Illinois Assessment Uniformity: Improving Until the Bubble Burst

By Mike Klemens

Mike Klemens, President of KDM Consulting Inc., does tax policy research for the Taxpayers' Federation.

The property tax is the largest source of state and local government funding in Illinois, which relies more on property taxes than most other states. To assure acceptance of and compliance with any tax, taxpayers have to believe it is fair. Acceptance is particularly difficult with the property tax that many taxpayers believe to be unfair for a host of reasons, including:

- After the real estate bubble burst, homeowners' property values dropped but their taxes rose.
- Before that, tax bills rose even when homeowners did nothing to improve their property.
- The property tax bill comes due all at one time.

While it is difficult to convince property owners that the property tax is fair, one of the most critical factors in determining the fairness of the property tax

NOTES FROM THE INSIDE. . .

By Carol S. Portman

This edition of Tax Facts has something old (or perhaps more accurately, traditional)—the latest TFI analyses of an important property tax issue, and something new—excerpts from a visual overview of Illinois' economy and tax code, entitled *Illinois Illustrated*.

We start with a pair of pieces on assessment uniformity in Illinois. Rob Ross, our research assistant, draws on data from the Cook County Assessor's office to look at how the county has performed in terms of uniformity through the real estate boom and into the real estate crash. He also looks at varying levels of assessment uniformity within Chicago ZIP codes.

Mike Klemens examines assessment uniformity in the remaining 101 counties. The good news is that since 1980, the quality of assessments has improved statewide, both downstate and in the collar counties, although the collars have been hit hard by the market volatility that followed the real estate crash. The most dramatic improvement has been in the smaller, rural counties, which were identified as a problem area in a 1986 TFI-sponsored study.

While it is easy to get lost in the complexities of measuring assessment uniformity (take a look at the Math Appendix on page 14!), the property tax simply cannot be fair without uniform assessments. In other words, **this is important stuff**! Illinois relies heavily on the property tax and that reliance is almost certainly going to continue, so maintaining and wherever possible improving assessment uniformity is absolutely vital.

We are very excited about *Illinois Illustrated*, a joint effort of TFI's Illinois Fiscal Policy Council and the Washington DC-based Tax Foundation. The chart book provides an overview of Illinois' economy and tax structure, and contains specific sections on individual income tax, business taxes, sales taxes, excise taxes and the property tax. Taxes are complicated and this furthers our efforts to help citizens and policymakers understand such a difficult subject. The complete publication is available on our website at iltaxwatch.org.

is the uniformity of assessments. For the property tax to be fair – and in an ideal world also perceived as fair – similar properties must pay similar taxes. *See: Why does uniformity matter more than accuracy?* in the accompanying article on **page 11**. On this most critical factor, Illinois saw 20 years of substantial improvement in property tax assessment uniformity until that trend was reversed by the bursting of the real estate bubble in 2008. Even with that reversal, property tax uniformity has tended to improve over the last 32 years.

Coefficient of Dispersion

The standard measure of assessment uniformity is Coefficient of Dispersion, or COD. The Illinois Department of Revenue calculates COD each year when it conducts the Assessment/Sales Ratio studies as part of the process of issuing the county equalization factors (multipliers). The complete data set of the COD by county for 1980 - 2012 was compiled by the Department of Revenue for this article.

In conducting those studies the department compares the assessed value of a property to its market value, which is determined by the sales price for sales from a willing seller to a willing buyer. This determines how close each county is to assessing property at the prescribed one-third of market value. The data allows the calculation of the level of assessment for each property and how far that level falls above or below the median level of assessment. The COD is the average distance between a property's level of assessment and the median level of assessment, expressed as a percentage of the median level of

assessment. A 10 percent COD would mean that on average the assessment of a $300,000 home (which should be assessed at $100,000) falls between $90,000 and $110,000. The lower the COD the more uniform the assessments. **See COD example page 8.**

The analysis in this paper is high level. It uses the countywide COD that is calculated in the Department of Revenue sales ratio study. The study computes a COD for any jurisdiction with enough sales and counties can show a wide variation in COD from township to township. For example, the countywide COD for Madison County in 2012 was 24.9, ranging from 12.6 in Jarvis Township to 69.6 in Nameoki. The countywide CODs for the 2012 sales ratio study (used for 2013 taxes payable in 2014) are listed in **Table 1**.

A word of caution is in order: the COD as a statistic does not measure how good or poor a job a particular assessing official is doing. It is easier to get a lower COD in jurisdictions that have a have a large amount of similar properties than in those with more mixed properties. For example, assessments will be more uniform in a suburban district that has new subdivisions and mostly residential property than in an urban district with its mix of new and older housing and commercial property. And, as we will discuss later, when the market is volatile, uniformity will decline. In fact the International Association of Assessing Officials (IAAO), the professional organization that establishes standards for the conduct of sales ratio studies, sets different COD standards for different types of property,

County	2012	County	2012
Adams	18.19	Mason	35.37
Alexander	34.73	Massac	21.29
Bond	28.77	McDonough	25.42
Boone	30.16	McHenry	21.77
Brown	14.14	McLean	12.95
Bureau	34.46	Menard	19.47
Calhoun	46.06	Mercer	25.54
Carroll	46.81	Monroe	14.89
Cass	29.62	Montgomery	38.78
Champaign	17.45	Morgan	24.47
Christian	24.92	Moultrie	16.24
Clark	31.04	Ogle	22.04
Clay	31.37	Peoria	19.35
Clinton	20.59	Perry	45.00
Coles	20.52	Piatt	15.86
Crawford	31.07	Pike	35.51
Cumberland	26.69	Pope	68.71
De Witt	21.87	Pulaski	43.81
DeKalb	23.23	Putnam	35.30
Douglas	22.82	Randolph	38.86
Du Page	20.11	Richland	24.85
Edgar	26.88	Rock Island	23.11
Edwards	51.17	Saline	32.64
Effingham	21.53	Sangamon	17.64
Fayette	35.30	Schuyler	21.53
Ford	29.01	Scott	22.93
Franklin	44.95	Shelby	32.28
Fulton	39.47	St Clair	23.25
Gallatin	37.06	Stark	20.39
Greene	40.39	Stephenson	27.57
Grundy	21.86	Tazewell	16.98
Hamilton	33.19	Union	37.71
Hancock	33.42	Vermilion	42.36
Hardin	82.31	Wabash	26.95
Henderson	31.74	Warren	38.13
Henry	22.71	Washington	28.81
Iroquois	40.74	Wayne	38.34
Jackson	27.75	White	40.61
Jasper	26.00	Whiteside	30.05
Jefferson	34.62	Will	18.51
Jersey	26.54	Williamson	27.68
JoDaviess	55.20	Winnebago	28.44
Johnson	41.57	Woodford	18.26
Kane	26.36		
Kankakee	27.52	Average	30.1
Kendall	21.18	Median	27.7
Knox	26.75		
La Salle	30.88		
Lake	24.29		
Lawrence	43.32		
Lee	29.84		
Livingston	25.04		
Logan	34.74		
Macon	24.22		
Macoupin	43.48		
Madison	24.90		
Marion	34.43	Source: Illinois Department of Revenue
Marshall	21.89		

TABLE 1. Coefficient of Dispersion by County, 2012

ranging from 10 percent for single-family residential in newer or more homogeneous areas to 25 percent for vacant land.

