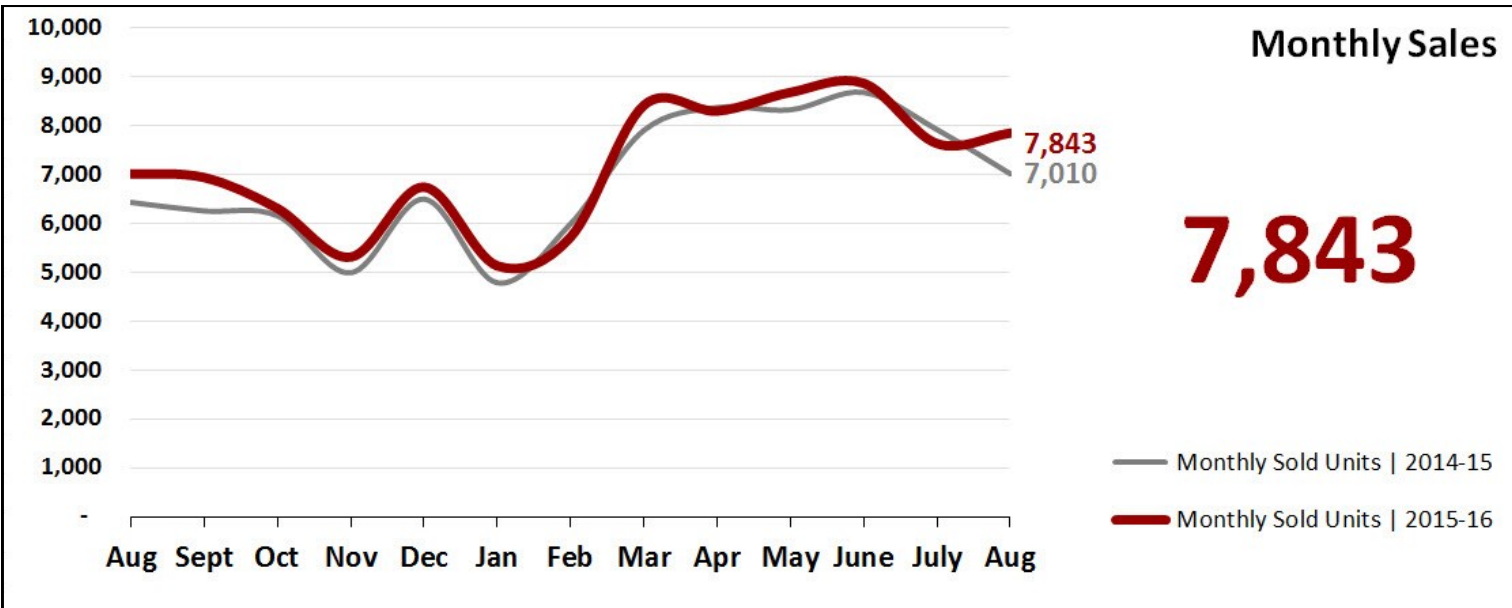


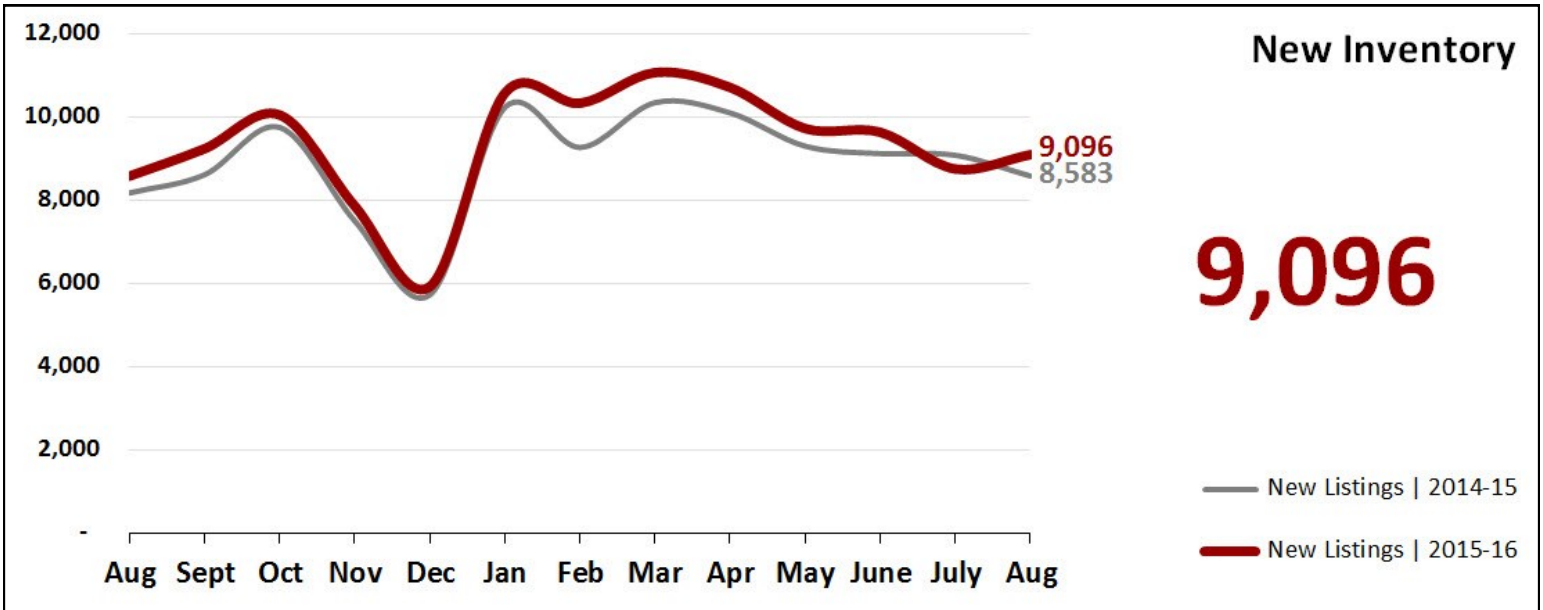


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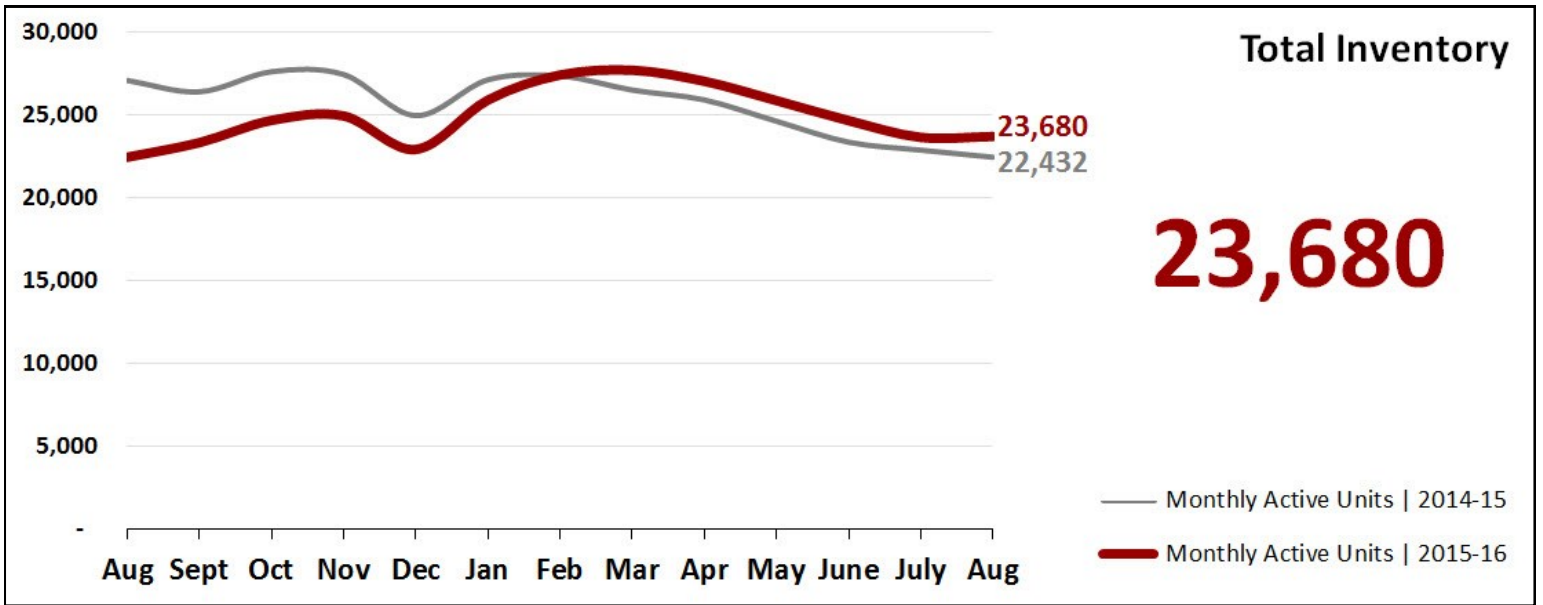
Sales are up +2.8% month-over-month. The year-over-year comparison shows an increase of +11.9%.

Closed MLS sales with a close of escrow date from 8/1/2016 to 8/31/2016, 0 day DOM sales removed



