REASSESSMENT PROJECT SUMMARY
Tioga County, Pennsylvania

December 2023

PROFESSIONAL
CONSULTING SERVICES
OF IAAO, LLC

A wholly owned subsidiary of IAAO

ABOUT
PROFESSIONAL CONSULTING SERVICES OF IAAO, LLC

The International Association of Assessing Officers (IAAO) is a nonprofit, educational organization founded in 1934. It is a global community of diverse mass appraisal professionals advancing fair and equitable property appraisal, assessment administration, and property tax policy through professional development, research, standards, and technical assistance. Its members are government officials and others interested in the administration of assessment and property tax. All IAAO members subscribe to IAAO's Code of Ethics and Standards of Professional Practice and to the Uniform Standards of Professional Appraisal Practice (USPAP).

The IAAO is the primary publisher, educator, and leader of standards in the field of mass appraisal and assessment administration. As a standard-setting organization, the IAAO has published fifteen standards aimed at improving assessment practices. As an educator, the IAAO has established a curriculum of courses and workshops to supplement university-level and professional training for individuals interested in pursuing a career in property tax administration. We offer the only comprehensive program of mass appraisal courses in the world. In addition, we offer special seminars and an international conference on assessment administration annually.

The IAAO professional designation program recognizes that assessment administration is a specialty within public service and that assessment personnel are mobile. The association therefore offers professional designations to certify the competence of individuals and to attest to their competence when career paths cross state/provincial lines.

Several routes are available to designations, all of which involve some independent project, such as a demonstration appraisal or a mass appraisal case study, in addition to the successful completion of one of the prescribed curricula. The IAAO offers six designations: a generalist designation requiring demonstrated competence in all areas of assessment—Certified Assessment Evaluator (CAE)—and five specialist designations: Mass Appraisal Specialist (MAS), Residential Evaluation Specialist (RES), Cadastral Mapping Specialist (CMS), Personal Property Specialist (PPS), and Assessment Administration Specialist (AAS).

For more than 20 years, the association has established voluntary, objective standards for the improvement of assessment practices and conducted a research and technical services program to help jurisdictions attain these standards. Technical assistance services or consulting services are offered in a number of areas and by means of a variety of arrangements. Our most common engagement is to perform an evaluation of assessment practices within a specific jurisdiction. Our services are provided either on a time-and-materials or fixed-price basis, as the client may prefer, and are rendered by team experts assembled for the purpose.

IAAO is an independent association not affiliated with any vendor, company, or firm in the private sector or any other association not in the assessment field. IAAO does not undertake technical assistance projects for taxpayers or any other individual or group in the private sector.

IAAO has been a leader in mass appraisal education, technology, and standard-setting for mass appraisal and ad valorem systems in North America and many countries around the world. IAAO has the team, resources, and ability to provide services to meet Client needs.

Professional Consulting Services of IAAO, LLC (PCSIAAO) provides professional consulting worldwide based on a deep and objective understanding of the assessment challenges confronting property valuation and tax practitioners. PCSIAAO is a wholly owned subsidiary of the International Association of Assessing Officers (IAAO).

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PROJECT BACKGROUND

Tioga County Pennsylvania entered into a contract with Vision Government Solutions, Inc. to complete a county-wide reassessment of the approximately 29,000 parcels within the county. The contract commenced in July 2021, and shortly thereafter Chief Assessor Joshua Zeyn, CPE contacted Professional Consulting Services of the International Association of Assessing Officers (PCSIAAO) to assist with monitoring the progress and quality of the reassessment.

As part of the initial phase of the reassessment project, a Reassessment Advisory Committee was formed. Committee membership comprised of 21 individuals representing both governmental entities, community representative, Vision project leadership, and PCSIAAO. The original formation of the Committee included several objectives, which reads in part:

> " • *Provide the Tioga County Reassessment Project Management Team with an effective forum to actively guide the successful completion of the reassessment project.*
>
> • *Manage internal coordination between county departments for project deliverables*
>
> • *Review and discuss comments, questions, and recommendations from local government & community representatives.*
>
> • *Discuss project timeline, deliverables, milestones, problems, and problem resolutions.*
>
> • *Discuss and assist Vision with on going public relations efforts, including: public meetings, media releases, and responses to articles and public comments concerning the reassessment.*"

With the overall final goal of the Reassessment Advisory Committee to **"Ensure the successful completion of the reassessment project!"**

PCSIAAO agreed to review project progress by joining twice monthly project status update calls, join the Reassessment Advisory Committee meetings, regularly review progress reports from the Vision team, provide a monthly summary overview of project progress, review model performance for reasonableness, and perform a ratio study and final report in according with IAAO technical standards.

EXECUTIVE SUMMARY

Vision commenced data collection in late September 2021, ending the year having data collected approximately 11% of residential properties. Data collection through the winter remained slow given the adverse conditions for staff to be in the field. In April 2022 both residential and commercial data collection were well underway and steady progress continued as the Vision field crew moved strategically through the jurisdiction, finishing the data collection work by mid-December 2022. *Graph 1 (Production Percentage)* shows the rate of data collection during that phase of the reassessment project.

As the data collection phase concluded, the remaining project team began the review and quality control checks of data collection and entry work completed by the field crew. Quality control work began in earnest in mid-December 2022 and was complete by the end of April 2023. *Graph 2 (Production Percentage)* shows the rate of review and quality control checks completed.