COD in Illinois

Statewide, overall assessment uniformity improved from 1980 to 2012, as average county COD dropped from 43.3 % to 30.1%, a 30 percent improvement. (Note: Cook County is excluded from these calculations and is addressed in more detail in the accompanying article.)

Looking more closely at the data for sales between 1980 and 2012, as shown in **Chart 1**, the assessment quality statewide (as measured by average county COD) generally
- worsened during the 1980s,
- improved significantly during the 1990s, and
- deteriorated slightly since.

There are differences by regions within the State. We have separately analyzed the five Collar Counties (DuPage, Kane, Lake, McHenry and Will) from downstate counties, again for the 1980-2012 period.

As indicated in **Chart 2,** assessment uniformity in the five collar counties generally improved for 25 years, but then dropped dramatically as COD jumped up above 1980 levels in the years after the real estate crash in 2008.

As **Chart 3** shows, for the 96 downstate counties, assessment uniformity has generally improved over time as well. There was a decline in assessment quality (in other words, COD levels went up) after the real estate crash, but nowhere near the extent of that in the collar counties.

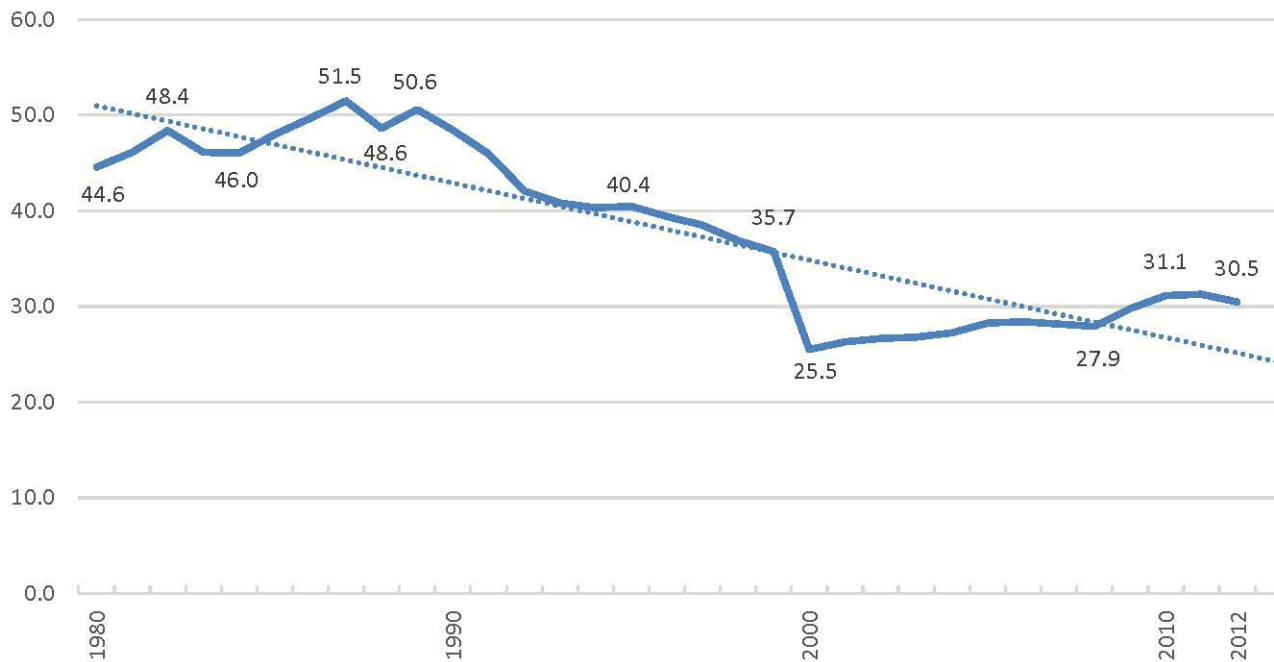**CHART 1. STATEWIDE COUNTY AVERAGE COD**
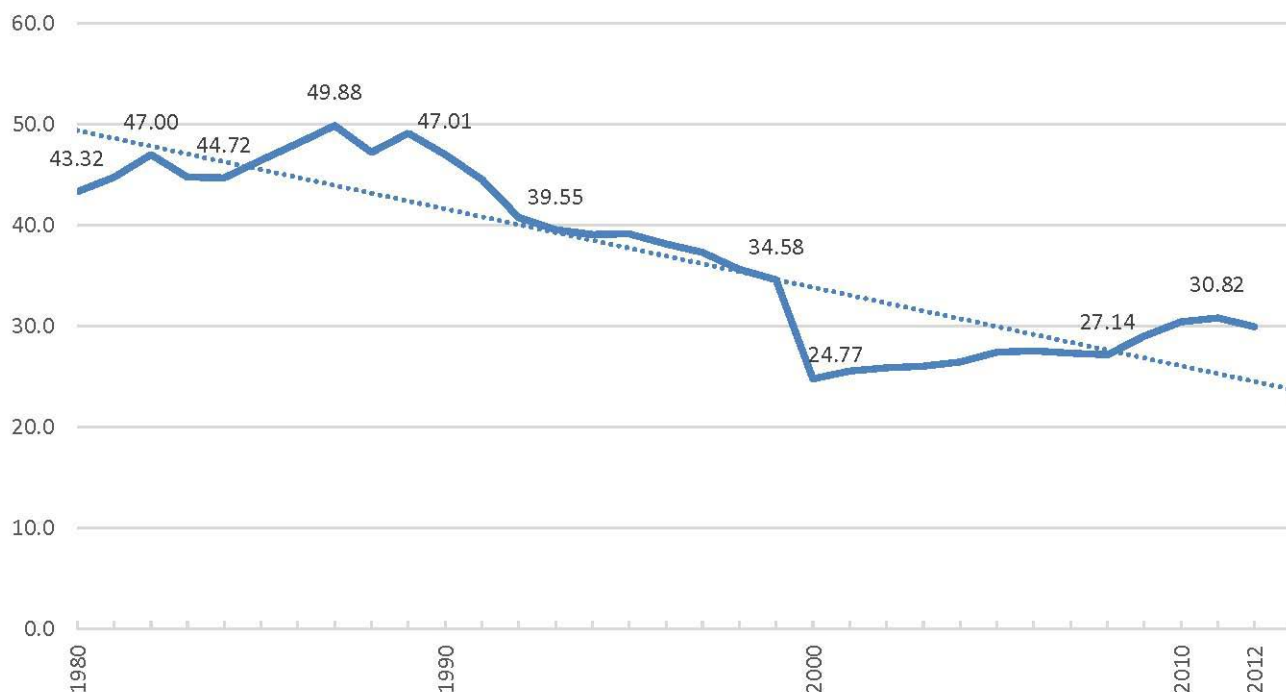
Source: Illinois Department of Revenue

