

EQUALIZATION AND RATIO STUDIES



EQUALIZATION

• Equalization - The process by which an appropriate governmental body attempts to ensure that all property under its jurisdiction is assessed at the same assessment ratio or at the ratio or ratios required by law. Equalization may be undertaken at many different levels.



Source: Definitions

IAAO Standards on Ratio Studies



EQUALIZATION CALENDAR

EQUALIZATION CALENDAR / 2026 TAX YEAR

ITEM	DATE: ON OR BEFORE	GROUP DUTIES	ACTION / DEADLINE	COMMENTS
1	8/09/2024	ALL COUNTIES	MARKET AREA/SUB AREA UPDATES -Email to the CIS TEAM a list of all market area and subarea changes including names for tax year 2026. Also send a new market detail file to CIS that includes the market changes.	The new market detail file will need to be loaded into the ADOR system in order to capture the updated markets and subareas for TAFS.
2	8/12/2024 thru 8/14/2024	ADOR	ADOR SYSTEM UPDATE/ROLLOVER-Tax Year Rollover - Tax Year 2026 becomes Future Year. Tax Year 2025 becomes the Current Tax Year.	Assessment files can not be loaded until the rollover process is complete.
3	9/05/2024	ALL COUNTIES	TY2024 FINAL FULL CASH VALUES-Forward copies of Parcel, Cost, MAS and Market detail assessment files to ADOR with the TY2024 FINAL full cash values for the TY2024 Tax Bills.	Applies to All Counties. Notify CIS that the files are in the SFTP and provide the RECORD COUNTS for each file.
4	9/16/2024	ADOR	TY2026 VACANT LAND TAFS-Complete TY2026 Vacant Land Time Trend analysis for All Counties. Provided we have received sufficient number of sales through June.	Any counties producing time trends please submit your vacant land TAFS to ADOR for comparison.
5	9/18/2024	ADOR	PRELIMINARY TY2026 SALE RATIO REPORT-Forward results of preliminary TY2026 sales ratio studies to All County assessors who have sufficient sales for time trends and ratio reports.	The ratio results are calculated using the current year 2025 values divided by the new time adjusted sales for Vacant land and the unajusted sales for all other property types. However, if you have already submitted TY2026 values then the ratio report will reflect the ratio results for the TY2026 values divided by the Vacant Land time adjusted sales and the unadjusted sales.
6	9/30/2024	ALL COUNTIES	TY2025 SUPPLEMENTAL NOV-Forward copies of Parcel, Cost, MAS and Market detail assessment files to ADOR with TY2025 Supplemental full cash values.	Applies to All Counties. Notify CIS that the files are in the SFTP and provide the RECORD COUNTS for each file.
7	10/18/2024	ADOR	TY2026 RESIDENTIAL TAFS-Complete the TY2026 Residential properties Time Trend Analysis for All Counties.	Any county producing time trends please submit your residential TAFS to ADOR for comparison.
8	10/21/2024	ADOR	PRELIMINARY TY2026 SALE RATIO REPORT-Forward results of the preliminary TY2026 sales ratio studies to county assessors.	The ratio results are calculated using the current year 2025 values divided by the new time adjusted sales for VL and Residential properties and the unajusted sales for all other property types. However, if you have already submitted TY2026 values then the ratio report will reflect the ratio results for the TY2026 values divided by the VL and Residential time adjusted sales and the unadjusted sales.
9	11/07/2024	ADOR	TY2026 COMMERCIAL TAFS-Complete the TY2026 Commercial time adjustment analysis for All Counties.	Any county producing time trends please submit your commercial TAFS to ADOR for comparison.
10	11/07/2024	ADOR	PRELIMINARY TY2026 SALE RATIO REPORT-Forward results of preliminary TY2026 sales ratio studies to county assessors upon request.	The ratio results are calculated using the current year 2025 values divided by the time adjusted sales for all property types. However, if you have already submitted TY2026 values then the ratio report will reflect the ratio results for the TY2026 values divided by the time adjusted sales.