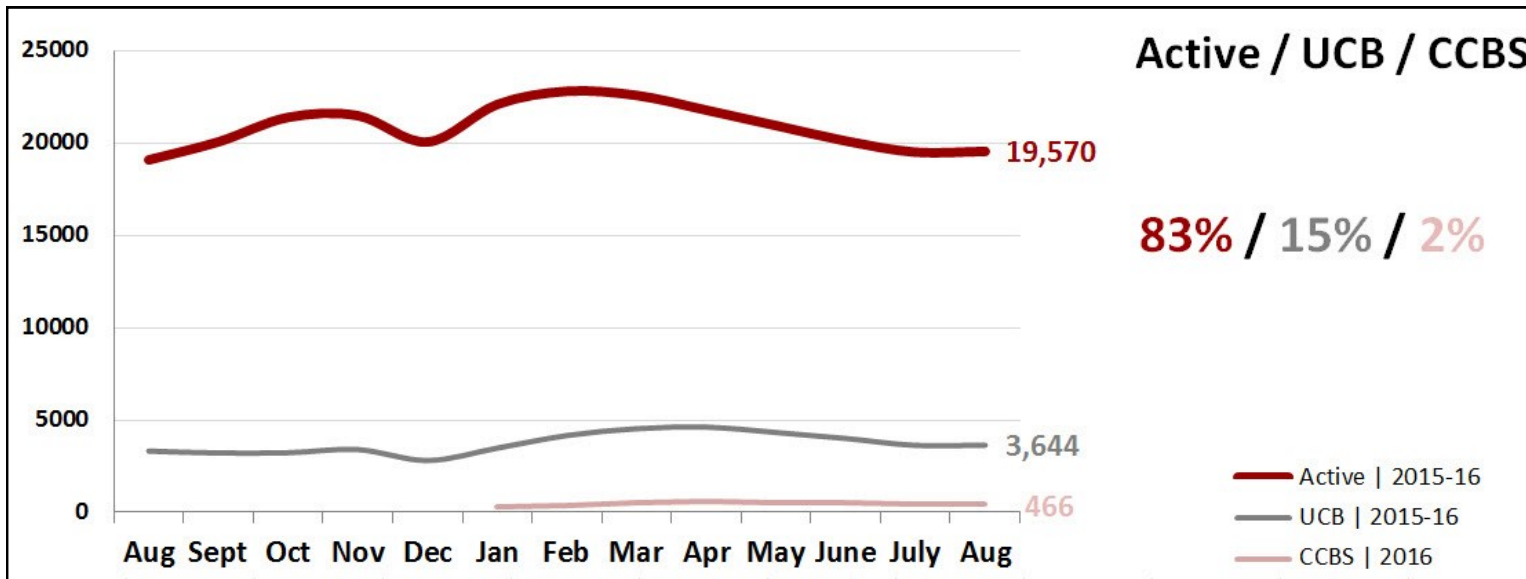
New inventory is up +3.9% month-over-month while the year-over-year comparison shows an increase of +6.0%.

New MLS listings that were active for at least one day from 8/1/2016 to 8/31/2016, 0 day DOM sales removed



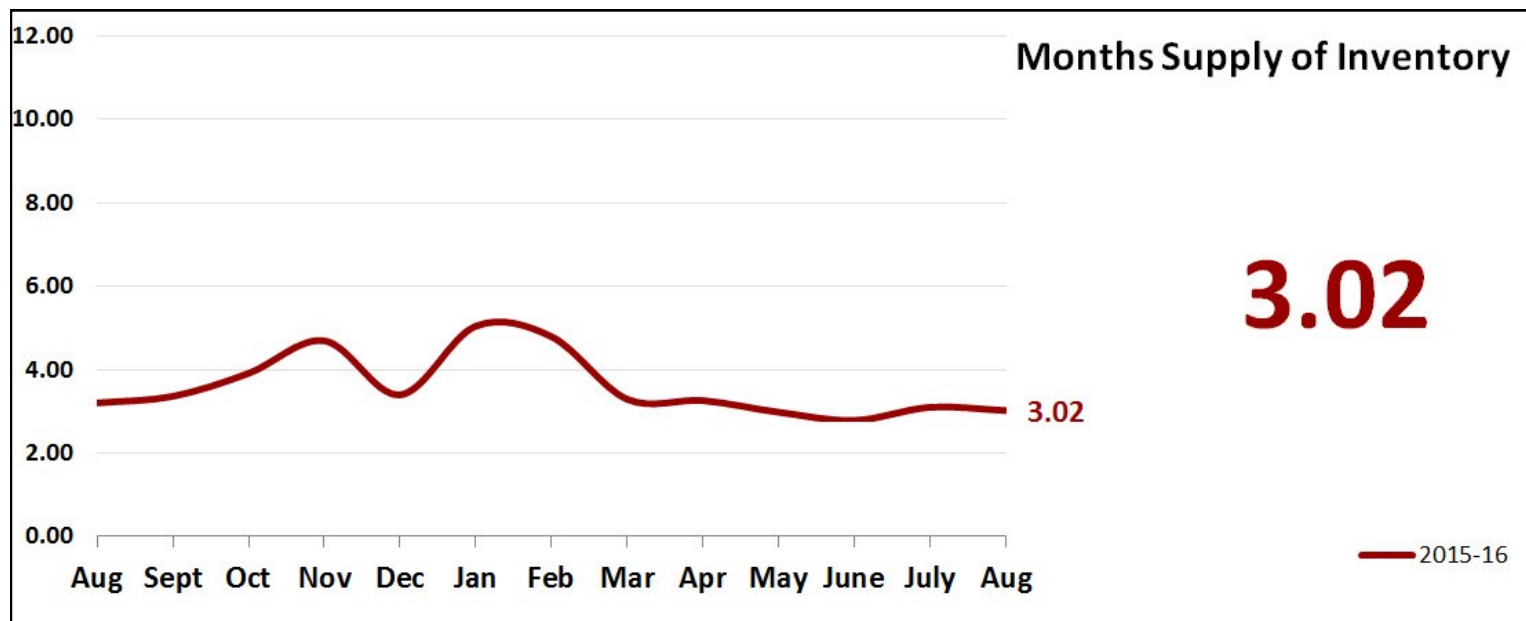
Total inventory has a month-over-month gain of +0.2% while year-over-year reflects an increase of +5.6%.