GRAPH 1

Production Percentage

GRAPH 2

Production Percentage
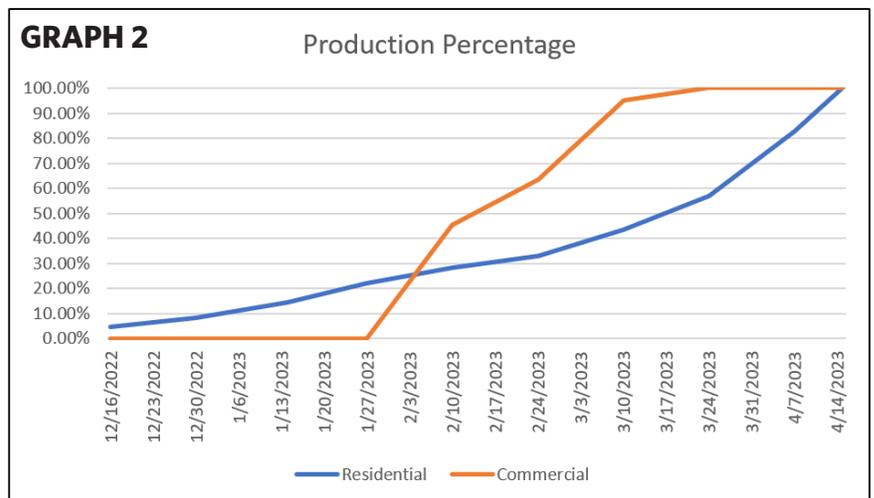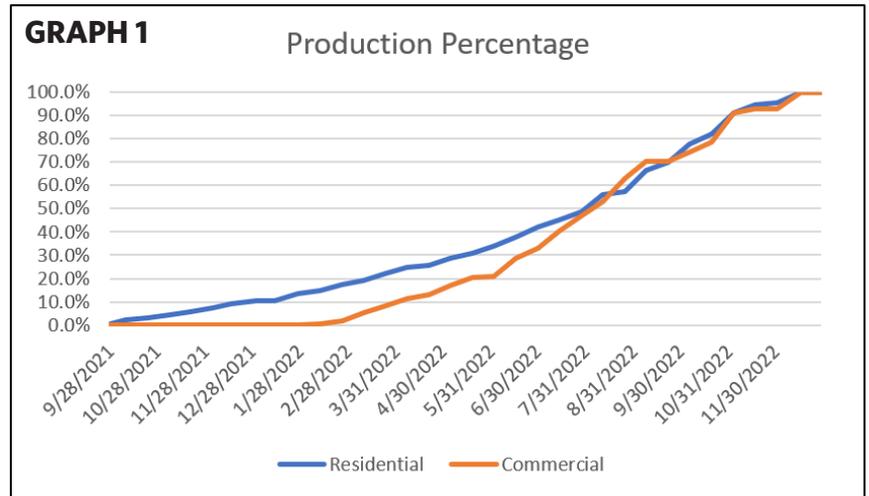
While the data collection and quality control work were being conducted, the Vision project team worked with Chief Assessor Zeyn and Deborah Crawford, Administrative Director of Assessment, to validate sales and process Clean & Green applications. The project team also worked with Vision's technical team to help build, develop, and test the valuation models. Working together the project team from Vision and Tioga sent several informational mailers to property owners, provided press releases, and created a formal reassessment social media page to reach as many members of the public as possible to keep everyone informed about the status and progress of the reassessment project.

Throughout the entire reassessment process Chief Assessor Zeyn made significant outreach efforts to keep the citizens and property owners informed. He did an outstanding job being pro-active in reaching out to different members of the community to help educate and explain what was happening and why the reassessment was necessary. Chief Assessor Zeyn took the time to meet with several community groups

at city council meetings, farm bureau meetings, give interviews to local news and radio stations, and even arranged to attend the fair to try to speak with even more members of the jurisdiction who he may not have had the opportunity to speak with previously.

Additionally, the Reassessment Advisory Committee meetings, public outreach efforts, and consistent contributions throughout the project played a significant role in the overall success of the project.

After the models had been fully tested and reviewed by both Chief Assessor Zeyn and Mrs. Crawford, the process of modeling and valuation moved quickly, with preliminary value notices being sent out to property owners in May. The project team from Vision & Tioga conducting informal review of values starting mid-May and concluding in June, allowing time for final value notices to be produced and mailed in time for the July 1 deadline. Following the final notice of value Chief Assessor Zeyn indicated there were approximately 675 formal appeals filed. The staff of the Tioga County Assessor's office and the Board of Assessment and Revision of Taxes were able to schedule and conduct those hearings before the October 31st deadline.

Overall, the staff of the Tioga County Assessor's office, with the assistance of the team from Vision completed the county-wide reassessment within the envisioned timeline from the project contract. Both sides of the project team should be commended for their hard work. The work was done in an efficient and collaborative manner ensuring the success of the project. Conducting the first reassessment of the jurisdiction since 2001 on such a short turnaround was not an easy task.

IAAO ASSESSMENT STATISTICS BACKGROUND

The remaining aspect of this project is a complete Sales Ratio Study conducted by PCSIAAO in accordance with IAAO's *Standard on Ratio Studies*. Chief Assessor Zeyn provided PCSIAAO with the final sales information from the Vision project team to allow for an independent assessment of the values produced through the reassessment project. The following images are included in this report to highlight significant parameters that measure the performance of a reassessment project.

Image 1 shows the desirable ranges for both the level of appraisal utilizing the median sales ratio as well as the measure of uniformity utilizing the **Price-Related Differential (PRD)**. To find a sale ratio, the appraised value is divided by the recent sale price. The level of appraisal is expressed by utilizing the median ratio from a data set.

Assessment uniformity

Performance Standards

IAAO Standard on Ratio Studies

- Level of appraisal as measured by the median ratio:
  - 0.90 – 1.10

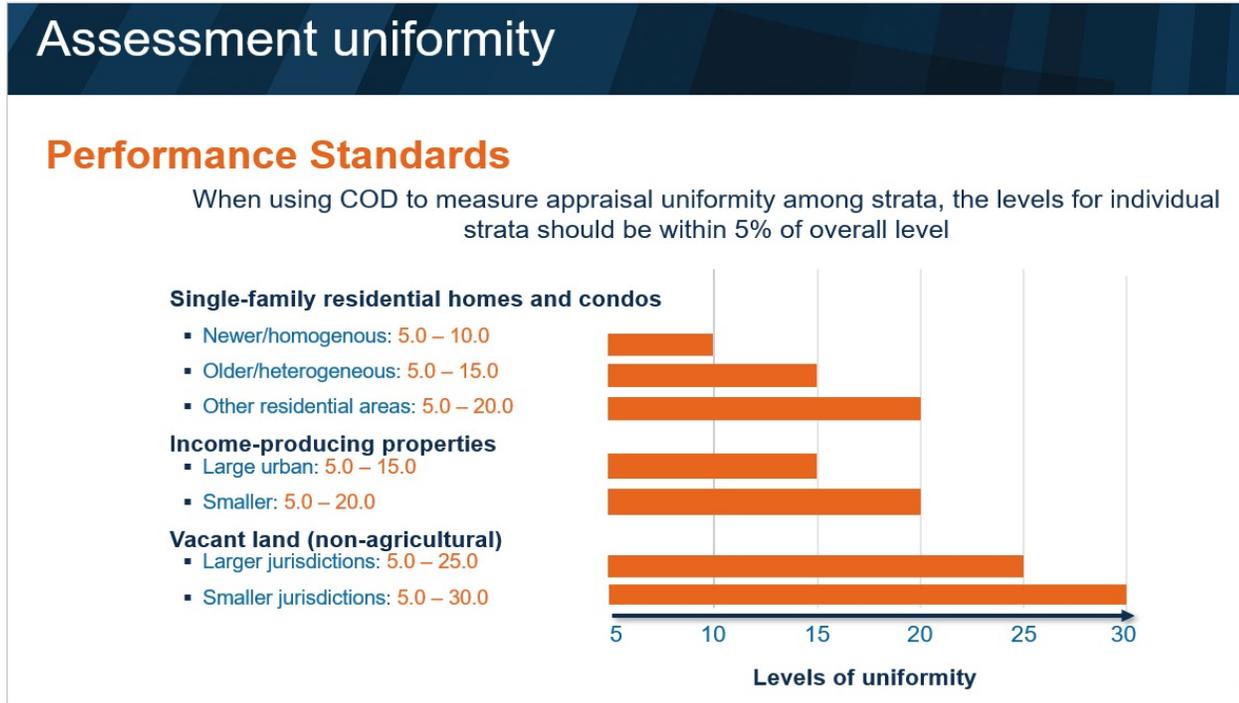- Appraisal uniformity as measured by the PRD:
  - 0.98 – 1.03

IMAGE 1

PRD is a tool utilized by appraisers and assessors to measure vertical equity, how well value estimates work across different value ranges within a jurisdiction. The PRD is calculated by dividing the mean sales ratio (average sales ratio) by the weighted mean sales ratio. To find the weighted mean, sum all the appraised values of properties within the data set and divide by the sum value of all the sold properties.

