2027 REASSESSMENT

Warren County, Virginia

Residential Sales-Ratio Study

An analysis of proposed reassessment values against qualified market sales, conducted in accordance with the IAAO Standard on Ratio Studies

Effective Date of Assessment: January 1, 2027
Sales Study Period: January 1, 2020 – 2026
Qualified, untrimmed residential sales analyzed: 3,990

Prepared by the Warren County Reassessment Office
September 2026

1. Purpose of the Study

This sales-ratio study measures how closely the proposed 2027 reassessment values for residential property in Warren County track actual market sale prices. A ratio study is the primary tool by which an assessing office, oversight agencies, and the public evaluate the two things that matter most in a mass appraisal: whether values are set at the correct overall level, and whether they are applied uniformly and equitably across properties of different types, ages, sizes, and locations. The results that follow cover single-family and multi-family residential property (state classes 1, 2, and 3) together with rural residential parcels carried in the agricultural classes.

2. Understanding Sales Ratios in Mass Appraisal

The assessment-to-sales ratio (ASR).

For each qualified sale, the ratio is simply the appraised (market) value the assessor placed on the property divided by the price the property actually sold for:

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Ratio  =  Appraised Market Value  ÷  Adjusted Sale Price
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A ratio of 1.00 means the appraisal exactly equals the sale price. A ratio of 0.95 means the property was appraised at 95% of what it sold for. Because it is impossible to individually inspect and perfectly value every parcel in a mass-appraisal jurisdiction, the assessor instead values property in large groups using models, then uses ratio studies on the subset of properties that actually sold to confirm the models produced accurate, uniform results. The following statistics summarize the distribution of these ratios:

- **Median ratio (level).** The middle ratio when all are ranked. It measures the overall level of appraisal. The IAAO standard calls for the median to fall between 0.90 and 1.10, and most offices aim near 1.00 (or slightly below, to avoid over-appraisal).
- **Mean ratio.** The simple average of the ratios. Compared against the median, it helps reveal skew caused by a few very high or very low ratios.
- **Coefficient of Dispersion (COD).** The average percentage by which individual ratios differ from the median. It is the key measure of uniformity — how consistent the appraisals are from one property to the next. For single-family residential property IAAO considers a COD of 15.0 or lower acceptable (10.0 or lower for newer, homogeneous areas). Lower is better.
- **Price-Related Differential (PRD).** A measure of vertical equity — whether high-value and low-value homes are appraised at the same level. A PRD above 1.03 suggests regressivity (low-value homes appraised relatively higher than high-value homes); below 0.98 suggests progressivity. The IAAO acceptable range is 0.98 to 1.03.
- **Price-Related Bias (PRB).** A newer, more reliable measure of vertical equity. It expresses, as a coefficient, the percentage change in the ratio as value doubles. A PRB near zero is ideal; IAAO considers values within ±0.05 sound and flags values beyond ±0.10.

3. Data Sources and Methodology

Sales source and period.

Sales were extracted from the Warren County Commissioner of the Revenue’s sales (transfer) database. The study uses arm’s-length transfers occurring from January 1, 2020 through 2026 — approximately a seven-year window — giving a large, current sample while reaching back far enough to provide adequate sales in smaller neighborhoods and property types.

Sale qualification.

Each transfer was screened for validity. Non-arm's-length and non-market transactions — multi-parcel sales, transfers between related parties, estate and foreclosure conveyances, sales with substantial post-sale renovation, corrected or nominal-consideration deeds, and records with data errors — were flagged as disqualified and excluded from the statistics. Only qualified, arm's-length sales of residential property are used to measure appraisal performance.

Time adjustment.

Because the market moved over the study period, each qualified sale price was time-adjusted to the January 1, 2027 appraisal date using a house-price index built from local sales activity. Each sale was multiplied by an index factor (the index at the appraisal date divided by the index at the time of sale), producing an adjusted sale price stated in current-market terms so that a 2020 sale can be compared fairly against a 2025 sale. Sales occurring in 2026 were used at their raw, unadjusted sale price: they are close enough to the appraisal date that no time adjustment is warranted, and applying one would introduce error rather than remove it.

Outlier trimming — IAAO 1.5 × IQR standard.

