



# 2023 Revaluation Overview

August 19, 2022

Keith Erffmeyer – Denver County Assessor



# ASSESSOR FUNCTIONS

The Assessor is charged with 4 functions regarding all property in the county:

- Discover
- List
- Classify
- Value



# PROPERTY TAX CYCLE

## Property Valuation and Taxation Cycle

### Property Valuation

*Occurs in the spring of every odd year.*



### Assessment Rate

*According to state statutes*



### Tax Rate

*Set by the various taxing authorities by Dec. 15 every year*

### Property Tax Bills

*Mailed in January and collected by the summer every year*





# ASSESSMENT BASICS

Much of the Assessment process is governed by the Colorado Revised Statutes (Title 39)

## Base Year Concept

- Under Colorado law, the Assessor must reappraise all real property every two years.
- For 2023, the property value, which the Assessor determines as the "Actual Value", must reflect the valuation date of June 30, 2022.
- The "base period" is the 24-month period from July 1, 2020 to June 30, 2022: sales and other information will be collected from the "base period" to estimate values. (Note – technically the base period is 18 months, but most use the 24-month timeframe to eliminate the “gap”.)
- The specific "Assessment Date" is January 1 each year, which considers the property characteristics as of January 1.

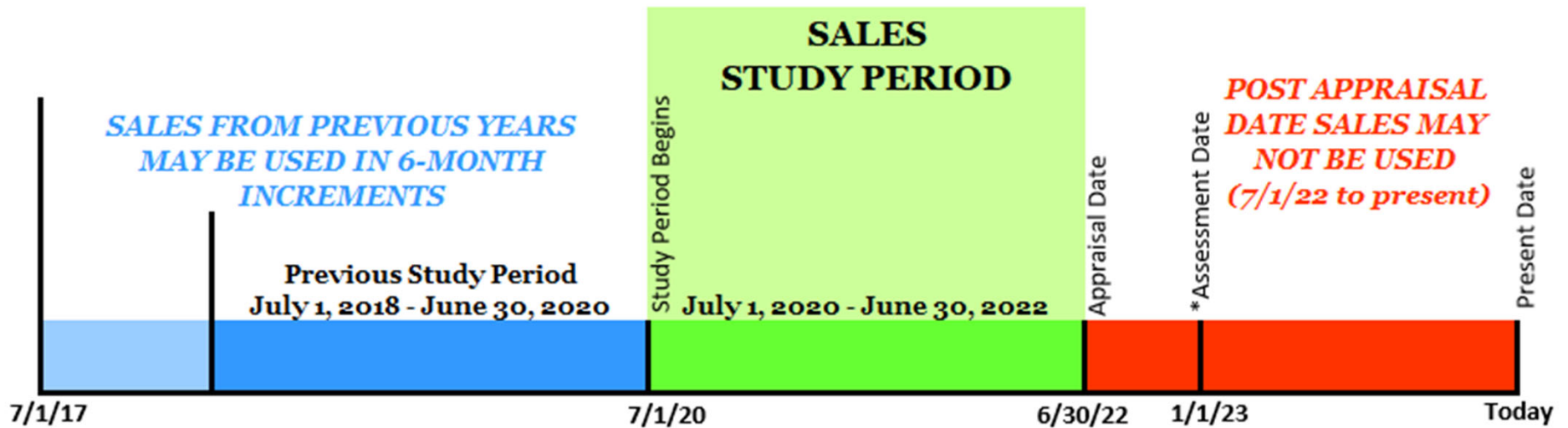
The Colorado Constitution requires all residential property be valued exclusively by the market approach.

## **JUNE 30, 2022!!!**



# CRITICAL ASSESSMENT DATES

## 2023 / 2024 Valuation Study Period Appraisal Date June 30, 2022



\*Values are based on condition and physical status as of the January 1 Assessment Date



# MASS APPRAISAL

## IAAO Definition:

The process of valuing a group of properties as of a given date, using standard methodology, employing common data and allowing for statistical testing.

Out of necessity (volume vs. resources), most values are set via mass appraisal and subsequent appeals are analyzed using site-specific appraisal techniques.

Requires collaboration from the property owner or authorized representative to “let us know what we don’t know” to arrive at a fair and accurate valuation.



# SALES VERIFICATION

Appraisal staff “verifies” property transactions:

“Qualify” Arms-Length Transactions (“Disqualify” others)

- Transaction between unrelated parties and under no duress

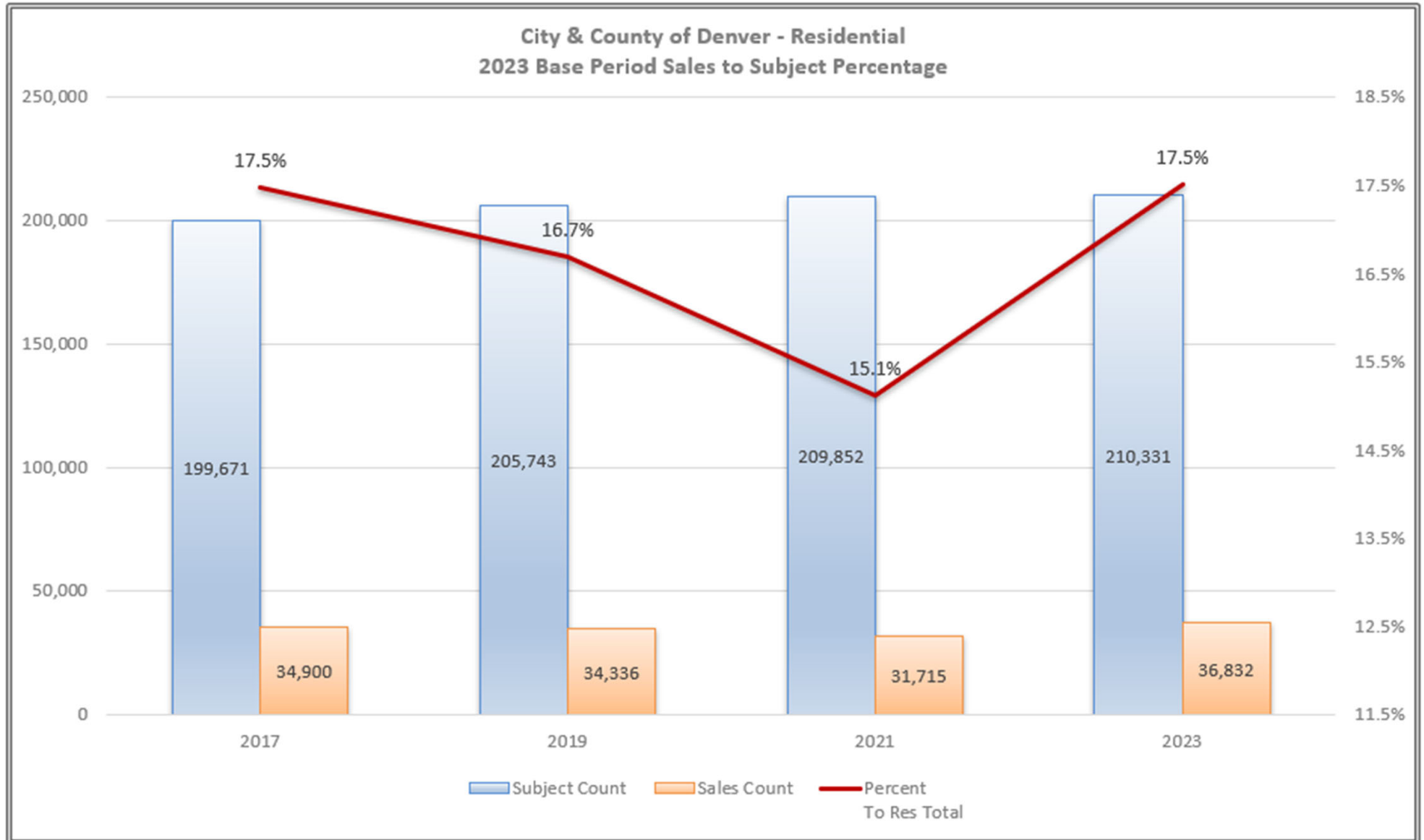
Verify Property Characteristics vs. Database