Snapshot of statuses on 8/31/2016



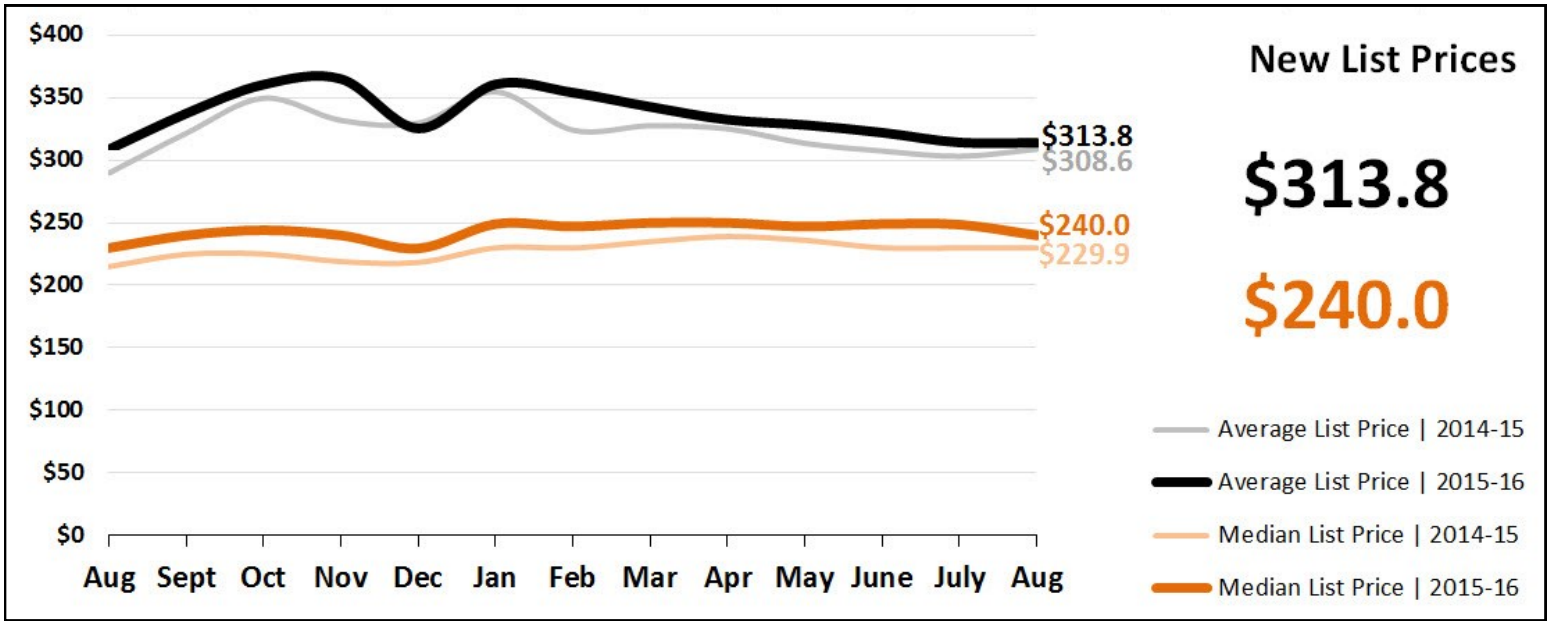
August UCB listings percent of total actives was 15.4% with August CCBS listings at 2.0% of total actives.

Snapshot of statuses on 8/31/2016



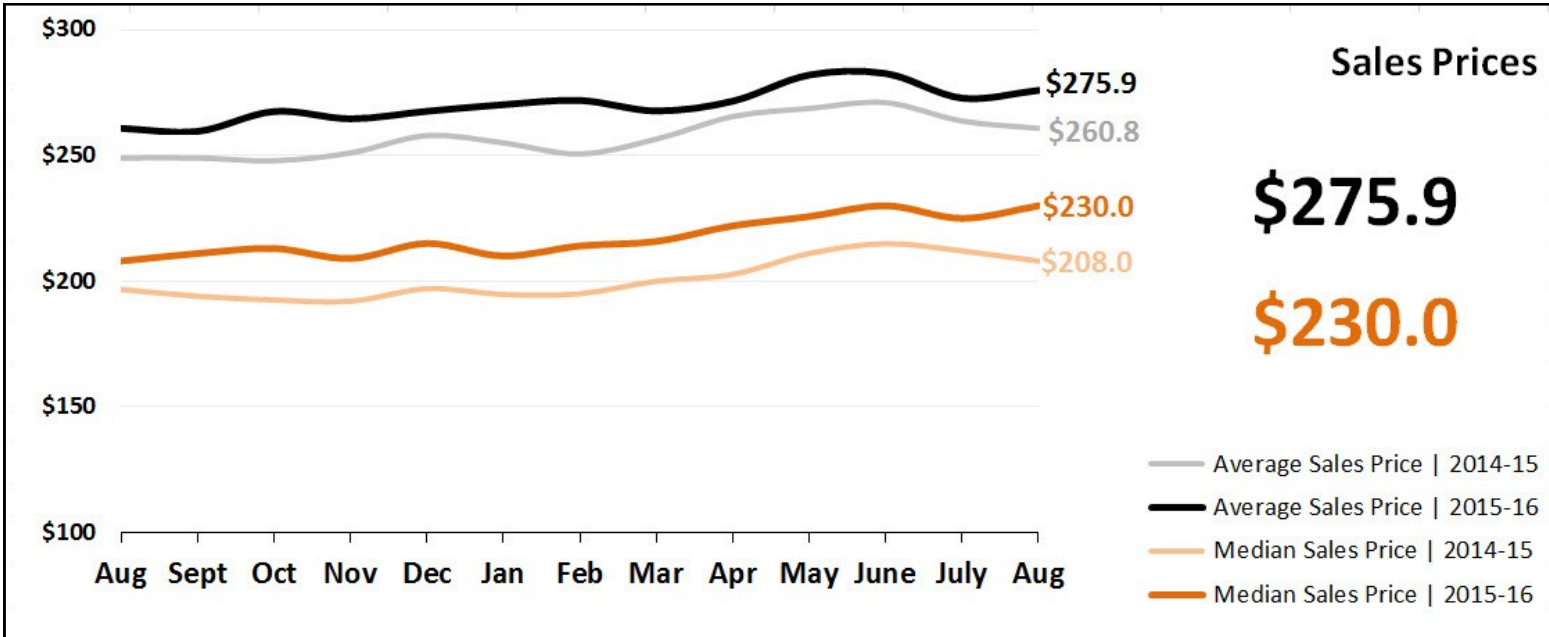
Months supply of inventory for July was 3.10 with August currently at 3.02.

