



TUCSON MSA | MULTIFAMILY | 1Q 2018 REPORT

TUCSON MSA OVERVIEW	01
MULTIFAMILY PROPERTY ANALYSIS: 100+ & 10-99 UNITS	02
SINGLE FAMILY RESIDENTIAL STATS & HOUSING PERMIT DATA	03
COMPLETED CONSTRUCTION & PLANNED PROJECTS	04
1Q 2018 SELECT NEWS - TUCSON MSA	05
ABInsight® TUCSON MSA: 1Q 2018 CONSTRUCTION ASSUMPTIONS	06-07
ABI COMPARATIVE MARKET REVIEW: 1Q 2018	08

10+ UNIT PROPERTIES		1Q 2018	INCREASE/DECREASE	1Q 2017
Total Sales Volume		\$155M	-3% ▼	\$159M
A V E R A G E	Price/Unit	\$58,189	+35% ▲	\$42,968
	Price/SF	\$83.20	+21% ▲	\$69.01
	Year Built	1968	NO CHANGE	1968
10+	Average Rent	\$831	+4.8% ▲	\$793
	Occupancy Rate	94.1%	-0.2% ▼	94.3%
	Units Delivered	N/A	—	318

ABI GEONEWS - TUCSON MSA 1Q 2018 SELECT NEWS

CONTINUED ON PAGE 05



Project Wildcat to bring massive Amazon distribution center to Tucson



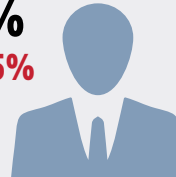
GEICO to build new corporate office in Tucson, add 700 jobs



TuSimple expands as it readies self-driving truck technology

1,026,099 **POPULATION**
ERBC 2017 ESTIMATE

4.1%
▼ -0.5%



UNEMPLOYMENT
AS OF MARCH 2018

+0.9%



EMPLOYMENT GROWTH
Y-O-Y AS OF MARCH 2018

\$46,764
▲ +1.3%



MEDIAN HH INCOME
2016 ACS 5-YR EST

\$39,541
▲ +1.6%



PER CAPITA INCOME
2016 EBRC, DOA, BEA ESTIMATE

796
Units (50+)



UNDER CONSTRUCTION
YARDI

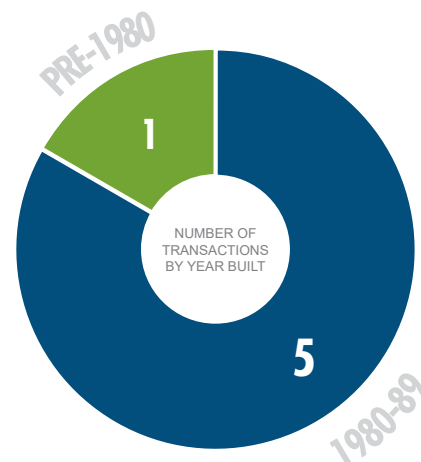
117,885
Units (10+)



TOTAL INVENTORY
AS OF MARCH 2018

100+ UNIT PROPERTIES

	1Q 2018	INCREASE/DECREASE	1Q 2017
Total Sales Volume	\$110M	-13% ▼	\$127M
AVERAGE Price/Unit	\$63,013	+41% ▲	\$44,556
AVERAGE Price/SF	\$84.48	+19% ▲	\$70.95
AVERAGE Year Built	1982	+3 yrs ▲	1977



TOP 3 TRANSACTIONS BY PRICE/UNIT (100+)



Orange Tree Village

Tucson, 110 Units | \$10,550,000
\$95,909/Unit | \$75.28/SF | Built 1981

Hazen Townhomes Portfolio

Tucson, 450 Units | \$31,148,700
\$69,219/Unit | \$77.87/SF | Built 1980

River Oaks

Tucson, 300 Units | \$20,500,000
\$68,333/Unit | \$97.41/SF | Built 1982

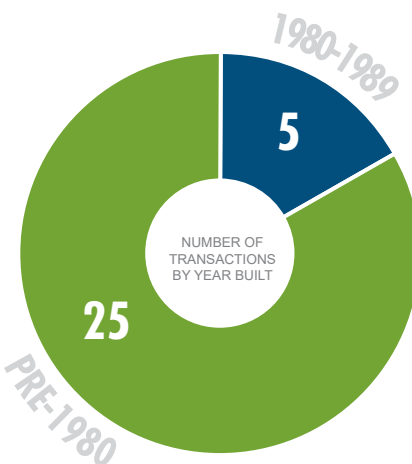
= ABI Multifamily Transaction

1Q 2018 Transactions by Year Built

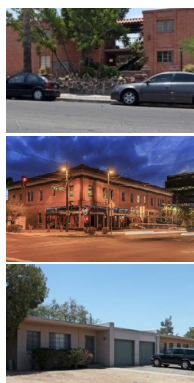
	# of Transactions	Avg Price/Unit	Avg Price/SF
2010+	0	N/A	N/A
2000-09	0	N/A	N/A
1990-99	0	N/A	N/A
1980-89	5	\$63K	\$83
Pre-1980	1	\$62K	\$89