After qualification and time adjustment, ratios were tested for statistical outliers using the interquartile-range method endorsed by the IAAO Standard on Ratio Studies. The first and third quartiles of the qualified residential ratios were Q1 = 0.8811 and Q3 = 1.0317, giving an interquartile range (IQR) of 0.1506. Any sale whose ratio fell below Q1 − 1.5×IQR (0.6552) or above Q3 + 1.5×IQR (1.2576) was labeled a trim. This removed 131 extreme ratios (3.2% of qualified residential sales) — sales whose ratios are so far from the group that they almost certainly reflect an undetected non-market condition rather than appraisal error. No sales were deleted from the data; each is simply labeled "trim" or "no trim," and the statistics in this report are computed on the "no trim" qualified sales (3,990 sales).

4. Overall Results — All Residential (study set)

ALL SALE YEARS (2020–2026)						2025–2026 ONLY	
Sales (n)	Median	Mean	COD	PRD	PRB	Sales (n)	Median
3,990	**0.951**	0.955	9.2	1.014	-0.029	583	0.969

Interpretation: the countywide residential median of 0.951 indicates the overall level of appraisal; the COD of 9.2 measures uniformity, and the PRD (1.014) and PRB (-0.029) measure vertical equity between higher- and lower-valued homes. IAAO benchmarks: median 0.90–1.10, COD ≤ 15, PRD 0.98–1.03, PRB within ±0.05.

5. Ratios by Sale Year

Each row shows the qualified, untrimmed residential sales for that calendar year on the time-adjusted basis (2026 at raw price). This confirms the time adjustment is working — the level should be similar across years.

Sale Year	Sales (n)	Median	Mean	COD	PRD	PRB
2020	833	**0.950**	0.958	9.4	1.017	-0.050
2021	914	**0.916**	0.930	10.2	1.020	-0.046
2022	693	**0.954**	0.960	9.7	1.014	-0.021
2023	524	**0.966**	0.965	9.2	1.012	-0.026
2024	443	**0.950**	0.954	8.1	1.010	-0.016
2025	404	**0.968**	0.976	7.4	1.002	+0.011
2026	179	**0.970**	0.970	6.5	1.007	-0.004
All years	**3,990**	**0.951**	0.955	9.2	1.014	-0.029

6. Ratios by Decade Built

Grouped by the decade of the year built. Decades before 1900 are pooled as "Pre-1900."

Group	ALL SALE YEARS (2020–2026)						2025–2026	
	Sales	Median	Mean	COD	PRD	PRB	Sales	Median
Pre-1900	23	**1.006**	0.964	12.2	1.041	-0.056	3	0.945
1900s	32	**0.956**	0.951	9.9	1.023	-0.057	6	0.974
1910s	18	**0.911**	0.900	10.4	1.042	-0.067	2	0.873
1920s	23	**0.940**	0.954	11.4	1.012	-0.005	3	0.816
1930s	53	**0.938**	0.950	8.4	1.004	+0.012	9	0.900
1940s	223	**0.974**	0.982	9.0	1.014	-0.075	38	0.964
1950s	236	**0.954**	0.960	10.0	1.015	-0.051	35	0.963
1960s	267	**0.920**	0.933	10.3	1.009	-0.011	40	0.964
1970s	437	**0.941**	0.953	10.0	1.012	-0.035	57	0.973
1980s	432	**0.944**	0.955	9.4	1.008	-0.008	60	0.967
1990s	574	**0.955**	0.955	8.9	1.011	-0.036	88	0.964
2000s	851	**0.950**	0.955	8.6	1.016	-0.060	136	0.971
2010s	321	**0.947**	0.949	8.5	1.013	-0.045	50	1.002
2020s	456	**0.962**	0.961	8.5	1.020	-0.142	45	1.005
Unknown	44	**0.959**	0.964	12.9	0.999	+0.024	11	0.849

7. Ratios by Age Cohort

Age cohorts: "2000 & newer" (modern construction), "1970–1999" (mid-era), and "1969 & older" (older housing stock).

Group	ALL SALE YEARS (2020–2026)						2025–2026	
	Sales	Median	Mean	COD	PRD	PRB	Sales	Median
1969 & older	875	**0.950**	0.955	10.0	1.016	-0.040	136	0.958
1970-1999	1,443	**0.950**	0.954	9.4	1.011	-0.023	205	0.967
2000 & newer	1,628	**0.953**	0.955	8.6	1.016	-0.073	231	0.980
Unknown	44	**0.959**	0.964	12.9	0.999	+0.024	11	0.849

8. Ratios by Home Size (finished living area, sq. ft.)

Grouped by finished living area in square feet.