CHART 2. COLLAR COUNTY AVERAGE COD

19.4 20.1 17.6 21.3 15.1 13.9 12.5 10.7 10.9 16.5 22.1

1980   1990   2000   2010 2012
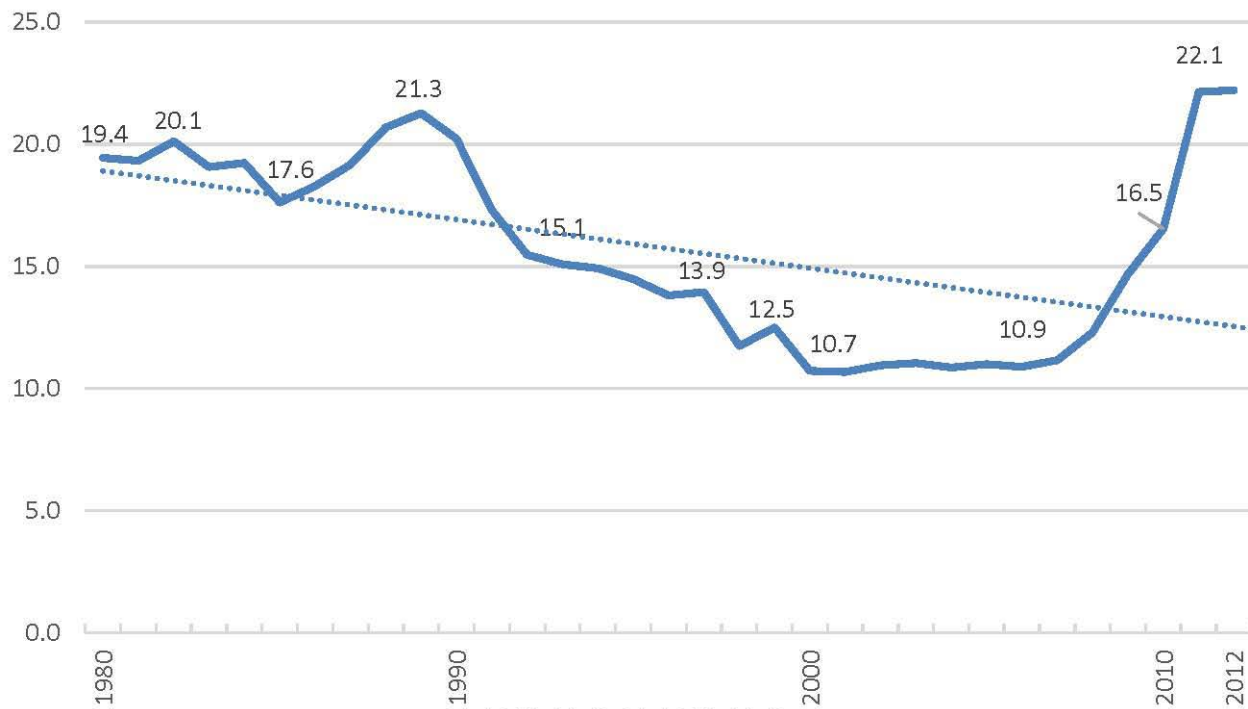
Source: Illinois Department of Revenue

CHART 3. DOWNSTATE AVERAGE COD

44.6 48.4 46.0 51.5 48.6 50.6 40.4 35.7 25.5 27.9 31.1 30.5

1980   1990   2000   2010 2012

Source: Illinois Department of Revenue

Comparing the two regions, assessments were more uniform (had a lower COD) in the collar counties than downstate throughout the period. The more dramatic post-real estate crash change in the collar counties (which is mirrored in Cook County) most likely represents the fact that during the boom property values soared higher in the Collar Counties, leaving them to fall more quickly after the bubble burst. Rapidly-changing market values tend to be associated with a deterioration in assessment quality. Finally, because we are using un-weighted county averages much of the statewide improvement is attributable to increased uniformity in rural, downstate counties, which represent the largest number of counties, although not necessarily the largest property value.

Table 2 shows the percent change in COD for the 20 counties showing the greatest improvement in assessment quality (the most significant decline in CODs) between 1988 and the bursting of the real estate bubble in 2008, the period when uniformity was increasing (and CODs were falling) fastest.

1986 Study

The quality of assessments in Illinois was the subject of a 1986 study conducted for the Taxpayers' Federation by David Chicoine and J. Fred Giertz at the University of Illinois' Institute for Government and Public Affairs, *Property Tax Assessment in Illinois: Structure and Performance.* The study found wide variations in assessment quality and concluded that "assessment quality is unacceptably low in many Illinois jurisdictions," and identified small, rural assessing jurisdictions as the problem.

The study recommended that:
- Coefficient of Dispersion be used as the basic measure of uniformity.
- Smaller assessment jurisdictions be consolidated or contract with larger jurisdictions for services.

TABLE 2. Percentage Change in COD, 1988 - 2008		
RANK	**COUNTY**	**PERCENT CHANGE**
1	Boone	-79.98%
2	Peoria	-75.99%
3	Stark	-73.82%
4	Putnam	-73.79%
5	Knox	-73.68%
6	Brown	-69.21%
7	Henderson	-66.58%
8	Macon	-65.72%
9	Rock Island	-65.38%
10	Lee	-64.63%
11	Crawford	-61.73%
12	Menard	-60.41%
13	Alexander	-58.37%
14	Richland	-56.87%
15	McHenry	-55.52%
16	Bureau	-55.36%
17	Tazewell	-55.08%
18	Whiteside	-54.87%
19	Sangamon	-54.65%
20	Washington	-53.91%
Source: Illinois Department of Revenue		

- The professional education program be enhanced.
- Enhanced state bonuses be enacted for meeting certain standards of uniformity.
- The status and attention given property tax by the Department of Revenue be elevated.
- The state initiate a state-sponsored program to computerize and standardize assessment in all counties.
- The Department of Revenue establish an integrated assessment-management system.

The study also identified, but did not recommend, more extreme measures that could be considered, including the rejection of assessments that are non-uniform and a requirement they be corrected before taxes can be collected, that assessing jurisdictions with unacceptable CODs be placed in receivership, or that taxpayers be encouraged to use non-uniformity to challenge their assessments. Few of their recommendations were implemented.

State Role

The Department of Revenue supports local assessors by teaching courses, administering an education program and conducting examinations for various local assessment officials. State law establishes minimum education standards that local assessors must meet before being appointed or elected, and the Department administers those programs. It also pays stipends and bonuses to assessing officials who meet certain criteria. During the period examined, the Department of Revenue standardized education requirements, tweaked criteria for assessor bonuses, and championed legislation requiring assessors to meet criteria before they could run for election.

Assessors' Views

Assessing officials attribute the increased uniformity (lower CODs) to improved use of tools and increased automation of the process to better utilize data. Mark Armstrong, Kane County Supervisor of Assessments and chairman of the legislative committee for the Chief County Assessment Officers' (CCAO) Association, said his predecessor had provided computer assisted appraisal software to township assessors. Armstrong said that when he started appraising

Coefficient of Dispersion, Explained

To understand the Coefficient of Dispersion and what it measures, let's take two hypothetical taxing jurisdictions, Jurisdiction A and Jurisdiction B, as illustrated in **Table A** and graphed in **Chart A** and **Chart B**. Table A shows five identical houses that sell for (our proxy for value), respectively:

House A	$120,000
House B	$150,000
House C	$180,000
House D	$210,000
House E	$300,000

Table A also shows the assessed value for each house in the two jurisdictions.

