



## VACANT LAND IS UNDERTAXED

Data published by the Illinois Department of Revenue shows:

(1) In most counties, the effective tax rate on vacant land is lower than on improved parcels.

(2) In Cook County, where by ordinance vacant land is taxed at a lower effective rate than most other classes of property, the share of taxes paid by vacant parcels is even less than required by the ordinance.

(3) In Cook County, the underassessment of vacant parcels is biased in favor of those who own high-value sites. It is not known whether this pattern occurs downstate also.

These conclusions are based on a Henry George School analysis of the Illinois Department of Revenue's report *Findings of the 1995 Assessment/Sales Ratio Study*. Land in agricultural use is not covered by the IDR report and was not considered in the review.

For Cook County, this Research Note also provides an analysis of how current property tax practice encourages manufacturers to close and demolish their facilities, and an estimate of the cost to the average homeowner of the underassessment of vacant parcels.

Prepared by: Chuck Metalitz, Director of the School

## INTRODUCTION

This paper describes some problems with administration of the property tax system. We are fortunate that much assessment data is public information, and that the Illinois Department of Revenue provides an analysis of assessment/sales ratios. There may be much larger mistakes in the administration of other taxes, such as those on retail sales or income, but much of the critical data regarding those taxes is not reported or is not public, so we do not know about them.

Outside of Cook County, local assessors in Illinois are required to assess all taxable properties at 33% of market value. The State Department of Revenue compares assessed values to actual market transactions to determine how well this has been accomplished.

For the year 1995, 78 of the 101 downstate counties managed to come within 1% of the target ratio. For the others, the Department of Revenue calculates “multipliers” ranging (for the year 1995) from .9055 to 1.2085. These factors are applied to assessed values within the county, theoretically resulting in assessments at 33% of market value.

However, there is no procedure for assuring that all classes of property are assessed at the same ratio. Thus, if vacant land is underassessed, owners of improved parcels must pay higher taxes than otherwise, to maintain the average. The *Assessment/Sales Ratio Study* reports ratios separately for improved and unimproved properties; at the request of the Henry George School, this information was provided as county-level summaries<sup>1</sup>.

### **IN MOST COUNTIES, THE EFFECTIVE TAX RATE ON VACANT LAND IS LOWER THAN ON IMPROVED PARCELS.**

In 79 of the 101 downstate counties, the median ratio of assessed value to sales price was lower for unimproved properties than for improved properties. This includes all of the Chicago area counties ( DuPage, Kane, Lake, McHenry, Will, Grundy, Kendall, DeKalb, Kankakee), the Metro-East counties of St. Clair and Madison, and all other counties with populations in excess of 120,000. 90% of downstate residents live in counties where vacant land is underassessed. The Appendix table presents these results.

### **IN COOK COUNTY, VACANT PARCELS ARE ASSESSED AT A LOWER PERCENTAGE OF THE PRESCRIBED RATE THAN ARE OTHER CLASSES OF PROPERTY.**

It is official policy in Cook County that different types of property are assessed at different rates. Table 1 shows that, when assessed values are compared to actual sales prices, all of the major categories<sup>2</sup> were assessed lower than prescribed, ranging from vacant land, assessed at only 54.4% of the 22% prescribed ratio, to industrial properties, assessed at 92.5% of the prescribed 36% ratio. When we tax industrial properties (land and buildings) at nearly triple the rate applied to vacant land, is it any wonder that Cook County is losing manufacturing jobs?

---

<sup>1</sup>The published report provides detail down to the level of the individual township. However, improved and unimproved properties are shown separately only where there are at least 25 sales of each type during the year. Thus, county summaries cannot be compiled from the data in the publication.

<sup>2</sup>Cook County classes 4, 6, 7, 8, and 9 are special categories that together comprise about 1% of the County's tax base. The Department of Revenue report omits them.