IAAO *Standard on Ratio Studies* states the ideal PRD is 1.00—meaning that no bias in valuation exists across the various value range groups within a jurisdiction. A PRD greater than 1.03 is considered regressive and indicates that high-value parcels are relatively under appraised compared to low-value parcels throughout the jurisdiction. A PRD less than 0.98 is considered progressive and indicates that high-value parcels are relatively

over appraised in comparison to the low-value parcels in the jurisdiction.

Image 2 illustrates the desirable ranges of appraisal uniformity by property classification and size of jurisdiction utilizing the **Coefficient of Dispersion (COD)**. COD is the most widely used measure of appraisal uniformity, it permits assessors the ability to directly compare performance across property groups. Per IAAO *Standard on Ratio Studies* for a community similar in size and characteristics to Tioga County—older heterogeneous group of properties—a COD of 15 or less is considered to demonstrate acceptable appraisal uniformity.

Assessment uniformity

Performance Standards

When using COD to measure appraisal uniformity among strata, the levels for individual strata should be within 5% of overall level

Single-family residential homes and condos
- Newer/homogenous: 5.0 – 10.0
- Older/heterogeneous: 5.0 – 15.0
- Other residential areas: 5.0 – 20.0

Income-producing properties
- Large urban: 5.0 – 15.0
- Smaller: 5.0 – 20.0

Vacant land (non-agricultural)
- Larger jurisdictions: 5.0 – 25.0
- Smaller jurisdictions: 5.0 – 30.0

Levels of uniformity

IMAGE 2

Keeping those parameters in mind, the following graphics are the results of the PCSIAAO conducted ratio study analysis of the 2023 reassessment project in Tioga County Pennsylvania.

PROJECT RESULTS

Tioga County's 2023 reassessment project was undertaken to update the assessed values of all 28,226 properties throughout the county. The reassessment assignment was to establish an estimate of value under fee simple estate as of January 1, 2023, to establish an updated record of the tax base for the 2024 tax year.

For the purposes of this ratio study, no time trend was applied to any of the sales data provided by the county for this analysis due to a lack of necessary data points to establish a statistically reliable time trend result.

Residential

The single-family residential property performance indicated a strong reliability and uniformity throughout the county. *Image 3* shows the results for the entire residential sales file containing 864 sales and produced an overall level of appraisal of 1.00, a PRD of 1.02 (blue column), and COD of 9.76 (orange column).
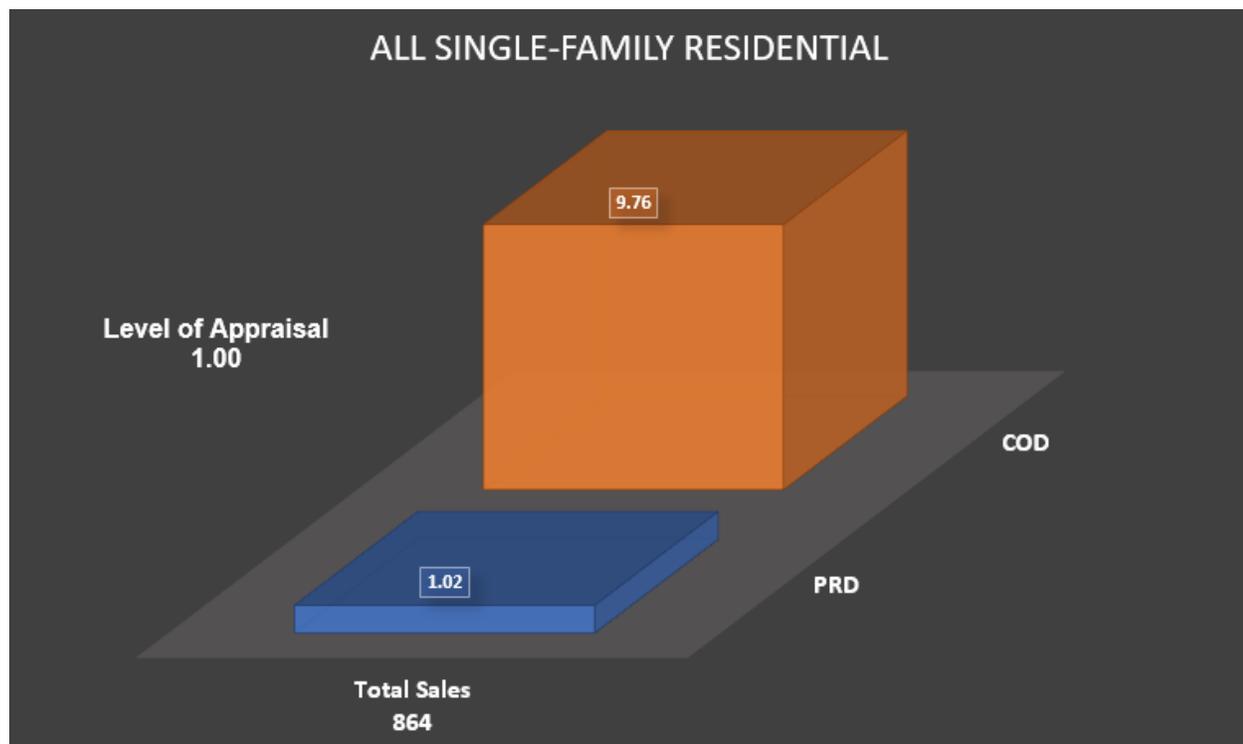
IMAGE 3

The level of appraisal and COD indicated significant uniformity in the estimates of value for all single-family residential properties throughout the county. The PRD also falls within the acceptable range of performance. However, the PRD performance indicates a slight tendency of lower than market value estimates for high-value properties. This trend, especially when evaluating performance of value estimates for lower value properties should be closely monitored moving forward to prevent regressivity in values.

The values produced during the reassessment performed similarly well as compared to the overall residential file analysis when analyzing the performance by year. A caveat must be added that the data for 2023 is incomplete and represents a partial year's worth of data.

