



# The Civic Federation

Research \* Information \* Action \* Est. 1894

## ESTIMATED FULL VALUE OF REAL PROPERTY IN COOK COUNTY: 2001-2010

November 26, 2012

The Civic Federation • 177 N. State Street • Chicago IL 60601 • [civicfed.org](http://civicfed.org)

*The Civic Federation is an independent, non-partisan government research organization working to maximize the quality and cost-effectiveness of government services in the Chicago region and State of Illinois.*

## **ESTIMATED FULL VALUE OF PROPERTY IN COOK COUNTY: Civic Federation Methodology**

### **CALCULATION OF ESTIMATED FULL VALUE**

The full value of property is estimated using two sources of data: the total assessed value of property as reported by the Cook County Assessor's Office in the Cook County Final Abstract of Assessment and the median<sup>1</sup> level of assessment reported by the Illinois Department of Revenue (IDOR) in the Assessment/Sales Ratio Study.

The Assessment/Sales Ratio Study collects data on property sales and calculates the ratio of assessed values to sales values. A median assessment/sales ratio for the three years preceding an assessment year is computed, as well as an adjusted median ratio if additional data is submitted by the County Assessor after the initial data was collected.<sup>2</sup> This median ratio is commonly referred to as the "median level of assessment." The Department of Revenue calculates median levels of assessment for Class 1 (vacant land), Class 2 (residential), Class 3 (apartments), Class 5a (commercial) and Class 5b (industrial) properties. County ordinance requires that these classes be assessed at the following levels for 2010: Class 1–10%, Class 2–10%, Class 3–13%, Class 5a–25% and Class 5b–25%.<sup>3</sup>

Special note should be taken that the Department of Revenue's ratio studies indicate a high coefficient of dispersion for vacant land, commercial and industrial assessments, which means there is likely to be wide variation within these classes from the calculated median for individual properties whose reported sale prices were included in the study. This has implications with regard to the uniformity of assessment for those types of properties, which is important for equitable taxation.<sup>4</sup>

The Civic Federation estimates the full value of property by dividing the median level of assessment (or adjusted median when available) into the total assessed value of a class of property. In those classes for which there is not enough sales data for the Department of Revenue to calculate an adjusted median, the ordinance level or Total County Adjusted Median ratio is used.<sup>5</sup> The full value estimate does not include state-assessed properties<sup>6</sup> or properties that are exempt from real estate taxes.

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<sup>1</sup> The median is found by ranking the individual assessment ratios in ascending or descending order and counting downward until the middle value is reached. If an even number of ratios is found, the two middle ratios are averaged to calculate the median.

<sup>2</sup> For more information on assessment/sales ratios, see "Publication 136: Property Assessment and Equalization," Illinois Department of Revenue, January 2010, <http://www.revenue.state.il.us/Publications/Pubs/PUB-136.pdf>.

<sup>3</sup> These levels were effective starting with tax year 2009, pursuant to Cook County Ordinance 08-O-51 passed in September 2008. Class 3 declined to 13% in 2010 and 10% in 2011 and thereafter. Previous levels were: Class 1–22%, Class 2–16%, Class 3–26%, Class 5a–38% and Class 5b–36%.

<sup>4</sup> See Civic Federation, "The Cook County Property Tax System and Fundamental Principles of Taxation," November 22, 2010, for more information about uniformity of assessment in the Cook County property tax system.

<sup>5</sup> Previously, the Department of Revenue did not provide assessment/sales ratio statistics for property classes with fewer than 25 usable property transactions. In 2010 the Department of Revenue responded to requests from the public by providing median levels of assessment and other statistics for property classes with low numbers of usable transactions. However, because statistical analysis of a small number of observations produces less reliable results, the Civic Federation continues to use the Total County Adjusted Median ratio to calculate the estimated full value of properties in property classes with small numbers of transactions. For the 2010 Assessment Sales Ratio Study, there was insufficient data to calculate an adjusted median for Class 5b properties in Triad 3. For more on how small

## **Timing and Limitations**

The Cook County Final Abstract of Assessment is typically published in July or August of the year following the assessment year (e.g., the 2010 Final Abstract was published on July 27, 2011). The Assessment/Sales Ratio Study for Cook County is typically released in the summer two years following the assessment year (e.g., the 2010 Assessment/Sales Ratio Study for Cook County was released in late May 2012).

In years past, the Civic Federation compensated for this two-year delay by using the previous year's Assessment/Sales Ratio Study (e.g., 2003 assessed values and 2002 median levels). Starting with the 2004 Estimated Full Value of Property in Cook County, the Civic Federation now waits and uses the same-year data when it is available from the Illinois Department of Revenue's Assessment/Sales Ratio Study in order to provide the most accurate estimates. The Civic Federation has recalculated ten years of full value estimates in this way to provide consistent trend data.

Readers should note that the trends identified in this report do not necessarily apply to individual properties. This is because 1) they are estimates and 2) they reflect medians, which by their nature do not represent the individual experience of every property.

## **Special Editor's Note on 2010 Assessment/Sales Ratio Study**

*The 2010 Assessment/Sales Ratio Study produced adjusted median levels of assessment in Cook County for commercial and industrial properties (Classes 5a and 5b) that were significantly higher than in previous years. The adjusted median level of assessment for Class 5a commercial properties in the County as a whole rose from 18.82% of sales price in tax year 2009 to 29.80% in tax year 2010. This represented an increase in the Class 5a median level of assessment of 58.3%. The adjusted median level of assessment for Class 5b industrial properties in Cook County of 28.37% in tax year 2010 represented an increase of 27.6% from the adjusted median level of assessment of 21.43% in tax year 2009.*

*The Civic Federation has evaluated several possible explanations for the change in median level of assessment.*

- 1. The sales price for the commercial and industrial properties included in the 2010 study fell much faster than their assessed valuations. This is a possibility due to the fact that the real estate market was still experiencing a sharp downturn in 2010 and due to the nature of the ratio: if the denominator of the ratio (sales price) falls at a faster rate than the numerator (assessed value), the ratio itself will increase.*
- 2. There were statistical factors that biased the 2010 Assessment/Sales Ratio Study, such as a change in the types of commercial or industrial property sampled in comparison to previous studies or bias introduced by the small number of observations included in the study.*

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samples make statistical analysis less reliable, see International Association of Assessing Officers, *Standard on Ratio Studies*, (Kansas City, 2007), p. 15.

<sup>6</sup> The Illinois Department of Revenue assesses pollution control facilities, low sulfur dioxide coal fueled devices, railroad operating property and water treatment facilities.

3. *The Office of the Cook County Assessor changed its policy with regard to the level at which it was assessing Class 5a and 5b properties.*<sup>7</sup>

*Based on the evaluation, the Civic Federation has concluded that the first explanation is the most likely. The Federation discounted the second and third explanations above through conversations with and additional data made available by the Illinois Department of Revenue and Office of the Cook County Assessor.<sup>8</sup> At the request of the Federation, the Illinois Department of Revenue re-examined its data and verified that the results of the 2010 Assessment/Sales Ratio Study were not biased by differences in the kinds of properties sold in 2010 versus previous years. The IDOR additionally concluded that the study was not likely to have been biased by the relatively small number of observations, which had actually increased from the previous year.*<sup>9</sup>

*The Federation also asked the Office of the Cook County Assessor whether the change in median levels of assessment in tax year 2010 reflected a change in policy by the Assessor. The Assessor's Office replied that the increase in median level of assessment was not due to the current Assessor trying to achieve the ordinance level of assessment or any other change to assessing policy. They additionally stated that they could not speak for the previous Assessor.*<sup>10</sup>

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<sup>7</sup> While the ordinance level of assessment for Class 5a and 5b properties was 25% for tax year 2010, for many years the median level of assessment has been far lower than 25% or the previous ordinance levels of 38% and 36%. For more information on past underassessment identified by the Assessment/Sales Ratio Study, see the Civic Federation's primer, "The Cook County Property Assessment Process: A Primer on Assessment, Classification, Equalization and Property Tax Exemptions," April 5, 2010.