Group	ALL SALE YEARS (2020–2026)						2025–2026	
	Sales	Median	Mean	COD	PRD	PRB	Sales	Median
<1000 sq ft	515	**0.938**	0.942	9.5	1.013	-0.062	72	0.960
1000-1400 sq ft	1,562	**0.953**	0.961	8.9	1.011	-0.057	227	0.973
1401-1800 sq ft	907	**0.953**	0.955	9.0	1.013	-0.080	130	0.967
1801-2200 sq ft	442	**0.959**	0.952	9.1	1.016	-0.108	60	0.963
2201-2600 sq ft	250	**0.949**	0.947	9.2	1.021	-0.157	44	0.973
2601+ sq ft	270	**0.953**	0.955	11.0	1.020	-0.105	39	1.025
Unknown	44	**0.959**	0.964	12.9	0.999	+0.024	11	0.849

9. Ratios by Neighborhood (neighborhoods with 10 or more sales)

Neighborhoods (current codes) with at least 10 qualified, untrimmed sales over the full study period; 67 neighborhoods meet this threshold. A further 969 qualified sales lie in unassigned areas (small subdivisions and rural roads with no current neighborhood code); they are included in every other table and in the overall figures but are not a coded neighborhood and are omitted here.

Group	ALL SALE YEARS (2020–2026)						2025–2026	
	Sales	Median	Mean	COD	PRD	PRB	Sales	Median
1-Blue Ridge Shadows	66	**0.915**	0.918	8.1	1.011	-0.200	8	0.984
2-Apple Mtn Lake	172	**0.958**	0.965	8.6	1.011	-0.025	12	0.960
3-Asphen Hill Farms	17	**0.964**	0.945	8.3	1.006	-0.008	1	0.835
4-Applt Mtn Lake West	19	**0.973**	0.985	8.2	1.015	-0.115	2	0.940
5-Blue Mountain	88	**0.973**	0.975	8.1	1.004	+0.002	22	0.977
6-Blue Ridge Mtn Estates	10	**0.930**	0.908	9.9	0.997	+0.128	1	0.735
13-Green Hill Forest	13	**0.907**	0.921	8.0	1.007	+0.011	1	0.951
14-Freezeland Manor	18	**0.913**	0.903	6.5	1.007	-0.153	2	0.954
15-High Knob	212	**0.957**	0.955	8.6	1.007	-0.003	29	0.966
16-Highland Estates	30	**0.982**	0.980	6.7	1.013	-0.151	5	0.937
18-Thunderbird	41	**0.941**	0.924	11.0	1.031	-0.172	7	0.978
20-Junewood Estates	22	**0.909**	0.885	7.5	1.018	-0.318	–	–
21-Henselstone Woods	34	**0.951**	0.980	8.1	1.010	-0.204	6	0.960
22-Lake Front Royal	88	**0.965**	0.981	7.6	1.002	+0.044	15	0.994
23-Point of Woods	37	**0.965**	0.974	6.2	1.001	-0.007	5	1.011
24-Royal View Estates	26	**0.983**	0.982	10.7	1.006	+0.061	4	0.986
26-Shenandoah Farms	435	**0.945**	0.942	8.8	1.006	+0.009	65	0.973
27-Shenandoah Shores	122	**0.938**	0.946	8.0	1.003	+0.030	10	0.976
28-Skyland Estates	91	**0.979**	0.970	9.9	1.013	-0.051	10	0.983
29 Shen River Estates	25	**0.972**	0.958	9.5	0.996	+0.040	2	0.935
31-Sunset Village	12	**0.892**	0.906	8.7	1.009	-0.097	–	–
33-Poca Bella	10	**0.915**	0.923	6.0	1.010	-0.048	–	–
34-Lower Valley	30	**0.990**	0.979	9.0	1.010	-0.052	1	0.840
35-Lynmore Acres	17	**0.970**	0.957	7.8	1.000	+0.027	3	0.952
78 Fr Riverton Imprv	88	**0.942**	0.960	7.9	1.009	-0.037	14	0.936
79-Royal Village	82	**0.989**	0.984	8.6	1.009	-0.071	11	1.022
80-Viscose City	88	**0.956**	0.975	9.8	1.015	-0.085	12	0.995
81 Marlow	67	**0.940**	0.949	9.0	1.005	+0.027	14	0.976
82 Warren Park	38	**0.924**	0.947	9.5	1.009	-0.001	6	1.000
83 Colonial Park	34	**0.935**	0.943	9.3	1.010	-0.088	5	0.973
84 Blue Ridge Hts	44	**0.969**	0.987	8.8	1.011	-0.133	5	0.947
85 Happy Creek KNL	57	**0.936**	0.942	7.2	1.004	-0.016	7	0.981
86 Ay-View	50	**0.963**	0.986	9.8	1.002	+0.060	9	1.010
87 Mountain View	31	**0.977**	0.959	7.7	1.012	-0.082	3	0.982
88 Riverview	33	**0.959**	0.969	8.3	1.002	+0.068	7	0.989
89 Woodland Park	32	**0.964**	0.955	9.7	1.011	-0.119	5	0.963
90 Williamsburg Ests	29	**0.919**	0.942	8.2	1.005	-0.036	5	0.994
91 Fletcher	33	**0.965**	0.976	8.4	1.000	+0.073	5	0.997
92-Linden Heights	30	**0.964**	0.961	9.3	1.013	-0.148	7	0.950
93-Woodside 1st Add	23	**0.919**	0.917	9.3	1.003	+0.062	4	1.006
94-Loch Linden	18	**0.905**	0.912	10.0	1.008	-0.126	1	0.891
96-Vaught Estates	24	**0.986**	0.985	7.6	1.007	-0.147	2	0.987
97-Westview Ridge	23	**0.956**	0.980	5.6	1.005	-0.073	4	0.988