On initial view the districts seem the same. Both have a median level of assessment of 33 1/3 percent (The median is the middle point of the ratio of assessment to selling price; in both jurisdictions the midpoint is House C, which is assessed at $60,000 and is valued at – i.e. sells for – $180,000.) The median level is shown as the dotted line on Charts A and B. Each jurisdiction has the same taxable value, $330,000. Jurisdiction A and Jurisdiction B have identical overall levels of assessment and identical total taxable value.

However, Jurisdiction A assesses property more uniformly than Jurisdiction B. The effect of uniformity in assessments shows on Charts A and B, where the assessment for each property has been graphed against the sales price with the median level shown as the dotted line. In Jurisdiction A, House A is $7,000, or 17.5 percent, above the median; in Jurisdiction B, House A is $20,000, or 50 percent, above the median.

The coefficient of dispersion is the average distance from the point on the graph to the median line (the "correct" assessment), without regard to whether the point is above or below the median. The COD measures how closely the individual data points track to the median. The lower the COD, the closer the points are to the median and the more uniform the assessments.

Jurisdiction A has a COD of 10, which means that on average each of the five transactions' sales prices is 10 percent from the median assessment level. Jurisdiction B has a higher COD of 30 percent. A 10 percent COD is a good one, while the 30 percent COD is closer to the statewide county average.

In a real-world example, there would be many more sales, but the results would look similar to those shown on graphs in Charts A and B. A jurisdiction with a lower COD would be reflected as points more closely clustered around the median, while a higher COD would show points more widely scattered.

Remembering that we started with identical jurisdictions with identical median levels of assessment and identical taxable values, Table A shows the importance of uniform assessments. In Jurisdiction A, with one exception (House A and House B), the higher the value of the house the higher the assessment (and property tax bill). In Jurisdiction B, House A is paying more or the same property tax than Houses B, C and D which are more valuable. And House C is paying significantly more tax than House D, even though it is worth less.

When homeowners get their property tax bills and compare them to their neighbors', those in Jurisdiction B would have a far easier time of making an argument that their property tax was unfair.

TABLE A. Coefficient of Dispersion Examples

	HOME VALUE	ASSESSED VALUE JURISDICTION A	ASSESSED VALUE JURISDICTION B
A	$120,000	$47,000	$60,000
B	$150,000	$46,000	$36,000
C	$180,000	$60,000	$60,000
D	$210,000	$63,000	$41,000
E	$300,000	$114,000	$133,000
TOTAL		$330,000	$330,000

Source: Compiled by Author

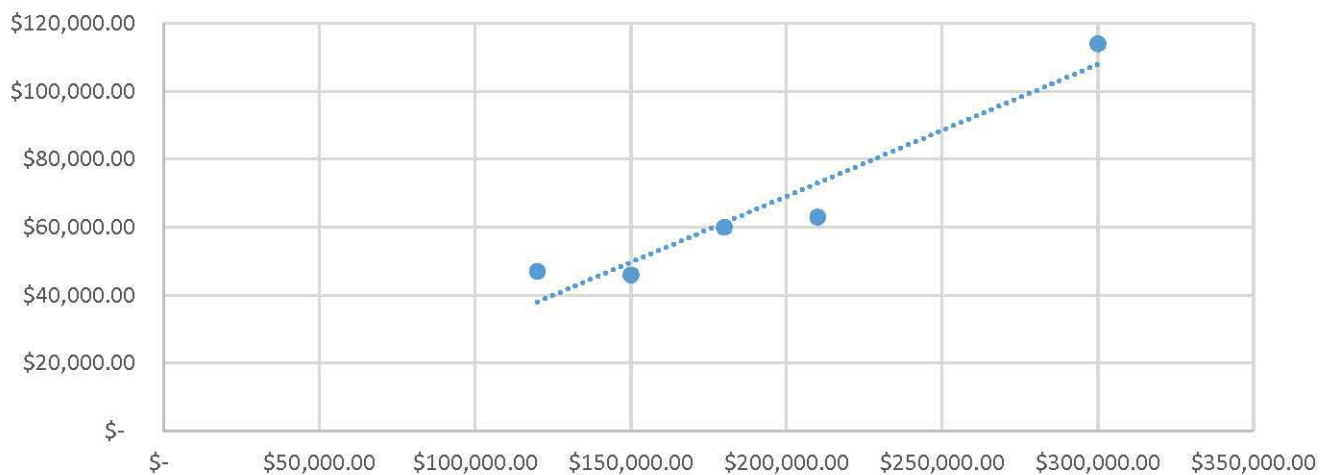### CHART A. JURISDICTION A - 10 PERCENT COD

CHART B. JURISDICTION - 30 PERCENT COD

in the mid-1980s, township assessors had hand written property record cards, while today they have computerized records and have learned how to use that data. Wendy Ryerson, Lee County Supervisor of Assessments, similarly credits the transition from hand recorded data to a centralized database for improvements in her county. Larry Wilson, Rock Island County Supervisor of Assessments and CCAO Association president, says the inclusion of what are called "compulsory sales," the sale by a bank after a foreclosure, have affected CODs (foreclosures are excluded from the IDOR study). And Armstrong predicts that after the current disarray in the markets settles down that CODs will again begin to improve.

Conclusion

Until the real estate bubble burst in about 2008, the uniformity of Illinois assessments had been moving in the right direction. Much of the improvement was in the downstate counties (although assessments were and remain more uniform in the metropolitan area in northeastern Illinois), in areas identified by Chicoine and Giertz 20 years before as having unacceptably low assessment quality. The "post-crash" decline in uniformity reflects large numbers of foreclosures that flooded the market, reducing property values and generally unsettling the market. Uniform assessments remain the key to a "fair" property tax system and deserve to be given attention.

Assessment Uniformity in Cook County

By Rob Ross

Rob Ross, a Masters Student on Public Policy at the University of Chicago, received his MA in Economics from the University of Illinois. His research focuses on public finance.

Introduction

"The County Assessor thinks my house is worth *how much!? That's nuts!"* Many people believe that increasing housing values lead to increasing property taxes, and so taxpayers are very sensitive to the county assessors' estimate of their property value. Most homeowners have, at some point, felt that their county assessors' estimate of their property value was inaccurate.

It is not necessarily the case that an increase in a property's assessed value will result in an increase in that property's taxes. A property's value *relative to the value of the tax base* is what determines that property's property tax bill in a revenue neutral environment. *Uniformity* of assessments matters far more to property taxes than does *accuracy*.

This paper measures and summarizes uniformity in property taxes in Cook County from 1990 to 2011. We show that assessment uniformity has remained relatively stable until 2008, when assessment quality declined significantly. We suppose that this is due to extreme volatility in the post-bubble housing market.

This article should not be taken as a criticism of Cook County assessment practices. We would have been very surprised to find that the housing bubble had no impact on assessment uniformity. Property assessment is a difficult task in even the best economic conditions, and nearly impossible to do well in a market that moves in unpredictable ways. Instead, this article should be read as an examination of the impact of instability in housing prices on the government's property tax revenue collection structure.

Why does uniformity matter more than accuracy?