<sup>8</sup> Communications from the Illinois Department of Revenue, October 5, 2012 and October 18, 2012. Communication from the Office of the Cook County Assessor, October 16, 2012.

<sup>9</sup> The reliability of the Assessment/Sales Ratio Study is an ongoing point of contention between the Illinois Department of Revenue and the Cook County Assessor's Office. According to law, the IDOR must calculate a multiplier to translate Cook County assessed valuations into an aggregate total equalized assessed value equal to 33⅓% of fair market value. This is necessary for the fair implementation of certain state statutes. The IDOR calculates the multiplier through the Assessment/Sales Ratio Study. The Assessor's Office has historically and currently disputes the conclusions of the Assessment/Sales Ratio Study, contending that it does not include representative samples of properties or sufficient numbers of properties and is only a snapshot in time during an unstable market. In the past, the Assessor's Office has urged the IDOR to supplement the paucity of sales data for commercial and industrial properties with appraisal data. See Civic Federation, "The Cook County Property Assessment Process: A Primer on Assessment, Classification, Equalization and Property Tax Exemptions," April 5, 2010.

<sup>10</sup> The current Cook County Assessor, Joseph Berrios, was elected in 2010 and took office in December 2010. The tax year 2010 (taxes payable in 2011) assessment process started in calendar year 2010 when the previous Assessor, James M. Houlihan, was in office and continued through summer 2011, when the Cook County Board of Review certified the final tax year 2010 assessments.

**Estimated Full Value:  
2010 Cook County Property Taxes Payable in 2011\***

**Prepared by the Civic Federation**

**Sources:** Cook County Assessor's Office, Illinois Department of Revenue

<b>City of Chicago</b>			
<b>Class</b>	<b>Final Assessment</b>	<b>IDOR (1) A/S Ratio</b>	<b>Full Value</b>
1 Vacant	\$ 274,443,090	0.2082	\$ 1,318,170,461
2 Residential	\$18,120,677,889	0.1057	\$171,434,984,759
3 Apartment	\$ 1,476,290,610	0.103	\$ 14,332,918,544
4 Non-Profit†	\$ 77,589,400	0.25	\$ 310,357,600
5a Commercial	\$ 9,464,758,066	0.2602	\$ 36,374,934,919
5b Industrial	\$ 942,253,760	0.154	\$ 6,118,530,909
6 New&Abate Ind†	\$ 43,308,391	0.10	\$ 433,083,910
7 Comm Dev†	\$ 37,198,881	0.10	\$ 371,988,810
8 Incentive†	\$ -	0.10	\$ -
9 Incentive†	\$ 129,142,624	0.10	\$ 1,291,426,240
<b>Total</b>	<b>\$30,565,662,711</b>		<b>\$231,986,396,152</b>

<b>Cook County Suburbs - Southwest</b>			
<b>Class</b>	<b>Final Assessment</b>	<b>IDOR (1) A/S Ratio</b>	<b>Full Value</b>
1 Vacant	\$ 130,283,720	0.1395	\$ 933,933,477
2 Residential	\$ 9,284,478,427	0.1272	\$ 72,991,182,602
3 Apartment**	\$ 206,834,812	0.1155	\$ 1,790,777,593
4 Non-Profit†	\$ 35,372,536	0.25	\$ 141,490,144
5a Commercial	\$ 2,121,568,415	0.3248	\$ 6,531,922,460
5b Industrial**	\$ 817,846,599	0.2734	\$ 2,991,392,096
6 New&Abate Ind†	\$ 94,284,026	0.10	\$ 942,840,260
7 Comm Dev†	\$ 527,370	0.10	\$ 5,273,700
8 Incentive†	\$ 31,095,547	0.10	\$ 310,955,470
9 Incentive†	\$ 29,164,333	0.10	\$ 291,643,330
<b>Total</b>	<b>\$12,751,455,785</b>		<b>\$ 86,931,411,132</b>

<b>Cook County Suburbs - Northwest</b>			
<b>Class</b>	<b>Final Assessment</b>	<b>IDOR (1) A/S Ratio</b>	<b>Full Value</b>
1 Vacant**	\$ 119,564,984	0.1843	\$ 648,751,948
2 Residential	\$12,364,028,780	0.1132	\$109,222,869,081
3 Apartment**	\$ 349,806,926	0.1155	\$ 3,028,631,394
4 Non-Profit†	\$ 79,235,804	0.25	\$ 316,943,216
5a Commercial	\$ 3,852,277,566	0.3325	\$ 11,585,797,191
5b Industrial	\$ 1,493,038,389	0.3051	\$ 4,893,603,373
6 New&Abate Ind†	\$ 107,611,652	0.10	\$ 1,076,116,520
7 Comm Dev†	\$ 710,446	0.10	\$ 7,104,460
8 Incentive†	\$ -	0.10	\$ -
9 Incentive†	\$ 11,391,509	0.10	\$ 113,915,090
<b>Total</b>	<b>\$18,377,666,056</b>		<b>\$130,893,732,273</b>

<b>Cook County Total</b>			
<b>Class</b>	<b>Final Assessment</b>	<b>IDOR (2) A/S Ratio</b>	<b>Full Value</b>
1 Vacant	\$ 524,291,794		\$ 2,900,855,886
2 Residential	\$39,769,185,096		\$ 353,649,036,442
3 Apartment	\$ 2,032,932,348		\$ 19,152,327,531
4 Non-Profit	\$ 192,197,740		\$ 768,790,960
5a Commercial	\$15,438,604,047		\$ 54,492,654,570
5b Industrial	\$ 3,253,138,748		\$ 14,003,526,378
6 New&Abate Ind	\$ 245,204,069		\$ 2,452,040,690
7 Comm Dev	\$ 38,436,697		\$ 384,366,970
8 Incentive	\$ 31,095,547		\$ 310,955,470
9 Incentive	\$ 169,698,466		\$ 1,696,984,660
<b>Total</b>	<b>\$61,694,784,552</b>		<b>\$ 449,811,539,556</b>

(1) IDoR Assessment/Sales Ratios adjusted through 2010 Board of Review (most recent available).

(2) IDoR Assessment/Sales Ratio from each triad (City of Chicago, Cook County Suburbs - Northwest and Cook County Suburbs - Southwest) used and full values totaled to arrive at County full value.

\* Does not include values for Railroad, Pollution Control or the part of O'Hare Airport located in DuPage County.

\*\* Due to insufficient sales data available, uses the Total County Adjusted Median IDOR ratio.

† IDoR does not calculate an assessment ratio for this class, uses ordinance level of assessment.

<b>Estimated Full Value of Property in Cook County: 2001-2010*</b>				
	<b>City of Chicago</b>	<b>Northwest Suburbs</b>	<b>Southwest Suburbs</b>	<b>Total Cook County</b>
<b>2001</b>	\$ 185,912,245,582	\$ 127,963,370,085	\$ 78,331,193,397	\$ 392,206,809,064
<b>2002</b>	\$ 201,938,231,141	\$ 142,071,986,168	\$ 84,095,690,547	\$ 428,105,907,855
<b>2003</b>	\$ 223,572,427,499	\$ 154,035,874,160	\$ 94,363,367,276	\$ 471,971,668,935
<b>2004</b>	\$ 262,080,627,240	\$ 173,316,178,167	\$ 106,545,245,042	\$ 541,942,050,448
<b>2005</b>	\$ 283,137,884,228	\$ 182,916,739,773	\$ 115,316,670,712	\$ 581,371,294,713
<b>2006</b>	\$ 329,770,733,208	\$ 203,954,311,728	\$ 132,498,016,687	\$ 666,223,061,624
<b>2007</b>	\$ 320,503,503,311	\$ 201,865,412,489	\$ 134,105,828,521	\$ 656,474,744,321
<b>2008</b>	\$ 310,888,609,224	\$ 186,884,721,708	\$ 118,390,263,210	\$ 616,163,594,142
<b>2009</b>	\$ 280,288,729,779	\$ 163,177,046,330	\$ 106,669,593,650	\$ 550,135,369,759
<b>2010</b>	\$ 231,986,396,152	\$ 130,893,732,273	\$ 86,931,411,132	\$ 449,811,539,556
<b>10-Year Change</b>	<b>\$ 46,074,150,570</b>	<b>\$ 2,930,362,188</b>	<b>\$ 8,600,217,734</b>	<b>\$ 57,604,730,493</b>

Note: Minimal differences in totals may occur due to rounding. Figures are calculated by the Civic Federation using the assessed values and assessment/sales ratio medians for each respective year.