10 - 99 UNIT PROPERTIES

	1Q 2018	INCREASE/DECREASE	1Q 2017
Total Sales Volume	\$45M	+37% ▲	\$33M
AVERAGE Price/Unit	\$48,923	+30% ▲	\$37,746
AVERAGE Price/SF	\$80.18	+29% ▲	\$62.39
AVERAGE Year Built	1966	+3 yrs ▲	1963



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



Sonoran on 9th

Tucson, 26 Units | \$4,550,000
\$175,000/Unit | \$193.44/SF | Built 1969

The Flats at Julian Drew

Tucson, 53 Units | \$5,800,000
\$109,434/Unit | \$214.47/SF | Built 1964

1315 - 1335 East Drachman Street

Tucson, 23 Units | \$1,900,000
\$82,609/Unit | \$113.82/SF | Built 1948

1Q 2018 Transactions by Year Built

	# of Transactions	Avg Price/Unit	Avg Price/SF
2010+	0	N/A	N/A
2000-09	0	N/A	N/A
1990-99	0	N/A	N/A
1980-89	5	\$34K	\$59
Pre-1980	25	\$54K	\$87

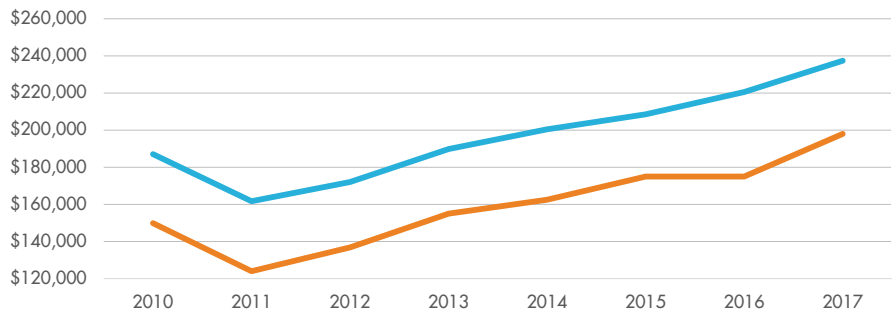
SINGLE FAMILY RESIDENTIAL - FOR SALE/LEASE

AVG SALES PRICE \$246,514

12%, YEAR-OVER-YEAR AVERAGE

MEDIAN SALES PRICE \$210,000

14%, YEAR-OVER-YEAR AVERAGE



SFR SALES TRENDS

TOTAL YTD SALES 3,482

-12%, YEAR-OVER-YEAR

AVG DAYS ON MARKET 43

-12 DAYS, YEAR-OVER-YEAR

ABSORPTION RATE 3.92

THE ABSORPTION RATE, IN MONTHS, SHOWS HOW LONG THE CURRENT INVENTORY OF PROPERTIES WOULD LAST AT THE CURRENT RATE OF SALES