EQUALIZATION CALENDAR

EQUALIZATION CALENDAR / 2026 TAX YEAR

ITEM	DATE: ON OR BEFORE	GROUP DUTIES	ACTION / DEADLINE	COMMENTS
11	11/25/2024	ALL COUNTIES	TEST FILES. To ensure all technical issues with the TY2026 files are resolved before the 12/15/2024 deadline. If you have not submitted TY2026 files, please forward test copies of your Parcel, Cost and Market detail files with TY2026 preliminary full cash values to CIS for testing.	PLEASE NOTE: If you have already submitted TY2026 assessment files you do not need to send test files. If you are submitting test files, Please be sure to let us know that the files are test files
12	12/15/2024	ALL COUNTIES	TY2026 FILES DUE-Forward copies of completed Parcel, Cost, MAS and Market detail assessment files to DOR with TY2026 full cash values. Notify CIS that the files are in the SFTP and provide the RECORD COUNTS for each file. A.R.S. 42-13251 subsection C	Deadline is mandatory and applies to All Counties. <u>NOTE:</u> Files can be sent numerous times before the 12/15 deadline to see where your ratios fall so that further adjustments can be made prior to the deadline.
13	12/20/2024	DOR	TY2026 FINAL SALE RATIO REPORT- Forward results of TY2026 sales ratio studies from the 12/15 data files to county assessors.	For counties that have completed their 2026 values and are in compliance, this will be your Final Sales Ratio results for "Equalization" purposes.
14	12/20/2024	ALL COUNTIES	EXPECTED NOV MAILING DATE-Send the expected mailing date for NOV's to the CIS TEAM	This will give DOR some expectations on when counties need the "Good to Go" letter
15	1/6/2025	ALL COUNTIES	FINAL TY2026 FILES DUE-Additional work must be completed and submitted to DOR to avoid an Equalization Order.	In order to meet the January 15 deadline for issuing Equalization Orders, any additional valuation work must be completed as of this date.
16	1/7/2025	DOR	FINAL TY2026 SALE RATIO REPORT-Forward results of TY2026 sales ratio studies from adjustments submitted on 1/6 data files to county assessors.	For the counties that submitted further adjustments on 1/6 to acheive compliance, this will be your Final Sales Ratio results for "Equalization" purposes.
17	1/15/2025	DOR	Deadline for DOR to issue Equalization Orders for the 2026 Tax Year.	All counties that have not finished TY2026 Valuation will be subject to Equalization Orders. A.R.S. 42-13254
18	1/15/2025	ALL COUNTIES	TY2025 CERTIFIED FULL CASH VALUES-Forward copies of Parcel, Cost, MAS and Market detail files to DOR with TY2025 Certified full cash values	Applies to All Counties and reflects the values on the Certified Roll.
19	2/21/2025	APPROVED COUNTIES	TY2026 RE-APPRAISAL PLANS DEADLINE-Deadline to submit to DOR a re- appraisal plan for TY2026 for the counties that are not in compliance and have been approved by DOR to do so.	Re-appraisal plans must be in writing to DOR by this date.
20	3/1/2025	ALL COUNTIES	TY2026 NOV PRINTER FILES-Forward copies of Parcel, Cost, MAS and Market detail files to DOR with the TY2026 NOV's.	Applies to All Counties even if you sent TY2026 files prior to print and the files will only be accepted by DOR after the county NOVs have been mailed.



► A.R.S. § 42-11054(E) For the purposes of determining full cash value the department and county assessors shall use and apply the ratio standard guidelines issued by the department for tax year 1993 in the same manner as they were applied in tax year 1993. This subsection does not apply to property that is valued according to prescribed statutory methods or to property for which values are determined in the year after an appeal pursuant to section 42-16002.



RATIO STUDY

 Ratio study - A study of the relationship between appraised or assessed values and market values. Indicators of market values may be either sales (sales ratio study) or independent "expert" appraisals (appraisal ratio study). Of common interest in ratio studies are the level and uniformity of the appraisals or assessments.



Source: Definitions

IAAO Standards on Ratio Studies

- <u>Level</u> refers to the percentage of nominal selling price at which properties are appraised.
- ► The 1993 Guideline establishes required levels at 82 percent for vacant land and residential properties and 81 percent for commercial property.

	Vacant Land	Residential	Commercial
Financing	3%	1%	2%
Personal Property	0%	2%	2%
Time on Mkt	<u>5%</u>	<u>5%</u>	<u>5%</u>
Subtotal	8%	8%	9%
Mass Appr Error	<u>10%</u>	<u>10%</u>	<u>10%</u>
Total Adj	18%	18%	19%

Allowable windows for ratio and equalization purposes are:

Vacant Land and Residential 74% to 90% Commercial 73% to 89%



Uniformity refers to the degree of valuation equity among properties. Uniformity is critical in the fair distribution of the property tax among taxpayers and taxpayer classes.

