Cook County Assessor's Office: 2019 North Triad Assessment

New Trier Residential Assessment Narrative

April 5th, 2019



New Trier Residential Properties Executive Summary

Since the 2016 re-assessment, property values in New Trier have changed by about -1% according to the <u>Institute for Housing Studies at DePaul University</u>.

The change in median assessed value for residential properties between the 2016 and 2019 re-assessments is -11.44%.

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.

New Trier Residential Properties Valuation Statistics

The aggregate assessed value of residential properties in New Trier has changed from \$1,650,723,771 in the 2016 re-assessment to \$1,765,813,838 in the 2019 re-assessment.*

| Statistic | 2016 | 2019 |
|----------------------------|-----------|-----------|
| Median Sale Price | \$825,000 | \$830,000 |
| Median Assessed Value (AV) | \$88,744 | \$78,593 |
| Change in median AV | \$21,924 | \$-893 |
| % Change in median AV | 33% | - 1% |

^{*} 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.

New Trier 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 cookcountyassesor.com or review the assessment notice you received in the mail.

New Trier 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 New Trier, Evanston, Niles, and Northfield townships.

This created a sales database of 32,109 sales ranging 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.

New Trier 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 New Trier Assessments

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

Q. If the median assessed value is -11.44, why did my assessment go up so much?

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.

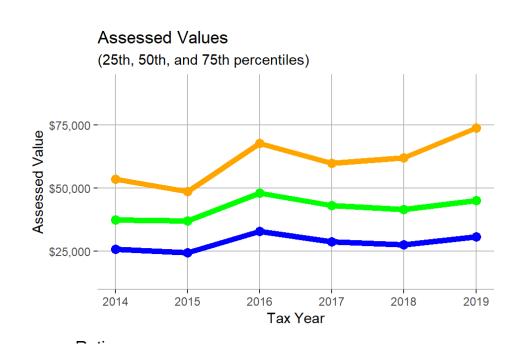
Evaluating Questions About New Trier Assessments

Q. How can the median sale price go up, but the media assessed value go down?

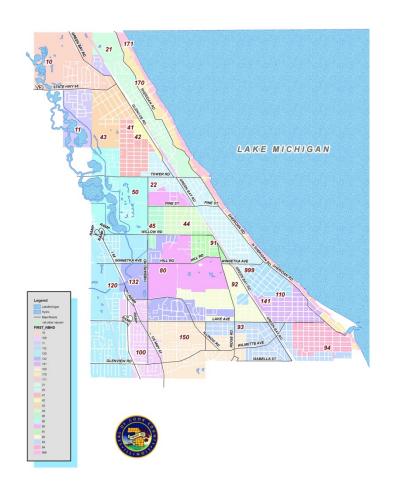
A. Assessed values are produced by a system that calculates averages. Averages and medians don't always move in the same direction.

Consider 2,5,5 and 2,5,9. Both sets of numbers have the same median of 5, but the average in the former is 4, and for the latter it's 6.

The graph at right shows the median in green, and the 75th percentile in orange. The median is lower than it was in '16, but the 75th percentile is higher. If most of the growth in sale price was in upper-end homes, you may not see a change in median AV.



New Trier Neighborhood Locations/Codes

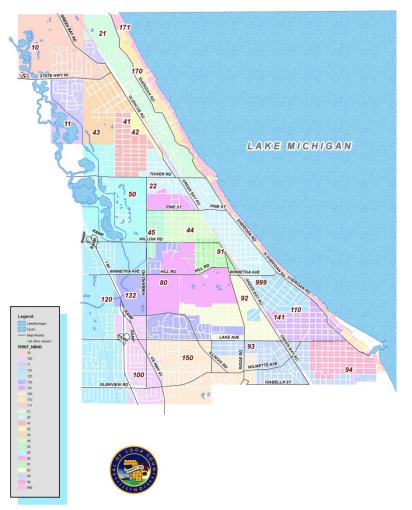


New Trier is located on the northern border of Chicago. It is the 7th largest township in the north suburbs with 18,005 single-family parcels.

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.

