

R Users Meetup March 29, 2018



ABOUT STAFF P

#### THE TAX DIVIDE

Inequities and Errors Riddle Cook County's Property Tax Assessments

For years, the Cook County assessor's office overvalued low-priced properties while undervaluing high-priced ones. The deeply flawed system led to inequities in property taxes, punishing the poor and small business owners, while giving the wealthy unsanctioned tax breaks and lining the pockets of politically connected tax attorneys. Our series of stories is in partnership with the Chicago Tribune.

#### **FEATURED**



## How the Cook County Assessor Failed Taxpayers

Joseph Berrios' error-ridden commercial and industrial assessments punish property owners, benefit lawyers.

by Jason Grotto and Sandhya Kambhampati, Dec. 7, 2017, 5 a.m. CST

## Our work

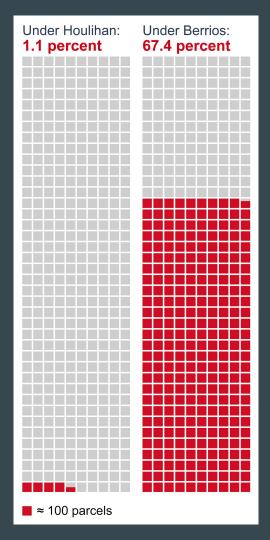
## Overview: what we found

- Long history of misinformation, lack of transparency and flawed assessments
- Cook County assessments are highly regressive
  - First-pass values did not change over multiple reassessments
  - High rate of errors that far exceed industry standards (overvaluing low price properties while undervaluing higher priced ones)
  - Assessments remained error-ridden even after appeals process was complete
  - Politically connected tax attorneys benefit from how the Cook County Assessor's office does
     it's job

# What we found: commercial properties

Duplicate values over multiple reassessment periods.

**Nearly 70 percent** of commercial and industrial parcels had identical initial valuations over two reassessments.

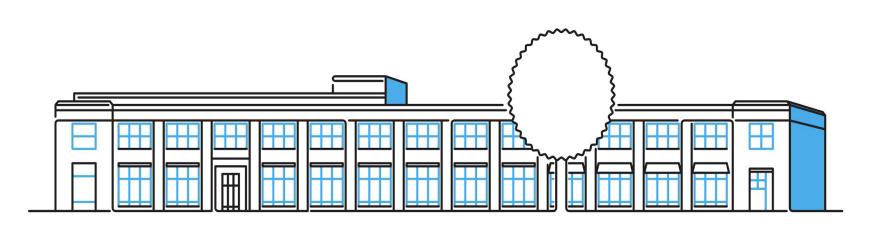


## How we did that:

Aggregated the data by year and flagged the data where it was similar during reassessment years ('09, '12, '15)

pin	2009	2012	2015
09253280300000	15901	15901	15901
09254070280000	61432	61432	61432
09254070290000	90671	90671	90671
09363040040000	11557	11557	11557
09363040050000	267701	267701	267701
09363310120000	28928	28928	28928
09363310130000	96027	96027	96027
09364000100000	108000	108000	108000
09364000150000	221875	221875	221875
09364080160000	33128	33128	33128
09364080170000	33215	33215	33215
09364090100000	185501	185501	185501
09364090110000	98870	98870	98870
09364090120000	72905	72905	72905
09364160010000	239135	239135	239135
09364160100000	26049	26049	26049
09364160310000	84721	84721	84721
09364160340000	67682	67682	67682

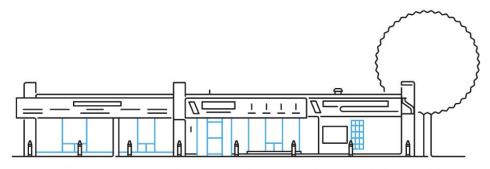
## A prime example



#### 2700 N. ELSTON AVE.

2009, 2012 and 2015 Assessor First-Pass Value: \$13,455,132

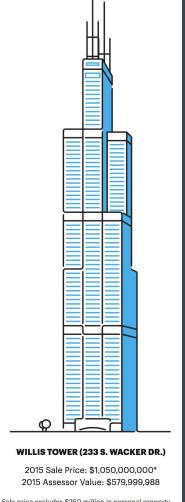
## Small businesses hurt while the wealthy get a break



**SWEET PEA ACADEMY (1412 W. 87TH ST.)** 

2015 Sale Price: \$205,000

2015 Assessor Value: \$324,700



\* Sale price excludes \$250 million in personal property.

## Statistics: indicate how well the tax burden is distributed

COD: Coefficient of dispersion; measures the distribution of the ratios relative to the median and produces a score that approximates the average percentage error

Standards: Should be around 20

Our findings: 98

PRD: Price-related differential; measures regressivity or "vertical" inequities

Standards: fall between 0.98 and 1.03

Our findings: 1.85

## What is regressivity and why is it important?

Sales ratios are key to understanding fairness and accuracy.