Coefficients of Dispersion about the median ratios should meet the following criteria:

VACANT LAND – Less than 25%.

RESIDENTIAL PROPERTY – 15% or less in Maricopa and Pima counties and 20% or less in all other counties. In general, COD's should be less than 15% in newer, homogeneous areas and below 20% in other areas.

COMMERCIAL AND INDUSTRIAL PROPERTY – Less than 25%.



SALES USED

► The 1993 Guideline specifies sales from the following time periods will be used to evaluate compliance with the 1993 standards:

Residential and Vacant Land - the 18 month period from July 1990 through December 1992.

Commercial, Industrial, and Apartment property - the 30 month period from July 1989 through December 1992.

ADOR has used sales within the following time periods as far back as 1989.

Example – the time periods for the 2026 valuation year are as follows:

Residential and Vacant Land - the 18 month period from January 1, 2023 through June 30, 2024.

Commercial, Industrial, and Apartment property - the 30 month period from January 1, 2022 through June 30, 2024.



Comparison of time periods from the 1993 guidelines to the time periods used today.

1993 time periods using 2026 dates

Vacant Land and Residential

6 month period - July to December 2022 12 month period - January to December 2023 12 month period - January to December 2024

Commercial, Industrial, and Apartments

6 month period - July to December 2021 12 month period - January to December 2022 12 month period - January to December 2023 12 month period - January to December 2024

ADOR Time periods for 2026

Vacant Land and Residential

12 month period - January to December 2023 6 month period - January to June 2024

Commercial, Industrial, and Apartments

12 month period - January to December 2022 12 month period - January to December 2023 6 month period - January to June 2024



SAP! What is it?

Sales Analysis Program

The SAP compiles data from the sales file with data from the assessment files (market, parcel, and cost) using the specified tax year data and sale date parameters to create the sales analysis file.

Sales that meet the following criteria are excluded from the SAP file:

- ► Vacant land multi-parcel sales
- ► IPR's
- ▶ Statutorily valued golf courses and shopping centers
- ► Agricultural and mobile home use codes
- ▶ Invalid market/subarea, use code, deed type or parcel number



Additional SAP exclusions

Sales that meet the following conditions are included in the SAP file but removed during the analysis and creation of the ratio report.

- ▶ Vacant land and residential sales outside the 18 month window
- ➤ Sales where the affidavit property type does not match the use code type at the time of sale
- ▶ Improved sales are excluded if year built is one year or less than sale year
- ► Improvement is not complete
- ▶ Non-Assessor overrides and value freezes are removed
- ▶ Excluded if property type is vacant land and improvement value is more than 25% of the FCV
- ▶ Excluded if property is improved and the improvement value is less than 50% of the FCV