SFR - FOR LEASE

1Q 2018

Average Lease: \$1,299

Avg. Days on Market: 29

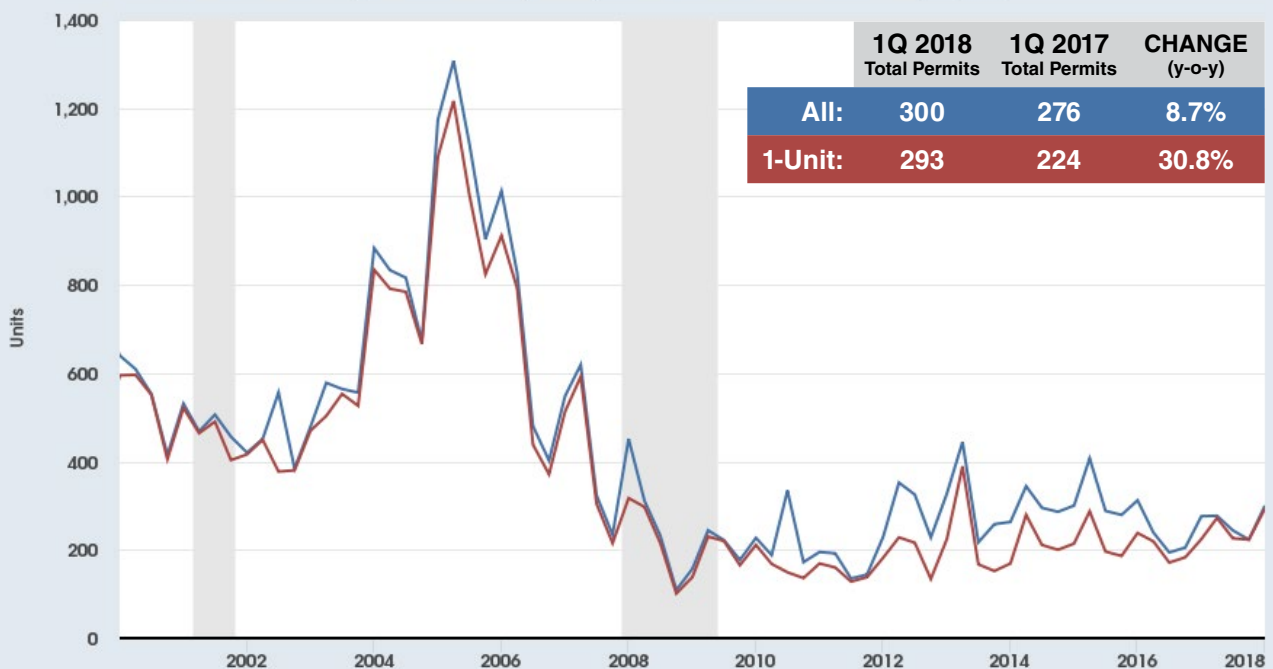
1Q 2017

Average Lease: \$1,144

Avg. Days on Market: 43

HOUSING PERMIT DATA - SFR/MF *

FRED — New Private Housing Units Authorized by Building Permits for Tucson, AZ (MSA)
— New Private Housing Units Authorized by Building Permits: 1-Unit Structures for Tucson, AZ (MSA)