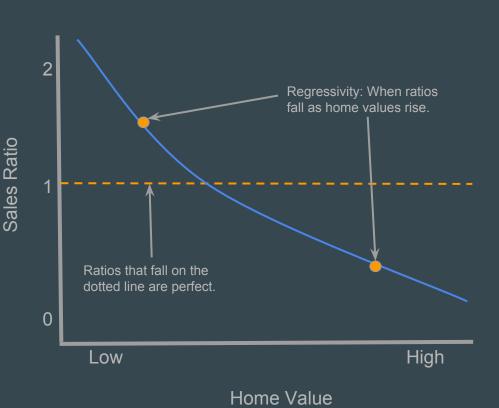
Assessor's value / Sale price = Sales ratio

#### Overvalued:

\$300,000 / \$200,000 = 1.5

#### Undervalued:

\$500,000 / \$1,000,000 = **0.5** 



## How we did that:

First, we created a list of arm's length property sales in Cook County between 2011-2015 & checked the data for sales between relatives or related parties.

1	J	K	L	N
ZipCode	ParcelCount	County	SellerName	BuyerName
60639	1	16	5234 W DIVERSEY AVE SERIES SEBAL LL	5234 W DIVERSEY LLC
60647	2	16	2215-25 W WABANSIA LLC	2215 WABANSIA LLC
60647	1	16	2023 W FULLERTON LLC	FULLERTON 2023 LLC
60439	1	16	MILAN & ELAIH LAKETA	MARK & MILAN & ELAINE LAKETA
60162	4	16	CHICAGO TITLE LAND TRUST CO TR 0000	CHICAOG TITLE LAND TRUST CO TR 0000
60625	2	16	5352 LINCOLN LLC	5352 LINCOLN SQUARE LLC

## How we did that:

```
# Run summary stats for the cut by variable
## By deed year
results_borsumscut_deeds_flags<- arrange(ddply(ptax_bor_sums_flags_cut, "DeedYear", function(y)
  c(N = nrow(y),
   mv sum = sum(y$basefinalsums),
    netcon = sum(y$NetConsideration),
    median_sales = round(median(y$bor_valratio), 3),
    median ass = round(median(y$bor assratio), 3),
    mad = round(mad(y$bor_valratio), 2),
    mean = round(mean(y$bor_valratio), 2),
   weighted = round(weighted.mean(y$bor valratio, y$NetConsideration), 2),
    prd = round(mean(y$bor_valratio/weighted.mean(y$bor_valratio, y$NetConsideration)), 2),
    cod = round(((sum(abs((median(y$bor valratio) - y$bor valratio)))/nrow(y))/median(y$bor valratio)) * 100)
  )), desc(DeedYear))
```

We also found politically connected tax attorneys benefit from how the Cook County Assessor's office does it's job

#### 10 Law Firms Do Big Business in Assessment Appeals

A ProPublica Illinois-Chicago Tribune analysis of appeals data from the Cook County assessor's office found that the firm of Madigan & Getzendanner dominates the market for commercial and industrial appeals in Cook County. Between 2011 and 2016, the firm filed appeals on properties that were initially assessed at nearly \$8.6 billion. That is nearly \$1 billion more than the second-place firm, Crane and Norcross.

Law firm	Total value appealed (assessor initial value)	Reductions granted by the assessor	Reduction rate	Number of parcels appealed
Madigan &	\$8.6B	\$1.7B	20%	4,283
Getzendanner				
Crane and Norcross	\$7.9B	\$1.8B	23%	16,611
O'Keefe Lyons & Hynes	\$5.0B	\$851.3M	17%	4,485
Klafter & Burke	\$4.7B	\$864.9M	18%	9,526
Worsek & Vihon	\$3.0B	\$784.5M	26%	6,078
Eugene L. Griffin & Associates	\$2.9B	\$618.8M	21%	4,693
Thomas M. Tully & Associates	\$2.9B	\$756.4M	26%	4,273
Liston & Tsantilis	\$2.8B	\$725.2M	26%	7,675
Mayer Brown	\$2.2B	\$439.2M	20%	1,265
Sarnoff & Baccash	\$2.1B	\$555.2M	26%	7,865

Note: Appeals data from the assessor's office represents the best available means of estimating these law firms' volume of business. The analysis examined each appeal, sought to identify the attorney and firm that filed it, and calculated the reduction granted by the assessor.

Source: ProPublica Illinois-Chicago Tribune analysis of Cook County assessor's office appeals data

Credit: Sandhya Kambhampati, ProPublica Illinois

We got a CSV from the assessor's office of every tax firm that filed an appeal in Cook County between 2003-2016. There were 3.8 million rows of data—with lots of typos.

name	name-clean
Jess R. Hall	Jess R Hall
ARTURO SALINAS	Arturo Salinas
vanessa martinez perez	Vanessa Martinez Perez
LISA A MARINO	Lisa A. Marino
STANLEY J JANOTA JR	Stanley J. Janota Jr.
GEORGE N REVELIOTIS	George N. Reveliotis
MCCRAKEN MCCKN BEHRENS	McCraken, McCraken, Behrens