GOOD SALES FILE

COUNTY	PARCEL	_		_	LANDSIZE LINDICAT	LANDFCV	IVSOURCI	MPRVFCV	FCV		SALEYR SALEMO	PRICE	RATIO1	ADJPRICE	ARATIO1	FEENBR	MULTPARC WHENSOLD	ASRCODE	DORCODE	reptind Ol	JT majt	ype Reptind_Desc
XXXX	30436065	0130	5	01	0.26 A	27198	1	221715	248913		2022 05	490000	0.508	490000	0.508		0 SINGLE FAMILY		W1	1.00	0 RES	Passed all edits
XXXX	30436154	0130	5	01	0.25 A	26711	1	231182	257893		2022 05	495000	0.521	495000	0.521		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	20114001M	_	5	01	2.01 A	70041	1	154374		1975	2022 09	415000	0.541	415000	0.541		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30510007	0133	5	02	2.50 A	53718	1	185608		2002	2022 05	435000	0.550	435000	0.550		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30436049	0130	5	01 01	0.24 A	26209	1	206998	233207		2022 05	395000	0.590	395000	0.590		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30436017	0133	-	01	0.27 A	27680	1	190476	218156		2023 03 2022 01	359000	0.608	359000	0.608		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30436035	0130 0134	5	02	0.23 A	25702	1	220523		2002	2022 01	405000	0.608	405000	0.608		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30510013A 20110048B	0134	5	01	2.40 A 0.53 A	52075 37812	1	187861 136670		1983	2022 01	385000 275000	0.623	385000 275000	0.634	2000553 2012616	0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits Passed all edits
XXXX	30524012	0133	5	02	0.55 A 0.29 A	10439	1	69738		1979	2022 10	125000	0.641	125000	0.634	3003779	0 SINGLE FAMILY 0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30540006	0124	5	02	2.26 A	49750	1	113126	162876		2023 05	250000	0.652	250000	0.652		0 SINGLE FAMILY		W1	1.00	0 RES	Passed all edits
XXXX	30432008C	0134	5	01	2.00 A	69879	1	314683	384562		2023 00	585000	0.657	585000	0.657	2001177	0 SINGLE FAMILY		W1	1.00	0 RES	Passed all edits
XXXX	30502011J	0133	5	02	5.49 A	97709	1	165977	263686		2022 01	400000	0.659	400000	0.659	2010912	0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30436043	0133	5	01	0.24 A	26209	1	180099	206308		2023 03	312500	0.660	312500	0.660	3002837	0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	20108055T	0133	5	01	1.00 A	50714	1	265634		2002	2022 05	449000	0.705	449000	0.705		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	20122002	0130	5	01	0.23 A	25702	1	204185		2016	2022 04	325000	0.707	325000	0.707	2005925	0 SINGLE FAMILY		W1	1.00	0 RES	Passed all edits
XXXX	30433253	0130	5	01	0.20 A	24089	1	111123		1993	2023 03	179000	0.755	179000	0.755		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	20404016	0124	5	01	0.50 A	36803	1	220628		1992	2022 04	330000	0.780	330000	0.780	2006008	0 SINGLE FAMILY		W1	1.00	0 RES	Passed all edits
XXXX	20108100A	0133	5	01	0.50 A	36803	1	267912	304715		2023 04	389000	0.783	389000	0.783	3003681	0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30433487A	0133	5	01	0.34 A	30794	1	212572	243366		2023 03	306000	0.795	306000	0.795		0 SINGLE FAMILY		W1	1.00	0 RES	Passed all edits
XXXX	20106163	0130	5	01	1.31 A	57459	1	202441	259900		2022 08	325000	0.800	325000	0.800		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30532001B	0134	5	02	2.30 A	50419	1	154295	204714	1980	2022 11	253000	0.809	253000	0.809	2013658	0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	20108020B	0134	5	01	0.99 A	50481	1	305789	356270		2023 06	440000	0.810	440000	0.810		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30532018	0134	5	02	2.50 A	53718	1	83348	137066	2014	2022 06	168000	0.816	168000	0.816	2007439	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	20106153C	0134	5	01	1.00 A	51714	1	237922	289636	2000	2022 02	349000	0.830	349000	0.830	2002846	1 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	30510017C	0133	5	02	2.25 A	49581	1	257662	307243	1988	2022 08	370000	0.830	370000	0.830	2010368	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	30437010B	0134	5	01	1.00 A	51714	1	242668	294382	1996	2022 02	350000	0.841	350000	0.841	2002133	1 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	30511044A	8710	5	02	10.00 A	154164	1	257340	411504	1988	2023 05	489000	0.842	489000	0.842	3004834	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	30433111	0122	5	01	0.20 A	24089	1	102429	126518	1979	2023 06	150000	0.843	150000	0.843	3004872	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	30521005M	0144	5	02	5.07 A	91969	1	500350	592319	2008	2022 05	700000	0.846	700000	0.846	2006279	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	20121031	0131	5	01	0.23 A	25702	1	205800	231502	2000	2023 05	262000	0.884	262000	0.884	3004143	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	20109017G	0180	5	01	2.09 A	71319	1	361845	433164	1982	2023 04	463300	0.935	463300	0.935	3003034	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	20403003B	0134	5	01	0.53 A	37812	1	364088	401900	2009	2023 04	420000	0.957	420000	0.957	3003700	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	30433482	0133	5	01	0.18 A	22943	1	173398	196341	1981	2022 04	198000	0.992	198000	0.992	2005050	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	20110001B	0133	5	01	0.35 A	31209	1	158418	189627	1985	2022 11	190000	0.998	190000	0.998	2013673	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	20108100B	0130	5	01	0.50 A	36803	1	264303	301106	2017	2023 05	300000	1.004	300000	1.004	3004257	0 SINGLE FAMILY	W1	W1	1.00	0 RES	Passed all edits
XXXX	20121045	0133	5	01	0.23 A	25702	1	251147	276849	2005	2023 03	270000	1.025	270000	1.025	3002832	0 SINGLE FAMILY	W1	W1	1.00	0 RES	Passed all edits
XXXX	30507001K	0134	5	02	4.20 A	79702	1	128135	207837	1999	2022 08	200000	1.039	200000	1.039	2009798	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	30521005L	0134	5	02	3.23 A	65273	1	105054		2018	2022 06	160000	1.065	160000	1.065		0 SINGLE FAMILY	W1	W1	1.00	0 RES	Passed all edits
XXXX	30518046A	0133	5	02	2.41 A	52241	1	237868		2009	2023 06	270000	1.074	270000	1.074		0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits
XXXX	30514042D	0133	5	02	1.10 A	28772	1	130940		1974	2022 11	142500	1.121	142500	1.121		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	20115085	0131	5	01	0.27 A	27680	1	174701	202381		2023 06	175000	1.156	175000	1.156		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30433097	0133	5	01	0.18 A	22943	1	118187	141130		2022 01	106900	1.320	106900	1.320		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	30514007E	0134	5	02	9.09 A	143375	1	214302		2010	2022 01	270000	1.325	270000	1.325		0 SINGLE FAMILY		X	1.00	0 RES	Passed all edits
XXXX	20106171B	0140	5	01	1.00 A	50714	1	457574	508288	2017	2022 08	350000	1.452	350000	1.452	2010452	0 SINGLE FAMILY	X	X	1.00	0 RES	Passed all edits