Current inventory of Active/UCB/CCBS divided by the monthly sales volume of August 2016, 0 day DOM sales removed



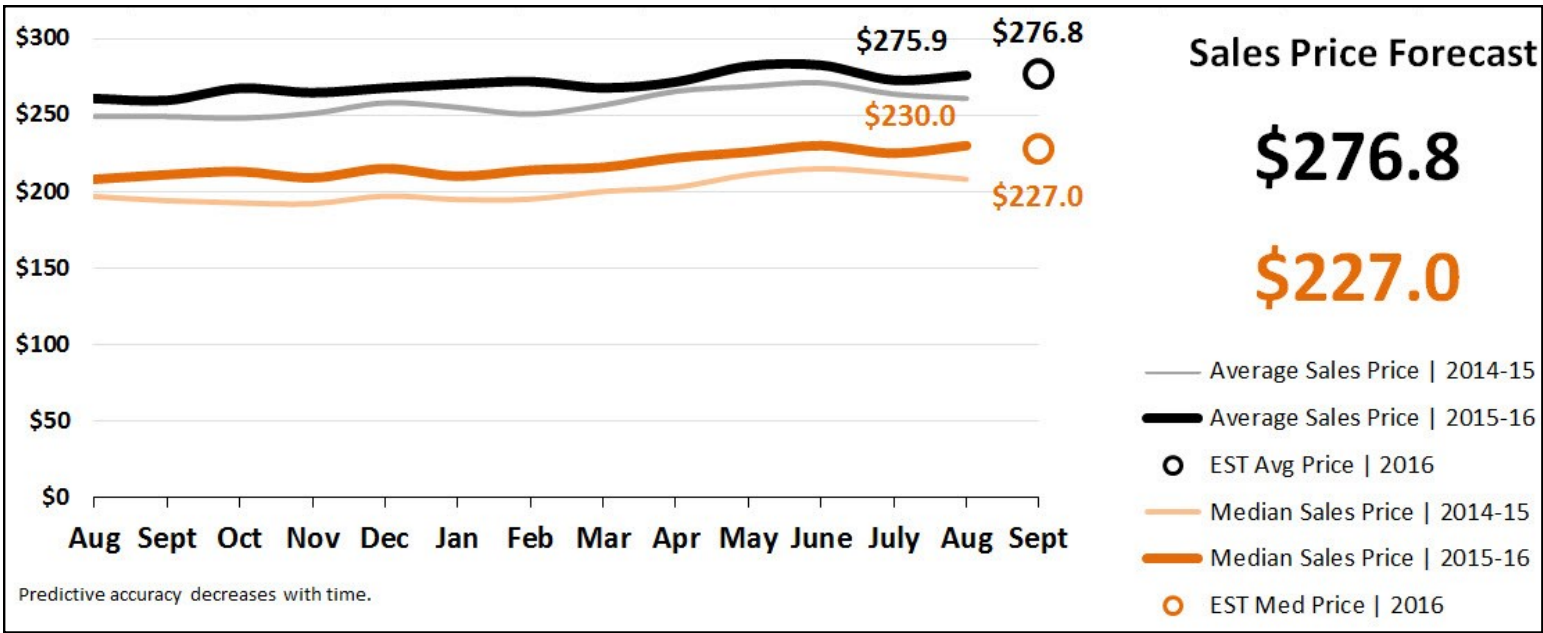
New average list prices are up +1.7% year-over-year. The year-over-year median is up +4.4%.

List prices of new listings with list dates from 8/1/2016 to 8/31/2016, 0 day DOM sales removed



Sales prices are up +5.8% year-over-year on average while the year-over-year median is also up +10.6%.