The level of appraisal, or median sales ratios, when reviewing performance of single-family residential properties by year fell within the acceptable range of performance are displayed in *Table 1*.

TABLE 1		
Number of Sales	**Year**	**Level of Appraisal**
209	2020	1.10
293	2021	1.02
262	2022	0.95
101	2023*	0.96

*partial year

Image 4 shows the annual PRD and COD for the years 2020 – 2023:

SINGLE-FAMILY RESIDENTIAL PERFORMANCE BY YEAR

9.03 — 8.54 — 6.78 — 10.03 (COD)

1.02 — 1.01 — 1.02 — 1.03 (PRD)

2020 — 209 sales
2021 — 293 sales
2022 — 262 sales
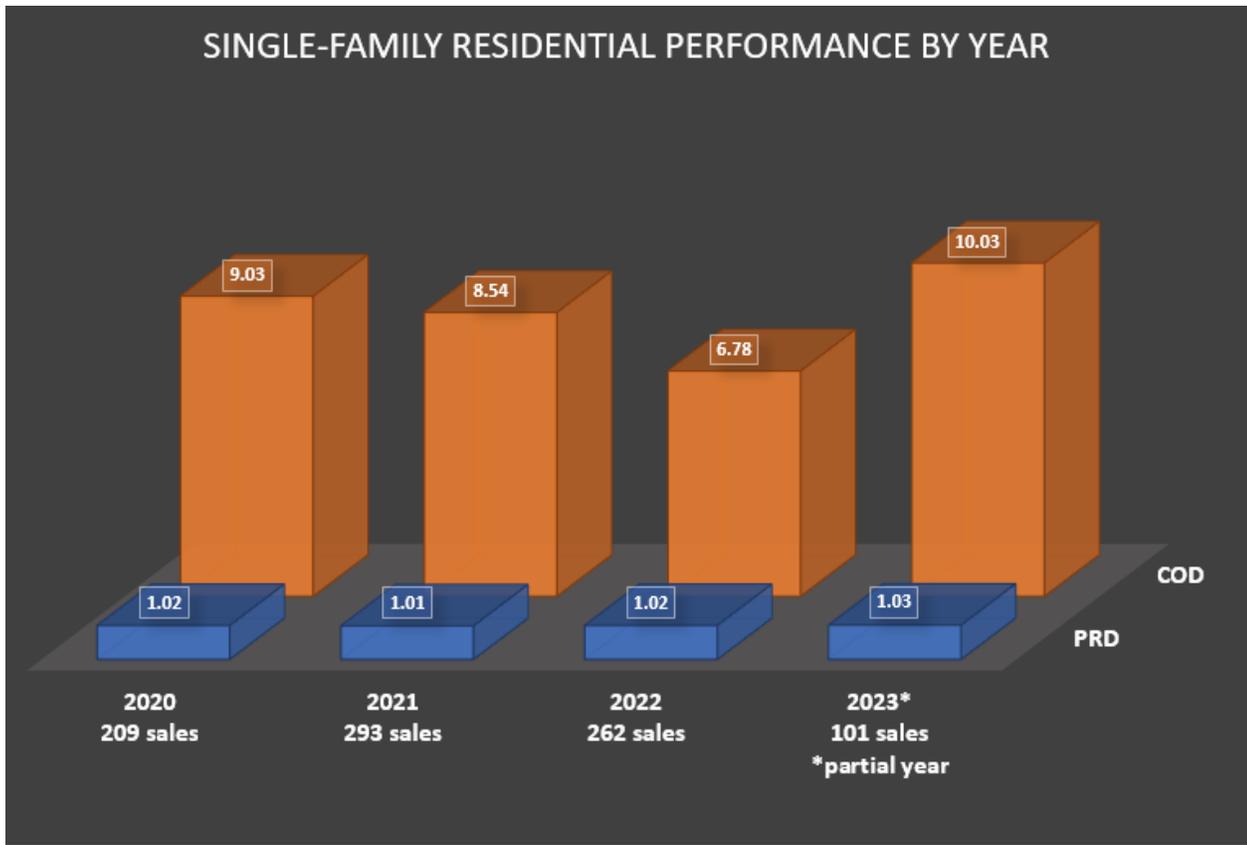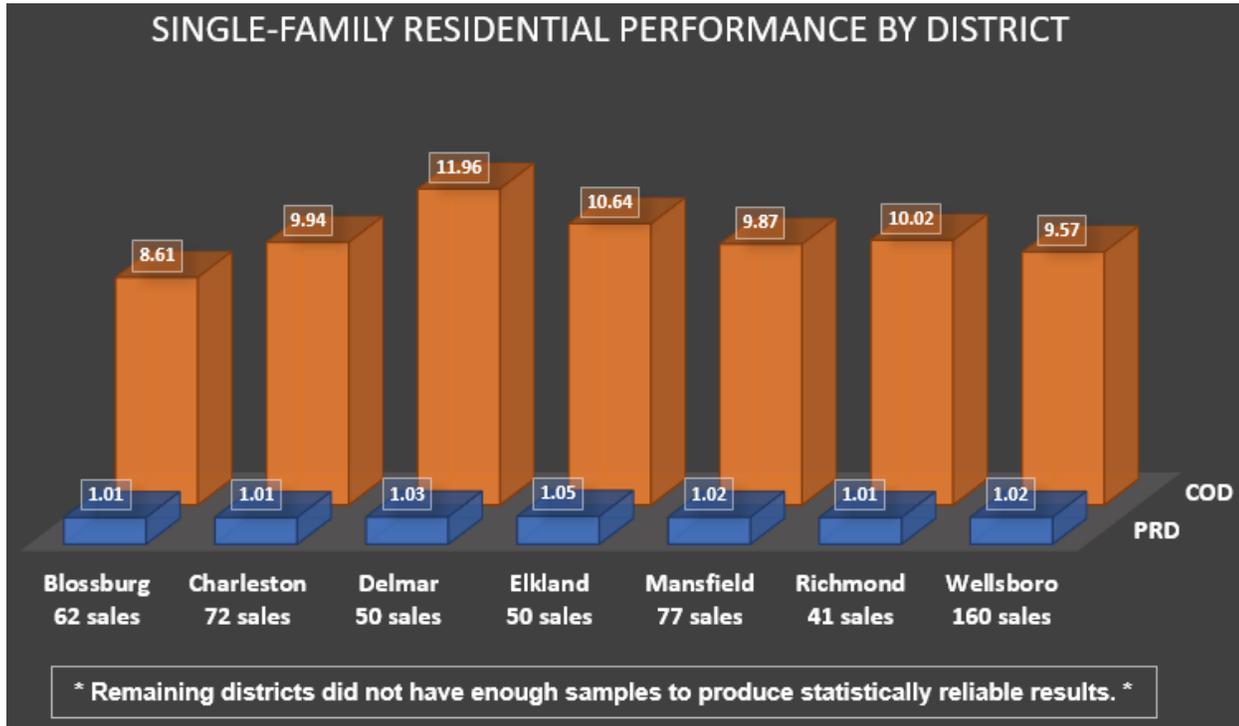2023* — 101 sales — *partial year

IMAGE 4

Another analysis of single-family residential performance can be viewed by taxing district performance. Included in the following graphic below are the taxing districts which contained enough data points to produce statistically reliable results. Overall, the districts continued to show similar performance results as the other two analyses discussed.