- Square Footage, Remodeling, Basement Finish, Bedroom/Bath Counts, Distressed Properties, Negative external factors, Grade/Amenities, etc.

Information Gathered From:

- REColorado (MLS)
- Transfer Declarations
- CoStar
- Apartment Insights
- Personal Interviews
- Sale Verification Letters
- Historical Records/Permits

# RESIDENTIAL SALES VOLUME



City & County of Denver - Commercial/Industrial  
2023 Base Period Sales to Subject Percentage





# VALUATION MODELS

Mathematical models that are intended to mirror the motivations of buyers and sellers, i.e. to represent the “market”.

Utilize quantitative and qualitative property characteristics:

Quantitative: Square footage, # baths, # bedrooms, basement area, etc.

Qualitative: Grade, obsolescence factors, neighborhood assignment, etc.

## Model Stratification

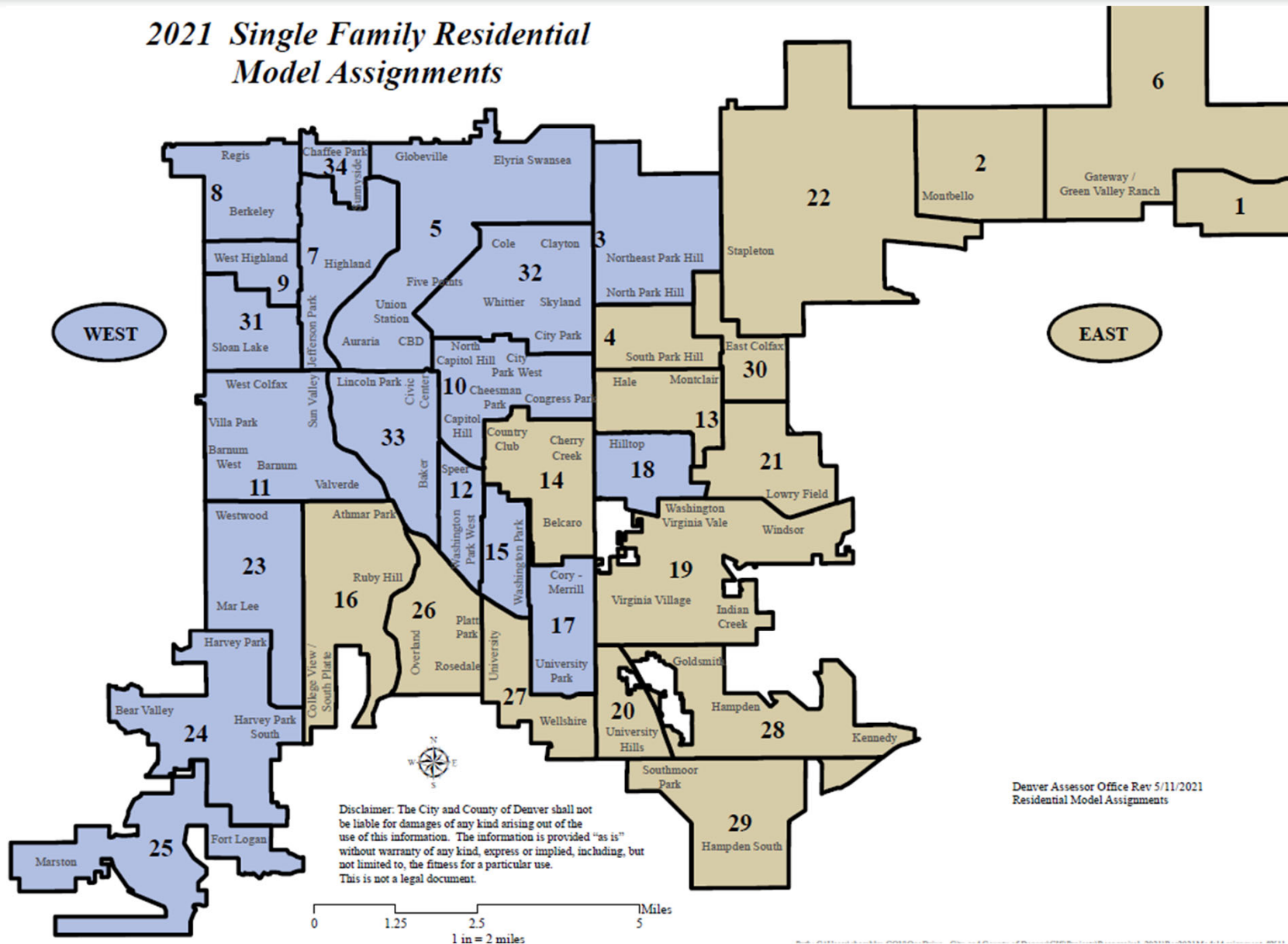
- 34 Single Family models
- 12 Townhome models
- 8 Condo models
- 3 Apartment models