\* Does not include values for Railroad, Pollution Control or the part of O'Hare Airport located in DuPage County.

Source: Cook County Assessor's Office and Illinois Department of Revenue.

<b>Annual Percent Change in Estimate Full Value of Real Property in Cook County: 2001-2010*</b>				
	<b>City of Chicago</b>	<b>Northwest Suburbs</b>	<b>Southwest Suburbs</b>	<b>Total Cook County</b>
<b>2001</b>	14.3%	12.5%	7.9%	12.4%
<b>2002</b>	8.6%	11.0%	7.4%	9.2%
<b>2003</b>	10.7%	8.4%	12.2%	10.2%
<b>2004</b>	17.2%	12.5%	12.9%	14.8%
<b>2005</b>	8.0%	5.5%	8.2%	7.3%
<b>2006</b>	16.5%	11.5%	14.9%	14.6%
<b>2007</b>	-2.8%	-1.0%	1.2%	-1.5%
<b>2008</b>	-3.0%	-7.4%	-11.7%	-6.1%
<b>2009</b>	-9.8%	-12.7%	-9.9%	-10.7%
<b>2010</b>	-17.2%	-19.8%	-18.5%	-18.2%
<b>10-Year Change</b>	<b>24.8%</b>	<b>2.3%</b>	<b>11.0%</b>	<b>14.7%</b>

Note: Minimal differences in totals may occur due to rounding. Figures are calculated by the Civic Federation using the assessed values and assessment/sales ratio medians for each respective year.

\* Does not include values for Railroad, Pollution Control or the part of O'Hare Airport located in DuPage County.

Source: Cook County Assessor's Office and Illinois Department of Revenue.

**Ten-Year Percent Change in Estimated Full Value of Real Property by Class:  
Cook County 2001-2010\***

	<b>City of Chicago</b>	<b>Northwest Suburbs</b>	<b>Southwest Suburbs</b>	<b>Total Cook County</b>
<b>Class 2 (Residential)</b>	44.0%	10.7%	15.8%	26.0%
<b>Class 5a (Commercial)</b>	-16.6%	-27.2%	-21.3%	-19.6%
<b>Class 5b (Industrial)</b>	-8.5%	-25.4%	3.2%	-13.2%
<b>All Other Classes</b>	8.7%	-24.0%	7.5%	0.4%
<b>Total All Classes</b>	<b>24.8%</b>	<b>2.3%</b>	<b>11.0%</b>	<b>14.7%</b>

Note: Minimal differences in totals may occur due to rounding. Figures are calculated by the Civic Federation using the assessed values and assessment/sales ratio medians for each respective year.

\* Does not include values for Railroad, Pollution Control or the part of O'Hare Airport located in DuPage County.

Source: Cook County Assessor's Office and Illinois Department of Revenue.

**Six-Year Percent Change in Estimated Full Value of Real Property by Class:  
Cook County 2001-2006\***

	<b>City of Chicago</b>	<b>Northwest Suburbs</b>	<b>Southwest Suburbs</b>	<b>Total Cook County</b>
<b>Class 2 (Residential)</b>	72.5%	60.5%	69.4%	67.6%
<b>Class 5a (Commercial)</b>	92.1%	82.3%	73.5%	87.6%
<b>Class 5b (Industrial)</b>	111.3%	31.4%	58.9%	69.4%
<b>All Other Classes</b>	59.7%	16.8%	63.3%	49.6%
<b>Total All Classes</b>	<b>77.4%</b>	<b>59.4%</b>	<b>69.2%</b>	<b>69.9%</b>

Note: Minimal differences in totals may occur due to rounding. Figures are calculated by the Civic Federation using the assessed values and assessment/sales ratio medians for each respective year.

\* Does not include values for Railroad, Pollution Control or the part of O'Hare Airport located in DuPage County.

Source: Cook County Assessor's Office and Illinois Department of Revenue.

**Five-Year Percent Change in Estimated Full Value of Real Property by Class:  
Cook County 2006-2010\***

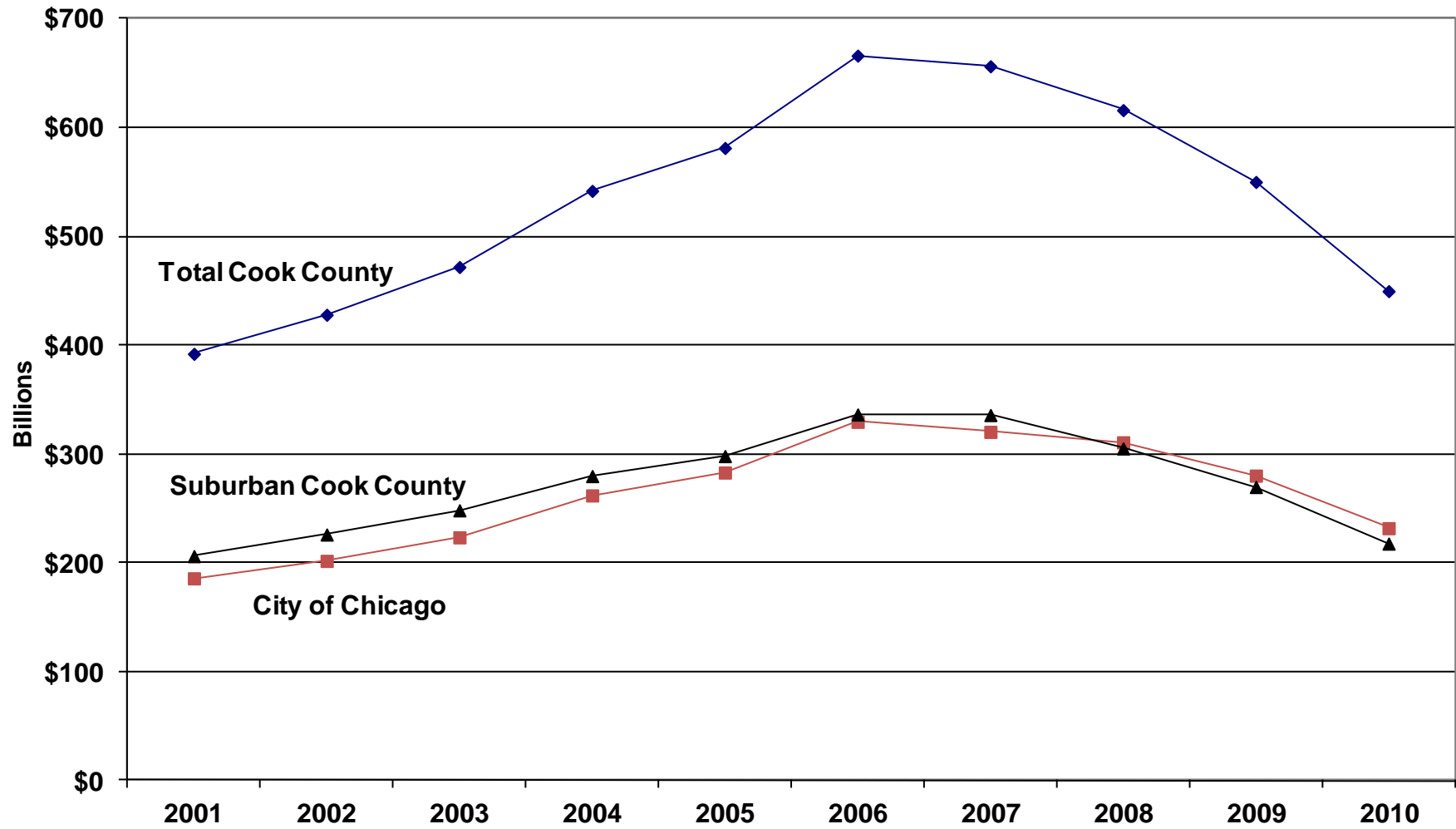
	<b>City of Chicago</b>	<b>Northwest Suburbs</b>	<b>Southwest Suburbs</b>	<b>Total Cook County</b>
<b>Class 2 (Residential)</b>	-16.5%	-31.0%	-31.6%	-24.8%
<b>Class 5a (Commercial)</b>	-56.6%	-60.0%	-54.7%	-57.2%
<b>Class 5b (Industrial)</b>	-56.7%	-43.2%	-35.1%	-48.8%
<b>All Other Classes</b>	-31.9%	-34.9%	-34.2%	-32.9%
<b>Total All Classes</b>	<b>-29.7%</b>	<b>-35.8%</b>	<b>-34.4%</b>	<b>-32.5%</b>