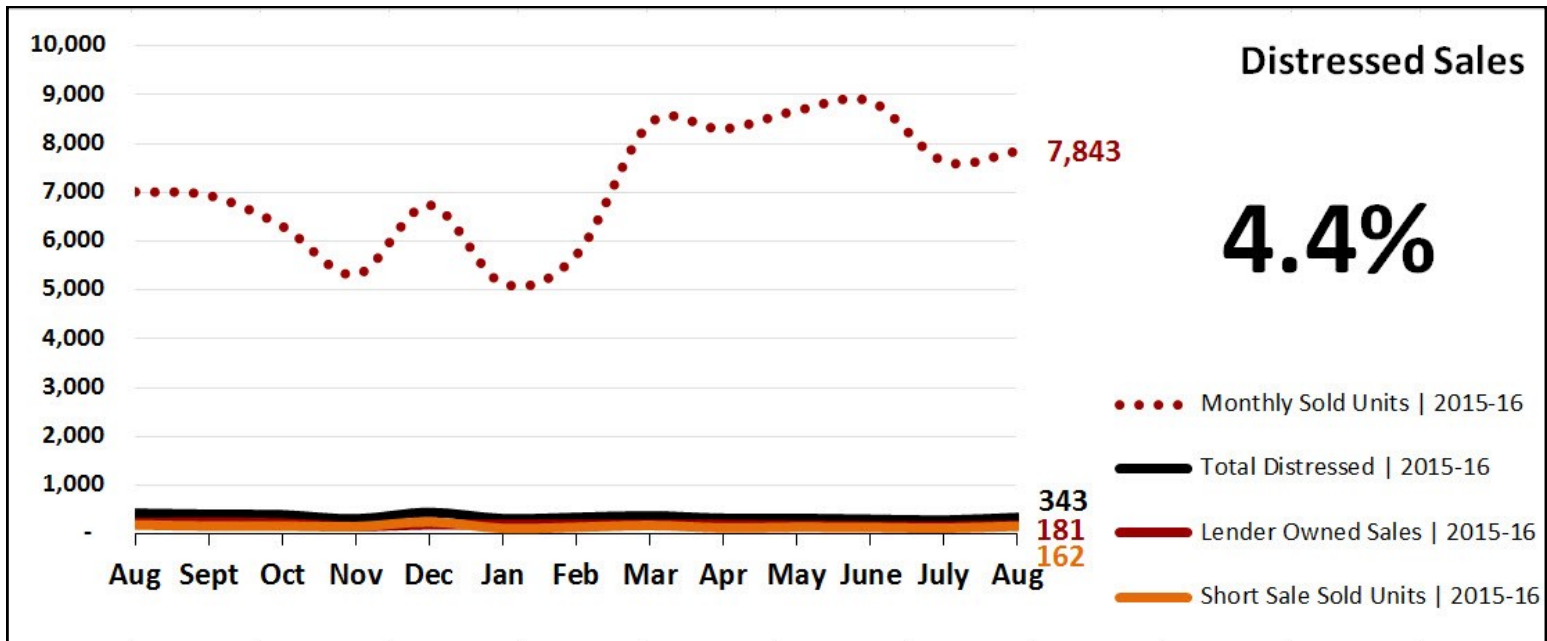
MLS sales prices for closed listings with a close of escrow date from 8/1/2016 to 8/31/2016, 0 day DOM sales removed



A very slight increase is forecast for average sales price while median sales price in September drops.

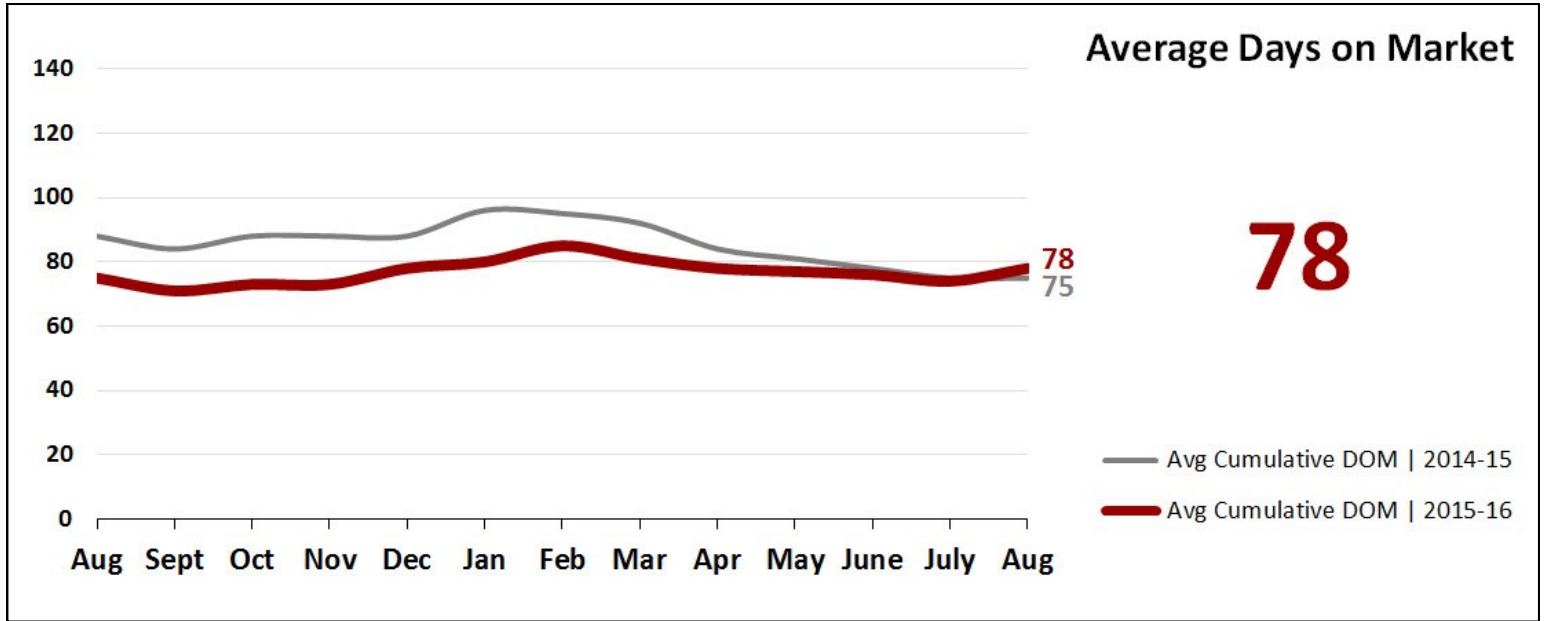
ARMLS proprietary predictive model forecast, 0 day DOM sales removed

The foreclosure information process as provided by public records had a hiccup in its reporting this month. Therefore, the foreclosures graph normally seen here for August 2016 will be published in the next issue of STAT.