Table 1: Countywide Assessment/Sales Ratios

Class	median effective rate	prescribed rate	effective/prescribed
1 (vacant)	11.97%	22%	.544
2 (residential/owner)	9.48%	16%	.592
3 (rental residential)	21.64%	33%	.656
5-A (commercial)	30.18%	38%	.794
5-B (industrial)	33.29%	36%	.925
Source: Illinois Department of Revenue: <i>Findings of the 1995 Assessment/Sales Ratio Study</i> . Adjusted medians are used where applicable.			

If we focus on just the City of Chicago, it gets worse. Table 2 shows that, in Chicago, the effective tax rate on vacant land is lower than on any other category, and industrial properties are assessed at more than four times the rate on vacant land.

Table 2: City of Chicago Assessment/Sales Price Ratios

Class	effective rate	prescribed rate	effective/prescribed
1 (vacant)	7.72%	22%	.351
2 (residential/owner)	9.33%	16%	.583
3 (rental residential)	20.33%	33%	.616
5-A (commercial)	27.99%	38%	.737
5-B (industrial)	31.77%	36%	.883
Source: Illinois Department of Revenue: <i>Findings of the 1995 Assessment/Sales Ratio Study</i> . Adjusted medians are used where applicable.			

### Impact on Employers and Jobs

Consider what this means for an employer. Let's suppose she owns a factory, worth \$3 million, on a site valued at \$1 million. She is considering closing the factory, maybe even tearing it down, and sending the work offshore to Malaysia. Table 3 shows what this would do to her property tax bill.

The entrepreneur's property tax will drop by 94%, over \$236,000 per year if she closes and demolishes the factory. Is it any wonder that Chicago is losing jobs, and that the incentives local governments are falling over themselves to provide are of limited effectiveness? Quite clearly, the County is saying that it would rather have more vacant lots and fewer viable businesses.

Table 3: Property Tax Incentive to Close and Demolish a Factory in Chicago				
row	Item	calculation	existing: factory with site	proposed: vacant lot
①	Land Value		\$1,000,000	\$1,000,000
②	improvement value		\$3,000,000	\$0
③	total value	①+②	\$4,000,000	\$1,000,000
④	effective assessment rate	see table 2	31.77%	7.72%
⑤	total assessed value	③ X ④	\$1,270,800	\$77,200
⑥	multiplier		2.1243	2.1243
⑦	equalized assessed value	⑤X⑥	\$2,699,560	\$163,996
⑧	tax @ 9.34%		\$252,139	\$15,317

### Impact on Homeowners

Underassessment of vacant sites raises taxes for all other owners of taxable real estate. To use the most conservative assumption, we will assume that the 0.351 effective/prescribed ratio for Class 1 parcels is also the mean. Let us suppose that we could increase this ratio from 0.351 to 0.583, which is the lowest ratio for any other category.

Table 5 shows what the impact would be. Total tax revenues would, theoretically, increase from \$3,049.9 million to \$3,070.3 billion, as indicated by the difference between columns 5 and 6 of Table 5. Column 7 of the table assumes tax rates are cut slightly to make the change revenue-neutral. For class 2 alone, this would reduce taxes by \$7.6 million per year.

Since there are 522,610 class 2 properties, this works out to an average of about \$14.54 per year, per homeowner (substantially every class 2 property represents a homeowner.)

TABLE 5: Benefit to other classes of assessing class 1 at same percentage of prescribed as class 2						
class	assessed value (pre-equalization millions)	(effective rate)/(prescribed rate)		tax revenue (millions)		
		actual (from table3)	theoretical	actual	theoretical	adjusted theoretical
①	②	③	④	⑤	⑥	⑦
1	\$155.8	0.351	0.583	\$30.7	\$51.1	\$50.7
2	\$5,811.3	0.583	0.583	\$1,146.5	\$1,146.5	\$1,138.9
3	\$1,870.1	0.616	0.616	\$368.9	\$368.9	\$366.5
5a	\$6,437.5	0.737	0.737	\$1,270.0	\$1,270.0	\$1,261.6
5b	\$1,070.5	0.883	0.883	\$211.2	\$211.2	\$209.8
others	\$114.5	??	??	\$22.6	\$22.6	\$22.4
TOTAL	\$15,459.6			\$3,049.9	\$3,070.3	\$3,049.9

