



2023 Full Value Measurement (FVM) and Pre-Decisional Collaboration (PDC)

- Overview of 2023 Full Value Measurement and Procedures..... 1
- 2023 Potential Changes to the Preliminary Market Value Ratio..... 9
- ORPTS Verification of Municipal Level of Assessment..... 10
- Procedure for 2023 Residential Assessment Ratio (RAR)Calculation.....10

Note: The timeframes stated in this document refer to municipalities using the standard assessment calendar (March 1 taxable status date, May 1 tentative roll date, etc.)

Overview of 2023 FVM and Procedures

Full Value Determination

- ORPTS determines municipal full value using one or more of the following approaches:
 - verification of local reassessment results
 - development of market adjustment factors (trends), which are then applied to prior year full value estimates
 - determination of computer assisted mass appraisal (CAMA) and/or sales ratios for residential property (International Association of Assessing Officers Standards)
 - appraisal of sample parcels in localities:
 1. where there has not been a recent reassessment, or
 2. for property types lacking sufficient sales or data for reliable ratio studies

Valuation Date

- Valuation date: the point in time at which market values or levels are determined for assessment cycle
 - July 1, 2022, for 2023 FVM

Equalization Rate Timeline

- Fall 2022 to April 2023 – assessor determines level of assessment (LOA); PDC is vital to this process
- February – assessor establishes an “early LOA” if desired (must meet certain criteria – see page 6)
- May – assessor publishes LOA on the tentative roll
- May – tentative roll is sent to Office of Real Property Tax Services (ORPTS)
- June – ORPTS establishes equalization rates
 - If the municipal market value ratio calculated by ORPTS staff is within + or – 5% of the stated municipal LOA, then the LOA will be the equalization rate.
 - A tentative equalization rate is only established if ORPTS cannot confirm the locally stated LOA within a +/- 5% tolerance, otherwise the equalization rate issued is final.
- June/July – Assessing units that receive a tentative rate can review the supporting data and have the option to file a rate complaint.
- August or earlier – Equalization rates are finalized for municipalities that received tentative equalization rates.

Overview of Market Analysis Process

- Determine market value ratios of **2022 final rolls** by major type
 - ORPTS Data Warehouse is source of data
 - assessment rolls measured:
 - **2022** final roll for PDC process for all municipalities
 - **2023** tentative roll for reassessment municipalities

Major Type A: Residential

- process components:
 1. sale pattern testing
 2. trend development
 3. model development*
 4. model application*
 5. sale ratio study
 6. sale price dependent assessed value (SPDAV) analysis
 7. CAMA Ratio Study*

8. survey observations (if no reassessment activity within 4 years)
 - 2021 base year roll is used to determine appraisal selections
 - appraisals are valued as of 7/1/2021 and trended to the 7/1/2022 survey valuation date

* if current inventory is computerized / provided to ORPTS

- sales timeframe – 7/1/2017 to 6/30/2022
 - For time trends and CAMA modeling, typically, only the most recent 3 years are used, but some market areas may require up to 5 years.
 - For a municipality's sales ratio study, one to five years of sales ratio studies are completed (depending on the number of sales and the confidence level of the study).
 - We use the results from the statistically significant study with the **fewest years of sales**.
- residential trend development (market area-wide)
 - Use arms-length, coefficient of dispersion (COD), and residential assessment ratio (RAR) usable sales.
 - property classes:
 - 210
 - 215
 - 220
 - 230
 - 240
 - 241
 - 242
 - 250
 - 260
 - Run regression on sales ratios (sale price/assessed value).
 - Run full regression model. Time is one of many variables for which we develop a COD (requires inventory).
 - May verify by looking at changes in sales ratio over time using RPSV4 *Sales COD and Analysis* report from local files.
 - May consider feedback from ORPTS regional liaisons.
 - We use the trends to time-adjust sales prices for the sale ratio study.
 - If there is significant evidence to support a trend in a municipality that differs from that of the area, we will confirm a different trend for that municipality.