New Trier Neighborhood Code Map



New Trier 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 | 38 | 0.104 | \$775,000 | \$47,500 | 7% | \$93,396 | \$23,040 | 33% |
| 11 | 50 | 0.102 | \$640,000 | \$11,100 | 2% | \$64,876 | \$8,810 | 16% |
| 21 | 79 | 0.099 | \$1,072,780 | \$-64,720 | -6% | \$117,830 | \$7,952 | 7% |
| 22 | 176 | 0.099 | \$1,101,250 | \$63,750 | 6% | \$105,216 | \$9,149 | 10% |
| 41 | 87 | 0.104 | \$867,500 | \$-90,000 | -9% | \$87,816 | \$4,194 | 5% |
| 42 | 12 | 0.105 | \$545,000 | \$-21,000 | -4% | \$51,436 | \$-24,840 | -33% |
| 43 | 57 | 0.098 | \$861,250 | \$41,250 | 5% | \$107,260 | \$16,588 | 18% |

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.

New Trier 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 |
|------|--------------------|-----------------|----------------------|-----------------------------------|-------------------------------------|-----------------------------|--|-----------------------------------|
| 44 | 71 | 0.096 | \$960,000 | \$-72,000 | -7% | \$94,113 | \$-12,538 | -12% |
| 45 | 32 | 0.099 | \$820,000 | \$-80,000 | -9% | \$88,376 | \$16,663 | 23% |
| 50 | 37 | 0.1 | \$1,160,000 | \$-90,000 | -7% | \$122,333 | \$22,333 | 22% |
| 80 | 71 | 0.099 | \$1,500,000 | \$-50,000 | -3% | \$180,914 | \$21,460 | 13% |
| 92 | 188 | 0.1 | \$770,000 | \$1,000 | 0% | \$70,328 | \$37 | 0% |
| 93 | 150 | 0.1 | \$757,500 | \$81,500 | 12% | \$71,750 | \$743 | 1% |
| 94 | 95 | 0.097 | \$988,750 | \$148,750 | 18% | \$80,524 | \$-1,726 | -2% |

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New Trier Residential Data By Neighborhood

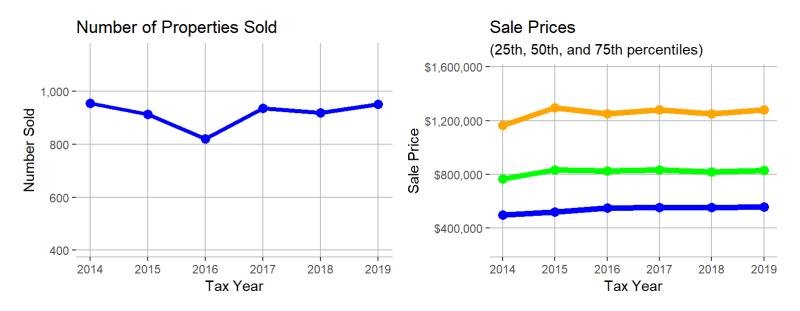
| Code | Sales in sample | Median ratio | Median sale price | Change in median sale price | % change in median sale price | Median assessed value | Change in median assessed value | % change in median assessed value |
|------|--------------------|-----------------|----------------------|-----------------------------------|-------------------------------------|-----------------------------|--|-----------------------------------|
| 100 | 90 | 0.098 | \$396,250 | \$-11,750 | -3% | \$42,305 | \$6,081 | 17% |
| 110 | 67 | 0.105 | \$1,572,500 | \$-240,000 | -13% | \$163,330 | \$12,453 | 8% |
| 120 | 166 | 0.099 | \$410,000 | \$10,000 | 2% | \$38,776 | \$3,312 | 9% |
| 132 | 57 | 0.098 | \$1,000,000 | \$212,000 | 27% | \$106,421 | \$26,421 | 33% |
| 141 | 90 | 0.099 | \$1,100,000 | \$-95,000 | -8% | \$119,567 | \$16,692 | 16% |
| 150 | 168 | 0.097 | \$600,000 | \$45,000 | 8% | \$55,486 | \$4,858 | 10% |

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.