RATIO REPORT

TYxxxx	Value	s - ALL TREN	IDS INCLUDED						
			_						
						(95% CI	95% CI	
		Market	Market				LOWER		MAX
County	Туре	Area	Name	MEDIAN	COD	Sales	LIMIT	LIMIT	COD
XXXX	VAC	Countywid	le	0.704	0.366	387	0.658	0.754	0.267
XXXX	VAC	1	MARKET ONE	0.742	0.304	27	0.557	0.854	0.306
XXXX	VAC	2	MARKET TWO	0.807	0.197	78	0.724	0.857	0.283
XXXX	VAC	3	MARKET THREE	0.530	0.405	8	0.142	0.878	0.354
XXXX	VAC	4	MARKET FOUR	0.774	0.352	177	0.720	0.849	0.272
XXXX	VAC	5	MARKET FIVE	0.525	0.239	52	0.490	0.604	0.290
XXXX	VAC	6	MARKET SIX	0.608	0.408	45	0.502	0.782	0.293
XXXX	RES	Countywid	le	0.822	0.185	3,317	0.810	0.832	0.207
XXXX	RES	1	MARKET ONE	0.726	0.122	804	0.716	0.735	0.208
XXXX	RES	2	MARKET TWO	0.730	0.124	1,818	0.723	0.737	0.205
XXXX	RES	3	MARKET THREE	0.720	0.316	27	0.625	0.936	0.306
XXXX	RES	4	MARKET FOUR	0.722	0.196	335	0.699	0.748	0.213
XXXX	RES	5	MARKET FIVE	0.810	0.209	45	0.707	0.846	0.234
XXXX	RES	6	MARKET SIX	0.811	0.288	288	0.782	0.845	0.214
XXXX	СОМ	Countywid	le	1.050	0.429	94	0.977	1.188	0.280



Black Box and Gray Box Criteria

A Black Box indicates the median and/or COD are out of range/compliance.

A Gray Box indicates both the COD and the median are out of range but the median does fall within the Lower and Upper 95% confidence interval.

TYxxxx	Values	- ALL TRE	NDS INCLUDED							
							95% CI	95% CI		
		Market	Market				LOWER	UPPER	MAX	
County	Type	Area	Name	MEDIAN	COD	Sales	LIMIT	LIMIT	COD	
XXXX	VAC	Countywid	e	0.704	0.366	387	0.658	0.754	0.267	
XXXX	VAC	1	MARKET ONE	0.742	0.304	27	0.557	0.854	0.306	
XXXX	VAC	2	MARKET TWO	0.807	0.197	78	0.724	0.857	0.283	
XXXX	VAC	3	MARKET THREE	0.530	0.405	8	0.142	0.878	0.354	
XXXX	VAC	4	MARKET FOUR	0.774	0.352	177	0.720	0.849	0.272	•
XXXX	VAC	5	MARKET FIVE	0.525	0.239	52	0.490	0.604	0.290	
XXXX	VAC	6	MARKET SIX	0.608	0.408	45	0.502	0.782	0.293	•
XXXX	RES	Countywid	e	0.822	0.185	3,317	0.810	0.832	0.207	
XXXX	RES	1	MARKET ONE	0.726	0.122	804	0.716	0.735	0.208	
XXXX	RES	2	MARKET TWO	0.730	0.124	1,818	0.723	0.737	0.205	
XXXX	RES	3	MARKET THREE	0.720	0.316	27	0.625	0.936	0.306	•
XXXX	RES	4	MARKET FOUR	0.722	0.196	335	0.699	0.748	0.213	
XXXX	RES	5	MARKET FIVE	0.810	0.209	45	0.707	0.846	0.234	
XXXX	RES	6	MARKET SIX	0.811	0.288	288	0.782	0.845	0.214	
XXXX	СОМ	Countywid	e	1.050	0.429	94	0.977	1.188	0.280	
	32.0		_						3.220	