Consider a hypothetical property tax district with two homes, A & B. The district raises $100 per year, and each home is worth the same amount of money, with the same assessed values, A & B. In this scenario, the two properties would split the tax burden equally between them because their assessed values are the same.[1] It would not matter whether their county assessor's estimates of their home values were *accurate;* if their assessments were two, three, or one hundred times their "accurate" value, the

homes' share of the total tax burden would still be 50% apiece.

Now suppose that the assessor estimates A's property value as 105% that of B's property value. In this case, property A would experience an increase in their taxes, *and property B would experience a decrease in their taxes*, such that A's taxes are 5% higher than B's. This is so because A & B's shares of the total tax burden changes, because their values relative to the value of the tax base changed.

The relevant measure of assessment quality, then, is not whether the assessor's estimate of a home's value is *accurate*, but whether his or her estimates are *uniform* across all homes. Suppose that estimates are perfectly uniform and totally inaccurate, such that the assessor regularly estimates homes at three times their fair market values. This would have no bearing on these homes' tax bills, so long as the assessor *uniformly* misestimates homes.

The "Coefficient of Dispersion" measures the uniformity of assessments in a property taxing district. The exact formula is laid out in the mathematical appendix on page 14. A COD of zero indicates perfectly uniform assessments. A COD of zero, however, is not realistically achievable. While COD has no upper limit, it is generally accepted among assessors that a COD of 0.10, or 10%, indicates "high quality" assessments.

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[1] Taxes for A = [A/(A+B)]*100=50. Taxes for B=[B/(A+B)]*100=50

Data

Our data comes from the Cook County Assessors' Office, and includes the sale price and assessed value of every property sold in the county from 1991 to 2011. Our sample includes 522,588 residential property[2] sales with a median home value of $178,000 and a mean of $250,000. From this information, we can calculate each property's COD, and the average COD in Cook County. This is not an exhaustive record of property sales in the county; due to data limitations, we can only use sales of properties which existed in 2011 (not sales in 2011, but sales in any year between 1991 and 2011 of properties which still existed in 2011). That is, if a building sold in 2005, but was converted and no longer had the same Property Identification Number in 2011, its sale would not be in our data. This does not, however, pose a problem for the analysis which follows.

Statistics

Chart 1 shows the average assessment ratio in Cook County on the primary vertical axis, and the

CHART 1. Assessment Ratios in Cook County, IL
Interquartile range and median shown
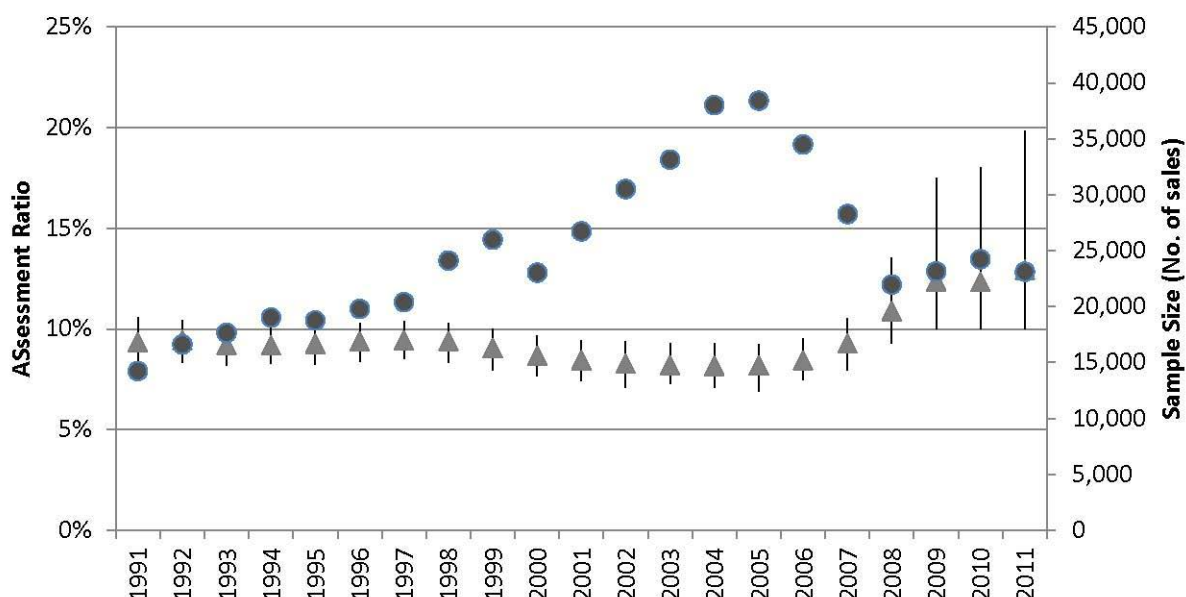
number of home sales in each year on the secondary vertical axis.

The housing bubble is evident in the sample sizes, as is the collapse of the bubble. We can see that the volume of the housing market increased dramatically until about 2006, at which point it collapsed spectacularly.

Until about 2007, the County Assessor maintained a consistent mean assessment ratio of just under 10%. But during the collapse of the housing market, that mean ratio increased to 14%, and the standard deviation more than doubled. In other words, as the housing market dropped, so did assessment quality.

## Does assessment quality vary by zip code?

If the strong decline in assessment quality is caused by the tumult in the housing market, there should be significant differences in

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[2] Classes 200 through 210, 213, 225, 234, 236, 278, 290, 295, 297, 299, 313, and 913.

assessment quality across regions. Specifically, areas that experienced larger changes in local housing values across the bubble period will have less uniform assessments. Indeed, we observe this across zip codes in Chicago alone.[3] In neighborhoods including River North, Hyde Park, and along the north shore of Lake Michigan, COD figures are greater than 70%. We also observe this in Near West Side neighborhoods and on the far south side, indicating significant turbulence in the housing market there as well.