Note: Minimal differences in totals may occur due to rounding. Figures are calculated by the Civic Federation using the assessed values and assessment/sales ratio medians for each respective year.

\* Does not include values for Railroad, Pollution Control or the part of O'Hare Airport located in DuPage County.

Source: Cook County Assessor's Office and Illinois Department of Revenue.

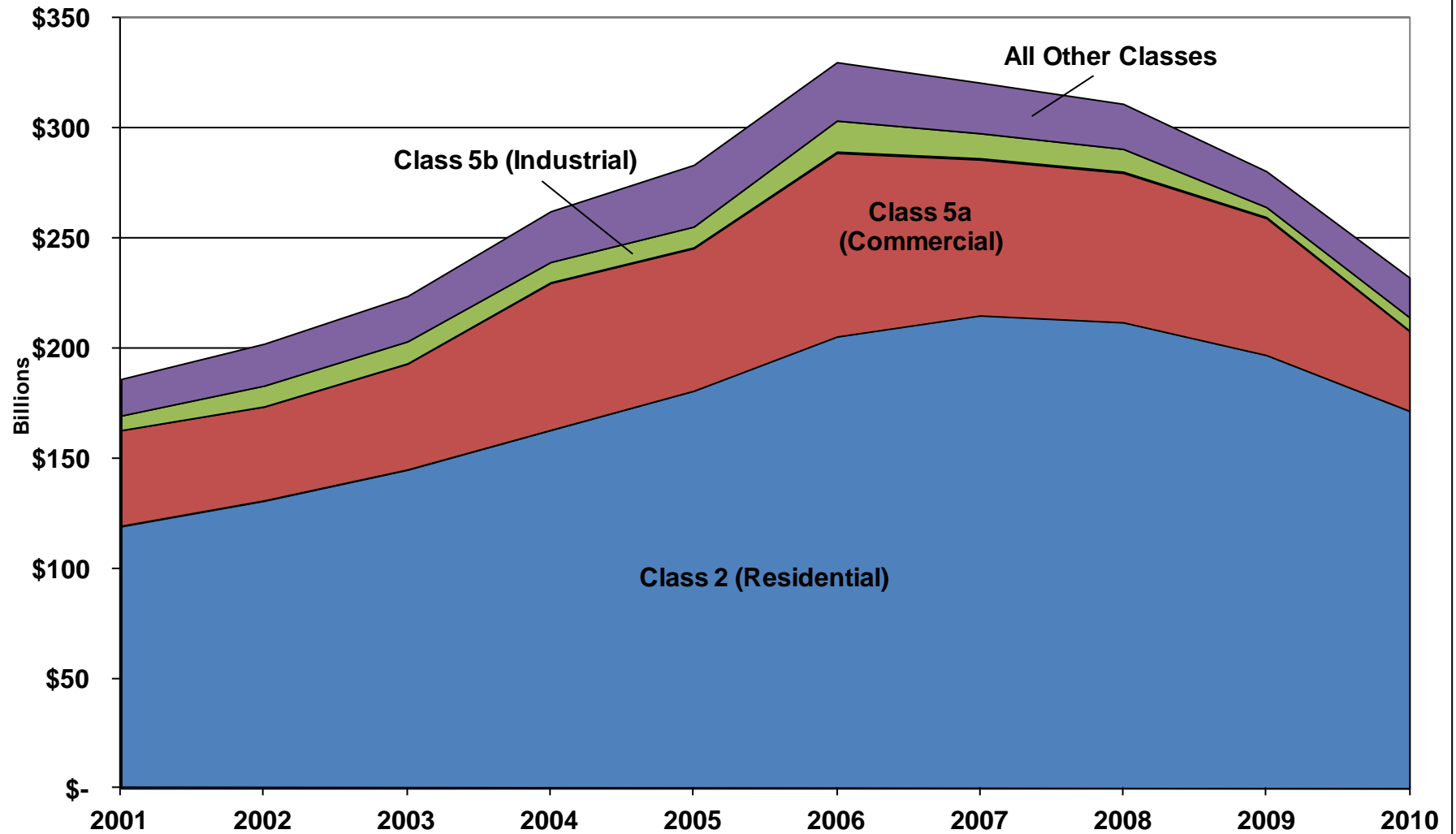
### Estimated Full Value of Cook County Real Property: 2001-2010



Source: Assessed Value (Cook County Assessor's Office) and Assessment Sales/Ratio Studies (Illinois Department of Revenue) data from the same year