OUTLIERS

DECCE	_			_										-			
RECORD	COLINE	DARGE	USEGOSS	MANDEE	CUBARES	CALEXO	CALENAC	DDICE	DATIO	ADIDDIS	ADATIOS	TENIDO	WILLENGOLD.		OUT		D
COUNT	COUNTY	PARCEL	USECODE	MARKET	SUBAREA	SALEYR	SALEMO	PRICE	KAHO1	ADJPRICE	ARATIO1	EENBR	WHENSOLD	reptind	OUT	majtype	Reptind_De
1	XXXX	30436065	0130	5	01	2022	05	490000	0.508	490000	0.508	2007046	SINGLE FAMILY	1.00	0	RES	Passed all
2	XXXX	30436154	0130	5	01	2022		495000	0.521	495000	0.521	2006813	SINGLE FAMILY	1.00	0	RES	Passed all
3	XXXX	20114001N	0134	5	01	2022	09	415000	0.541	415000	0.541	2011350	SINGLE FAMILY	1.00	0	RES	Passed all
4	XXXX	30510007	0133	5	02	2022	05	435000	0.550	435000	0.550	2007096	SINGLE FAMILY	1.00	0	RES	Passed all
5	XXXX	30436049	0130	5	01	2022	05	395000	0.590	395000	0.590	2006272	SINGLE FAMILY	1.00	0	RES	Passed all
6	XXXX		0133	5	01	2023	03	359000	0.608	359000	0.608	3002657	SINGLE FAMILY	1.00	0	RES	Passed all
7	XXXX		0130	5	01	2022	01	405000	0.608	405000	0.608	2000741	SINGLE FAMILY	1.00	0	RES	Passed all
8	XXXX	30510013A	0134	5	02	2022	01	385000	0.623	385000	0.623	2000553	SINGLE FAMILY	1.00	0	RES	Passed all
9	XXXX	20110048B	0133	5	01	2022	10	275000	0.634	275000	0.634	2012616	SINGLE FAMILY	1.00	0	RES	Passed all
10	XXXX	30524012	0124	5	02	2023	05	125000	0.641	125000	0.641	3003779	SINGLE FAMILY	1.00	0	RES	Passed all
11	XXXX	30540006	0134	5	02	2023	06	250000	0.652	250000	0.652	3005883	SINGLE FAMILY	1.00	0	RES	Passed all
12	XXXX	30432008C		5	01	2022		585000	0.657	585000	0.657	2001177	SINGLE FAMILY	1.00	0	RES	Passed all e
13	XXXX	30502011J	0134	5	02	2022		400000	0.659	400000	0.659	2010912	SINGLE FAMILY	1.00	0	RES	Passed all e
35	XXXX	20110001B		5	01	2022		190000	0.998	190000	0.998	2013673	SINGLE FAMILY	1.00	0	RES	Passed all
36	XXXX	20108100B	0130	5	01	2023		300000	1.004	300000	1.004	3004257	SINGLE FAMILY	1.00	0	RES	Passed all e
37	XXXX	20121045	0133	5	01	2023	03	270000	1.025	270000	1.025	3002832	SINGLE FAMILY	1.00	0	RES	Passed all
38	XXXX	30507001K	0134	5	02	2022	08	200000	1.039	200000	1.039	2009798	SINGLE FAMILY	1.00	0	RES	Passed all e
39	XXXX	30521005L	0134	5	02	2022	06	160000	1.065	160000	1.065	2007631	SINGLE FAMILY	1.00	0	RES	Passed all e
40	XXXX	30518046A	0133	5	02	2023		270000	1.074	270000	1.074	3007307	SINGLE FAMILY	1.00	0	RES	Passed all e
41	XXXX	30514042D	0133	5	02	2022		142500	1.121	142500	1.121	2013561	SINGLE FAMILY	1.00	0	RES	Passed all e
42	XXXX	20115085	0131	5	01	2023		175000	1.156	175000	1.156	3005402	SINGLE FAMILY	1.00	0	RES	Passed all e
43	XXXX		0133	5	01	2022		106900	1.320	106900	1.320	2000547	SINGLE FAMILY	1.00	0	RES	Passed all e
44	XXXX	30514007E	0134	5	02	2022		270000	1.325	270000	1.325	2001251	SINGLE FAMILY	1.00	0	RES	Passed all
45	XXXX	20106171B	0140	5	01	2022		350000	1.452	350000	1.452	2010452	SINGLE FAMILY	1.00	0	RES	Passed all e
46	XXXX	20106052B	0130	5	01	2022	02	275000	1.592	275000	1.592	2001954	SINGLE FAMILY	1.00	2	RES	Passed all
47	XXXX	30432012A	8714	5	01	2022	01	200000	2.218	200000	2.218	2000181	SINGLE FAMILY	7.00	2	RES	Passed all
								•									
				SUM().25*47)+	0.25 =	12.00	1st q	uartile	is the 12	th ratio	0.657					
				SUM(0).75*47)+	0.75 =	36.00	4th q	uartile	is the 36	th ratio	1.004					
					Calcul	ate the	IQR by	/ subtra	ecting	.657 fro	m 1.004	0.347					
					Calc	ulate t	he IQR	by mu	ltiplyin	g .347 t	imes 1.5	0.521					
					Subtra	act .52	1 from .	.657 to	get th	e low tr	im point	0.137					
											im point	1.525					