Shaded areas indicate U.S. recessions

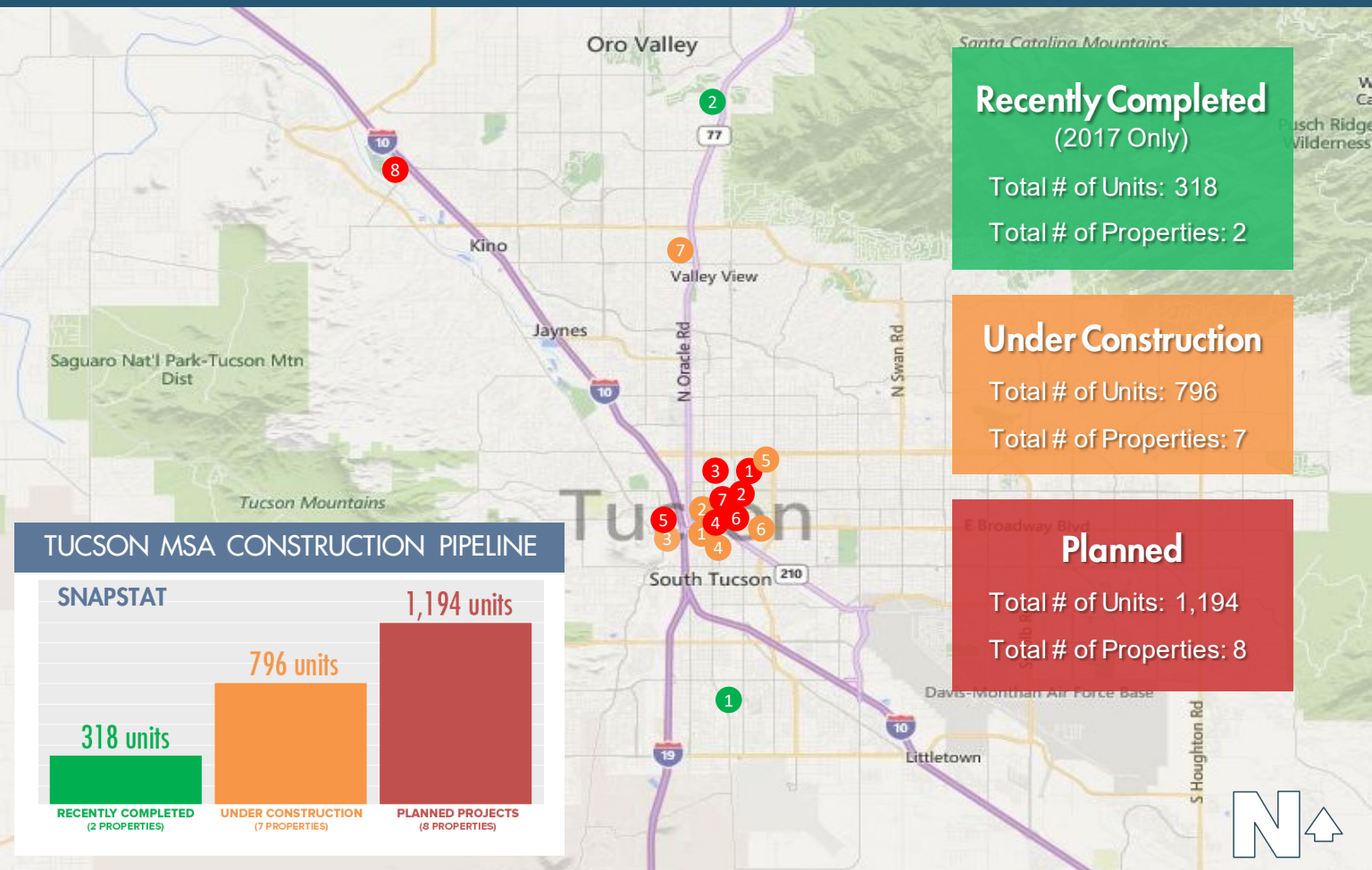
Source: U.S. Bureau of the Census

myf.red/g/jzWa

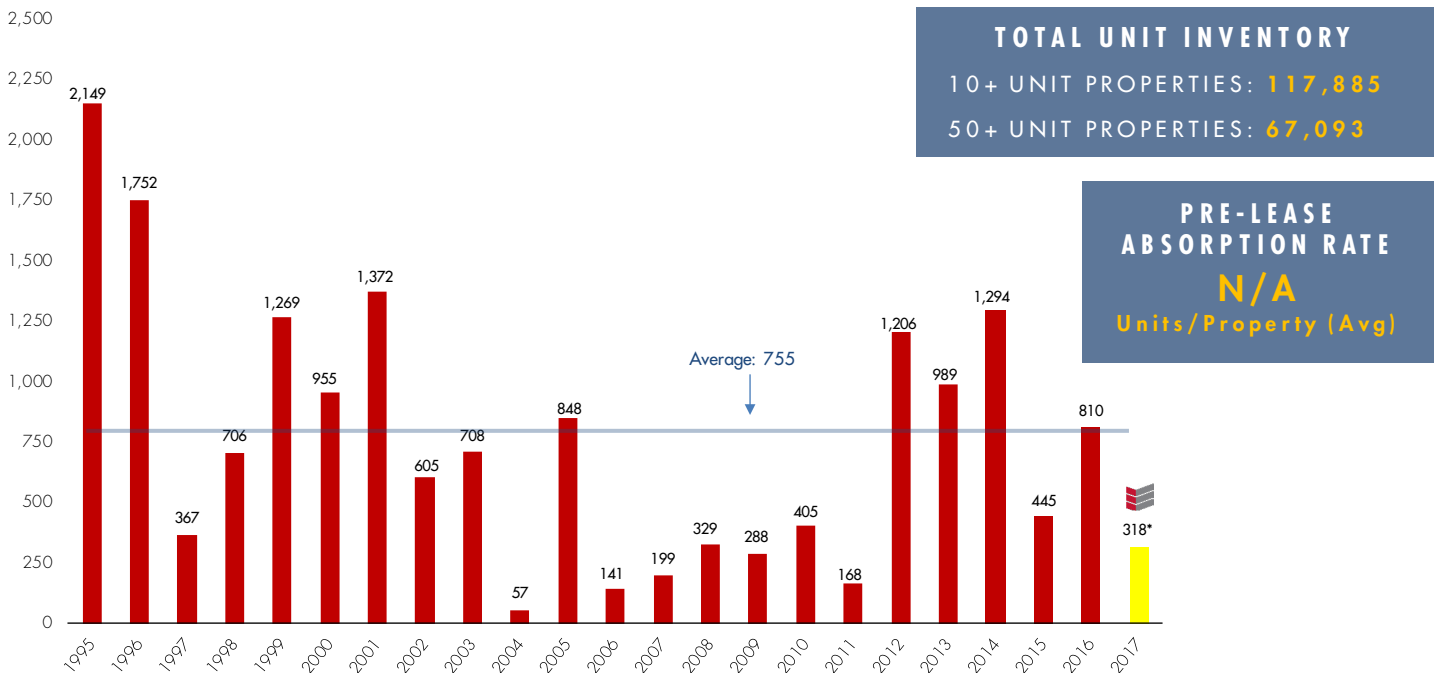
* Quarterly Total "End of Period" permitted units from 2000 to YTD (FRED)