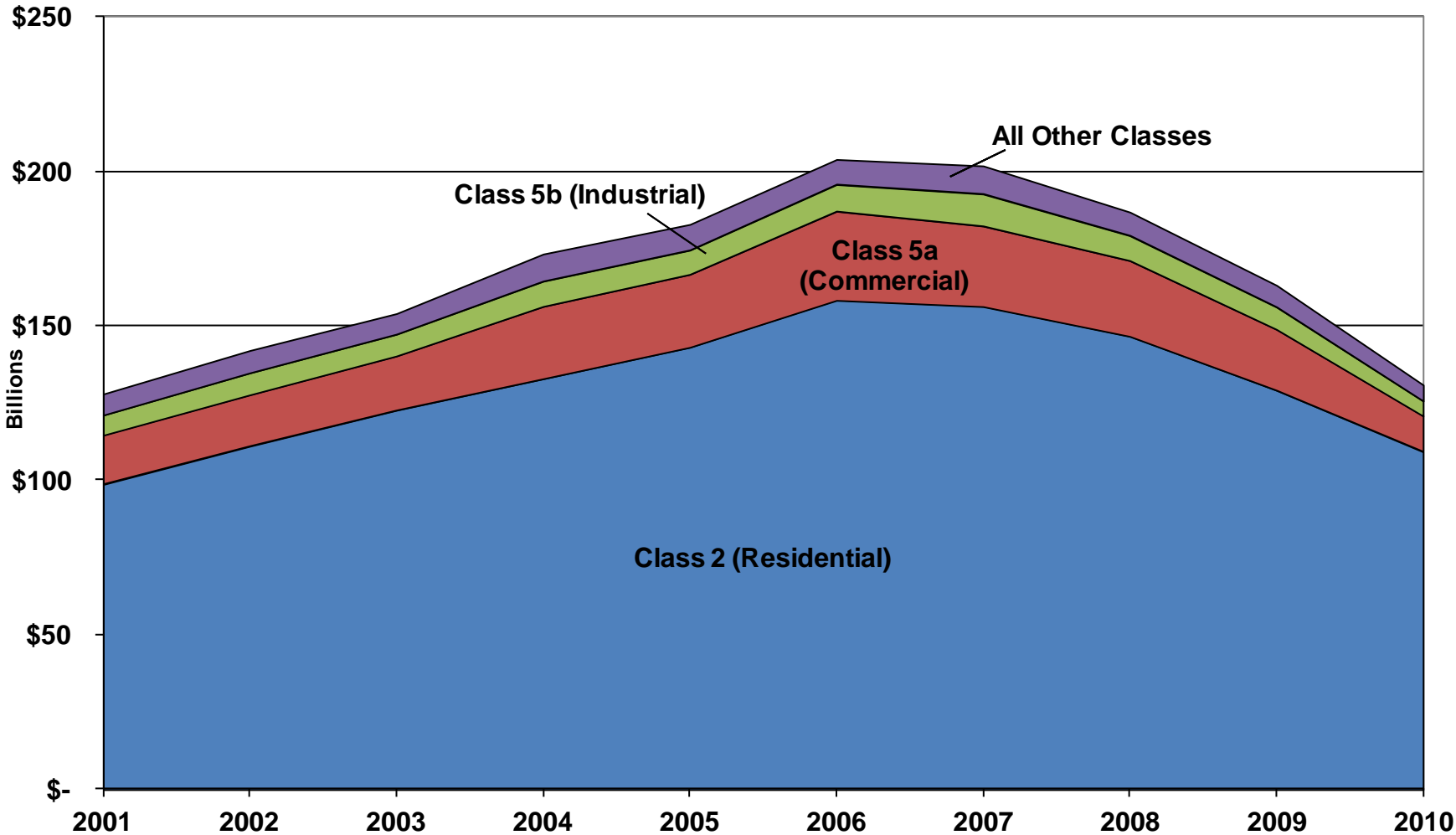


### City of Chicago Triad Estimated Full Value: 2001-2010



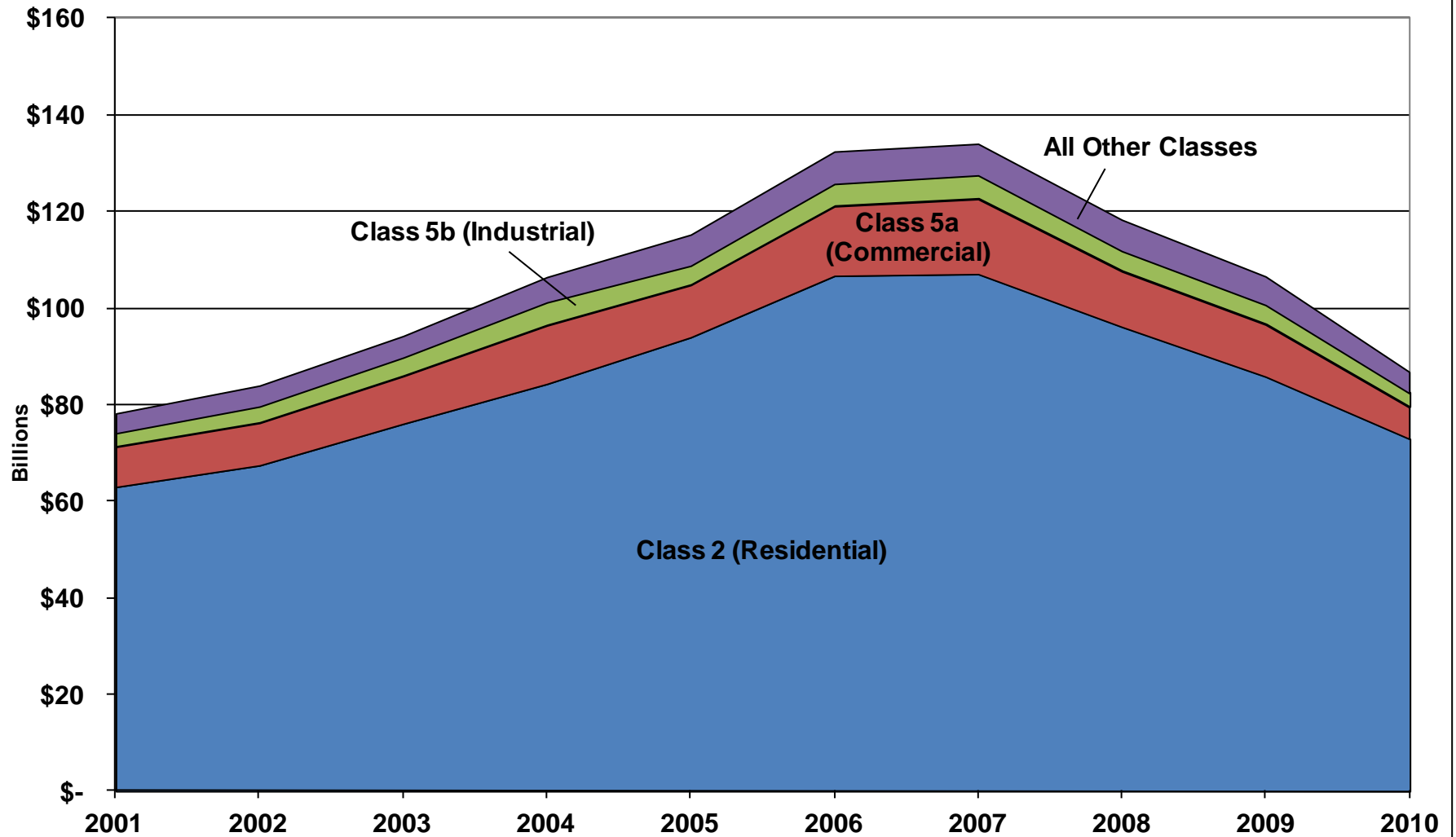
Source: Assessed Value (Cook County Assessor's Office) and Assessment Sales/Ratio Studies (Illinois Department of Revenue) data from the same year