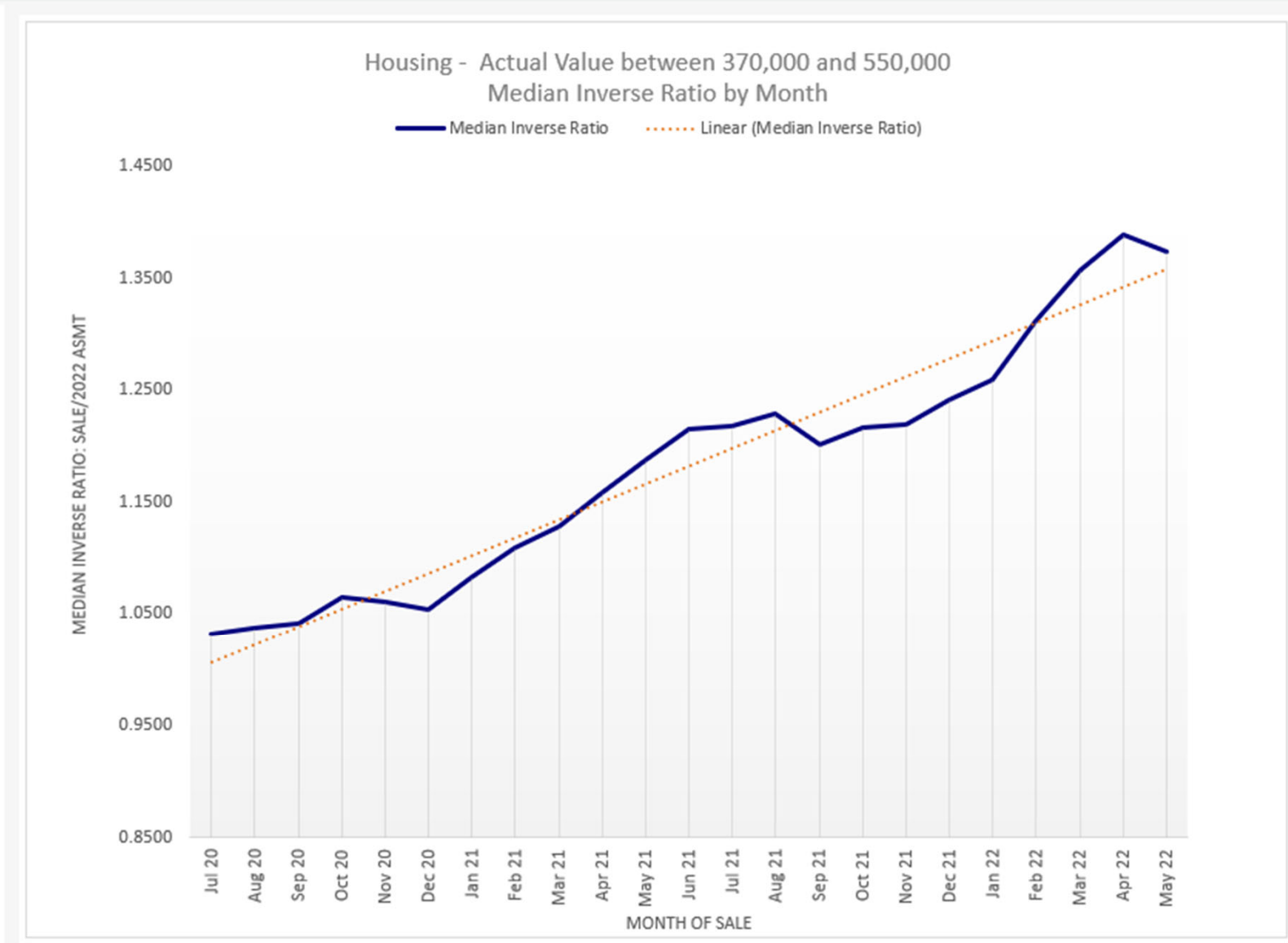
Time trend sales to date of valuation (June 30, 2022)

Perform multiple regression analysis

Review of coefficients and “outliers”