One exception being the PRD for Elkland at 1.05. This could be attributed to many factors but does warrant additional analysis by the Tioga Assessor's staff to determine the cause and make the necessary corrections to prevent any further regressivity in that district.

The level of appraisal for the single-family residential properties, by district, are shown in *Table 2* below.

TABLE 2		
Number of Sales	**District**	**Level of Appraisal**
62	Blossburg	1.03
72	Charleston	0.99
50	Delmar	1.00
50	Elkland	1.02
77	Mansfield	1.00
41	Richmond	0.99
160	Wellsboro	0.98

Image 5 shows the PRD and COD for those districts that had enough data points to produce statistically reliable results.

SINGLE-FAMILY RESIDENTIAL PERFORMANCE BY DISTRICT

District	COD	PRD
Blossburg 62 sales	8.61	1.01
Charleston 72 sales	9.94	1.01
Delmar 50 sales	11.96	1.03
Elkland 50 sales	10.64	1.05
Mansfield 77 sales	9.87	1.02
Richmond 41 sales	10.02	1.01
Wellsboro 160 sales	9.57	1.02

* Remaining districts did not have enough samples to produce statistically reliable results. *

IMAGE 5

The performance of additional residential classifications is highlighted in the following graphic. These groups performed similarly well to the single-family residential properties and have included the graphic for illustrative purposes as most of the additional classifications have a data set too small to be considered statistically reliable by IAAO Standards.

The level of appraisal for the additional residential classifications all fell within the acceptable range of performance and are shown in *Table 3* below.

| TABLE 3		
Number of Sales	Classification	Level of Appraisal
13	RA	1.08
9	RC	1.04
67	RS	1.01
10	RX	1.04
88	RT	0.99
21	R	1.02
20	R Mobile Home	1.00

Image 6 shows the PRD and COD results for additional residential classification's performance.
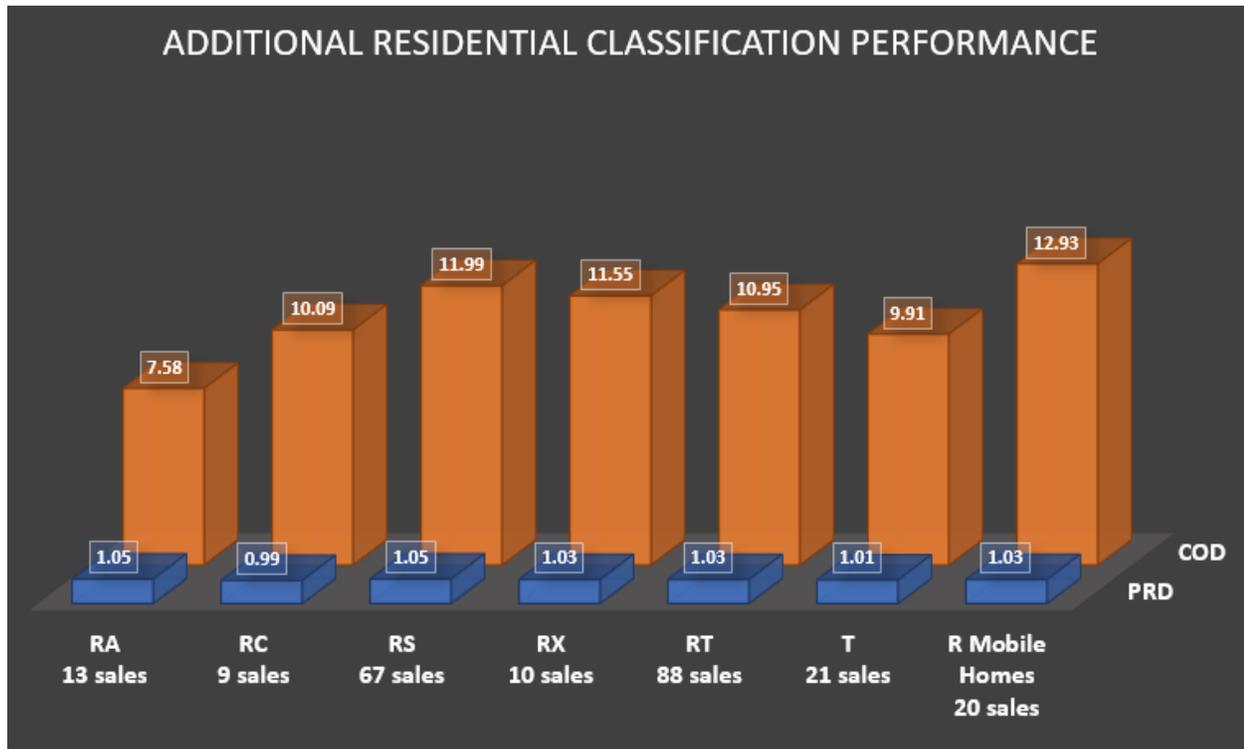
IMAGE 6

