

Cook County Assessor's Office: 2019 North Triad Assessment

Leyden Township Residential Assessment Narrative

June 21, 2019



Leyden Residential Properties Executive Summary

- Since the 2016 re-assessment, property values in Leyden have increased about 16.6% according to the [Institute for Housing Studies at DePaul University](#).
- The change in median assessed value for residential properties between the 2016 and 2019 re-assessments is 2.7%.
- The CCAO met the standard for compliance: the legal requirement to assess residential properties at a 10% assessment ratio.
- The CCAO did not meet the standards for uniformity.
- The CCAO will continue its efforts to make assessments fair and accurate by continuously improving residential modeling and data collection.

Leyden Residential Properties Valuation Statistics

The aggregate assessed value of residential properties in Leyden has changed from \$430,746,093 in the 2016 re-assessment to \$490,838,496 in the 2019 re-assessment.*

	2016	2019
Median Sale Price	\$177,500	\$222,000
Median Assessed Value	\$20,364	\$20,918

	2018	2019
Change in Median Assessed Value	\$3,060	\$1,644
% Change in Median Assessed Value	18%	9%

* These numbers include the following property classes: 2-02, 2-03, 2-04, 2-05, 2-06, 2-07, 2-08, 2-09, 2-10, 2-34, 2-78, 2-95.

Leyden Residential Properties Valuation Glossary

Let's talk about each of these statistics and what they show. Remember that assessed value (abbreviated as AV) is 10% of market value for residential properties.

MEDIAN SALE PRICE: If you arranged every sale from lowest to highest, the median sale price is the price in the middle of the group.

MEDIAN ASSESSED VALUE (AV): If you arranged every assessed value from lowest to highest, the median assessed value is the value in the middle of that group.

% CHANGE IN MEDIAN AV: The percent difference between the median assessed values in two given time periods. In this report, we're showing the percent change in median AV between the given year and the year prior.

CHANGE IN MEDIAN AV: The difference (in dollar amount) between the median assessed values in two given periods. Again, we're showing the change in median between the given year and the year prior.

To review your specific home's assessment, visit cookcountyassessor.com or review the assessment notice you received in the mail.

Leyden Assessment Methodology

Sales data

The Cook County Assessor's Office uses a computer-assisted mass appraisal method to value residential properties, which requires a significant number of data points.

Our office combined sales data from these townships: Leyden, Maine, Proviso.

This created a sales database of 34,107 sales from 2013 to the end of 2018.

These sales are recorded by the Cook County Recorder of Deeds and reviewed by the Illinois Department of Revenue before entering our database.

Leyden Assessment Methodology

Other factors

The assessment process strives for uniformity when it considers properties' size, age, location, and quality. In addition to sales data, other factors affect the models we create for re-assessment.

These factors include building square footage, land square footage, number of full bathrooms, number of rooms, finished basements, age, exterior wall construction, garage, location, township and CCAO neighborhood code.

Our full models and the underlying code used in our calculations will be published after the north triad re-assessment is completed in the fall of 2019. We will also provide information on median ratio and assessed values later in the year.

Evaluating Questions About Leyden Assessments

The data on the previous slides tends to suggest the following questions/concerns:

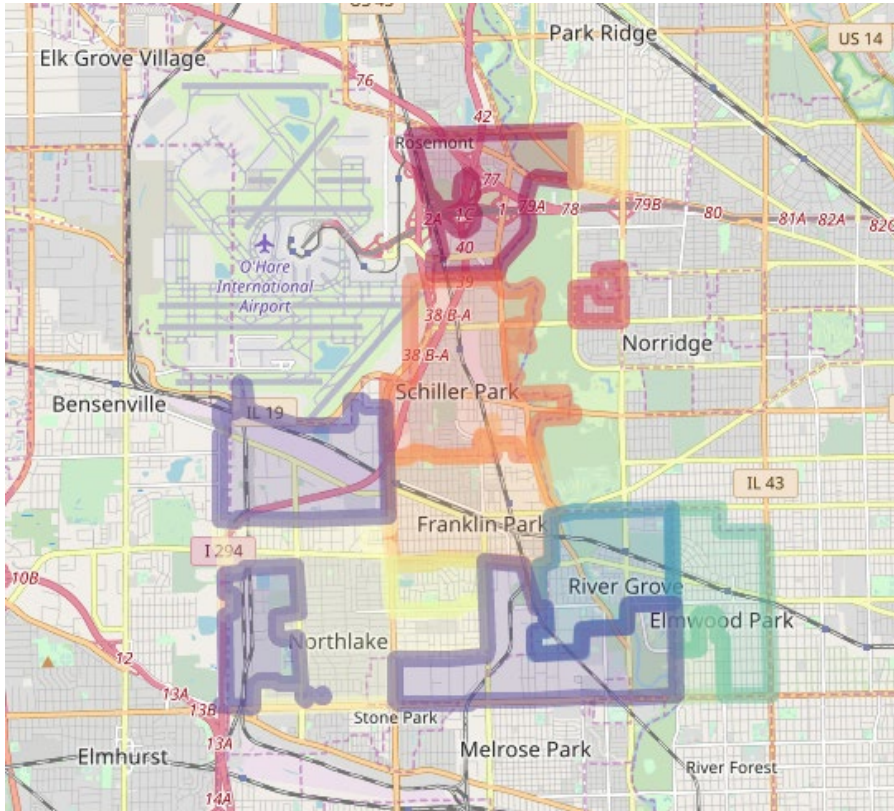
Q. If the median % change in assessed value is 9% and the change in median assessed value is \$1,644, why did my assessment go up so much more?

A. The median assessed value is merely the value within the middle of a set of numeric values. It does not indicate an average of the values. Some assessed valuations will be higher or lower than that median number.

Q. Why do you use data from different townships for the residential assessment? Isn't that inaccurate?

A. Increasing the sample size increases the accuracy of our models as our office uses a mass appraisal model, rather than one that looks at each house individually. Differences in location are accounted for in our models.

Leyden Neighborhood Locations/Codes



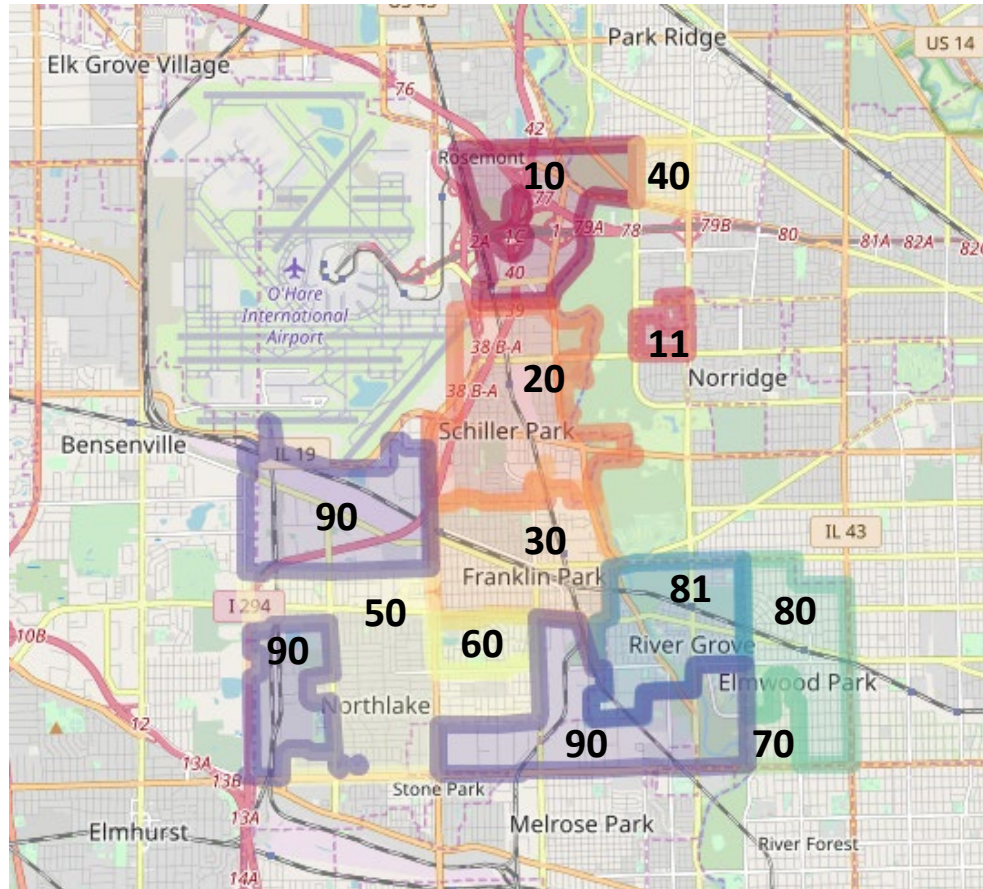
Leyden is located on the northern border of Chicago. It is the 6th largest township in the north suburbs with 21,277 single-family parcels.