## 2021 Single Family Residential Model Assignments





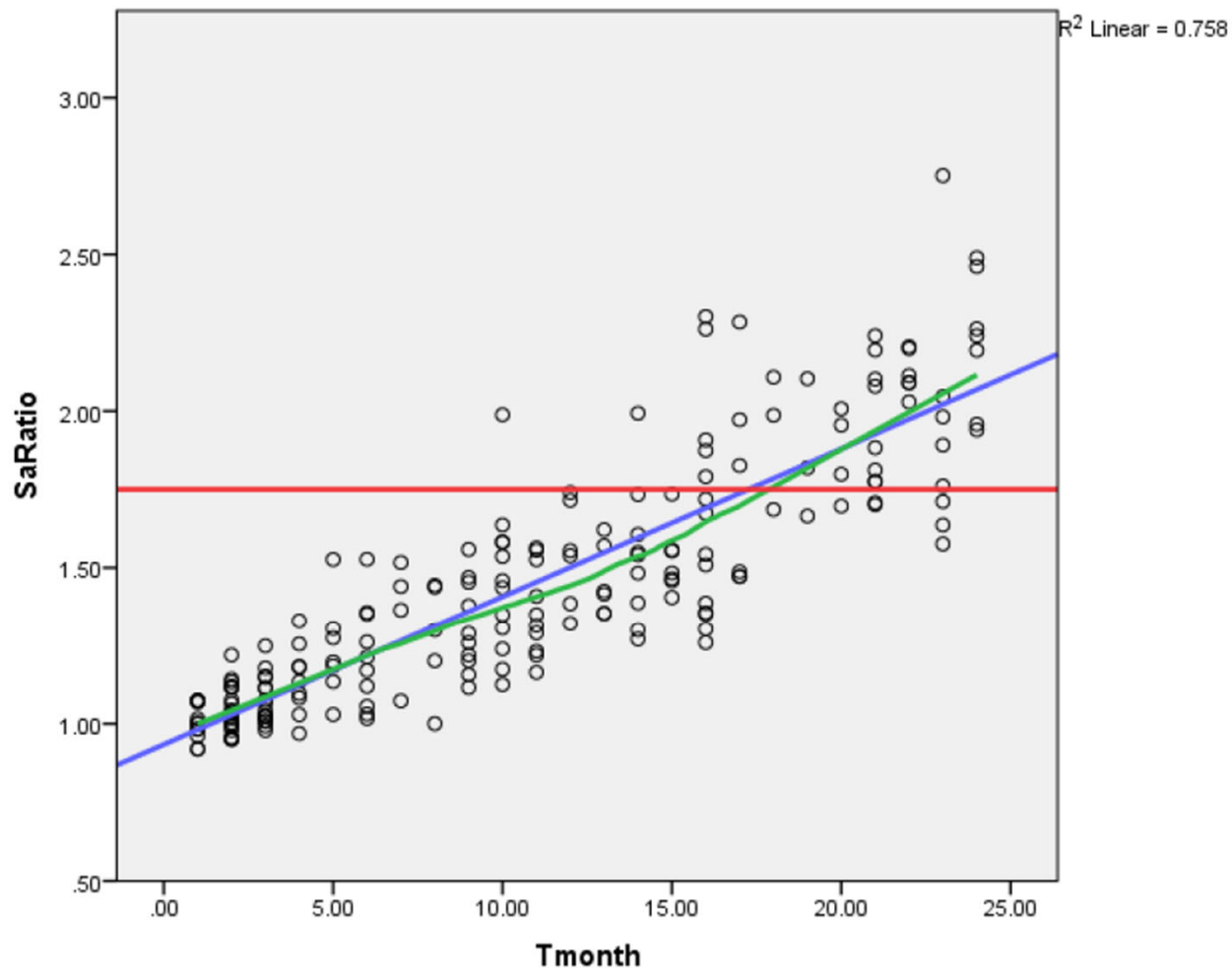


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# TIME TRENDING

"walk-to" ski area Condos/Thms

Graph 1 - Sale Ratios Over A Period Of Time

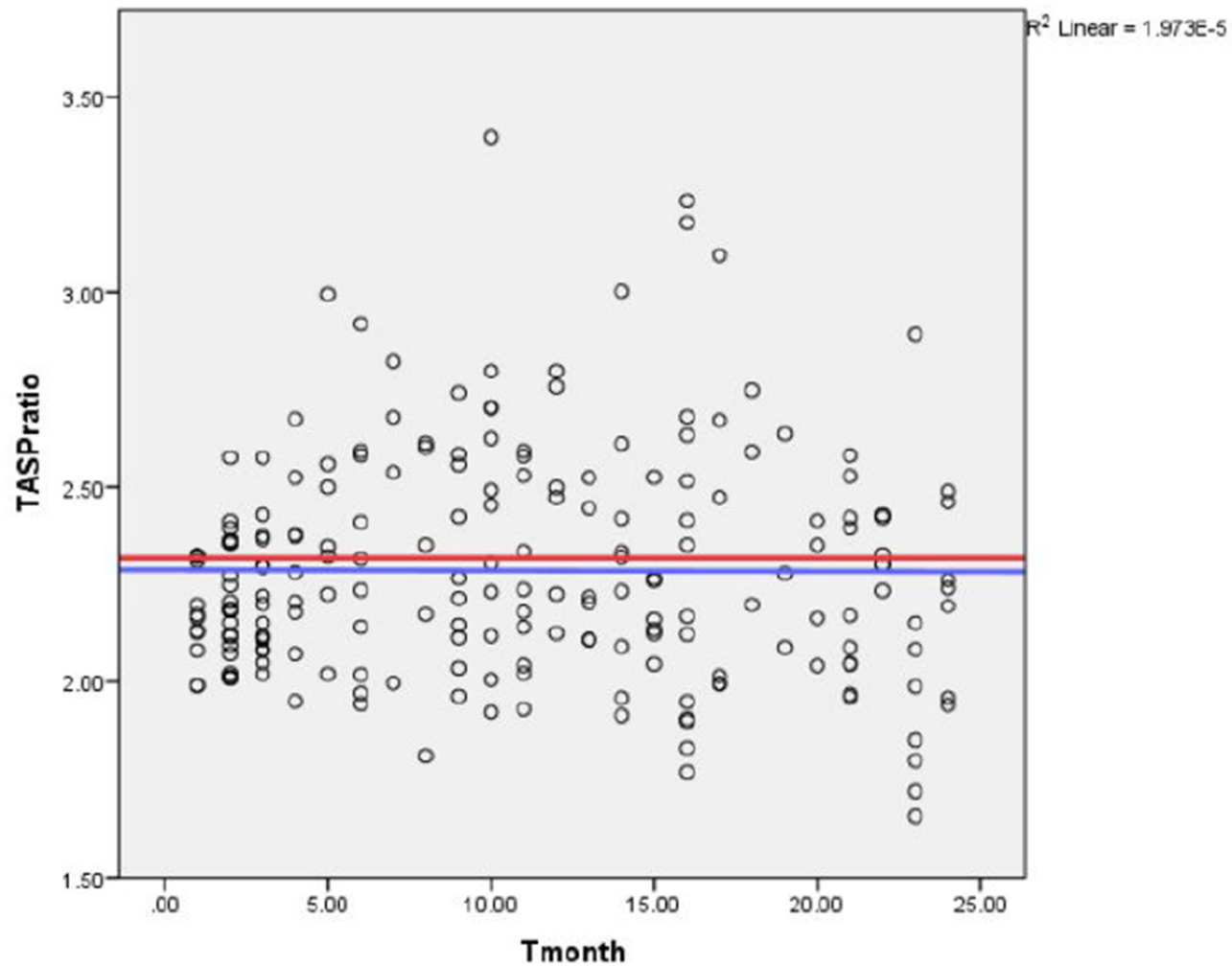




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# TIME TRENDING

Graph 2 - TASPratio AT 5.06% Per Month





# MULTIPLE REGRESSION ANALYSIS

## Residential market modeling via multiple regression analysis

- A particular statistical technique used to analyze data in order to predict the value of one variable, such as market value, from the known value of other variables.
- Coefficients are developed by allowing regression to determine “best fit” based on the data introduced.
- Coefficients can be constrained if the result isn’t logical.
- Review (outliers), run again, review, run again, review, run again....

