

METHODOLOGY: OFF-MLS TRANSACTION DATA CALCULATIONS "BEST AVAILABLE MATCH" MODEL

Purpose: compare county records against MLS data to capture quantitative data for 'off-MLS' transactions

Accepted conditions/assumptions:

- · County record data represents all sales within a time period and a given geographic area
- County classifications of SFR, Condo and Townhome correspond to same classifications within MLS system
- County record data 'recording date' is the best available match to MLS 'COE date'
- APN number and MLS number are the best available match to compare identical records in county data and MLS system data
- Where final sale price is withheld in the MLS record, last list price is substituted as the best available match
- Eliminating county records with blank price fields is the best available method to remove 'nominal transactions' – such as quit claim, inter-family trusts and similar deed transfers – when no corresponding listings exist in the MLS record

Additional considerations:

- Manual review of county records data can further improve quality of comparison. Known examples include:
 - Individual cases in which each unit in a multi-unit property is recorded with the price of the entire property (e.g. 200+ condos in San Jose for \$118 million each). These were manually removed upon discovery following reasonable review.
 - Individual cases in which transactions are recorded as full grant deeds, yet upon further inspection, sale price is well below the reasonable lower limit of a comparable property, buyer/seller are similar entities, etc. Manual scrub for such cases yielded approximately 3 percent of transactions falling within these conditions, deemed within an acceptable range of deviation.
- Realist licenses for data pulls are limited to 7,500 records per license per rolling 30-day period

Process:

- 1. Pull all sales for single family residential, townhome, condo, rural home sites, recreational land, vacant land and multi-family dwellings within recording date range.
 - Manual scrub for non-applicable transaction records
 - Format County APNs to match MLS data record APN (varies by County)
 - Scrub sales for MLS number matches for properties with different county record classifications eliminate rural home sites, recreational land, vacant land and multi-family dwellings with no corresponding MLS match
- 2. Pull MLS data for same time period
- 3. Match APN and MLS numbers, eliminate duplicate records. Output is properties sold off-MLS.
 - Eliminate Realist records (rural home sites, recreational land, vacant land and multi-family dwellings) with no corresponding MLS match
- 4. Remove sales price from MLS extraction where corresponding Realist record has no final sales price
- 5. Median prices for MLS and off MLS are compared by geographic data