## IN COOK COUNTY, THE UNDERASSESSMENT OF VACANT LAND IS BIASED IN FAVOR OF THOSE WHO OWN VALUABLE SITES.

The Illinois Department of Revenue calculates a measure known as the “Intra-Area Price-Related Differential”. This shows whether there is a systematic bias favoring either high-valued or low-valued properties.<sup>3</sup> Interpretation of this measure is described by the Department:

If there is a tendency for the higher-valued properties to exhibit lower assessment ratios than lower-valued properties, the price-related differential will be greater than 1.03. If on the other hand, higher-valued properties have higher assessment ratios than lower-valued properties, the price-related differential will be less than .98.<sup>4</sup>

For vacant parcels within the City of Chicago, the Intra-area price-related differential is available only for the years 1991 through 1995, as follows:

<u>Year</u>	<u>Differential</u>
1991	1.567
1992	2.092
1993	1.962
1994	1.1307
1995	1.6514

Thus it is clear that, at least in recent years, the greatest benefit from under-assessment of vacant land in Chicago has gone to owners of higher-value parcels.

---

<sup>3</sup>The equations to the right show how the intra-area price related differential is calculated.

PRD= Intra-area price related differential

MAR=Mean assessment ratio

SBAR= Sales-based assessment ratio

$A_i$  = Assessed value of parcel “i”

$S_i$  = Sales price of parcel “i”

n = number of parcels in the area which were sold during the year.

$$PRD = \frac{MAR}{SBAR}$$

$$MAR = \sum_{i=1}^n \frac{A_i}{S_i}$$

$$SBAR = \frac{\sum_{i=1}^n A_i}{\sum_{i=1}^n S_i}$$

<sup>4</sup>Illinois Department of Revenue, *Findings of the 1995 Assessment/Sales Ratio Study*, p. 13

**THESE FINDINGS DON'T NECESSARILY MEAN THAT ASSESSORS ARE BIASED, INCOMPETENT, OR CORRUPT. THEY MIGHT JUST MEAN THAT ASSESSMENTS NEED TO BE SIMPLIFIED AND PUBLICIZED.**

Given that the assessment process is imperfect, some parcels in every category are assessed too high, others too low. It might be that the owner of valuable vacant property can afford to devote time and effort to complaining about every assessment. Owners of other property cannot. These other owners, then, are less likely to obtain deserved reductions in their assessments. This would result in the kind of pattern that we see, with owners of valuable vacant parcels getting the greatest tax breaks, even if everyone involved in the assessment and appeal process is competent and honest.

The quality of assessments increases as assessment information is easier to obtain and to understand. This could be done by eliminating the Cook County classification system, and by removing improvements from the tax base. Then assessments would be based on information everyone can see, the size and location of land. County authorities could also publish clear, detailed maps showing assessed value (total and per unit of area) for all parcels within their jurisdiction. Property owners will easily see when they are overassessed, and use appropriate complaint or appeal processes. The news media (if it's doing its job), and the general public, will easily see where underassessments may exist.

**NOTES:**

Thanks to Kathy Floyd, Illinois Department of Revenue, for the special tabulation presented in the Appendix.

All of the analyses in this paper omit land in agricultural use, which benefits from special provisions intended to reduce taxes paid by its owners.