# MULTIPLE REGRESSION ANALYSIS

MODEL CLUSTER # 15														
	COEFFICIENT	STANDARD ERROR	T VALUE	95% CONFIDENCE INTERVAL	PAR CORR	F TEST	MEAN	STANDARD DEVIATION	NON ZERO COUNT	MEAN	UNCONSTRAINED COEFF	F		
1 TLV \$	0.5776	0.060	9.55	0.46	0.70 0.28	91.232	686042.248	165174.722	258	686042.25				
2 H BATH	15000.0000						0.469	0.593	109	1.11	-4633.457	0		
3 ADNLFX	16083.8235	8001.230	2.01	401.41	31766.23 0.02	4.041	1.938	1.824	177	2.82				
4 BSMTSF	40.0000						1170.461	406.804	254	1188.89	-12.572	0		
5 F BSMT	33.8062	23.157	1.46	-11.58	79.19 0.01	2.131	969.942	452.883	240	1042.69				
6 ATTIC	-31.4001	81.507	-0.39	-191.15	128.35 0.00	0.148	18.287	98.859	10	471.80				
7 A MG	45.0000						56.736	168.367	29	504.76	209.237	16		
8 A FG	45.0000						20.260	108.298	10	522.70	-70.013	1		
9 D MG	104.6852	33.430	3.13	39.16	170.21 0.04	9.806	211.484	230.662	132	413.36				
10 D FG	50.0000						169.674	247.699	87	503.17	13.089	0		
11 D BD#2	325.0000						1.845	29.634	1	476.00	399.612	2		
12 FBTH>1	25000.0000						1.884	0.971	243	2.00	745.296	0		
13 NBCL02	0.0000						100.481	389.279	18	1440.22	4.861	0		
14 NBCL03	23.7957	15.847	1.50	-7.27	54.86 0.01	2.255	156.357	550.106	22	1833.64				
15 NBCL04	46.0623	19.382	2.38	8.07	84.05 0.02	5.648	82.302	399.403	12	1769.50				
16 NBCL05	0.0000						0.000	0.000	0					
17 NBCL06	68.0000						90.411	600.067	6	3887.67	63.789	8		
18 NBCL11	41.4627	12.051	3.44	17.84	65.08 0.05	11.838	588.895	1266.611	47	3232.66				
19 NBCL12	0.0000						24.950	285.371	2	3218.50	-14.244			
20 NBCL13	-59.3598	23.178	-2.56	-104.79	-13.93 0.03	6.559	48.752	390.278	4	3144.50				
21 NBCL14	100.0000						36.616	340.580	3	3149.00	4.233	0		
22 NBCL15	0.0000						0.000	0.000	0					
23 NBCL16	0.0000						0.000	0.000	0					
24 B+-GRD	0.0000						0.000	0.000	0					
25 STYLE4	0.0000						208.326	778.964	18	2986.00	-9.006	1		
26 STYLE2	0.0000						142.609	530.305	21	1752.05	-0.452			
27 AGE<36	-15299.0765	1830.121	-8.36	-18886.11	-11712.04 0.23	69.883	4.182	8.551	87	12.40				
28 YR3655	-6249.9326	1044.809	-5.98	-8297.76	-4202.11 0.13	35.783	6.295	16.273	34	47.76				
29 YR5665	-6881.3079	863.262	-7.97	-8573.30	-5189.32 0.21	63.541	5.895	18.053	25	60.84				
30 YR6686	-4667.3880	678.713	-6.88	-5997.66	-3337.11 0.17	47.291	21.736	33.820	76	73.79				
31 AGE>86	-3031.0171	525.575	-5.77	-4061.14	-2000.89 0.12	33.259	13.419	33.535	36	96.17				
32 CPORT	15.0000						6.721	45.012	6	289.00	88.070	0		
33 #FP&FS	15000.0000						1.612	0.981	241	1.73	18942.841	4		
34 GRDXSF	276.0000						89.981	598.057	6	3869.17	291.258	251		
35 GRDASF	109.4364	9.908	11.05	90.02	128.86 0.34	121.993	568.636	1267.333	44	3334.27				
36 GRDCSF	-50.0000						161.484	489.387	29	1436.66	-10.728	0		
37 GRDDSF	-50.0000						0.000	0.000	0					
38 CDU*SF	63.3417	7.657	8.27	48.33	78.35 0.22	68.424	915.849	1307.063	116	2036.97				
39 BI-LVL	90.0000						0.000	0.000	0					
40 TRILVL	90.0000						4.814	77.324	1	1242.00	52.090	0		
41 SPLLV	90.0000						0.000	0.000	0					
42 1 STRY	83.5715	34.276	2.44	16.39	150.75 0.02	5.945	593.035	666.923	120	1275.02				
43 1 1/2S	99.9285	26.133	3.82	48.71	151.15 0.06	14.621	108.543	488.119	13	2154.15				
44 2 STRY	128.7514	20.471	6.29	88.63	168.87 0.14	39.558	1324.120	1501.407	118	2895.11				
45 2+STRY	149.3314	22.422	6.66	105.38	193.28 0.16	44.356	83.961	560.625	6	3610.33				
46 GRDN*1	87.5000						1.159	18.615	1	299.00				
47 CONVER	160.0000						0.000	0.000	0					
48 RMDLKT	50.2636	7.803	6.44	34.97	65.56 0.15	41.498	922.472	1297.448	104	2288.44				
0 C.TERM	454298.0229	0.000	0.00	0.00	0.00 0.00	170.191	0.000	0.000	0	0.00	0.000			



# TESTING MODELS

Statistical testing to evaluate model performance and accuracy.

Analyze measures of central tendency which are focus of State Audit:

- Median sale ratio
- Coefficient of dispersion

Single-Family Res Model	Sales Count	Median Actual Value	Median Sales Ratio	COD
1 - Green Valley Ranch	541	351,600	100.12	2.72
2 - Montbello & Gateway	494	345,450	99.97	3.56
3 - North/Northeast Park Hill	353	492,700	100.11	4.00
4 - South Park Hill	351	735,700	100.12	5.12
5 - Globeville/Swansea	94	301,200	100.22	4.49
6 - N. Green Valley Ranch	1387	393,800	100.06	3.07
7 - Northwest Central Denver	460	611,800	100.05	4.90
8 - Berkeley/Regis/Inspiration	432	580,500	100.03	5.32
9 - West Highland	303	686,100	100.26	5.19
10 - Capitol Hill/N Congress Park	348	799,100	100.22	4.85
11 - Barnum/Villa Park	476	379,850	100.03	5.71
12 - West Washington Park	287	707,300	99.74	4.80
13 - Hale & Montclair	407	619,500	100.28	3.80
14 - Central Denver	314	1,376,400	99.92	4.14
15 - Washington Park	234	1,216,500	100.31	5.81
16 - Athmar/College View/Ruby Hill	469	360,600	100.08	4.76
17 - Cory-Merrill/University Park	369	831,300	99.8	5.47
18 - Hilltop & Crestmoor	222	1,312,250	100.05	6.17
19 - Virginia Vale/Village Wind	576	524,050	99.82	4.55
20 - University Hills	273	482,000	99.48	5.80
21 - Lowry Redevelopment	161	795,900	100.28	3.47
22 - Central Park	1075	707,500	99.84	3.75
23 - E Harvey Park/Mar Lee/Westwood	624	341,950	99.64	4.01
24 - Bear Valley/Harvey Park	567	426,600	99.95	3.74
25 - Ft Logan/Pinehurst/Grant Ranch	412	448,700	99.93	3.98
26 - Overland/Platte Park/Rosedale	303	612,700	100.24	5.60
27 - University & Wellshire	304	606,250	99.91	5.46
28 - Goldsmith & Hampden	286	508,300	99.97	4.58
29 - Southmoor-Hutchinson Hills	305	587,300	100.3	4.54
30 - East Colfax	336	393,050	100.33	5.53
31 - Sloans Lake/W Colfax	231	664,300	100.22	4.69
32 - Five Points/N. Central Park	555	561,400	100.02	4.74
33 - Baker	194	565,800	100.13	4.91
34 - Chaffee/Zuni Park	183	410,300	100.34	3.82
<b>Single-Family Res Summary</b>	<b>13,926</b>	<b>623,412</b>	<b>100.03</b>	<b>4.39</b>

# COMPARABLES

	SUBJECT PARCEL	COMPARISON-1	COMPARISON-2	COMPARISON-3	COMPARISON-4	COMPARISON-5
PARCEL ID	0514418021000	0514411031000	0514419025000	0523101005000	0514323019000	0514413013000
CARD 1						
UNIT NO						
NBHD #	0526	526	526	526	526	526
NBCL	11	11	11	11	11	11
MODEL	15	15	15	15	15	15
SITE ZONING	U-SU-C	U-SU-C	U-SU-C	U-SU-C	U-SU-C	U-SU-C
LAND SQFT	6,300	6,250	6,119	6,300	6,300	6,240
SITE AMENITY	1-TYPICAL	1-TYPICAL	1-TYPICAL	1-TYPICAL	1-TYPICAL	1-TYPICAL
LAND VALUE \$	945,000	937,000	915,900	778,100	1,008,000	935,400
<b>DWELLING DESCRIPTION</b>						
BUILDER		0	0	0		0
DENVER CLASS	119	115	115	115	115	115
LIVING UNITS	1	1	1	1	1	1
ARCHITECTURE	15	15	15	15	15	15
STYLE	7	1	1	1	1	4
EXTERIOR WALLS	2	2	3	2	2	3
YEAR BUILT/EFF YR	2008/	2008/	2007/	2010/	2011/	2018/
REMODELED	2018	0	2007	2017	2011	2018
QUALITY GRADE	A-SUPERIOR	A-SUPERIOR	A-SUPERIOR	A-SUPERIOR	A-SUPERIOR	A-SUPERIOR
OVERALL RATING	AV-AVERAGE	AV-AVERAGE	AV-AVERAGE	AV-AVERAGE	AV-AVERAGE	AV-AVERAGE
BEDROOMS	4	3	3	4	3	4
FULL 3/4 BATHS	4	4	3	4	3	4
HALF BATHS	2	1	1	1	2	1
FIREPLACE #	4	2	3	0	3	3
LIVING AREA	3,256	3,235	3,215	3,270	3,143	3,335
BASEMENT SQFT	1,626	1,723	1,548	1,706	1,700	1,706
FINISHED BSMT	1,533	1,637	1,436	1,204	1,500	1,621
GARDEN LEVEL	0	0	0	0	0	0
FINISHED GRDN						
ATTACHED GARAGE	0	592	546	0	585	462
DETACHED GARAGE	456	0	0	802	0	0
CARPORT SQFT	0	0	0	0	0	0
DET LIVING AREA	0	0	0	0	0	0
<b>PRICING DATA</b>						
SALE DATE		11/2019	09/2019	05/2019	04/2020	12/2018
RAW SALE AMOUNT \$	0	2,200,000	1,800,000	2,135,000	2,467,800	2,505,500
- CONCESSIONS \$	0	2,200,000	1,800,000	2,135,000	2,467,800	2,505,500
TIME ADJUSTED \$	0	0	0	0	0	0
ADJUSTMENTS FOR						
CONDITION %	.0	.0	.0	.0	.0	.0
FUNCTIONAL %	.0	.0	.0	.0	.0	.0
EXTERNAL %	.0	.0	.0	.0	.0	.0
NET ADJUSTMENT %	.0	.0	.0	.0	.0	.0
<b>VALUATION</b>						
MKT ESTIMATE \$	2,378,950	2,092,180	2,023,780	2,002,610	2,163,250	2,422,540
- MKT ADJUSTMENTS \$		286,770	355,170	376,340	215,700	-43,590
MKT ADJUSTED SALE \$		2,486,770	2,155,170	2,511,340	2,683,500	2,461,910
WGTD. ESTIMATE \$	2,477,300	2,165,990	2,093,720	1,840,820	2,191,980	2,698,630
NORMAL EST. \$	2,475,320	2,163,250	2,093,560	1,800,580	2,208,760	2,673,440
MARKET VALUE \$	2,475,300	2,163,300	2,093,600	1,710,600	2,208,800	2,673,400
ASSIGNED VALUE \$	2,475,300	2,163,300	2,093,600	1,710,600	2,208,800	2,673,400
SOURCE	2 MKT 02/2019	2 MKT 02/2019	2 MKT 02/2019	2 ACL 02/2020	2 MKT 02/2019	2 SAM 01/2020
COMPARABILITY		54	54	56	56	56



# COMMERCIAL BASICS

Review sales transactions during base period (similar to residential).

Analyze income data from surveys and published sources (CoStar, etc.).

- Rental rates, vacancy, expenses, capitalization rates
- Other property-specific influences (parking, unusual vacancy, etc.)

Develop income approach to value, “targeting” sales.

- We term it a “market-driven income approach”
- Can be done on a “mass” or “property-specific” approach
- Apply methodology in a consistent and uniform manner
- Consider how values compare to each other in specific locations



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# 2023 REVALUATION

What do things look like for 2023?