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"fromError": false.
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  "Arthur Mary Velez",
 "Arthur & Mary Velez",
  "Arthur / Mary Velez",
  "Arthur Mary Velez"
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"to": "Mako Properties Inc."
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 "William J Davy---",
 "William J. Davy",
  "William J. Davv"
"to": "William J. Davy"
```

Then we verified each name by visiting the LinkedIn accounts and company websites for 4,969 attorneys in Chicago, as well as did other research.

		Q Search history	
10:13 AM	G	Attorney Richard D. Worsek, Worsek & Vihon LLP, Chicago, Illinois www.google.com	:
10:02 AM		Ad Valorem Tax Attorneys Worsek & Vihon LLP Chicago, Illinois www.wvpc.com	:
10:02 AM		Worsek & Vihon LLP Ad Valorem Property Taxation and General Real Estate Matters www.wvpc.com	:
9:53 AM	KB	Klafter & Burke www.klafterandburke.com	:
9:53 AM	KB	Klafter & Burke www.klafterandburke.com	:
9:53 AM	KB	Klafter & Burke www.klafterandburke.com	:
9:52 AM	G	William J. Seitz, Attorney At Law - Google Search www.google.com	:
9:51 AM	G	Worsek & Vihon - Google Search www.google.com	:
9:51 AM	G	Klafter & Burke - Google Search www.google.com	:
9:49 AM		Crane & Norcross - Law Profile in Chicago, Illinois (IL) Cook County - legaldirectories.com www.legaldirectories.com	:
9:49 AM	G	crane & norcross - Google Search www.google.com	:
9:48 AM	G	Richard D. Worsek - Google Search www.google.com	:
9:48 AM	G	Jacques F. Heilingoetter - Google Search www.google.com	:
9:48 AM		William P. Colson   Finkel, Martwick & Colson, PC. www.fmctaxlaw.com	:
9:48 AM	G	William P. Colson   Finkel, Martwick & Colson, PC. www.google.com	:
9:47 AM	G	William P. Colson - Google Search www.google.com	:
9:46 AM	G	james R. Fortcamp - Google Search www.google.com	:
9:46 AM	G	ames R. Fortcamp - Google Search www.google.com	:
9:44 AM	G	Jerrold H. Mayster - Google Search www.google.com	:
9:44 AM	NO.	BBB Business Profile   Jerrold H Mayster Ltd www.bbb.org	:

## Whitepaper done in R

properties.

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title: "How We Analyzed Commercial and Industrial Property Assessments in Chicago and Cook County"
author: Sandhya Kambhampati & Jason Grotto
subtitle: An in-depth analysis of hundreds of thousands of property tax records under Cook County Assessor Joseph Berrios
date: "December 7, 2017"
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 word document: default
 html document:
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## Introduction
*Alongside this analysis, please also see the
[investigation](https://features.propublica.org/the-tax-divide/cook-county-commercial-and-industrial-property-tax-assessment
s/). See the [ProPublica Data Store](https://www.propublica.org/datastore/dataset/cook-county-commercial-property-tax-assess
ments) to download the data behind this analysis and the [code](https://github.com/propublica/propertyassessments) used to
analyze the data.*
Property tax assessments in Cook County have long been a source of controversy, especially for commercial and industrial
```

To better understand the fairness and accuracy of Cook County's commercial and industrial assessments and the relationship

of those assessments to appeals, ProPublica Illinois and the Chicago Tribune conducted three separate analyses:

## Final product PDF



#### How We Analyzed Commercial and Industrial Property Assessments in Chicago and Cook County

An in-depth analysis of hundreds of thousands of property tax records under Cook County Assessor Joseph Berrios

> Sandhya Kambhampati & Jason Grotto December 7, 2017

#### Introduction

Alongside this analysis, please also see the investigation. See the ProPublica Data Store to download the data behind this analysis and the code used to analyze the data.

Property tax assessments in Cook County have long been a source of controversy, especially for commercial and industrial properties.

To better understand the fairness and accuracy of Cook County's commercial and industrial assessments and the relationship of those assessments to appeals, ProPublica Illinois and the Chicago Tribune conducted three separate analyses:

- An examination of the assessor's initial valuations known as first-pass values to determine how
  many stayed the same over multiple reassessment periods.
- Sales ratios studies, which compared the assessor's first-pass values to actual sales prices.
- An analysis of the number of appeals filed, the amount of reductions granted and which law firms
  represented the largest share of the market for commercial and industrial appeals in Cook County,
  based on the combined value of assessments they appealed.

## Seven months later, assessor forced to admit the truth

compliance, and transparency. For uniformity, CCA has found that the residential assessment system is more variable and more regressive than agreed upon industry standards, causing a wealth transfer from owners of lower-value homes to those of higher-value homes.

# RESIDENTIAL PROPERTY ASSESSMENT IN COOK COUNTY

SUMMARY OF ANALYTICAL FINDINGS

## Now, let's talk.

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Slides are here: <a href="https://bit.ly/2E5oUX1">https://bit.ly/2E5oUX1</a>