CALCULATING THE COD

- 1. Subtract the median from each sales ratio to find the absolute deviation. (ignore the plus or minus sign)
- 2. Sum the absolute deviations and divide by the sample size to get the average absolute deviation.
- 3. Divide the average absolute deviation by the median to get the COD.

4	Α	В	С	D	E	M	N	0	Р	Q	R	S
												Absolute
1	COUNTY	PARCEL	USECODE	MARKET	SUBAREA	SALEYR	SALEMO	PRICE	RATIO1	ADJPRICE	ARATIO1	Deviation
2	XXXX	20106153C	0134	5	01	2022	02	349000	0.830	349000	0.830	0.020
3	XXXX	20106163	0130	5	01	2022	08	325000	0.800	325000	0.800	0.010
4	XXXX	20106171B	0140	5	01	2022	08	350000	1.452	350000	1.452	0.642
45	XXXX	30532018	0134	5	02	2022	06	168000	0.816	168000	0.816	0.006
46	XXXX	30540006	0134	5	02	2023	06	250000	0.652	250000	0.652	0.158
47										MEDIAN	0.810	
48												
49								9	SUM OF AB	SOLUTE DEV	/IATIONS =	7.609
50										тот	AL SALES =	45
51								AVERAGE A	ABSOLUTE	DEVIATION	(7.609/45) =	0.169
52										COD	(.169/.810) =	0.209