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COMPLETED CONSTRUCTION

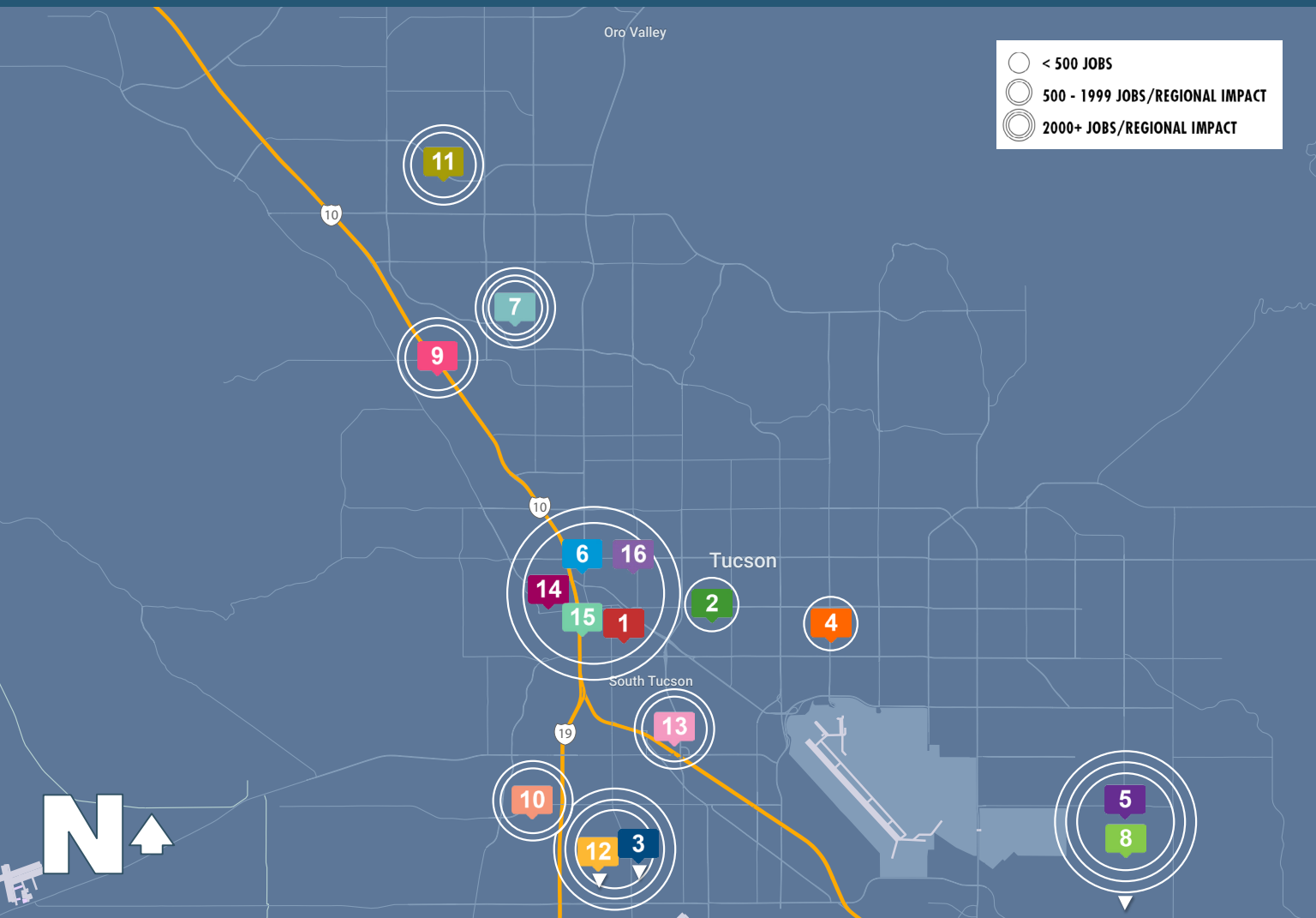


TUCSON MULTIFAMILY CONSTRUCTION PIPELINE | 1Q 2018



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

1Q 2018 SELECT NEWS



1 Vector Space Systems | Vector Space Systems unveils new satellite launcher rocket

2 Alorica | Call center operator, Alorica, adding 200 jobs in Tucson

3 Raytheon | Raytheon confirms plans to add 2,000 Tucson jobs

4 ADP | ADP to add 250 jobs in Tucson

5 TuSimple expands as it readies self-driving truck technology

6 Caterpillar Inc. | Caterpillar Inc. bringing regional HQ to downtown Tucson, 600 jobs

7 Comcast | Comcast marks grand opening of Tucson call center (brings 1,000 jobs to the area)

8 Project Wildcat to bring massive Amazon distribution center to Tucson

9 Convergys | Convergys plans to hire 500 in Tucson

10 C3 | Call-center operator C3 to hire 1,132 in Tucson

11 C3 | Call-center operator C3 to hire 1,132 in Tucson

12 SpacePort | Pima County marks completion of World View HQ, SpacePort

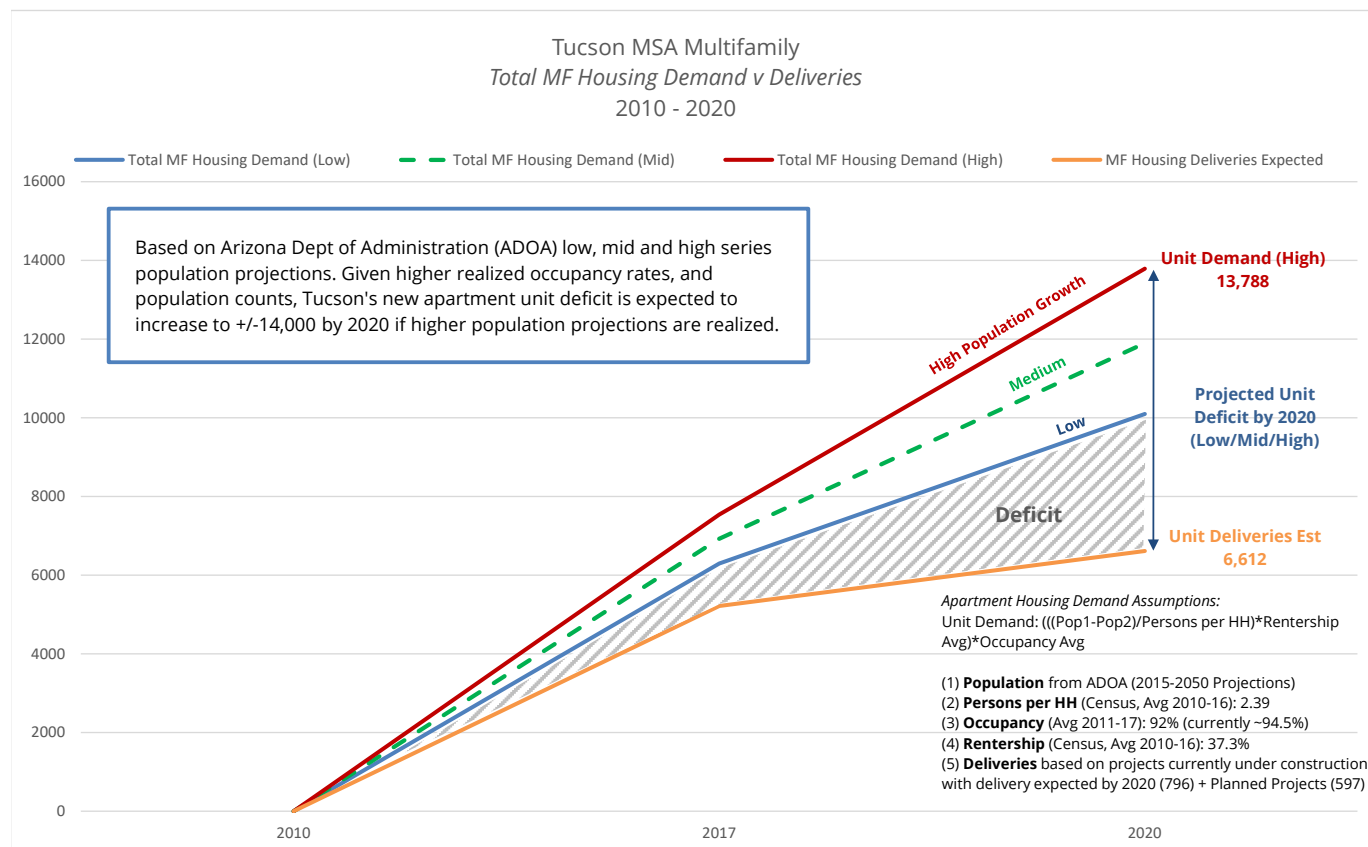
13 GEICO to build new corporate office in Tucson, add 700 jobs

14 Hexagon | International mining tech firm Hexagon to expand, relocate HQ to downtown Tucson

15 Ernst & Young | Ernst & Young opening new support center in Downtown Tucson to hire 125

16 UA | University of Arizona, hiring 750. The university is adding positions in Tucson ranging from counselors to research assistants

BY: THOMAS M. BROPHY, DIRECTOR OF RESEARCH



CONSTRUCTION ASSUMPTIONS | Tucson MSA 1Q 2018

Given the many questions I have recently been fielding regarding construction, as well as market chatter about over/under building, I want to take most of this quarterly review to discuss construction metrics. As I have discussed many times both here and in our ABInsight articles, we are living through a tectonic demographic shift pushing us further and further into a more renter-centric society, which started in earnest in 2011/12 and what we at ABI have coined 'The Decade of the Renter.' I'll make no assertions whether this shift is good or bad, but make no mistake that it is happening.

Based on Census estimates, at the National level, renter household levels have increased nearly 8% since 2000. More locally, the Tucson MSA has mirrored the greater U.S. as a whole with an 8.4% increase in renter households, significantly less than the Phoenix MSA's 21%, from 2000 through 2016.