Coefficient of Dispersion for Chicago Zip Codes, 2008 - 2011

COD
- 68% - 93%
- 50% - 68%
- 31% - 50%
- 10% - 31%
- Insufficient Data

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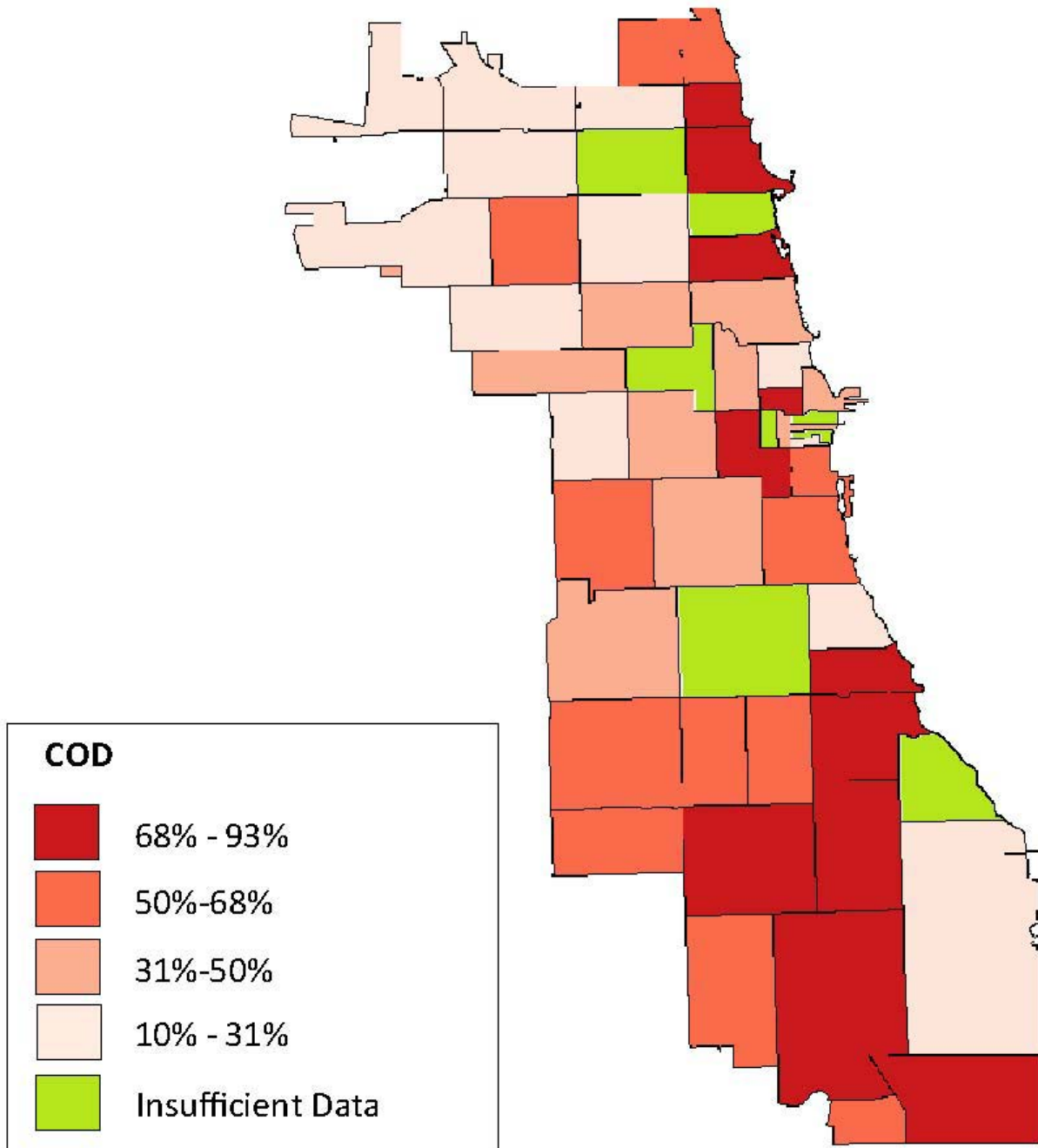
[3] Here we have a sample of 66,735 property sales between 2008 and 2012. Zip codes with less than 30 sales during the period were dropped from the analysis due to an insufficient number of sales.

Some of the disruption in the housing market was caused by real estate speculation, and some was caused by a large increase in the foreclosure rate. We do not have data to determine where, and the extent to which, these factors influence assessment quality.

Conclusion

Property assessment is a statistical exercise. As such, it bases its predictions of housing values on past housing values, and cannot anticipate radical changes in the housing market. The 2008 housing bubble has introduced a lot of unpredictable variation in housing values, and assessment quality has suffered as a result. It may be a few more years yet before assessors are able to adjust their estimates to improve quality again.

Math Appendix

The coefficient of dispersion for any property p in total I properties sold in any year is given by

$$COD = \frac{\left(\sum_{p=1}^{I}\left|(A_p/P_p) - \sum_{i=1}^{I}(A_i/P_i)/I\right|\right)/I}{\sum_{i=1}^{I}(A_i/P_i)/I}$$

Where A is the property's assessment in the year that the property was sold and P is the sale price of the property. The numerator is

$$\left(A_p/P_p\right) = \frac{Assessment\ in\ year\ of\ sale}{Sale\ price\ of\ property} \equiv Assessment\ Ratio$$

$$\sum_{i=1}^{I}(A_i/P_i)/I \equiv Average\ assessment\ ratio\ for\ all\ properties\ sold\ in\ a\ given\ year$$

$$\frac{\left(\sum_{p=1}^{I}\left|\left(\frac{A_p}{P_p}\right) - \sum_{i=1}^{I}\frac{\left(\frac{A_i}{P_i}\right)}{I}\right|\right)}{I} \equiv Average\ Absolute\ Deviation\ (AAD),$$

$i.e.\ absolute\ difference\ between\ property\ p's\ assessment\ ratio\ and\ the\ avera\ assessment\ ratio\ in\ that\ year$

Example

Suppose you have two properties in a district, A and B, which are both sold for $100,000 in the same year. If the assessor estimated the value of A at $110,000 and B at $90,000, the COD for this two-property district would be calculated

$$COD = \frac{\sum_{p=1}^{2}\left|(A_p/P_p) - \sum_{i=1}^{2}(A_i/P_i)/I\right|}{\sum_{i=1}^{2}(A_i/P_i)/I} = \left(\frac{\left|\left(\frac{110}{100}\right) - \frac{\left(\frac{110}{100} + \frac{90}{100}\right)}{2}\right|}{\left(\frac{110}{100} + \frac{90}{100}\right)/2} + \frac{\left|\left(\frac{90}{100}\right) - \frac{\left(\frac{110}{100} + \frac{90}{100}\right)}{2}\right|}{\left(\frac{110}{100} + \frac{90}{100}\right)/2}\right)/2 = \left(\frac{|1.10-1|}{1} + \frac{|.90-1|}{1}\right)/2 =$$

$$\left(\frac{.1}{1} + \frac{.1}{1}\right)/2 = 10\%$$

A COD of 10% or less is considered to reflect a relatively high level of equity across taxpayers' assessments.
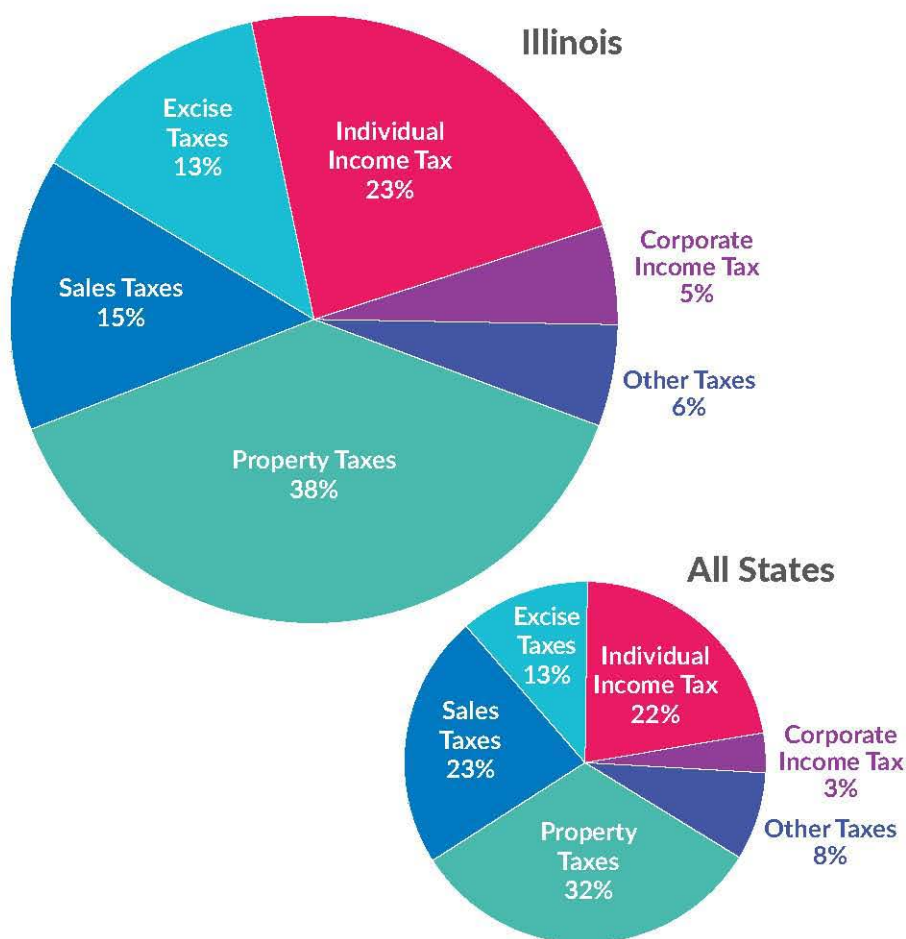
Illinois Illustrated, a Visual Guide to Taxes and the Economy