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# ACTIVE LISTINGS

## Denver metro housing indicators

Active listings

Months of inventory

% list price received

Median sales price



Source: [Colorado Association of REALTORS](#)

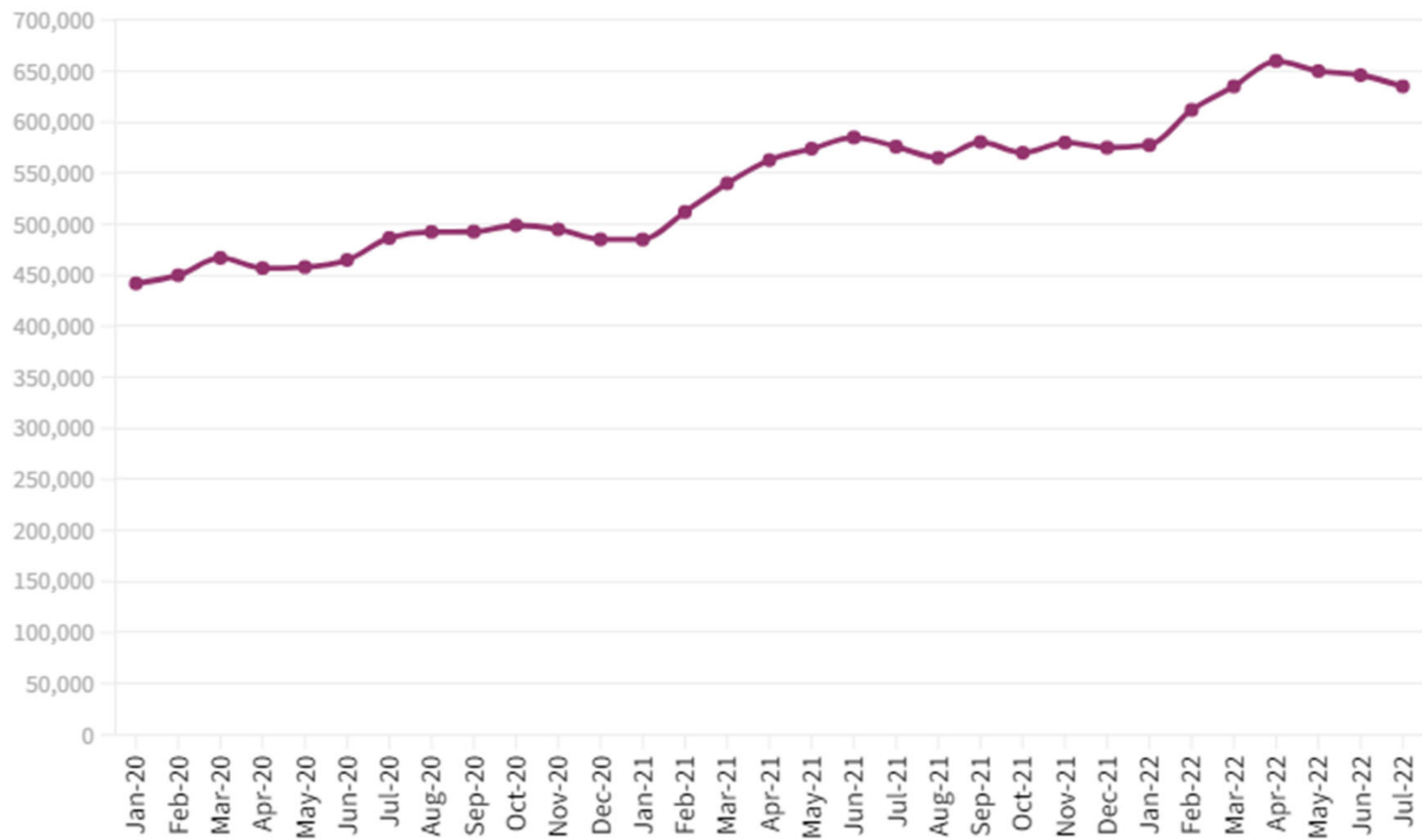




# MEDIAN SALE PRICE

## Denver metro housing indicators

- Active listings
- Months of inventory
- % list price received
- Median sales price**



June 2020 = \$465,000

June 2022 = \$646,000

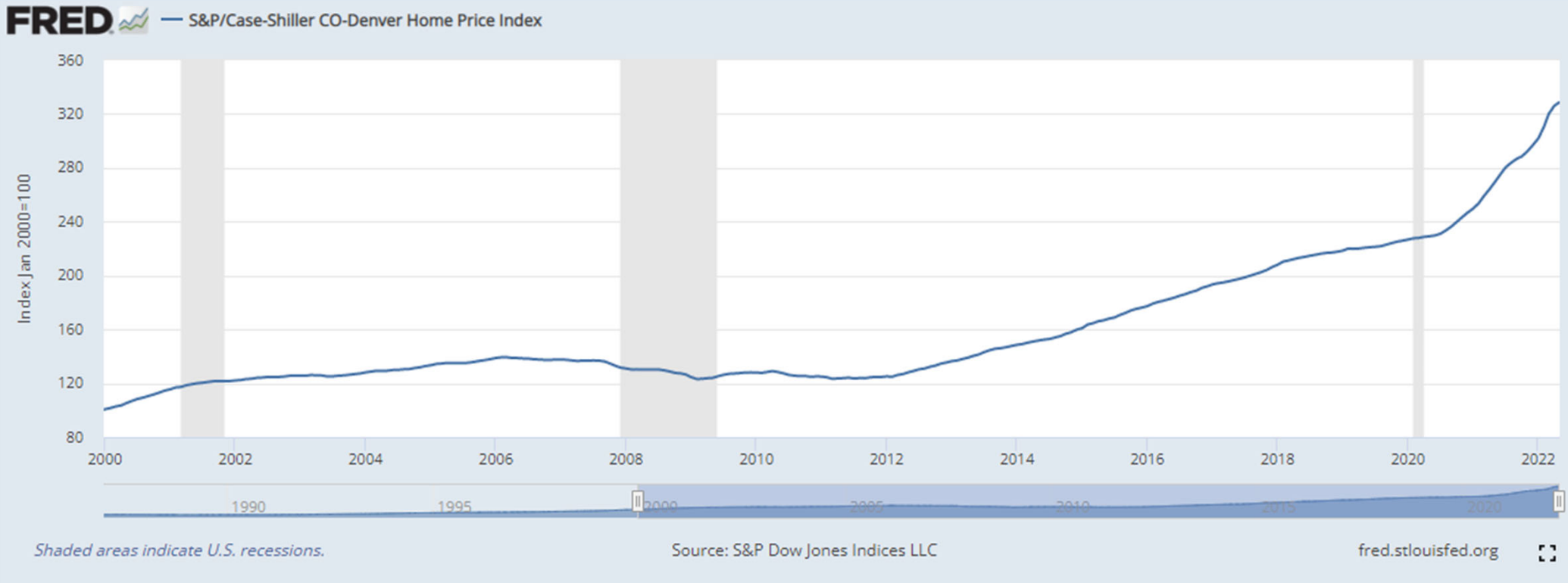
+39%

Source: [Colorado Association of REALTORS](#)