TUCSON MARKET METRICS *By the Numbers*

The MSA's total sales volume (10+ unit properties) mildly decreased 3%, y-o-y, to \$155 million across 36 transactions representing 2,664 total units sold. California-based investors, led by SRP Property, Inc. (488 units), new market entrant-Element Property Co (428 units) and Alpha Wave (110 units), continue to be the dominant buyer of multifamily properties in the Tucson area accounting for 56% of total units transacted, or 1,499 units. Arizona-based investors came in 2nd with a 767 units purchased and rounding out the top three was Florida-investor Stoneweg U.S. who purchased the 300 unit River Oaks Apartments.

Sales of 100+ unit properties witnessed a (13%) y-o-y decrease to \$110 million, with average Price-Per-Unit (PPU) amount increasing

41% to \$63,013. Whereas 100+ unit properties saw a sales volume decrease, 10 to 99 unit properties saw a substantial volume increase of 37% to \$44.6M with a 30% in average PPU amount to \$48,923. Price volumes on smaller sized properties continue to increase due, in large part, to continuing student population growth specifically in the Central Tucson/University submarket.

The Tucson MSA did not have any new deliveries in 1Q 2018. In fact, Tucson will not see any new construction deliveries until mid-to-late 2018, aside from smaller student and affordable housing developments. Despite a minor (0.2%) Occupancy Rate contraction to 94.1%, Tucson's Occupancy Rate is still well above Tucson's 10-year average Occupancy Rate of 91%. Average rent continued its rise increasing 4.8% y-o-y to \$831.

BY: THOMAS M. BROPHY, DIRECTOR OF RESEARCH

JUST DROPPED IN TO SEE WHAT CONDITION MY ASSUMPTIONS WERE IN

Population Data is based on Arizona Department of Administration's Low/Mid/High Series Tucson Metro (2015 to 2050) projections. According to ADOA, "Implied migration for 2013-2015 suggested that for Metro Tucson and Arizona as a whole, the 2012 Medium Series assumptions were well within range of reality. For these reasons, it was decided that long-term migration assumptions would not be changed unless recent data warrant a reconsideration." (ADOA Methodology Report, Page 26, Section 4.5). Why is this important? With observed population growth trending higher, projected unit deficits could very well increase than what is assumed in the chart.

Average Household (HH) Size is 2.39 and based off Census American Communities Survey (ACS) 2016-5yr estimates which were then averaged. Current estimates show this has been gradually increasing since 2010 at 2.31 to its current 2.37. It stands to reason that as housing costs have increased, persons, families and households have opted to increase their size - whether by adding a roommate, adult-age children living at home, etc. - in order to offset the rising costs.

Renter Household (HH) Percentage is estimated at 37.3% and, like above, based off Census 2016 ACS-5yr average estimates. While averaging yields the 37.3% assumption it is lower than Census' current 38.7% estimate. Given Tucson's higher than historical occupancy rates, as well as, increases in rentership, both at the younger and older end of the demographics spectrum, actual rentership levels should increase to +/-39.5% by 2020 if current housing trends hold.

Units Deliveries for 2018/19/20 are based on projects currently Under Construction (796 units, 50+ unit properties) with delivery expected by end of 2020 and half of Tucson's planned unit inventory is delivered (597 units) by 2020 as well. It should be noted that there are significant headwinds for the construction industry, most notably, lack of available workers and rising material costs.

How much lack of workers, and material costs, could disrupt the supply pipeline remains to be seen; nonetheless, it seems reasonable that higher unit deliveries, i.e. those above the current 1,393 unit delivery assumption, will not be seen or, if they do, mildly increase to +/-1,500. One final note on unit deliveries, given that 70% of the units currently under construction are designated either student/affordable/senior housing, will not alleviate market rate unit demand which could further increase unit deficits.

Occupancy Rate is based at 92% which is the average trailing observed occupancy rate from 2011 thru YTD 2018. When placed in context, Tucson's historical average occupancy rate has ranged between 86 to 91% from 2000 to 2010, with occupancy at its lowest during the Great Financial Crisis (GFC). Beginning in 2011, after the GFC's apex, occupancy rates have adjusted significantly higher to a range of 90 to 94.5%.

Updating the chart to reflect the changes in assumptions as detailed above (and delineated below), unit medium level demand increases to ~13,000 total new units needed (over the decade, 2010-2020) with ~6,700 units expected-to-be-delivered (over the decade, 2010-2020), which equates to ~6,300 unit deficit.

Population Data = Medium Series Population Assumption

Avg HH Size = 2.37

Renter HH Percentage = 39.5%

Unit Deliveries = 1,500

Occupancy Rate = 94.5%

FINAL THOUGHTS *The Great Unknown*

On the minds of all investors, what are the chances that the Fed will continue to raise interest rates? Being ever the contrarian, often times for contrarian sake, 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 certainly be spurred by tax cuts and deregulation which could certainly extend the bull market's rally longer than what many are projecting. Nonetheless, in previous recessions central bankers have, on average, needed to cut interest rates ~5% before normalizing policy. Given the Fed's current 1.25 to 1.5% target, negative rates could certainly be on the horizon.