- Calculate sales ratios (municipal level)
 - Does not require inventory.
 - Consider only valid, arm's length, ratio-useable sales.
 - *assessed value / time adjusted sales price = ratio*
 - Use one to five years of sales depending on number of available sales in municipality and confidence of study.
 - requires at least 25 sales
 - Trim using interquartile range method or other statistically approved method where necessary
 - Use weighted mean ratio.
 - $\text{sum of assessed values} / \text{sum of time adjusted selling prices} = \text{weighted mean ratio}$
 - Use confidence level testing to assure ratio is reliable.
 - We prefer 95% confidence, in some cases will accept lesser confidence if confirms other ratios (CAMA, Appraisals, etc.)
 - Perform tests for sale price dependent assessed values (SPDAV)
- SPDAV testing
 - Compare assessment changes of sold properties to unsold properties in three ways:
 - Number of assessment changes. What percentage of sold properties were changed in comparison to those that were **not** sold.
 - A difference of greater than 5% indicates SPDAV.
 - Degree of assessment changes. What percentage of assessments on sold properties were changed in comparison to the percentage on unsold properties?
 - A difference of greater than 5% indicates SPDAV.
 - Statistical analysis (regression) to determine if assessment changes for sold properties reflect assessment changes for unsold properties. SPDAV is indicated if:
 - $1 - \text{COD} = < .95 \text{ or } > 1.05$, and
 - t-value is > 2.00 .
 - If two of the three tests above prove to be true, SPDAV is confirmed.
 - We will adjust the sales ratio by the residential change in level.
- Develop residential model for each market area
 - Valid, arm's length sales
 - Use inventory – edit for critical information

- Some sales will be dropped for missing or invalid inventory.
 - Ideally, we use three years of sales.
 - Need approximately 300 sales for best result. Sometimes this requires four or five years to meet the sale count requirement.
 - Develop a statistically sound model to re-predict *time-adjusted* selling price.
 - Model is used to determine aggregate value of residential properties **not individual values**.
- Apply regression model to subject properties at municipal level
 - Exclude types of properties not included in sales model (For example, if there were not enough cottage sales to create a reliable variable in the model, any cottage sale would be excluded from the model development and then excluded from the subject base as well.)
 - Apply equation (model) to subject inventories
 - Trim outliers
 - Calculate subject ratios
 - Use assessed values from measured roll (2022 for PDC, 2023 for reassessments)
 - $\text{assessed value} / \text{model estimate} = \text{ratio}$
 - Trim 5%
 - Calculate CAMA ratio using weighted mean. (sum of assessed values of subjects in model / sum of multiple regression analysis estimates of subjects in model = weighted mean ratio)

Note: Where there are multiple residential ratios, we calculate an average of the ratios. This is common and what you will see as your Major Type A ratio on your PDC document.

Major Type B (Commercial) and Major Type C (Vacant/Farm Trend Development)

- We use regression analysis of sales to measure changes over time to compute trends for Major Types B and C.
- We develop trends and apply them by use group strata.
- We use sales from 7/1/2019 to 6/30/2022 in ratio study analysis.

Major Type D (Utility)

- ORPTS valuation services determines Major Type D trends.
 1. Establish cost estimates for utility property at **2022** levels.
 2. Compare #1 to **2021** cost estimates.
 3. The difference is the trend.
 4. If reassessments adopt utility advisories, the ratio for Major Type D is 100%.