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

Home Sale Trends Affecting New Trier Re-Assessment

The charts below summarize the market trends in New Trier 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 New Trier 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.

| Category | Statistic | Target Range | New Trier Result | Standard Met |
|-----------------|-----------|--------------|------------------|--------------|
| Variability | COD | 5-15 | 20.61 | No |
| Vertical Equity | PRD | 0.98-1.03 | 1.06 | No |
| Vertical Equity | PRB | -0.05-0.05 | -0.03 | Yes |

Addressing The Gap Between New Trier Assessments and IAAO Standards

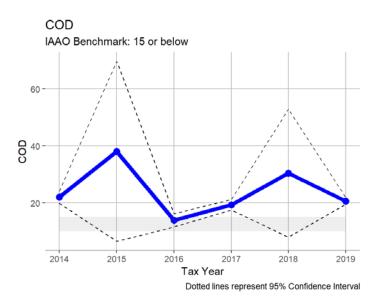
Though our measures of variability and vertical equity have improved significantly, we have not yet achieved the IAAO standard for assessments in New Trier. There are two main reasons why:

First, the housing stock in New Trier is highly heterogeneous, meaning that there is wide variation in property values within small geographic areas. This makes it more difficult to distinguish between nearby properties of different values.

Second, our property characteristic data is sometimes inaccurate. We are still quantifying the effects of missing and/or incomplete data within our systems, but we know data accuracy is an issue. The appeals process remains an important avenue for residents to provide our office with data about their property to make our assessment work better.

Variability Metric: COD

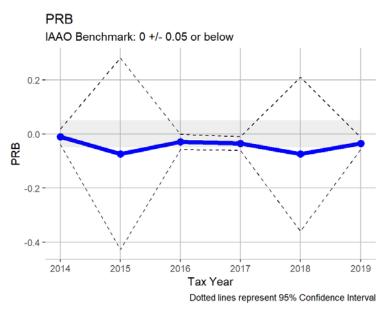
The graph below shows that our COD for the 2019 re-assessment for this township is 20.61. As it is not between 5 and 15, it is not within the IAAO standard for variability. Variability measures to what degree data points in a statistical distribution or data set diverge from the average. In this case, the COD measures the degree to which homes with identical selling prices are assessed identically.



Vertical Equity Metric 1: PRD

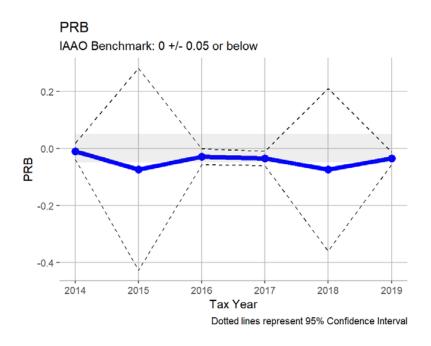
PRDs between .98 and 1.03 indicate high-quality assessments and whether the vertical equity component of uniformity is met. Vertical equity is the degree to which high-value properties are assessed at the same rate as low-value properties.

The graph below shows that the PRD is 1.06 for our 2019 assessments of this township. Though this is not statistically within the target range, it is an improvement on past results.



Vertical Equity Metric 2: PRB

PRBs between -.05 and .05 indicate high-quality assessments. The graph below shows that the PRB for our 2019 assessment of this township is -0.03. Therefore, we achieved this metric's standard for vertical equity.



New Trier Residential Properties Conclusions

The CCAO did not meet the IAAO standard for uniformity. Heterogeneous housing stock in New Trier as well as incomplete or inaccurate data on certain housing characteristics contributed to this.

We are, however, committed to investigating and resolving the structural issues that prevent us from meeting this standard.

Improvements over time to both our modeling and data quality 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 New Trier Township Residential and Commercial

| New Trier | 2018 | 2019 | % increase from 2018 |
|-----------------------|---------------|---------------|----------------------|
| Residential | 1,650,172,194 | 1,851,483,141 | 12.20% |
| Industrial/Commercial | 114,478,096 | 225,049,633 | 96.59% |
| Total | 1,764,652,308 | 2,076,534,793 | 17.67% |

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.