 2.25%, negative rates could certainly be on the horizon.

Final question/thought, suppose real estate return rates revert to average historical levels of 3.8%, across the board, and average rental rates soften to 2%+, contingent upon market, where else are you going to find a better return? Investors are slowly beginning to wake up to this new market reality and my best guess, without the benefit of a future indicating magical crystal ball, is that multifamily is where they will want to be.

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ABI COMPARATIVE MARKET REVIEW: 2Q 2018

		PHOENIX	TUCSON	SACRAMENTO	SAN DIEGO (
	Total Population	4,737,270	1,026,099	2,296,418	3,317,749
HICS_	Unemployment Rate (as of Mar '18)	4.2%	4.5%	4.1%	3.7%
DEMOGRAPHICS	Employment Growth (y-o-y)	3.1%	2.1%	1.6%	1.5%
- DEM(Median HH Income	\$55,547	\$46,764	\$62,813	\$66,529
	Per Capita Income	\$43,249	\$39,541	\$51,370	\$55,168
	Rent (2Q 2018)	\$1,067	\$831	\$1,423	\$1,908
(+	% Increase / Decrease	+6.4%	+4.1% ^	+4.9%	+5.2%
(CONST (50+)	Occupancy (2Q 2018)	95.3%	94.5%	96.3%	96.5%
		+0.2%	+0.1% ^	-0.9% 🛩	-0.6%
-RENT/OCC,	Total Inventory (50+)	303,404	67,093	127,288	182,894
RE .	Total Under Construction (50+)	16,766	853	3,279	7,436
——SALES (50+)	Units Delivered (50+, 2Q 2018)	2,380	N/A	397	1,307
	Total Sales Volume (2Q 2018)	\$1.43B	\$242M	\$247M	\$326M
	y-o-y % Increase / Decrease	+16% ^	+74%	-14% 🛩	-56% 🛩
	Average P/U (2Q 2018)	\$155,266	\$86,628	\$160,445	\$297,765
	y-o-y % Increase / Decrease	+26%	-1%	+28%	+7%



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NOTABLE RECENT ABI MULTIFAMILY TRANSACTIONS

100+ UNIT PROPERTIES

10-99 UNIT PROPERTIES









SUN CREEK APARTMENTS

15050 North 59th Avenue, Glendale. AZ

Price: \$23,000,000 Units: 175 Year Built:1985

SEVENTEEN 805

17805 North 40th Street, Phoenix, AZ

Price: \$16,780,000 Units: 138 Year Built: 1984

THE VUE ON CAMELBACK

4802 North 15th Avenue, Phoenix. AZ

Price: \$9,500,000 Units: 93 Year Built: 1974

EPIC @ UNIVERSITY POINTE

1224 East Lemon Street, Tempe. AZ

Price: \$7,500,000 Units: 65 Year Built: 1966

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