Commercial & Industrial

An analysis of all 68 sales included in the commercial and industrial file indicated strong uniformity in values throughout the jurisdiction with a COD of 9.38 and a median sales ratio of 1.00, however an indication of regressivity was revealed with a PRD of 1.07. However, this could be due to a relatively small data set. It will be important for the Tioga Assessor's staff to continue to monitor the commercial and industrial sales and make adjustments accordingly.
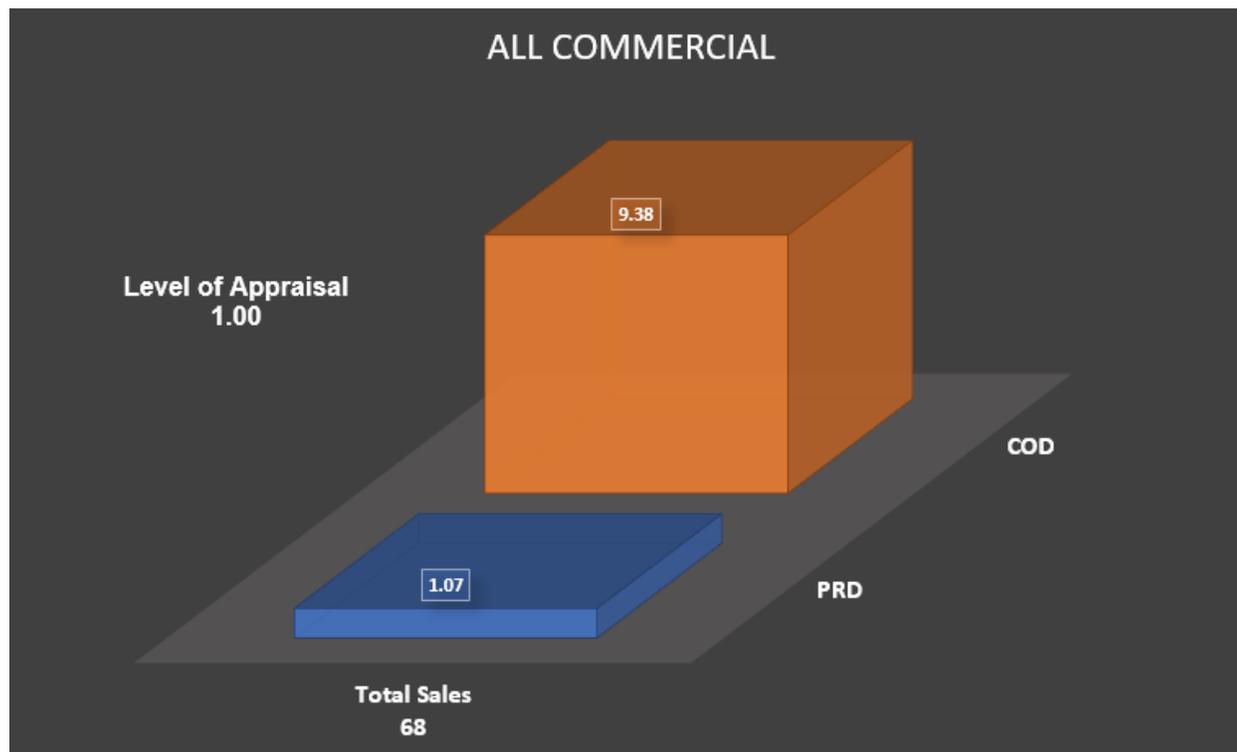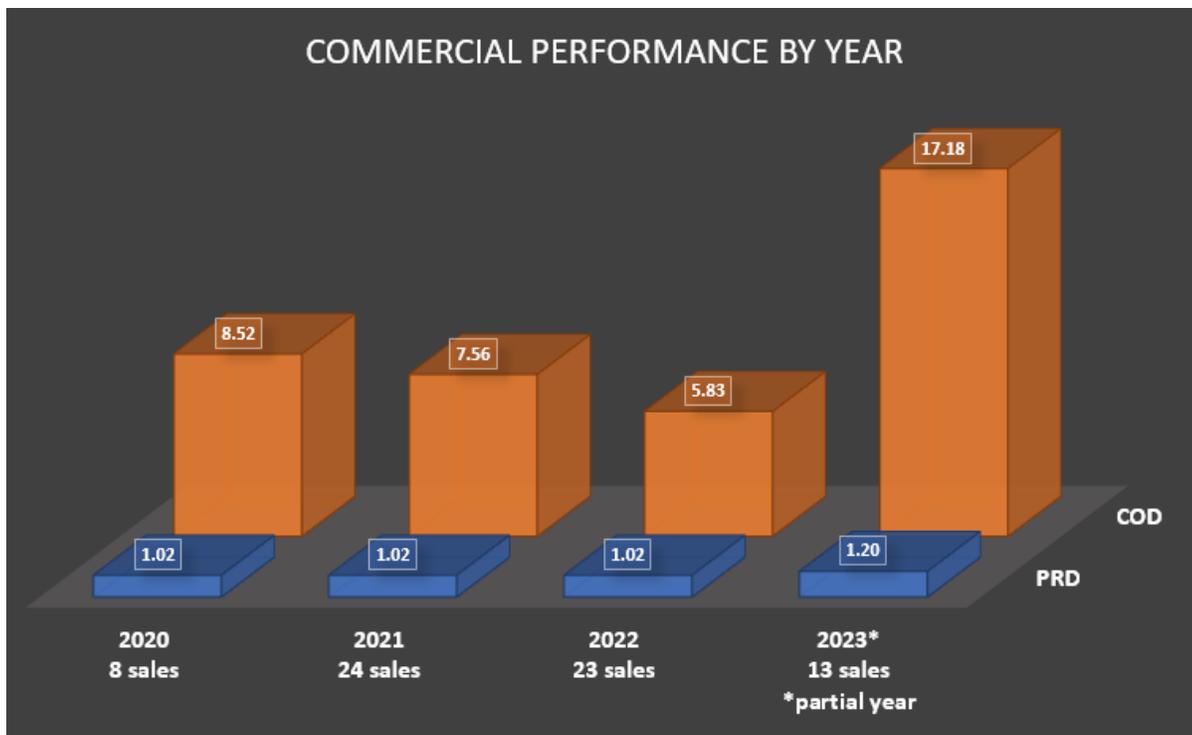

IMAGE 7

Values produced during the reassessment performed similarly well as compared to the overall commercial file analysis when analyzing the performance by year. A caveat must be added that the data for 2023 is incomplete and represents a partial year's worth of data—the partial year statistics do indicate regressivity with a PRD of 1.20, however the COD of 17.18 falls within compliance for the size of jurisdiction.

The yearly analysis has been included for illustrative purposes as each year has a data set too small to be considered statistically reliable by IAAO Standards. The level of appraisal, or median sales ratios, when reviewing performance of commercial properties by year fell within the acceptable range of "performance are displayed in *Table 4.*

TABLE 4		
Number of Sales	**Year**	**Level of Appraisal**
8	2020	1.03
24	2021	1.01
23	2022	0.99
13	2023*	0.92

*partial year

Image 8 shows the annual PRD and COD for the years 2020 – 2023:

IMAGE 8

Given the small sample size for commercial sales, no further analysis produced statistically reliable results.

Vacant Land

Vacant land is one of the more difficult property types to value for almost all assessors. The variety of factors influencing the marketplace for land can range widely within one jurisdiction, or even one community. As an example, the demand for a vacant lot in a downtown area is significantly different than the demand for a multi-acre plot of agricultural land. Additionally, in most assessment jurisdictions, there are a limited number of valid, arm's-length vacant land sales to be utilized to help develop land values.

Adding to the difficult task of estimating land values, Pennsylvania assessors must also help landowners navigate the ins and outs of the Clean & Green Program. And finally, the Tioga County reassessment project required a comprehensive and thorough mapping of slope throughout the jurisdiction to ensure the assigned land values were reflective of the topography of each parcel of land.

Considering all the hurdles faced in the valuation of vacant land throughout the jurisdiction, the overall performance of vacant land values demonstrated uniformity and reliability. Per IAAO Standards, a COD range of 5-30 is desirable for a jurisdiction of Tioga County's size.

The vacant land sales data set for the entire county yielded the results shown in *Image 9*.