APPENDIX: MEDIAN ASSESSMENT RATIOS AND NUMBER OF TRANSACTIONS, DOWNSTATE ILLINOIS COUNTIES, 1995						
COUNTY	MEDIAN ASSESSMENT RATIO		NUMBER OF TRANSFERS		improved/unimproved ratio	1997 County population
	unimproved	improved	unimproved	improved	(<1 means vacant properties are underassessed)	
ADAMS	26.57	25.94	46	978	1.02	67,851
ALEXANDER	33.00	32.71	8	70	1.01	10,029
BOND	15.54	26.57	33	165	0.58	17,070
BOONE	28.81	29.86	131	372	0.96	37,922
BROWN	41.40	29.09	6	40	1.42	6,345
BUREAU	23.04	26.53	40	429	0.87	35,606
CALHOUN	29.16	29.81	5	49	0.98	4,960
CARROLL	30.46	27.16	179	237	1.12	16,941
CASS	18.72	28.34	24	191	0.66	13,223
CHAMPAIGN	25.79	29.82	70	1958	0.86	168,473
CHRISTIAN	28.15	27.25	39	431	1.03	34,608
CLARK	16.40	26.51	17	168	0.62	17,572
CLAY	18.77	25.94	38	162	0.72	14,450
CLINTON	28.15	28.76	75	289	0.98	35,367
COLES	23.80	28.75	67	716	0.83	51,312
CRAWSFORD	20.44	29.83	35	293	0.69	21,070
CUMBERLAND	26.61	27.12	12	106	0.98	11,172
DE WITT	23.32	28.62	30	227	0.81	16,781
DEKALB	27.06	29.17	51	745	0.93	83,602
DOUGLAS	19.82	27.85	21	255	0.71	19,782
DUPAGE	22.31	30.15	267	13492	0.74	870,378
EDGAR	25.56	28.86	20	190	0.89	19,905
EDWARDS	14.60	29.58	13	102	0.49	7,028
EFFINGHAM	22.81	28.25	51	295	0.81	33,280
FAYETTE	10.18	29.66	36	223	0.34	21,604
FORD	28.84	27.10	22	217	1.06	14,049
FRANKLIN	22.86	26.67	77	503	0.86	40,679
FULTON	26.00	26.62	59	236	0.98	38,405
GALLATIN	19.20	30.96	19	70	0.62	6,671
GREENE	20.72	27.71	20	173	0.75	15,639
GRUNDY	22.38	29.31	46	352	0.76	36,253
HAMILTON	24.95	30.55	16	91	0.82	8,621
HANCOCK	35.31	26.07	25	294	1.35	21,146
HARDIN	23.52	27.23	12	41	0.86	4,964
HENDERSON	20.00	28.33	11	83	0.71	8,637
HENRY	22.77	25.55	57	659	0.89	51,453
IROQUOIS	31.44	24.48	89	354	1.28	31,400
JACKSON	22.75	28.77	99	573	0.79	60,698
JASPER	26.71	30.32	18	69	0.88	10,559
JEFFERSON	19.04	28.41	36	437	0.67	38,966
JERSEY	29.69	27.51	44	210	1.08	21,248

APPENDIX: MEDIAN ASSESSMENT RATIOS AND NUMBER OF TRANSACTIONS,  
DOWNSTATE ILLINOIS COUNTIES, 1995 (continued)