Earlier this year the Taxpayers' Federation of Illinois, through our affiliate, the Illinois Fiscal Policy Council, and the Washington, D.C.-based Tax Foundation jointly published a new chartbook, called *Illinois Illustrated*. Taxes are complicated, but we hope the user-friendly charts and graphs contained in the book will help add a little clarity.

A sampling of the pages from this new resource follows, and future issues of *Tax Facts* are likely to contain more. The book in its entirety is available on both groups' websites: iltaxwatch.org and taxfoundation.org. Or, contact TFI if you would like a hard copy.

Compared to the Entire U.S., Illinois Relies More on Property Taxes, Less on Sales Taxes

Percent of Total Combined State and Local Tax Collections by Tax Type, Illinois and U.S. (2012)

Illinois

- Excise Taxes 13%
- Individual Income Tax 23%
- Corporate Income Tax 5%
- Other Taxes 6%
- Property Taxes 38%
- Sales Taxes 15%

All States

- Excise Taxes 13%
- Individual Income Tax 22%
- Corporate Income Tax 3%
- Other Taxes 8%
- Property Taxes 32%
- Sales Taxes 23%

Illinois obtained the largest share of state and local combined collections in 2012 from property taxes (38 percent of total), followed by individual income taxes (23 percent) and general sales taxes (15 percent). The Illinois property tax share is higher than the U.S. average, and the sales tax share is lower. Corporate income taxes make up the smallest share of collections in both Illinois and the U.S. as a whole, although Illinois relies on them a slightly more than other states.

Note: Percentages may not add to 100 due to rounding.
Source: Census Bureau, *State and Local Government Finances.*

CHAPTER 2 | 13

Corporate Income Taxes Are Illinois' Most Volatile State Tax

Annual Percent Change in Illinois' State Tax Collections by Tax Type (1978-2012)


Revenue stability over the business cycle is an important facet of state tax policy. Different types of taxes react differently to changes in the economy. In Illinois, corporate income taxes fluctuate the most, followed by individual income and sales taxes.

Businesses Don't Just Pay Corporate Income Taxes

## Illinois' Total State and Local Business Tax Liability by Tax Type (FY 2013)
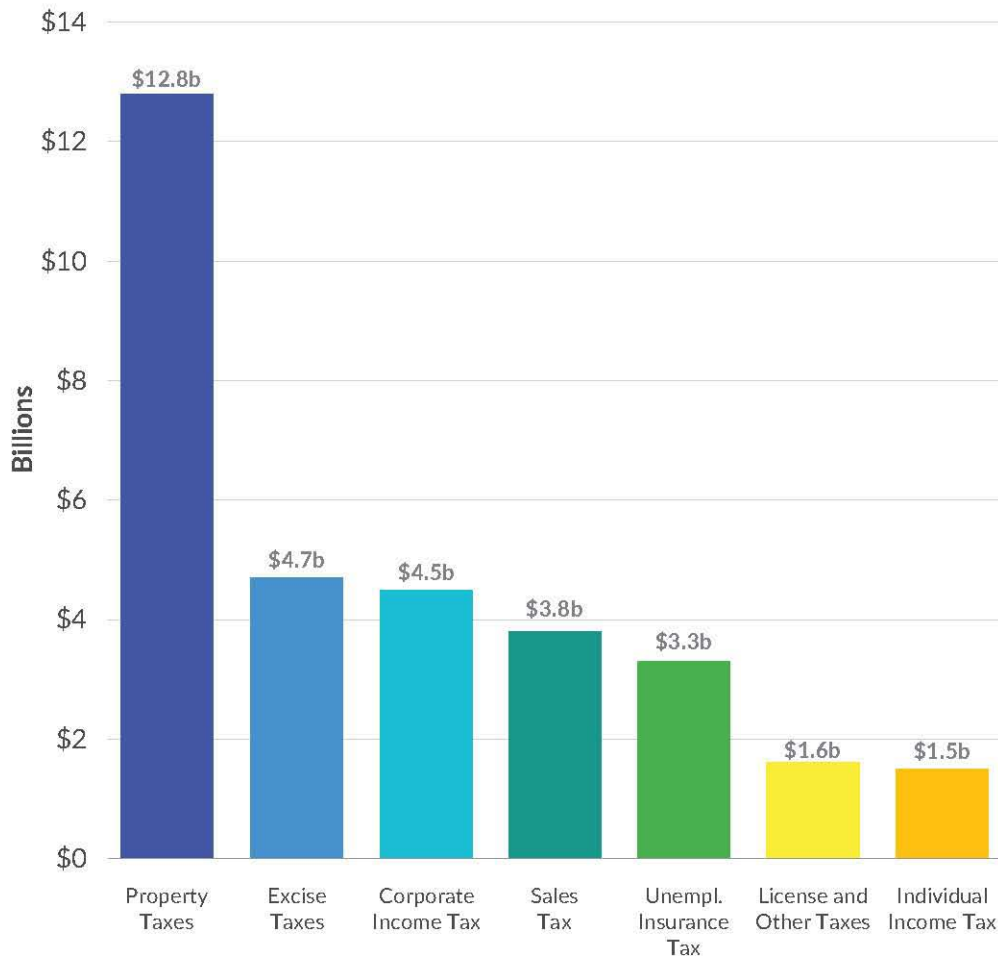
A common misconception is that corporate income taxes are the only tax cost for businesses. However, businesses pay a number of other taxes, including property taxes on real estate, sales taxes on the goods they use, and individual income taxes on business income (if they're pass-through entities that file through the individual income tax code rather than the corporate income tax code).

Overall, Illinois businesses paid $32.3 billion in taxes in 2013, with the largest portion going to property taxes.