### Northwest Suburbs Triad Estimated Full Value: 2001-2010



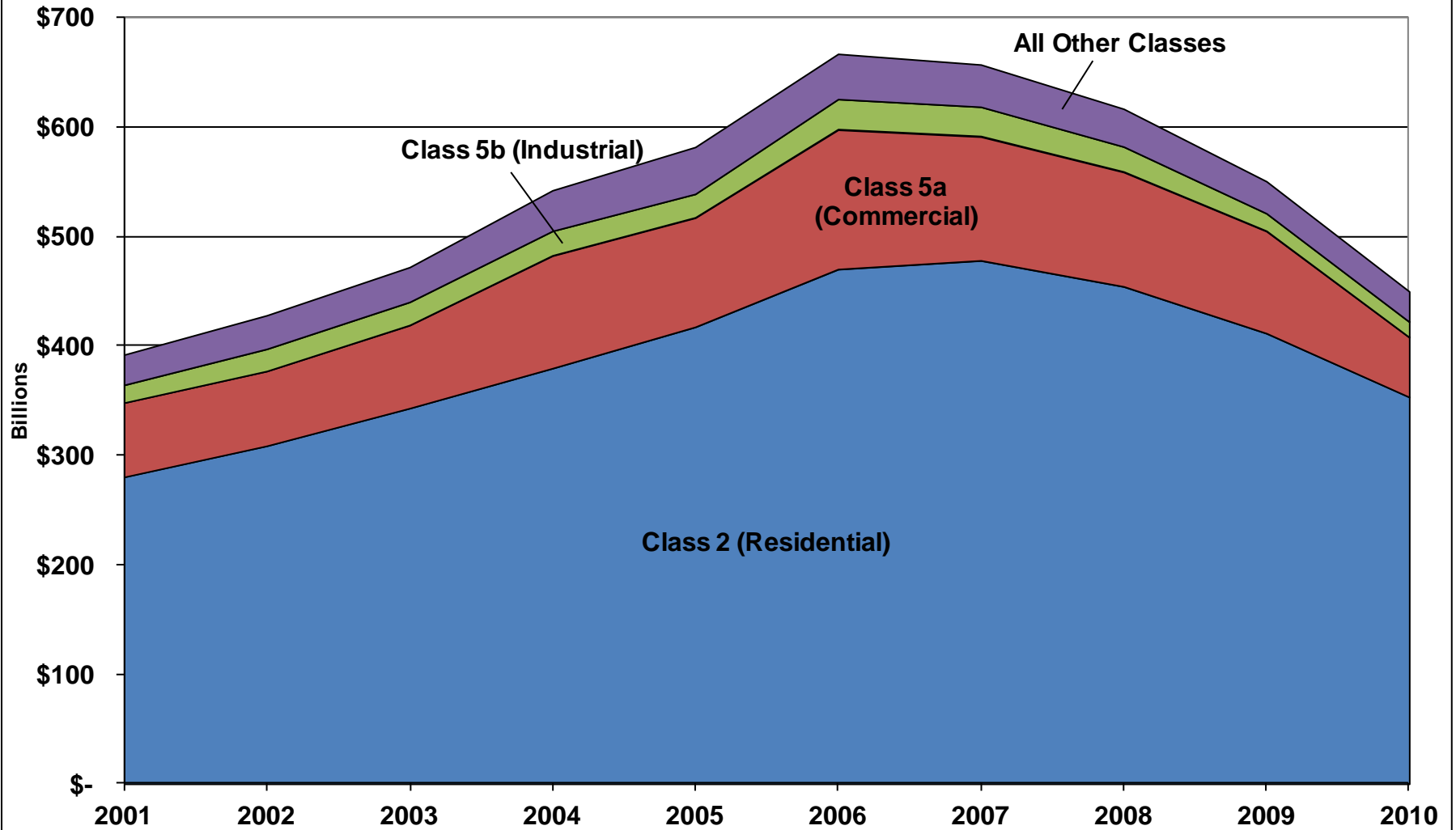
Source: Assessed Value (Cook County Assessor's Office) and Assessment Sales/Ratio Studies (Illinois Department of Revenue) data from the same year

### Southwest Suburbs Triad Estimated Full Value: 2001-2010



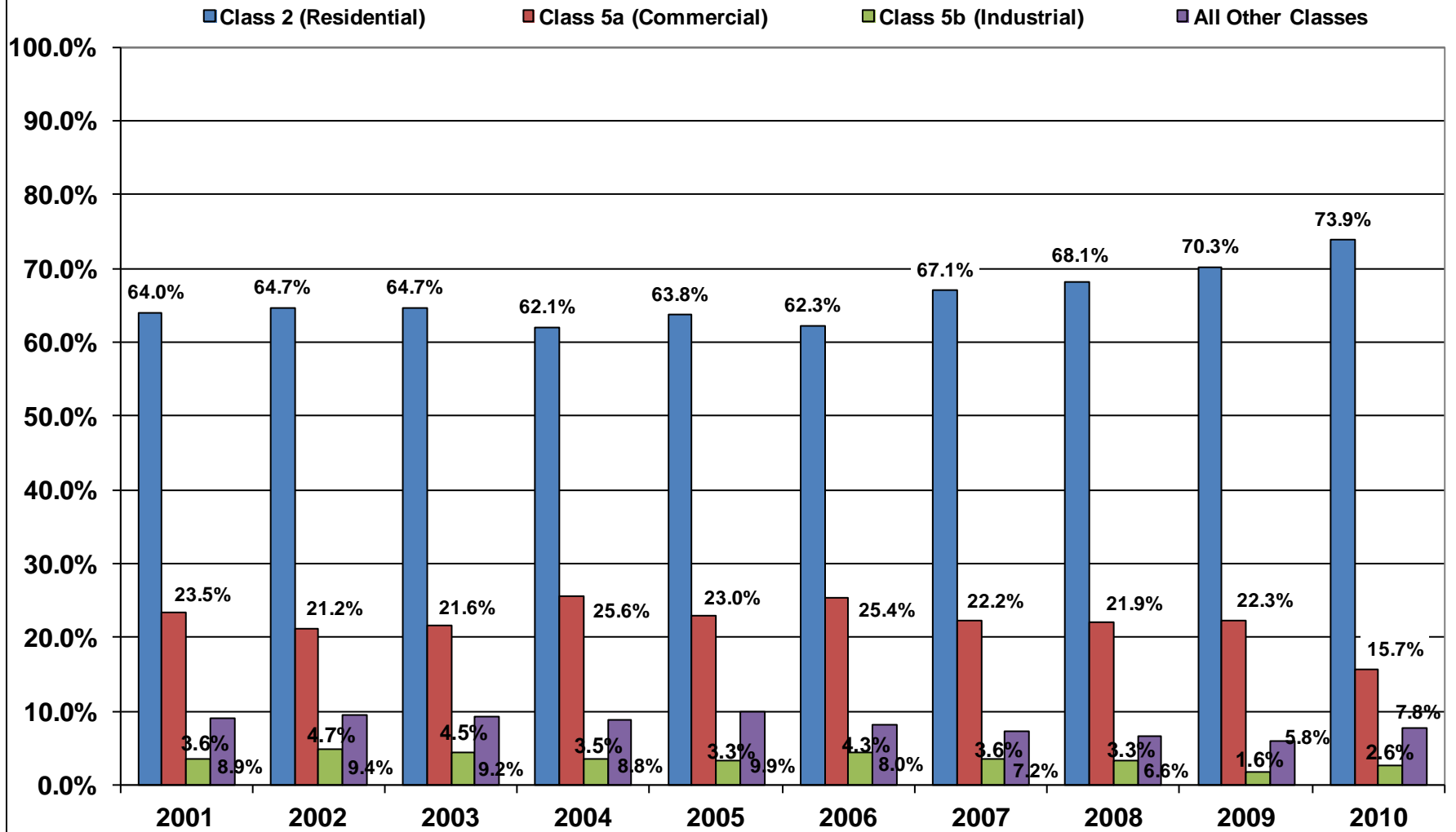
Source: Assessed Value (Cook County Assessor's Office) and Assessment Sales/Ratio Studies (Illinois Department of Revenue) data from the same year