For our purposes, "neighborhood code" refers to the identifying numbers for a specific set of properties in our database.

A property's specific neighborhood code can be found by looking up a property using its address or PIN at cookcountyassessor.com.

To see an interactive map of these neighborhoods and corresponding assessment data, please visit cookcountyassessor.com/reporting.

Leyden Neighborhood Code Map



Leyden Residential Data By Neighborhood

Code	Sales in sample	Median ratio	Median sale price	Change in median sale price	% change in median sale price	Median assessed value	Change in median assessed value	% change in median assessed value
10	13	10%	\$370,000	(\$10,000)	-3%	\$36,745	\$6,007	20%
11	39	10%	\$314,950	\$4,500	1%	\$30,000	\$4,049	16%
20	152	10%	\$219,000	\$9,000	4%	\$22,724	\$4,158	22%
30	268	10%	\$209,900	\$19,900	10%	\$19,475	\$1,146	6%
40	60	10%	\$400,000	\$27,500	7%	\$36,609	\$3,806	12%
50	403	10%	\$180,000	\$5,000	3%	\$18,013	\$389	2%

Sales in sample data is as of 2018. All other fields account for all properties in the sample, not just sales. Median ratio is from 2018-19. Median sale price is as of 2018. Changes in median sale price are from 2017-18. Median assessed value is as of 2019. Changes in median assessed value are from 2018-19. These numbers include the following property classes: 2-02, 2-03, 2-04, 2-05, 2-06, 2-07, 2-08, 2-09, 2-10, 2-34, 2-78, 2-95.

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Leyden Residential Data By Neighborhood