Short sales dropped -15.2% year-over-year. Lender owned sales dropped -23.9% year-over-year. Total distressed year-over-year changed to -20.0%.

Lender owned sales are MLS sales 8/1/2016 to 8/31/2016 where *Lender Owned/REO, HUD Owned Property* special listing conditions were selected
 Short sales are MLS sales 8/1/2016 to 8/31/2016 where *Short Sale Aprvl Req, Previously Aprved SS or Lender Approved SS* special listing conditions were selected



Days on market rose +3 days year-over-year while month-over-month saw an increase of +4 days.

Average of all closed listings 8/1/2016 to 8/31/2016 where DOM was greater than 0

COMMENTARY

by Tom Ruff of The Information Market

Over the past two months, we've shared our thoughts and prognostications on how the July and August 2016 housing numbers would come out and what others would say about them. Now with the actual numbers out, there is no one better than our good friend Michael Orr of the Cromford Report to explain what actually happened:

"Just as we predicted last month, August was a very robust month for sales, up almost 14% from August last year in stark contrast to the uninspiring numbers in July (down over 3% from July 2015). We have already seen countless headlines about weak sales in July and no doubt we will see as many stories about the very strong recovery in August once the numbers are widely distributed. However all these headlines serve to do is illustrate that reporters (and even some real estate analysts) have a hard time properly understanding the effect of the Gregorian calendar on monthly real estate numbers.

July 2015 had 22 working days

July 2016 had 20 working days (10% fewer)

August 2015 had 21 working days

August 2016 had 23 working days (10% more)

"All the variation in monthly sales counts in July & August are due to the above facts and had nothing to do with conditions in the real estate market which remained very similar throughout the period. It is amusing to see all the analysts trying to explain the July numbers with 'low inventory' and 'poor affordability' the favorite excuses. Nope. The correct reason was 'there was a weekend at both ends of July'. It will be interesting to see what explanations are used for the August bounce, because inventory

has moved lower still and affordability did not improve at all. If we combined July and August in both 2015 and 2016 we get 43 working days in both years and the numbers match properly again. Then we see that the two month sales count rose 4.6% over last year. We have been seeing a similar volume improvement in the ARMLS numbers all year. Nothing unusual has gone on in July or August. However, sales have increased much more than this among new homes, just as they have all year. New homes are poorly represented among ARMLS listings since about 90% of them sell outside of ARMLS. In public recordings however, we are seeing new home growth rates far in excess of the growth rates for re-sale homes."

Confessions of an AVM modeler

Automated Valuation Models (AVMs), whether we love them or hate them, are here to stay. Over the past few months we've been working on our own model through continual testing and improvement. We hit upon this topic in [STAT last month](#) but it's big enough to drive an RV through and therefore worthy of another write-up.

By analyzing all past sales we are able to calculate an estimated value for nearly all 1.25 million homes in Maricopa County. Our model is tested by comparing new sales as they occur to our previously calculated estimated value with the thought being that the price for which the home sells is its true value. We then ran our test against the last 10,384 sales. The historical data used to calculate the AVM were from home sales occurring prior to the 10,384 sales used in the test - no listing data was used.

Our test results read as follows:

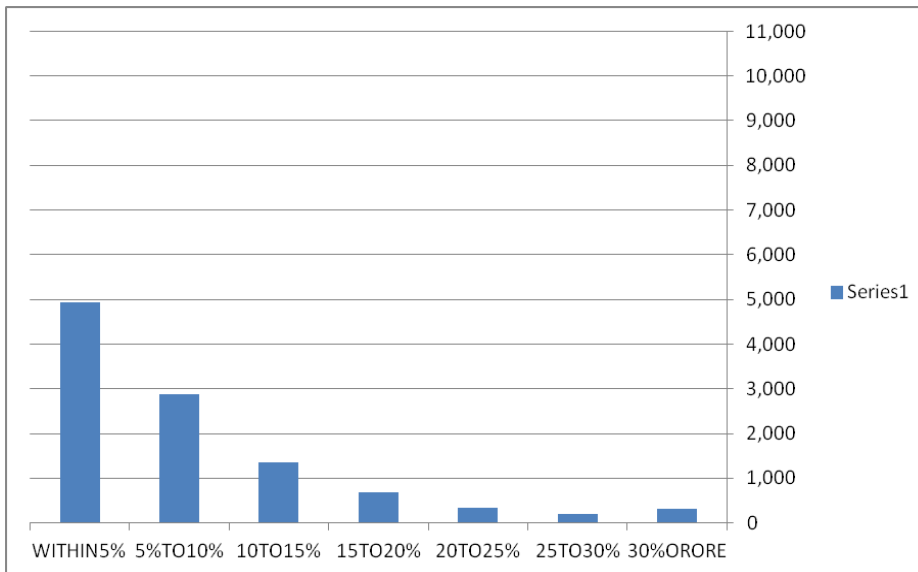
47.5% of estimated values were within 5%

75.2% within 10%

88.3% within 15%

The full test results are displayed on the chart below.