### Total Cook County Estimated Full Value: 2001-2010



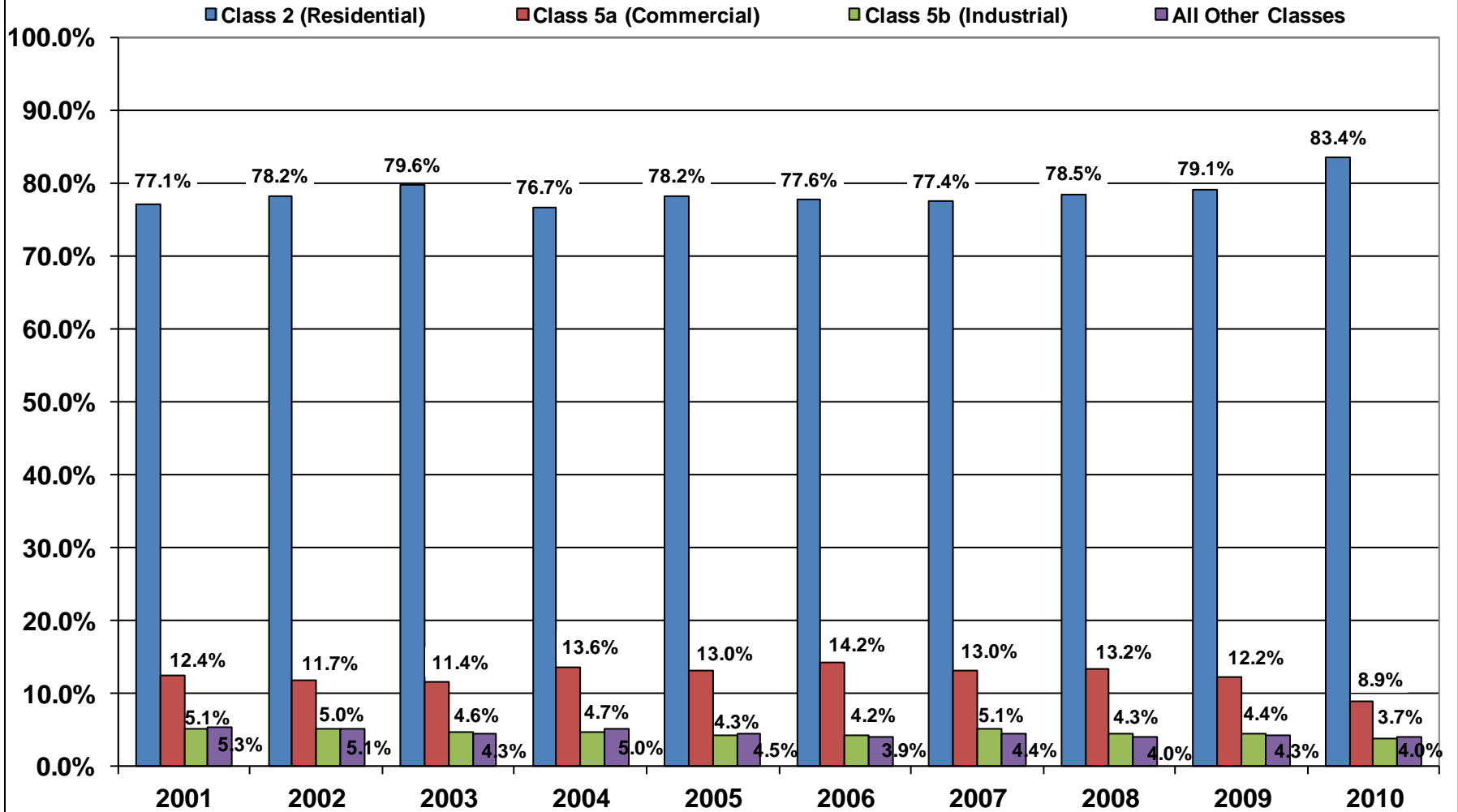
Source: Assessed Value (Cook County Assessor's Office) and Assessment Sales/Ratio Studies (Illinois Department of Revenue) data from the same year

### City of Chicago Triad Estimated Full Value by Class as % of Total: 2001-2010



Note: Minimal differences in totals may occur due to rounding.  
 Sources: Assessed Value (Cook County Assessor's Office) and Assessment Sales/Ratio Studies (Illinois Department of Revenue) data from the same year.

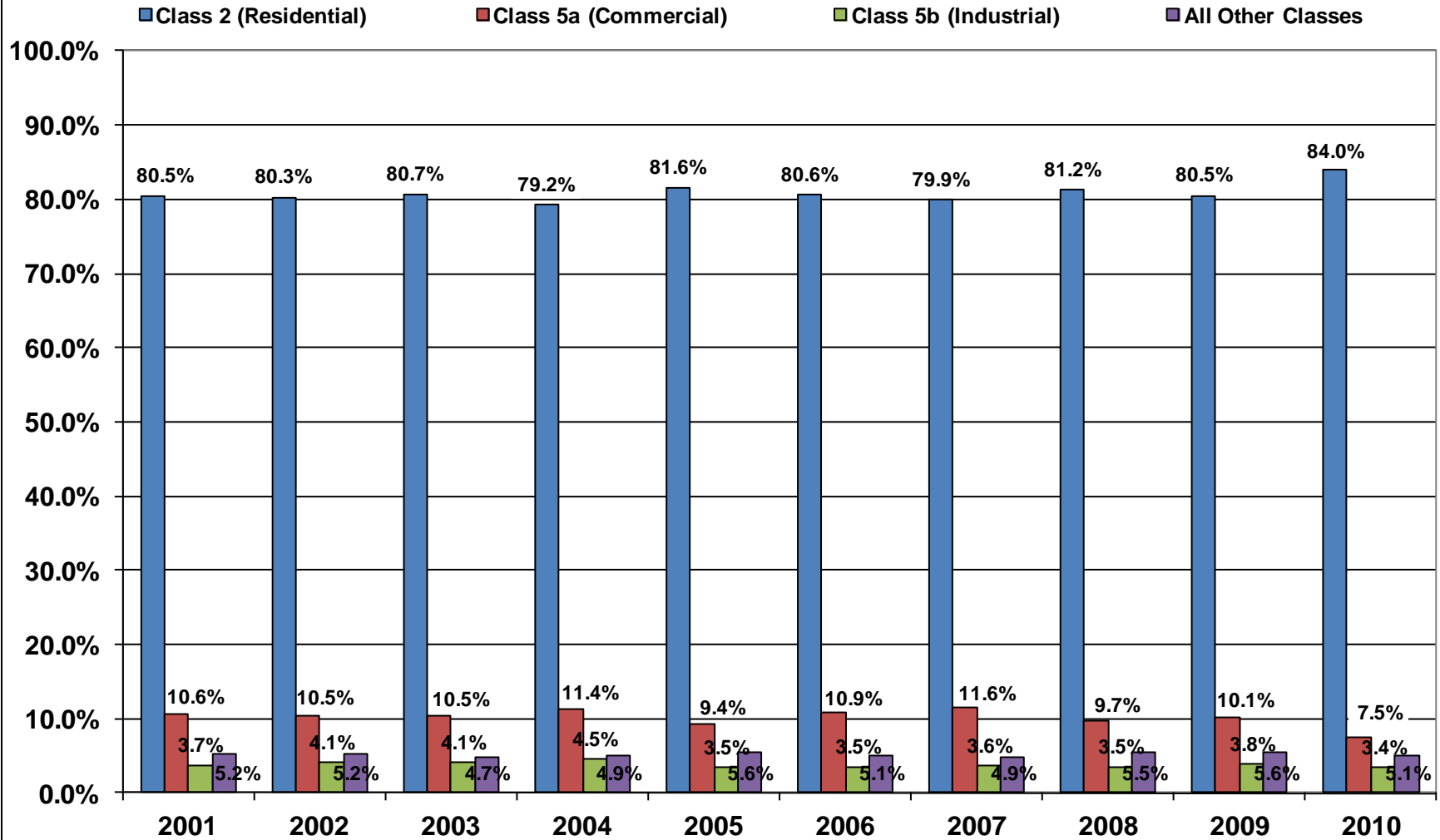
## Northwest Suburbs Triad Estimated Full Value by Class as % of Total: 2001-2010



Note: Minimal differences in totals may occur due to rounding.

Sources: Assessed Value (Cook County Assessor's Office) and Assessment Sales/Ratio Studies (Illinois Department of Revenue) data from the same year.