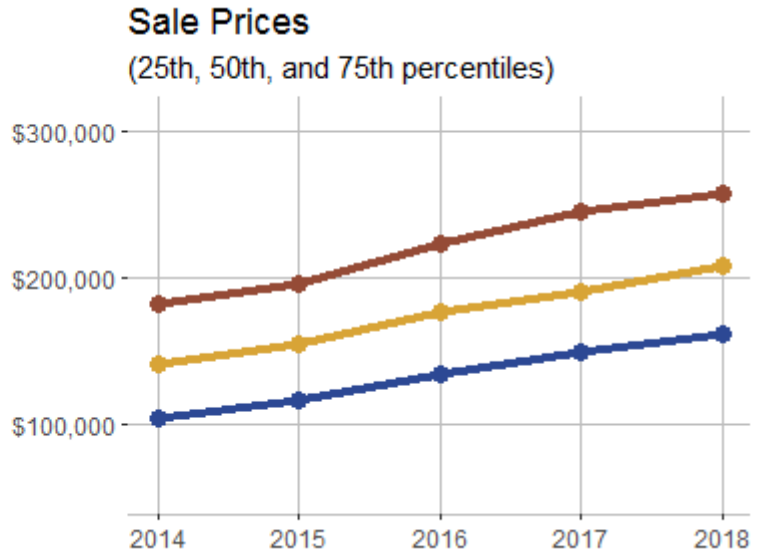
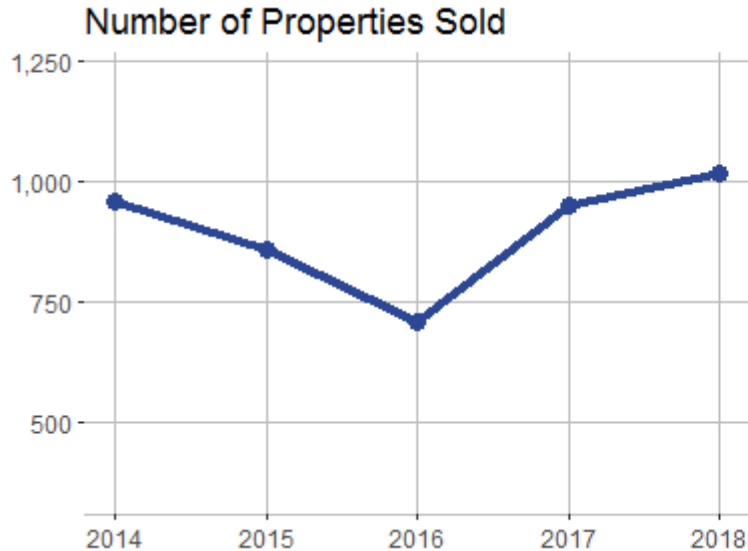
Code	Sales in sample	Median ratio	Median sale price	Change in median sale price	% change in median sale price	Median assessed value	Change in median assessed value	% change in median assessed value
60	130	10%	\$192,500	\$25,300	15%	\$19,392	\$1,621	9%
70	63	10%	\$320,000	(\$5,000)	-2%	\$32,971	\$4,965	18%
80	363	10%	\$264,700	\$18,450	7%	\$25,297	\$2,894	13%
81	179	10%	\$228,000	\$19,000	9%	\$21,017	\$1,401	7%
90	9	9%	\$160,000	\$40,000	33%	\$13,771	(\$2,733)	-17%

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Home Sale Trends Affecting Leyden Re-Assessment

The charts below summarize the market trends in Leyden since tax year 2013 from the perspective of the CCAO's Data. The first chart shows the number of residential sales in each year. The second chart shows the trends in median sale prices for the township described above. In general, the increases in assessed values discussed in the previous section are consistent with observed market activity.



Measuring Leyden Assessments Against Industry Standards

The CCAO is committed to measuring our work against the industry standards of uniformity, set by The International Association of Assessing Officers (IAAO). Under the umbrella of uniformity, there is one statistic for measuring variability of assessments: COD. There are two statistics for measuring vertical equity of assessments: PRD and PRB. If either PRD or PRB falls within the target range, the standard for vertical equity is considered met. Definitions of these terms can be found in Appendix B.