ALL VACANT LAND

Level of Appraisal 0.97

14.79

COD

1.03

PRD

Total Sales 72
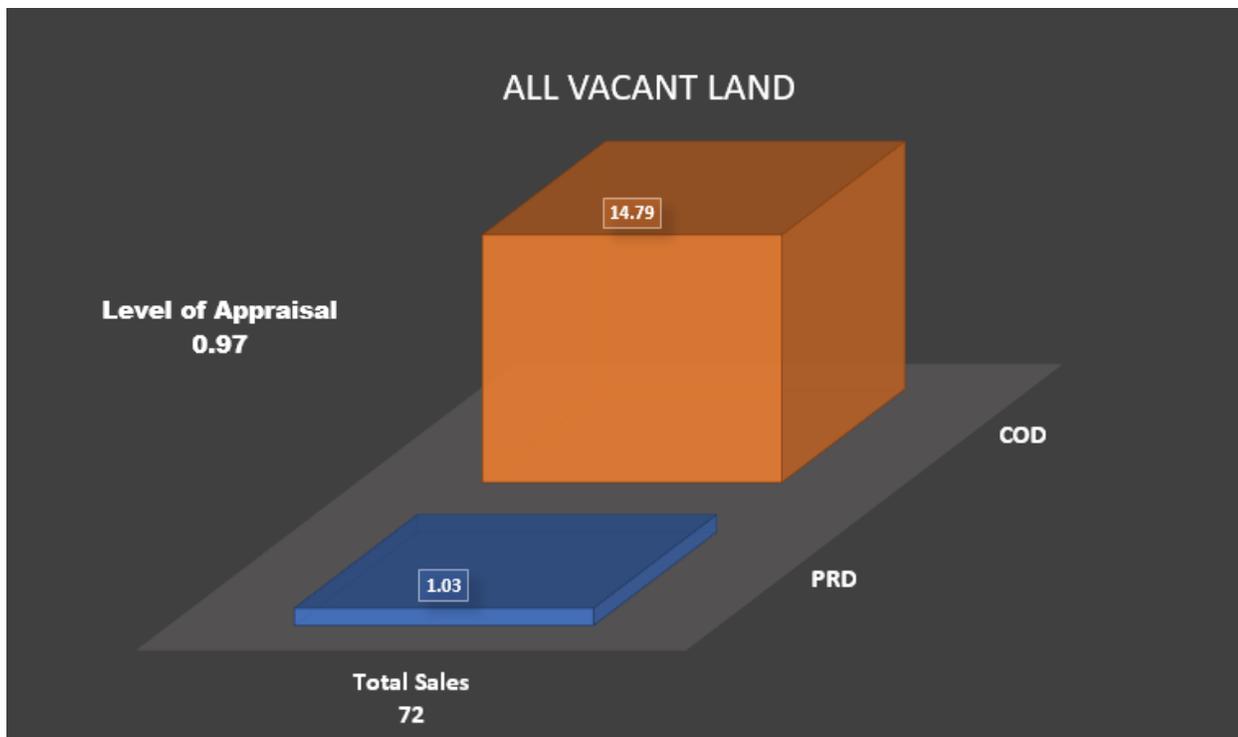
IMAGE 9

Reviewing land valuation performance on an annual basis provided similar results to the above outcomes. It must be emphasized again that the 2023 sales represent a partial year of data. As with the commercial sales, the yearly analysis for vacant land sales has been included for illustrative purposes as each year has a data set too small to be considered statistically reliable by IAAO Standards.

The level of appraisal, or median sales ratios, do show some indications of concern for 2020 and for the partial data included in the 2023 analysis. However, the small data set size could be unduly influenced by sales that might be impacted by some of the "hurdles" highlighted earlier. The staff within the Assessor's office should carefully analyze the vacant land sales to ensure data and terms are properly recorded regarding the sales. The annual level of appraisal is shown in *Table 5*:

TABLE 5		
Number of Sales	Year	Level of Appraisal
14	2020	1.12
25	2021	1.02
22	2022	0.94
11	2023*	0.87

partial year

*Image 10* shows the annual PRD and COD for the years 2020 – 2023:
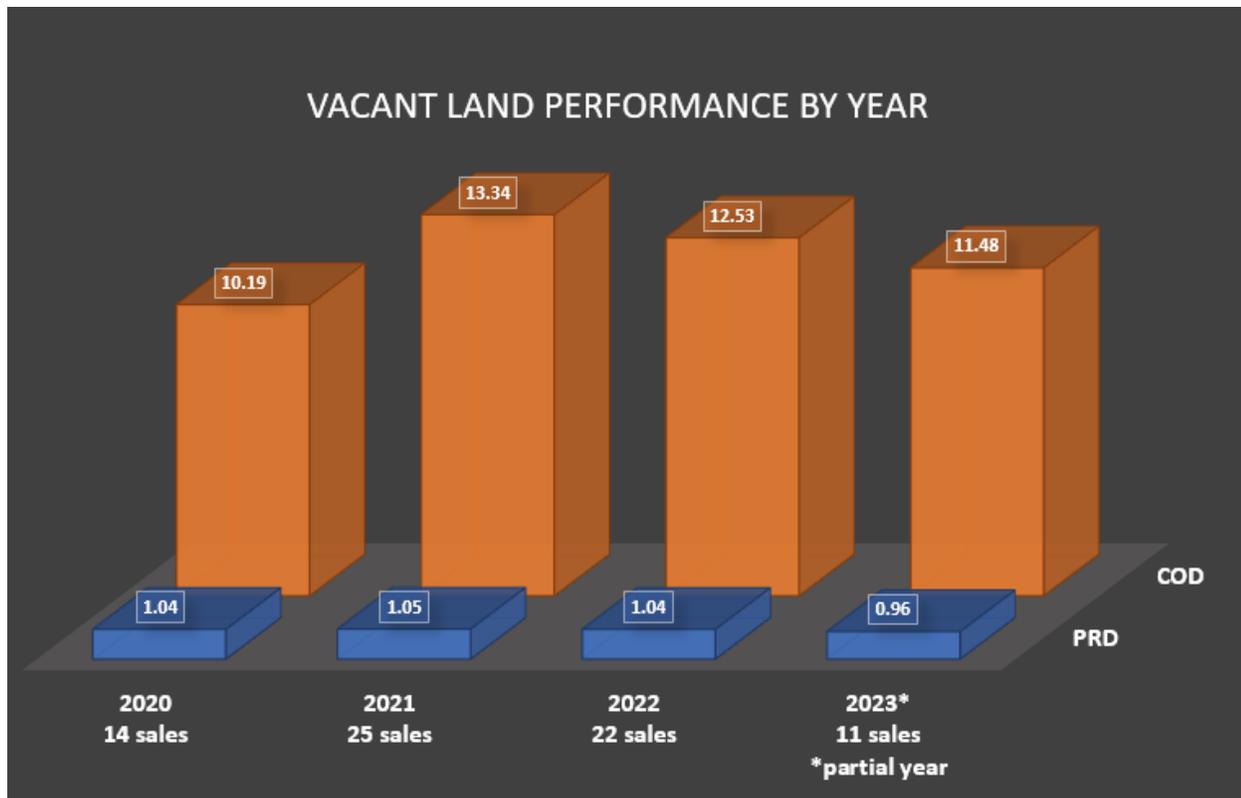
IMAGE 10

The final analysis of performance of vacant land valuation by land size categories utilized during the reassessment project. Only 2 categories provided enough data to be statistically reliable, and both groupings performed similarly well to the larger grouping of all vacant land sales. The PRD for the 1 – 10-acre group does show some indications of regressivity. There might be a need for assessment staff to review the size grouping and, if more data becomes available, reconsider the size boundaries to better reflect the actions of buyers and sellers within the marketplace of the jurisdiction.