PDC Timeframe

- July through early September – edit data, submit sales, review market areas
- October through February – analyze data and share results
- 75 days prior to tentative roll date – deadline for submitting LOA for use as RAR
- February through April – Finalize analysis, determine LOAs and equalization rates

How ORPTS confirms the LOA

- Early LOA option. In February, assessors can provide the LOA intended to be used as RAR **and** Equalization Rate.
 - ORPTS regional staff compares the LOA with final PDC ratio(s) using tolerances allowed in procedures. The tolerance for 2023 FVM is **5%**.
 - If the LOA is not within the tolerance for the Major Type A ratio:
 - ORPTS's Major Type A Ratio becomes the RAR, and
 - the LOA will be considered for equalization rate purposes only.
- If the assessor doesn't provide the LOA in February, ORPTS takes the following steps in March:
 - ORPTS regional liaison obtains LOA from assessor.
 - ORPTS compares intended LOA with final PDC ratio(s) using tolerances allowed in procedures. Tolerance for 2023 FVM is 5%.
 - If stated LOA is not within the tolerance, the ORPTS liaison should contact the assessor or county director to allow for a revised LOA prior to tentative roll production.
- Late April/Early May:
 - Assessor or county director submits, tentative roll.
 - ORPTS equalization staff verifies the LOA.

- If the tentative roll and early LOA are not equal, then ORPTS reissues the original Major Type A ratio as the RAR.
- Non-reassessment municipalities:
 - ORPTS compares assessment roll totals to the prior year final roll.
 - If the difference is < 5%, all change is assumed to be physical/quantity change and ORPTS adjusts its FVM estimate.
 - If the difference is > 5%, staff attempts to identify how much is equalization (see Page 8, Section 2.b.ii.)
- Reassessment municipalities: ORPTS analyzes tentative rolls as part of the overall verification process.

Note: Municipalities that are **not** conducting a reassessment but that do expect a significant change-in-level should contact their ORPTS liaison and file form RP-6110 with their tentative roll or sooner. (This is a rare situation.)

2023 Potential Changes to the Preliminary Market Value Ratio

Note: The representations made during the PDC process are based on the 2022 final assessment roll and that the market value ratio ultimately used in the calculation of the 2023 tentative equalization rate could change.

1. Activities that could affect (change) the indicated municipal market value ratio displayed on the simulator reports:
 - a. Any activity (reassessment, reappraisal, assessment adjustments, etc.) affecting the assessed values (causing them to increase or decrease) on the 2023 tentative assessment roll
 - b. Changes to the sales used in the ratio determination process
 - c. A change to the market adjustment factors (trends) for any or all major types
 - d. Changes to the calculated sales ratio
 - e. Changes to the calculated CAMA ratio
 - f. Changes to the assessed value on the 2023 assessment roll for parcels where ORPTS completed a new sample appraisal
 - i. Could affect the interval ratio
 - ii. Could move the appraisal from one interval to another
 - g. Changes to State-owned land (SOL) assessments
 - h. Application of a blended Major Type C trend to account for forestry trends
 - i. The rounding process that occurs during the rate computation process (The FVM process does not involve any rounding.)
2. Analysis of the 2023 tentative assessment roll
 - a. The municipality submits its 2023 tentative assessment roll to ORPTS.
 - b. ORPTS staff compare the total assessed value on the 2022 final assessment roll to the total assessed value on the 2023 tentative assessment roll.
 - i. Non-reassessments.
 1. Total assessed value change is <5%
 - a. All of the change is assumed to be quantity change and that the changes were made at the same ratio as the analysis indicated.
 - b. The preliminary market value will be increased in an amount equal to the increase in assessed value (resulting in no change to the preliminary market value ratio), and the preliminary market value ratio will be used in the calculation of the tentative equalization rate.
 2. Total assessed value change is >5%
 - a. ORPTS staff will look at the changes and attempt to identify the reason for the change