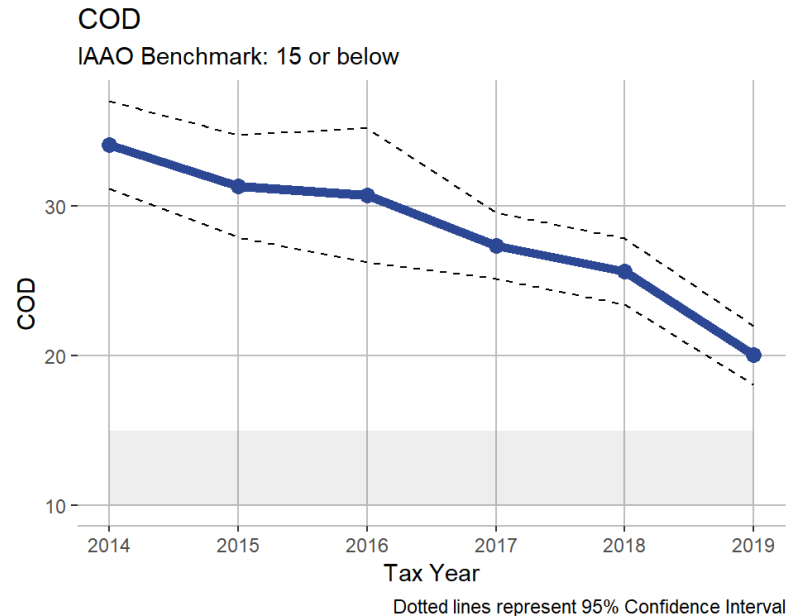
Category	Statistic	Target Range	Leyden Result	Standard Met
Variability	COD	5-15	20.06	No
Vertical Equity	PRD	0.98-1.03	1.07	No
Vertical Equity	PRB	-0.05-0.05	-0.39	No

*Based on the confidence interval, this value is statistically overlapping the target range.

Variability Metric: COD

The graph below shows that our COD for the 2019 re-assessment for this township is 20.06.

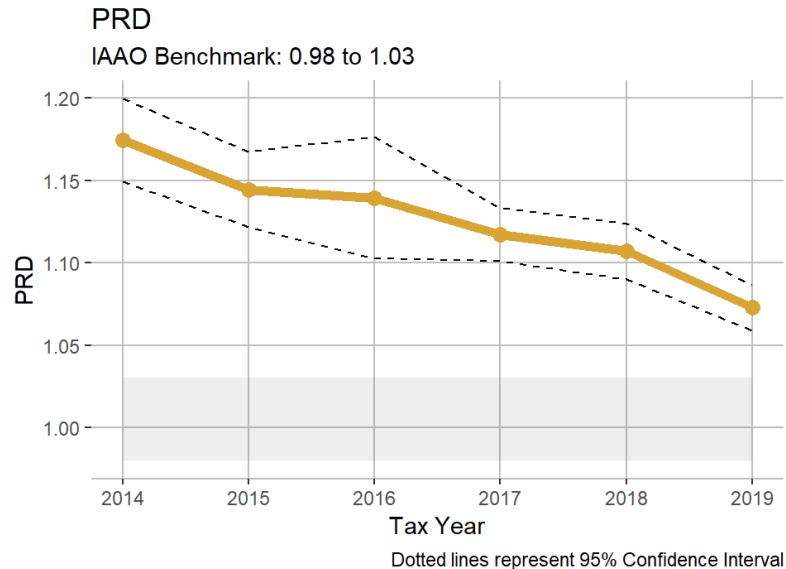
As it is not between 5 and 15, it is not within the IAAO standard for variability. COD is one measure of variability, which quantifies to what degree data points in a statistical distribution or data set diverge from the average.