Group	ALL SALE YEARS (2020–2026)						2025–2026	
	Sales	Median	Mean	COD	PRD	PRB	Sales	Median
98-Hoffman Heights	17	**0.982**	0.969	8.9	0.988	+0.094	1	0.982
99- Oden Ridge	42	**0.913**	0.933	7.8	0.996	+0.161	7	0.999
100-The Heritage	10	**0.940**	0.965	6.2	0.997	+0.454	3	0.951
101-Stonewall Heights	35	**0.941**	0.966	8.6	1.016	-0.266	10	0.962
102-Downing Estates	18	**0.950**	0.998	9.2	1.011	-0.200	3	0.963
103-Fairview Heights	16	**0.955**	0.990	10.6	1.013	-0.179	2	0.950
104-Belmont	13	**0.892**	0.880	12.3	1.016	-0.121	1	0.963
107-Steele	27	**0.985**	1.008	8.4	0.995	+0.218	4	0.961
108-College Heights	14	**0.994**	1.008	5.7	1.002	+0.034	6	0.985
109-McCoy	13	**0.970**	0.964	7.8	0.999	+0.024	2	0.986
110 Shen Vly Golf Club	20	**0.952**	0.964	8.4	1.009	-0.068	4	0.950
112-Viscose City Resub	19	**0.977**	0.980	11.1	1.024	-0.437	1	1.076
113-TB Boies	10	**0.958**	0.949	12.5	1.028	-0.247	–	–
115-Fairview Court	14	**0.962**	0.973	8.5	0.995	+0.200	5	0.943
116-Stinson Lots	10	**0.987**	0.986	8.2	1.002	+0.137	1	0.815
117-Bel Air Heights	12	**0.967**	0.962	11.0	1.016	-0.255	1	0.974
119 Jacksons Mdw Ests.	20	**0.967**	0.924	8.8	1.007	+0.007	3	1.005
122-Tharpe	12	**0.957**	0.969	9.1	1.005	+0.027	1	1.194
126-Braxton Heights	12	**0.956**	0.968	8.2	0.998	+0.133	1	0.929
128-Sherwood Park	10	**1.101**	1.049	8.8	1.011	-1.322	1	1.057
129-Academy Manor	10	**0.971**	0.992	6.3	1.007	-1.251	3	0.970
132 Beau Ridge	15	**0.952**	0.960	8.3	1.004	+0.018	1	1.011
139-Boyds Mill	10	**0.899**	0.924	9.2	1.020	-0.368	2	0.955
145 Blu Ridge Townhouses	26	**0.952**	0.947	4.5	1.003	-0.455	6	0.948

10. Ratios by Property Class

State land-use classification. Class 1/2 = single-family residential (urban/rural), 3 = multi-family, 5 = rural residential on agricultural land.

Group	ALL SALE YEARS (2020–2026)						2025–2026	
	Sales	Median	Mean	COD	PRD	PRB	Sales	Median
1 - SF residential, urban	1,334	**0.962**	0.969	9.0	1.009	-0.023	218	0.976
2 - SF residential, suburban/rural	2,606	**0.945**	0.947	9.3	1.014	-0.027	356	0.961
3 - Multi-family residential	15	**0.945**	0.974	10.4	1.025	-0.023	1	0.965
5 - Agricultural/undev. 20-100 ac	35	**0.982**	0.969	12.2	1.041	-0.070	8	0.968

Reading the Tables

PRB is reported only where a group has at least 10 sales. The “2025–2026” columns isolate the two most recent sale years as a check that current-market performance matches the full-period results.