# CASE-SHILLER

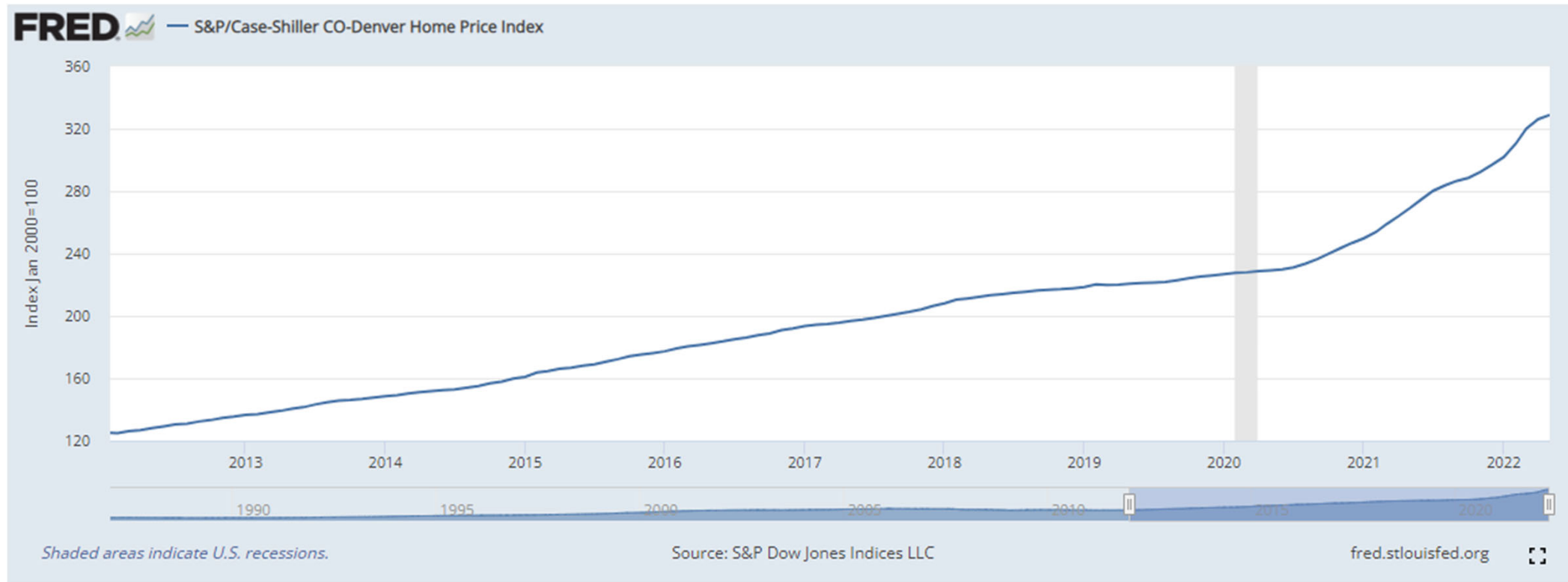




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We Value Colorado

# CASE-SHILLER



June 2020 = 229.8  
May 2022 = 328.8  
+43%



# 2023 COMMERCIAL

A general note about commercial property:

- Metro area Assessors recognized the impact of the beginning months of COVID in the 2021 revaluation (value as of 6/30/2020).
- This was a particularly challenging task given increasing values through the base period, followed by a void of information from the onset of COVID through 6/30/2020.
- Assessors took a conservative approach for 2021 given the uncertainty at the time.
- Sale and leasing transactions during the new (2023) base period provide Assessors more consistent information needed to make informed valuation decisions and likely will result in increasing valuations.



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# 2023 PROJECTIONS

	<u>Residential</u>	<u>Commercial</u>	<u>Vacant Land</u>
Western Slope	20%-50%	15%-35%	25%-40% (Gunnison = 100%)
Routt	70%	35%-40%	
Eagle	40%-100%	30%-35%	
Weld	35%-40%	30%-35%	



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# 2023 PROJECTIONS

	<u>Residential</u>	<u>Commercial</u>	
Adams	40%	25%-40%	
Arapahoe	25%-30%		
Broomfield	30%-45%	10%-40%	
Denver	25%-30%	10%-40%	(Apartments = 20%)
Douglas	40%-45%		
Boulder	Unknown		
Jefferson	Unknown		



# CALCULATING RESIDENTIAL TAXES

	<u>2022</u>	<u>2023</u>
Actual Value	\$480,000	\$635,000 (+32.3%)
Less \$15,000 (2023)		- \$15,000
	\$480,000	\$620,000
x Assessment ratio	<u>x 6.95%</u>	<u>x 6.765%</u>
Assessed Value	\$ 33,360	\$ 41,940
x Mill Levy (2021)	<u>x .074618*</u>	<u>x .074618*</u>
Taxes	\$ 2,489.26	\$ 3,129.48 (+25.7%)

\* - Mill levy for 2022 and 2023 not yet determined



# CALCULATING COMMERCIAL TAXES

	<u>2022</u>	<u>2023</u>
Actual Value	\$2,000,000	\$2,400,000 (+20%)
Less \$30,000 (2023)		- \$30,000
	\$2,000,000	\$2,370,000
x Assessment ratio	<u>x 29%</u>	<u>x 27.9%</u>
Assessed Value	\$ 580,000	\$ 661,230
x Mill Levy (2021)	<u>x .074618*</u>	<u>x .074618*</u>
Taxes	\$ 43,278.44	\$ 49,339.66 (+14%)

\* - Mill levy for 2022 and 2023 not yet determined



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Thank you for the opportunity!

Keith Erffmeyer

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