Vertical Equity Metric 1: PRD

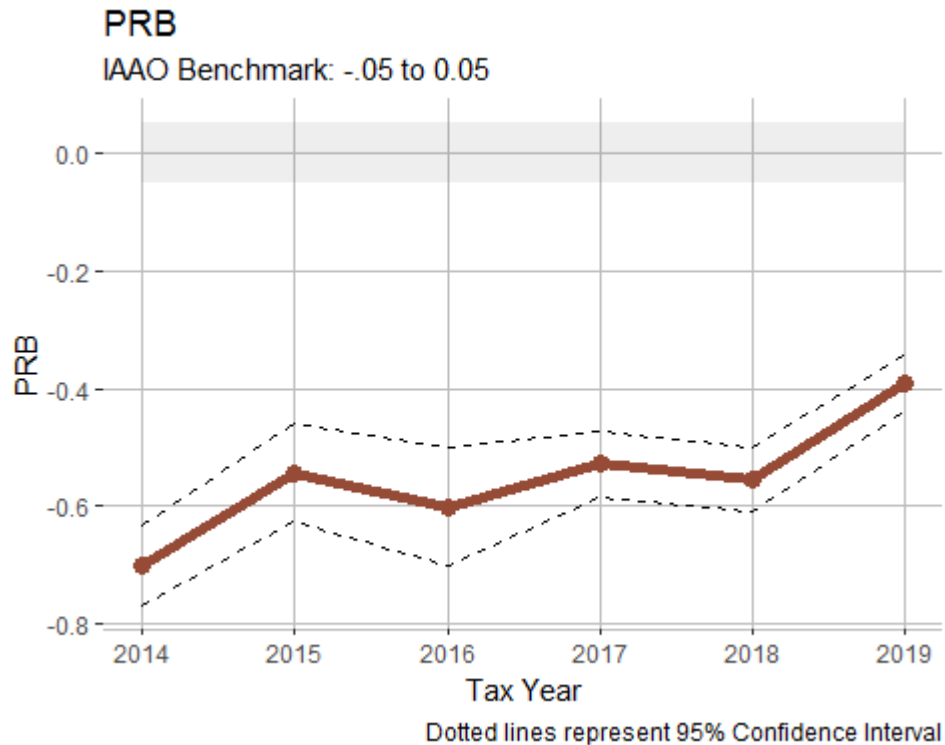
PRDs between .98 and 1.03 indicate high-quality assessments. The graph below shows that the PRD is 1.07 for our 2019 assessments of this township, which not within the target range based on the confidence interval.

The vertical equity component of the uniformity goal is not met. Vertical equity is the degree to which high-value properties are assessed at the same rate as low-value properties.



Vertical Equity Metric 2: PRB

PRBs between -0.05 and 0.05 indicate high-quality assessments. The graph below shows that the PRB for our 2019 assessment of this township is -0.39 . Therefore, we did not achieve this metric's standard for vertical equity.



Leyden Residential Properties Conclusions

Leyden residential assessments tracked market trends and met the industry standards for compliance, but did not meet industry standards for statistical uniformity (COD).

This is likely due to percentage differences between estimated values and actual sale values. The CCAO estimates values based on what is known in our data set about a property. If we estimate two similar homes have fair market values of \$220,000, but one of them sells for \$232,000 because it has a renovated kitchen that is not in our data set, this small dollar amount difference (\$13,000) is a big percentage (5.6%) of the sale value. The COD metric is sensitive to percentages, not dollar values. Therefore, one reason the COD standard was not met for Leyden is because of relatively large dissimilarities in *percentage* differences between estimated and sale values.

Leyden Residential Properties Conclusions

The CCAO has marginal confidence in the quality of the 2019 Leyden assessments. More improvements to our modeling and data will make it possible for the CCAO to consistently achieve its goal of meeting or exceeding the IAAO standards, as well as the standard for compliance (the legal requirement to assess residential property at a 10% assessment ratio).

The CCAO is involved in a years-long effort to improve the quality of its assessments. We continue to build our ability to model and detect increasingly fine patterns in our data as we work to improve the accuracy, timeliness, and granularity of our data. The details of these efforts will be included in a future report.

Appendix A – Total Assessed Value for Leyden Township Residential and Commercial

Leyden Assessed Values	Previous 2018 Assessed Value	2019	% Increase
Industrial/Commercial	\$617,438,972	\$1,136,411,141	84.05%
Residential	\$521,813,439	\$599,744,837	14.93%
Total	\$1,139,252,411	\$1,736,155,978	52.39%

Classes included in residential above: 2-02, 2-03, 2-04, 2-05, 2-06, 2-07, 2-08, 2-09, 2-10, 2-11 apartments (less than six), 2-12, 2-34, 2-78, 2-95, 2-99 and any residential side lots (2-41) or standalone garages (2-01) on separate pins. Note that the numbers above include additional classes not included in the numbers on slide 3 and slides 11-13.

Commercial classes include 1, 3, 4, 5, 6, 7, and 9.