Public Records Only AVM Accuracy



Going one step further, we can break down the percentage differences between the actual sales price and our AVM. When we test our model against MLS sales only, properties that were sold using a real estate agent via the MLS sell between 8.5% and 9.0% higher than properties not listed on the MLS.

When we view the public remarks sections of the listings in our sample, it gives us further insights into both the properties the AVM undervalued as well as overvalued.

For the properties overvalued by more than 20% we see phrases such as: “great fix & flip”, “property offered as is”, “fix up needed”, “handyman special”, and “no loans/cash only/as is.”

When we categorize the properties overvalued by the AVM the following groups reoccur: incorrect data, houses that burned down, houses that were torn down, partial interest, mobile homes, wholesale properties, hard money loans, investor buys, fixer uppers, REOs, properties in foreclosure, short sales and non-MLS sales.

For the properties undervalued by more than 20% we see these comments in the MLS: “painstakingly restored”, “completely reconstructed master suite added”, “master architect rebuild”, “beautifully remodeled”, “stunning high quality remodel” and “beautifully upgraded.”

When we categorize the properties undervalued by our AVM the following groups reoccur: sold on the MLS, partially renovated, added square footage, custom homes, complete remodels, new construction on previous tear downs, suspected fraud, extraordinary properties and incorrect data.

MLS Listing Data Model

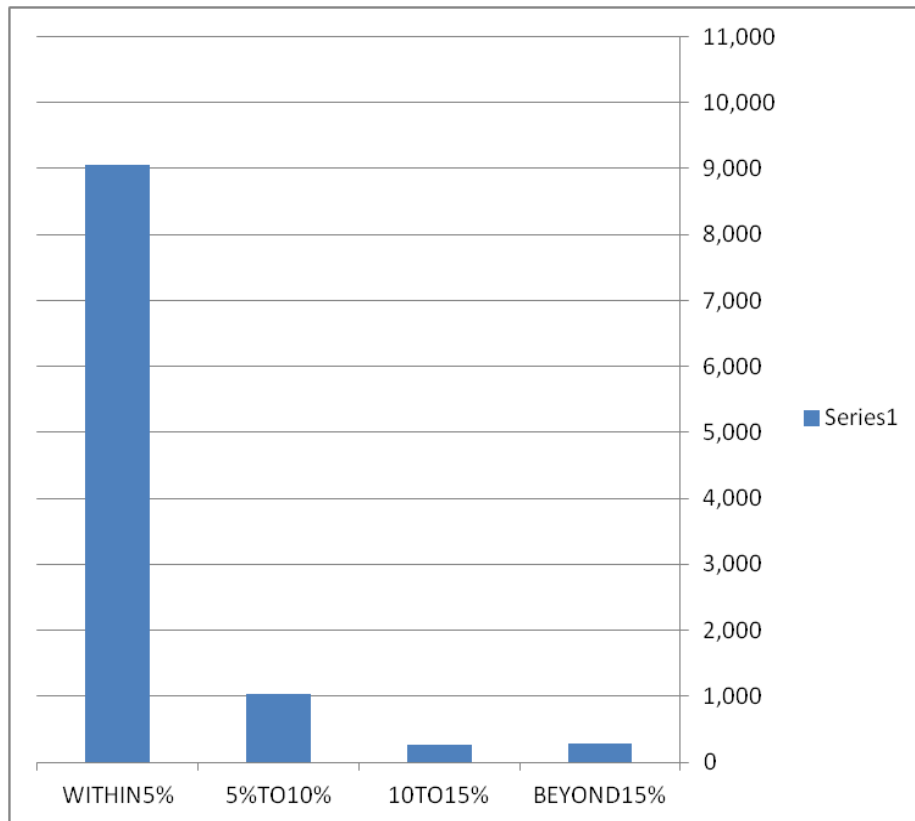
The AVM discussed earlier was built without using listing data. If we factor the listing price into our model, our accuracy scores go up dramatically! Further proof that if you want to know what your home is worth, ask an ARMLS Subscriber.

84.6% of estimated values were within 5%

94.2% within 10%

96.8% within 15%

The full test results are displayed on the chart below.



On a final note, we have found that by using our AVM to audit the reported sales price we can identify data errors that we would have had no other way of identifying. Comparing our AVM to the actual sales price is now an intrinsic part of our data cleanup.

ARMLS Pending Price Index (PPI)

Last month STAT projected a median sales price for August of \$225,000. As has been the trend this year, our mathematical projections were slightly lower than the actual results. The reported median sales price for August was \$230,000, 2.2% higher than the \$225,000 projected by our model. Looking ahead to September 2016, we expect little change in the median sales price. The ARMLS Pending Price Index projects a median sales price of \$227,000. A betting man would wager on \$230,000.

MLS sales volume in August 2016 was 7,843, which was 11.9% higher than the total last year of 7,010. STAT had expected August sales volume that resulted in strong year-over-year gains, as there were 23 business days this year compared to 21 business days in 2015. We begin September with 6,388 pending and 3,644 UCB listings giving us a total of 10,032 residential listings practically under contract - this compares to 9,596 of the same type of listings at this time last year. There were 21 business days in both years. MLS sales volume in October 2016 will be comparable to last year's total of 6,935 where STAT is projecting 7,175 sales. We have now reached the point in the year where monthly sales volume begins its annual descent, with declines each month through November. Sales volume for the first eight months of 2016 might best be described as 2015 revisited with ARMLS reporting 60,564 sales this year compared to 58,958 sales last year.