Billions

- Property Taxes: $12.8b
- Excise Taxes: $4.7b
- Corporate Income Tax: $4.5b
- Sales Tax: $3.8b
- Unempl. Insurance Tax: $3.3b
- License and Other Taxes: $1.6b
- Individual Income Tax: $1.5b

Illinois' Sales Tax Applies to Less and Less of the Economy

Illinois' Sales Tax Breadth (1970-2013)
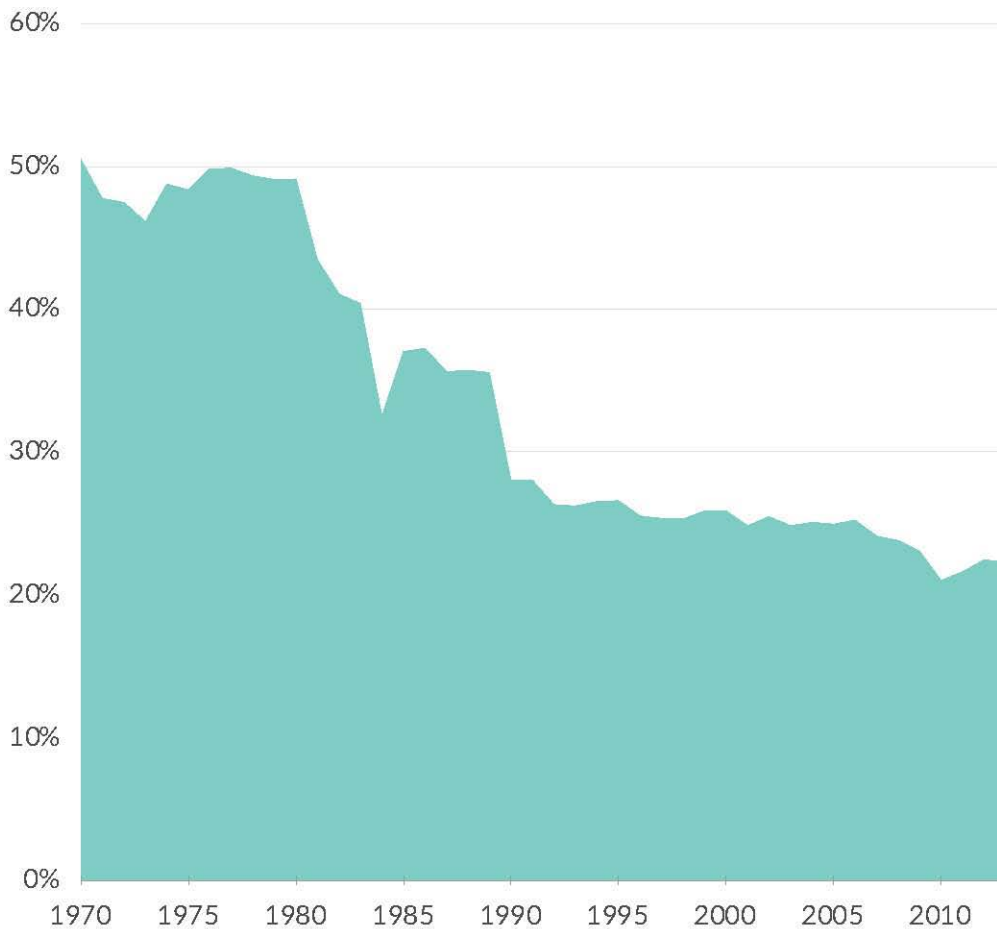
An ideal sales tax is one that is levied on all final consumer purchases. By taxing a large number of transactions, the rate can be kept low and still raise sufficient revenue.

When sales taxes were created in the 1930s, they were levied on tangible goods, which at the time were a large part of the overall economy. However, the economy has become more service based since then. As a result, the sales tax is not nearly as productive. Further, by failing to tax consumer services, the sales tax inherently favors the services sector of the economy over the goods sector.

Note: Sales tax breadth is defined as the ratio of the implicit sales tax base to state personal income.
Source: Professor John Mikesell (Indiana University).

Residential Effective Property Tax Rates Vary Widely among Counties

Aggregate Real Estate Taxes Paid as a Percent of Aggregate Housing Value of Owner-Occupied Housing Units (5-Year Estimate, 2009-2013)

2.61%

0.84%
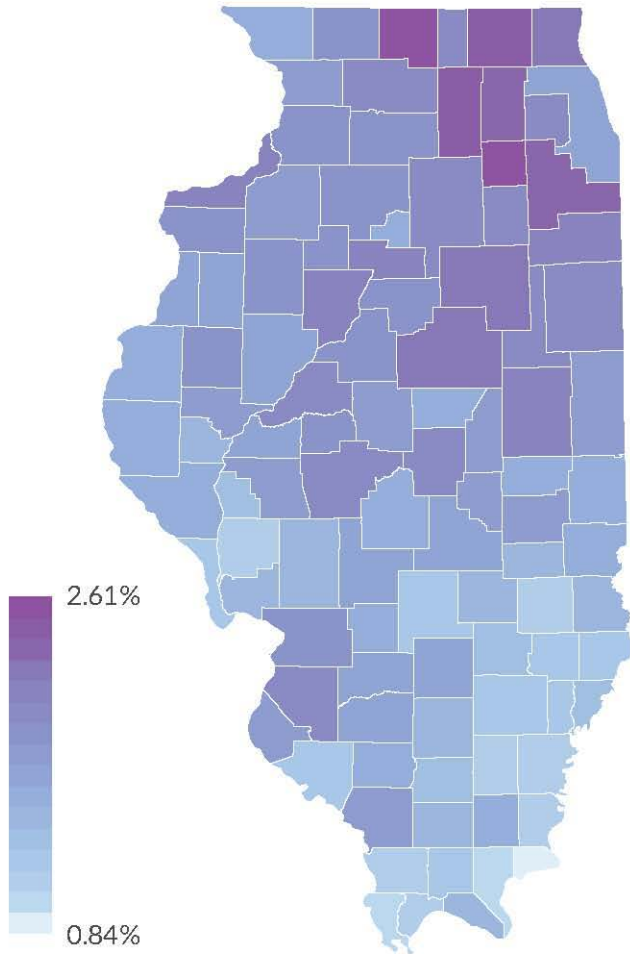
On average, the residential effective property tax rate in Illinois (using a five year average from 2009 to 2013) was 1.92 percent, though county-specific values vary around this mean. The highest residential effective rate occurred in Kendall County at 2.61 percent, while the lowest was in Hardin County at 0.84 percent. Cook County, the home of metropolitan Chicago, had an effective property tax rate of 1.68 percent.

Within a county, individual homeowners' effective rates may differ from these county averages. For example, a home in Cook County could have drastically different effective property tax rates depending on where it sits—a recent study found that a $250,000 home in Chicago in 2010 had an effective property tax rate of 1.28 percent, while a home with the same market value in Park Forest (also in Cook County) had an effective rate of 5.68 percent.

It's important to note than an effective property tax rate is not the same as the millage rate (that is, the statutory property tax rate levied by a local government).

Note: "Residential Effective Property Tax Rate" is calculated by dividing the total real estate (property) taxes paid in a county by the county's total housing value (owner-occupied units only). The *American Community Survey* data used here is based on 5-year estimates (2009 to 2013). This data does not include commercial property.

Source: Census Bureau, *American Community Survey*; Taxpayers' Federation of Illinois, *Tax Facts*, Volume 66, No. 3 (Summer 2013).

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