Central Bank balance sheet run-up now accounts for over 40% of global GDP, approximately \$21 trillion. As one of my favorite traders, Kevin Muir of The Macro Tourist, states, "More than half of it [US Federal Reserve holdings] is longer than five years in duration. Holding a portfolio of this monstrous size was all good and fine with rates at 25 basis points, but don't forget, as the Federal Reserve increases the IOER (Interest on Excess Reserves), they increase the cost of funds that they are paying out." Who pays those added costs? Look in the mirror. The Fed, and their central banker compatriots, are in one hell of a hole and, by extension all of us; it seems reasonable to assume that the odds are greater they over/under correct than emerge victorious from this mess of their own creation.

According to GMO, a private investment management firm with over \$70B AUM (Assets Under Management), forward looking equity asset return estimates are all well below their historic 6.5% return mark, which has investors on the hunt for yield and, more importantly, stability. Stability, in today's world, is preservation of capital and cash flow. Both the multifamily, and industrial, real estate asset classes have been, and continue to be, seen as providing that stability.

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ABI COMPARATIVE MARKET REVIEW: 1Q 2018



TUCSON

PHOENIX

SACRAMENTO

SAN DIEGO

DEMOGRAPHICS

RENT/OCC/CONST (50+)

SALES (50+)

Total Population	1,026,099	4,737,270	2,296,418	3,317,749
Unemployment Rate (as of Mar '18)	4.3%	4.1%	3.9%	3.3%
Employment Growth (y-o-y)	0.9%	3.2%	2.1%	1.5%
Median HH Income	\$46,764	\$55,547	\$62,813	\$66,529
Per Capita Income	\$39,541	\$43,249	\$51,370	\$55,168
Rent (1Q 2018)	\$831	\$1,040	\$1,399	\$1,885
% Increase / Decrease	+4.8%	+5.8%	+7.0%	+6.3%
Occupancy (1Q 2018)	94.1%	94.7%	96.3%	96.2%
% Increase / Decrease	-0.2%	-0.4%	-0.8%	-1.0%
Total Inventory (50+)	67,093	301,024	126,891	181,587
Total Under Construction (50+)	796	17,895	2,913	7,812
Units Delivered (50+, 1Q 2018)	N/A	1,630	80	1,467
Total Sales Volume (1Q 2018)	\$131M	\$1.4B	\$330M	\$65M
y-o-y % Increase / Decrease	-10%	+96%	+112%	-14%
Average P/U (1Q 2018)	\$59,204	\$156,116	\$137,996	\$198,702
y-o-y % Increase / Decrease	+37%	+56%	-26%	+10%



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COLLABORATION & COOPERATION

NOTABLE RECENT ABI MULTIFAMILY TRANSACTIONS



THE QUAILS APARTMENTS

1120 - 1150 East Irvington Road,
Tucson, AZ

Sold Price: \$12,200,000
Units: 288 Units
Year Built: 1984, 1985



ORANGE TREE VILLAGE

645 West Orange Grove
Road, Tucson, AZ

Sold Price: \$10,550,000
Units: 110
Year Built: 1981



SKYLINE PARK

5290 South Park Avenue,
Tucson, AZ

Sold Price: \$2,600,000
Units: 60
Year Built: 1985



SYCAMORE COVE

2458 North Sycamore Boulevard,
Tucson, AZ

\$2,385,000
Units: 67
Year Built: 1979

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TUCSON ADVISORS

LANCE PARSONS, CCIM

SENIOR VICE PRESIDENT

520.265.1945

lance.parsons@abimultifamily.com

JONATHAN IBRAHIM

VICE PRESIDENT

520.265.1127

jonathan.ibrahim@abimultifamily.com

RYAN KIPPES

VICE PRESIDENT

520.265.1895

ryan.kippes@abimultifamily.com

JOHN KOBIEROWSKI

SENIOR MANAGING PARTNER

602.714.1384

john.kobierowski@abimultifamily.com

PHOENIX HEADQUARTERS

5227 North 7th Street
Phoenix, AZ 85014
602.714.1400

SACRAMENTO OFFICE

2251 Douglas Blvd, Suite 115
Roseville, CA 95661
916.330.4040
CA Lic #02015648

SAN DIEGO OFFICE

1012 2nd Street, Suite 100
Encinitas, CA 92024
858.256.7690
CA Lic #02015648

TUCSON OFFICE

1650 North Kolb Road, Suite 230
Tucson, AZ 85715
520.265.1945

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