The level of appraisal for the two size group categories are displayed in *Table 6*:

TABLE 6		
Number of Sales	Acreage	Level of Appraisal
34	1 - 10 acres	0.99
34	> 10 acres	0.96

Image 11 shows the annual PRD and COD for the two size groups:
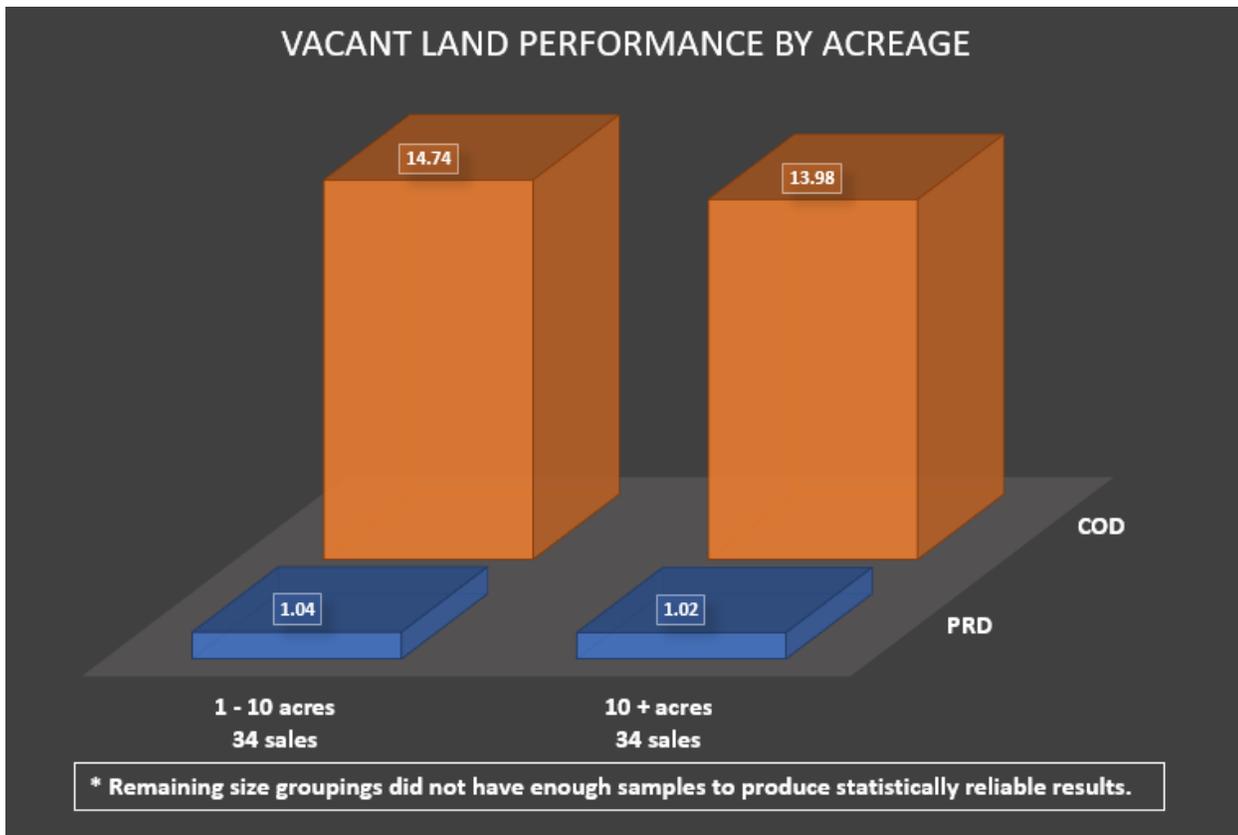
IMAGE 11

CONCLUSIONS

The study results for each property group demonstrate the reassessment project in Tioga County was a success. Much of that success is down to the excellent leadership provided by Chief Assessor Joshua Zeyn and the rest of the county staff's time and efforts to aid project contractor, Vision Government Solutions, project team.

The tireless efforts made by Mr. Zeyn to communicate and provide information to the community proved to be one of the largest factors in the project's success. Helping to educate property owners about the process helped to ensure the project team were able to complete the reassessment within the project's envisioned timeline.

It would be prudent to conduct a final analysis of performance for 2023 once all sales have been reviewed and validated per STEB policy. The full analysis of the 2023 sales file will likely give a better understanding of the performance of the reassessment and will highlight areas for improvement, or adjustment.

Moving forward PCSIAAO *strongly* recommends the County adopt a regular schedule of reassessment. On the matter of reassessment cycles IAAO *Standard on Property Tax Policy* states, in part:

> *"To best reflect the changes inherent in a dynamic economy and to maximize fairness and ease of understanding, assessments should be based on the current market value of property...current market value requires valuations based on objective market evidence. Under a current market value standard, it is easier for the public to understand whether they are being treated fairly.*
>
> *Current market value implies annual assessment of all property. This does not necessarily mean that every value must be changed each year. In annual assessment, the assessing officer should consciously reevaluate the factors that affect value, express the interactions of those factors mathematically, and use mass appraisal techniques to estimate property values. It is recommended that assessing officers establish regular reappraisal cycles or at least appraisal level and uniformity (vertical and horizontal equity) thresholds that trigger reappraisal."*

An annual reassessment cycle may not be feasible in Tioga County, but having a regular schedule of reassessments ensures that property values are reflective of the actions of buyers and sellers in the marketplace and ensures that the tax burden is equitably distributed among all property owners in the county.

Additionally, regular reassessments will help to prevent the costs of a reassessment project from exceeding budgetary constraints for the county. Regular reassessments also ensure that property data records are kept current and accurate, and that staff are knowledgeable and able to handle the tasks required during a reappraisal.

In conclusion, the staff of the Tioga Assessor's office should be commended for their hard work during this project. From the initiation to completion, the project was well executed, and the results demonstrate the hard work and time dedicated to completing the project produced statistically reliable estimates of market value for all property types within the county.

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