												Absolute						
1	COUNTY	PARCEL	USECODE	MARKET	SUBAREA			PRICE	RATIO1	ADJPRICE	ARATIO1	Deviation	FEENBR	WHENSOLD	reptind	OUT	majtype	Reptind_Desc
2	XXXX	30436065	0130	5	01	2022		490000	0.508	490000	0.508	0.302	2007046	SINGLE FAMILY	1.00	0	RES	Passed all edits
3	XXXX	30436154	0130	5	01	2022	_	495000	0.521	495000	0.521	0.289	2006813	SINGLE FAMILY	1.00	0	RES	Passed all edits
4	XXXX	20114001M	0134		01	2022	_	415000	0.541	415000	0.541	0.269	2011350	SINGLE FAMILY	1.00	0	RES	Passed all edits
39	XXXX	30507001K	-	5	02	2022	_	200000	1.039	200000	1.039	0.229	2009798	SINGLE FAMILY	1.00	0	RES	Passed all edits
40	XXXX	30521005L	0134		02	2022	_	160000	1.065	160000	1.065	0.255	2007631	SINGLE FAMILY	1.00	0	RES	Passed all edits
41	XXXX	30518046A		5	02	2023	_	270000	1.074	270000	1.074	0.264	3007307	SINGLE FAMILY	1.00	0	RES	Passed all edits
42	XXXX	30514042D	_		02	2022	_	142500	1.121	142500	1.121	0.311	2013561	SINGLE FAMILY	1.00	0	RES	Passed all edits
43	XXXX	-	0131		01	2023	-	175000	1.156	175000	1.156	0.346	3005402	SINGLE FAMILY	1.00	0	RES	Passed all edits
44	XXXX		0133		01	2022		106900	1.320	106900	1.320	0.510	2000547	SINGLE FAMILY	1.00	0	RES	Passed all edits
45	XXXX	30514007E	0134		02	2022	01	270000	1.325	270000	1.325	0.515	2001251	SINGLE FAMILY	1.00	0	RES	Passed all edits
46	XXXX	20106171B	0140	5	01	2022	08	350000	1.452	350000	1.452	0.642	2010452	SINGLE FAMILY	1.00	0	RES	Passed all edits
47										MEDIAN	0.810							
48																		
49							SU	JM OF A	BSOLUT	E DEVIA	TIONS =	7.609						
50										TOTAL	SALES =	45						
51					A۱	VERA	GE ABS	SOLUTE	DEVIATI	ON (7.60	9/45) =	0.169						
52									C	OD (.169	/.810) =	0.209						
53																		
54	<u>0U</u>	JTLIERS .																
55	XXXX	20106052B	0130	5	01	2022	02	275000	1.592	275000	1.592		2001954	SINGLE FAMILY	1.00	2	RES	Passed all edits
56	XXXX	30432012A	8714	5	01	2022	01	200000	2.218	200000	2.218		2000181	SINGLE FAMILY	7.00	2	RES	Passed all edits

TYxxxx	Values	- ALL TI	RENDS INCLU	DED					
							95% CI	95% CI	
		Market	Market				LOWER	UPPER	MAX
County	Type	Area	Name	MEDIAN	COD	Sales	LIMIT	LIMIT	COD
XXXX	RES	Countyv	vide	0.822	0.185	3,317	0.810	0.832	0.207
XXXX	RES	1	MARKET ON	0.726	0.122	804	0.716	0.735	0.208
XXXX	RES	2	MARKET TWO	0.730	0.124	1,818	0.723	0.737	0.205
XXXX	RES	3	MARKET THE	EE 0.720	0.316	27	0.625	0.936	0.306
XXXX	RES	4	MARKET FOL	R 0.722	0.196	335	0.699	0.748	0.213
XXXX	RES	5	MARKET FIV	0.810	0.209	45	0.707	0.846	0.234
XXXX	RES	6	MARKET SIX	0.811	0.288	288	0.782	0.845	0.214
					_				



RATIO REPORT

TY2025	Value	s - Includes AL	L TAFS						
							95% CI	95% CI	
		Market	Market				LOWER	UPPER	MAX
County	Туре	Area	Name	MEDIAN	COD	Sales	LIMIT	LIMIT	COD
40		0		0.707	0.000	0400	0.700	0.000	0.050
	VAC	Countywide		0.797	0.222	2120	0.786	0.802	0.256
	VAC		Prescott	0.784	0.232	413	0.756	0.811	0.264
	VAC		Prescott Valley	0.800	0.191	315	0.787	0.826	0.266
13	VAC	4	Chino Valley	0.800	0.211	202	0.760	0.830	0.270
13	VAC	5	West Yavapai	0.800	0.247	727	0.773	0.815	0.261
13	VAC	20	Verde Valley	0.787	0.224	305	0.760	0.801	0.267
13	VAC	92	Sedona VOC	0.799	0.166	158	0.764	0.828	0.273
13	RES	Countywide		0.801	0.116	5743	0.799	0.804	0.203
	RES		Prescott	0.800	0.138	1851	0.793	0.807	0.205
	RES		Prescott Valley	0.800	0.079	1628	0.796	0.804	0.206
	RES		Chino Valley	0.806	0.104	340	0.789		0.213
	RES		West Yavapai	0.798	0.135	363	0.780	0.812	0.212
13	RES		Verde Valley	0.805	0.115	959	0.798	0.814	0.207
13	RES	92	Sedona VOC	0.803	0.144	602	0.786	0.815	0.209
13	COM	Countywide		0.790	0.256	403	0.774	0.840	0.264