- b. If the assessor did not complete a reassessment as defined by the state aid rules, but did significantly change a number of assessments, the total assessed value change from the 2022 final roll to the 2023 tentative roll is assumed to be equalization change.
 - c. A change in level will be calculated and applied to the preliminary market value ratio, resulting in a change to the tentative equalization rate.
 - 3. Total assessed value of the State-owned land is <5% of the total municipal assessed value
 - a. The State land is assumed to be at the same ratio as the other classes and will, therefore, have no effect on the equalization rate.
 - 4. Total assessed value of the State-owned land is >5% of the total municipal assessed value
 - a. The State land class could (depending on its level of assessment) have an effect on the municipal equalization rate.
- ii. 2023 reassessments
 - 1. ORPTS assumes that the total assessed value change is all equalization change.
 - 2. All 2023 reassessments are subject to the reassessment verification process which is used to determine the level of assessment for equalization purposes
- c. ORPTS compares the total assessed value on the 2023 tentative assessment roll to the total assessed value on the 2023 final assessment roll (submitted in accordance with Article 15-C) and proceeds as follows:
 - iii. All tentative equalization rates are recalculated based on the equalization and quantity changes reported on the final assessment roll.
 - iv. The recomputed rate is compared to the tentative equalization rate.
 - 1. If the recomputed rate is within +/- 5% of the tentative rate, the tentative equalization rate is made final.
 - 2. If the recomputed rate is not within +/- 5% of the tentative rate, the recomputed rate is re-issued as the tentative equalization rate.
 - a. The municipality is then provided another opportunity to file a complaint.

ORPTS Verification of Municipal Level of Assessment

The municipal market value ratios calculated for each municipality by ORPTS staff are evaluated against the municipal stated Level Of Assessment (LOA), as reported on their tentative assessment roll, using the following procedure:

1. If the municipal market value ratio calculated by ORPTS staff is within + or – 5% of the municipal LOA, then the LOA will be the equalization rate.
2. If none of the municipal market value ratios calculated by ORPTS staff are within + or – 5% of the municipal LOA, the equalization rate will be the overall market value ratio determined by ORPTS.

ORPTS Procedures for 2023 RAR Calculation

1. Compare the Major Type A ratio to the overall market ratio (from your PDC Document).
2. If the two ratios are **not** within 5% then the assessor should **ignore** the early RAR process. ORPTS's Major Type A ratio will be the RAR. The assessor should select a reasonable LOA (within 5% of overall ratio) and we will confirm the LOA as the equalization rate.
3. If the two ratios are close (MTA ratio within 5% of overall ratio) then the assessor has the following options:
 - a. If the assessor wants the LOA to be equal to the equalization and the RAR, then they should select an LOA that is both within 5% of MTA ratio and within 5% of overall ratio.
 - i. We will confirm the LOA as the RAR and the equalization rate.
 - b. If the assessor wants the LOA to be equal to the equalization rate and would rather the RAR be ORPTS's Major Type A ratio, the assessor should select an LOA that is within 5% of the overall ratio but not within 5% of the Major Type A ratio.
 - i. The RAR will be the Major Type A ratio and we will confirm the LOA as the equalization rate.
 - c. If the assessor wants the LOA to be equal to the RAR and doesn't care about the equalization rate, they should select an LOA that is within 5% of MTA ratio but not within 5% of overall ratio. The RAR will equal the LOA and the equalization rate will not equal the LOA.

Example – Sample Municipality A

- The Major Type A ratio is **59.82** and overall ratio is **67.14**

- The Major Type A ratio is **not** within 5% of overall ratio so the assessor should ignore the early RAR process and select an LOA prior to tentative roll date that is within 5% of the overall ratio.

Example – Sample Municipality B

- The Major Type A ratio is **71.23** and overall ratio is **72.18**

The 5% tolerance for MTA is 67.67 to 74.79

The 5% tolerance for the overall ratio is 68.58 to 75.78

- If the assessor selects an LOA from 68.58 to 74.79 (probably 74 or 74.5) then we will establish an RAR and equalization rate that equals the LOA.
- If the assessor selects an LOA from 74.80 to 75.78 (probably 75 or 75.5) then we will establish an equalization rate that equals the LOA and, an RAR of 71.23

Assessors must share their LOAs with us by **February 17, 2023**, to take advantage of the early RAR procedure.

Important: If the tentative roll LOA and the early LOA are **not** equal, then ORPTS's original MTA ratio is re-issued as the RAR.