COUNTY	MEDIAN ASSESSMENT RATIO		NUMBER OF TRANSFERS		improved/unimproved ratio	1997 County population
	unimproved	improved	unimproved	improved	(<1 means vacant properties are underassessed)	
JO DAVIESS	25.12	26.27	299	301	0.96	21,678
JOHNSON	27.20	27.15	54	101	1.00	13,074
KANE	26.14	30.75	222	4690	0.85	380,801
KANKAKEE	26.20	27.34	112	1098	0.96	101,984
KENDALL	21.59	30.58	44	529	0.71	49,856
KNOX	32.75	28.44	145	768	1.15	55,559
LAKE	25.23	30.52	466	8103	0.83	594,799
LASALLE	23.30	28.97	170	1253	0.80	109,543
LAWRENCE	11.01	26.33	30	231	0.42	15,622
LEE	36.80	26.40	184	496	1.39	35,777
LIVINGSTON	19.75	26.62	42	475	0.74	40,316
LOGAN	23.80	27.02	20	346	0.88	31,317
MACON	33.30	30.28	77	1746	1.10	114,265
MACOUPIN	21.03	27.00	100	639	0.78	49,214
MADISON	27.90	29.94	352	3203	0.93	258,641
MARION	21.00	26.45	56	529	0.79	42,035
MARSHALL	26.78	26.21	81	148	1.02	12,858
MASON	25.49	28.59	57	219	0.89	16,885
MASSAC	17.68	27.23	23	169	0.65	15,420
MCDONOUGH	24.47	27.44	35	410	0.89	34,086
MCHENRY	22.59	30.15	312	3055	0.75	236,952
MCLEAN	26.01	28.15	108	1998	0.92	140,797
MENARD	26.36	27.45	36	142	0.96	12,345
MERCER	22.96	24.61	26	202	0.93	17,544
MONROE	28.85	28.36	42	228	1.02	25,931
MONTGOMERY	21.25	26.41	60	392	0.80	30,992
MOULTRIE	21.31	29.27	18	167	0.73	14,433
MORGAN	21.02	28.92	35	458	0.73	36,056
OGLE	24.67	26.29	107	560	0.94	50,199
PEORIA	27.50	27.89	189	2733	0.99	182,657
PERRY	27.84	27.82	32	223	1.00	21,368
PIATT	26.93	27.38	24	225	0.98	16,498
PIKE	15.67	25.49	26	231	0.61	17,287
POPE	17.18	26.78	8	25	0.64	4,681
PULASKI	24.30	30.62	7	64	0.79	7,209
PUTNAM	34.89	22.16	53	63	1.57	5,854
RANDOLPH	31.60	27.90	33	360	1.13	34,082
RICHLAND	21.60	23.79	33	230	0.91	16,843
ROCK ISLAND	22.76	27.54	134	1876	0.83	148,277
SALINE	22.30	31.37	57	261	0.71	26,359



APPENDIX: MEDIAN ASSESSMENT RATIOS AND NUMBER OF TRANSACTIONS,  
DOWNSTATE ILLINOIS COUNTIES, 1995 (continued)

COUNTY	MEDIAN ASSESSMENT RATIO		NUMBER OF TRANSFERS		improved/unimproved ratio	1997 County population
	unimproved	improved	unimproved	improved	(<1 means vacant properties are underassessed)	
SANGAMON	22.04	29.98	94	2742	0.74	191,597
SCHUYLER	29.24	29.18	13	100	1.00	7,625
SCOTT	20.67	26.36	3	67	0.78	5,591
SHELBY	19.19	24.53	45	250	0.78	22,593
ST CLAIR	22.13	30.50	118	2513	0.73	263,866
STARK	13.70	23.60	5	51	0.58	6,344
STEPHENSON	15.63	29.15	90	727	0.54	49,354
TAZEWELL	25.20	27.09	280	1692	0.93	128,521
UNION	8.02	29.83	26	174	0.27	18,037
VERMILION	30.47	29.93	90	1063	1.02	85,097
WABASH	19.60	29.33	19	150	0.67	12,731
WARREN	43.60	27.93	39	235	1.56	18,777
WASHINGTON	15.72	28.29	16	140	0.56	15,325
WAYNE	22.58	26.44	39	157	0.85	17,011
WHITE	19.53	28.07	26	213	0.70	15,647
WHITESIDE	25.59	26.70	56	817	0.96	68,073
WILL	24.42	29.34	359	4980	0.83	444,469
WILLIAMSON	22.40	30.21	139	646	0.74	61,163
WINNEBAGO	25.72	29.54	196	3321	0.87	266,653
WOODFORD	29.38	26.11	56	297	1.13	34,776

Source: Special Tabulation by Illinois Department of Revenue