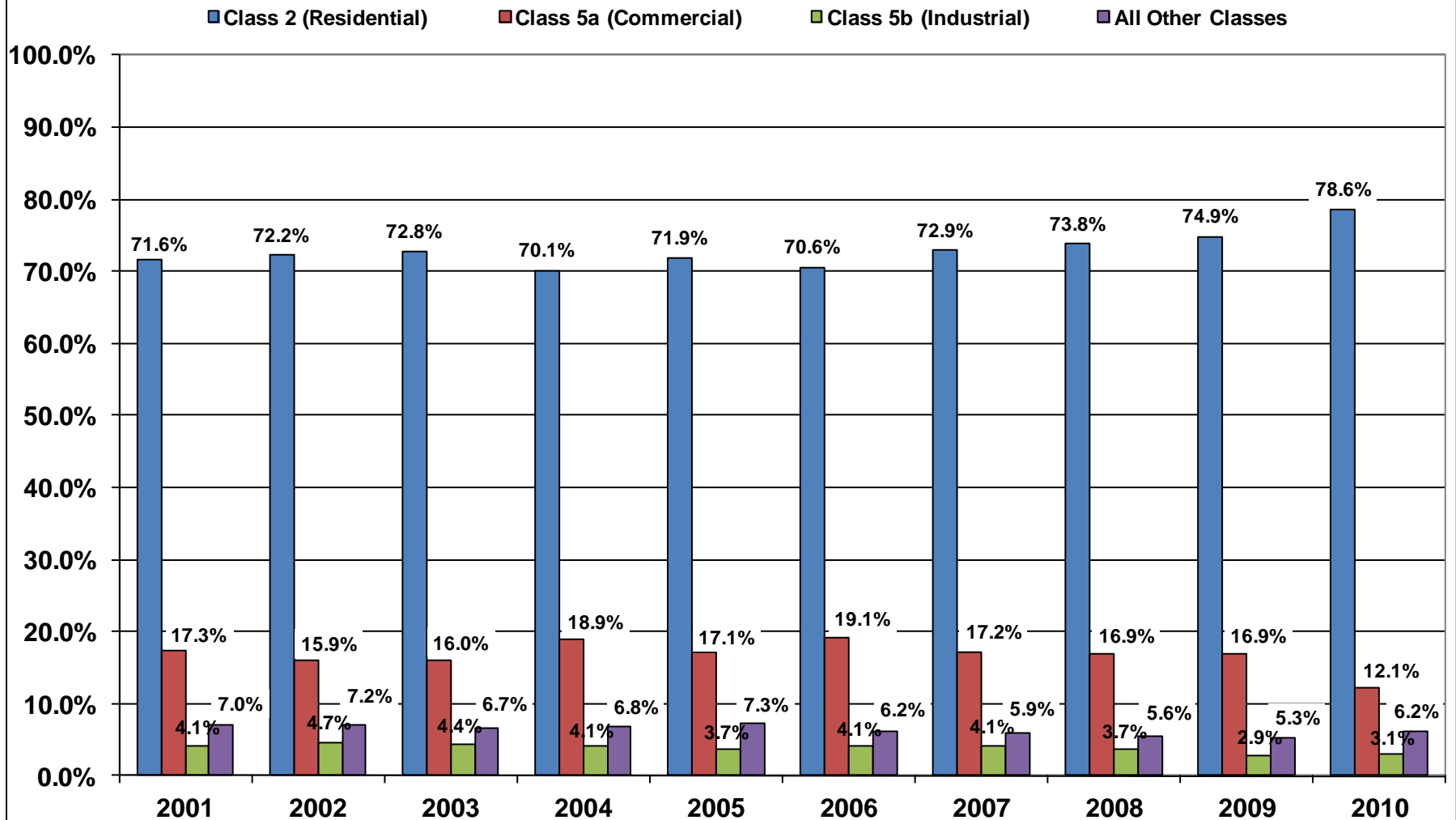
### Southwest Suburbs Triad Estimated Full Value by Class as % of Total: 2001-2010



Note: Minimal differences in totals may occur due to rounding.

Sources: Assessed Value (Cook County Assessor's Office) and Assessment Sales/Ratio Studies (Illinois Department of Revenue) data from the same year.

## Cook County Total Estimated Full Value by Class as % of Total: 2001 -2010

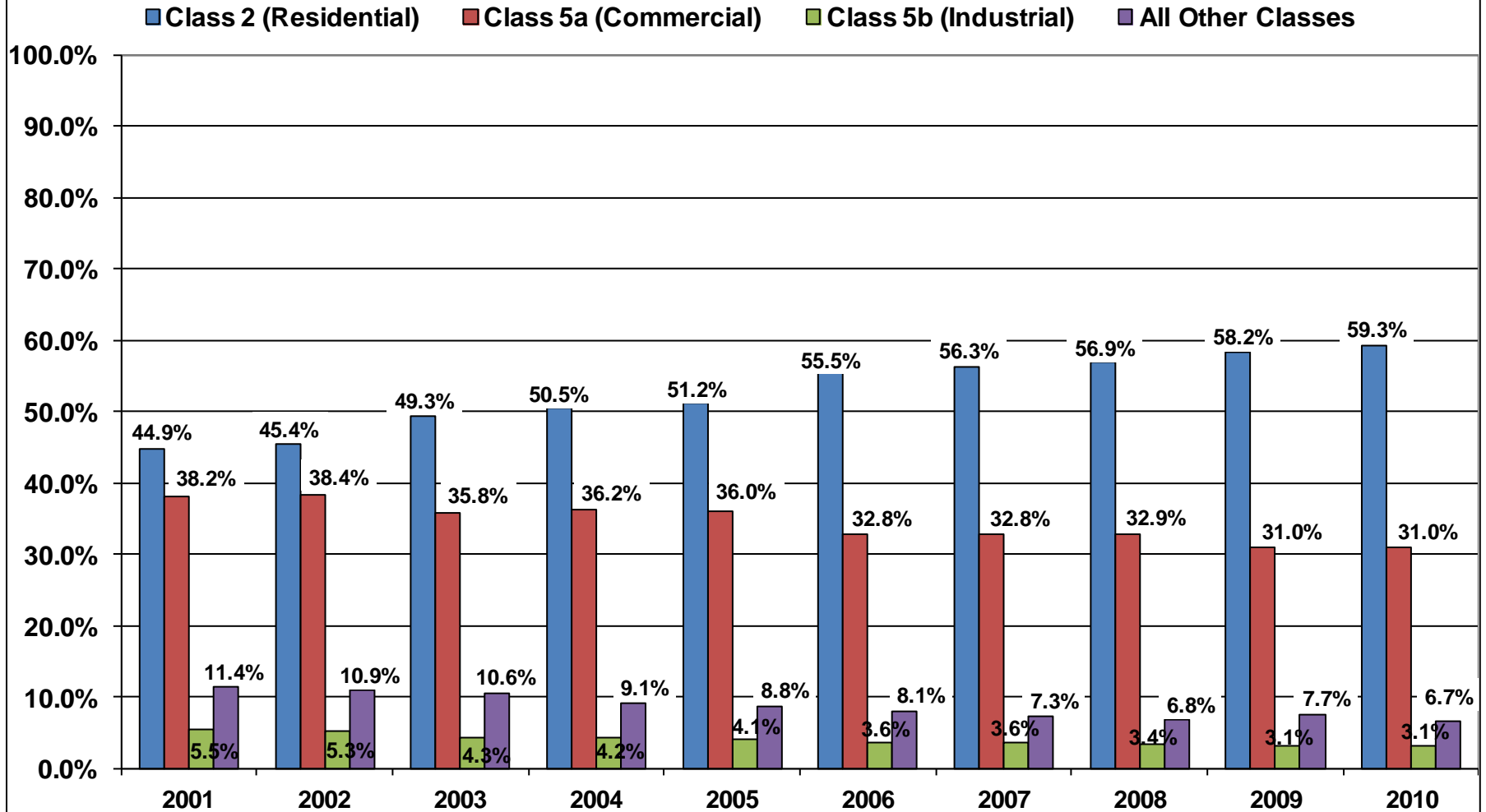


Note: Minimal differences in totals may occur due to rounding.

Sources: Assessed Value (Cook County Assessor's Office) and Assessment Sales/Ratio Studies (Illinois Department of Revenue) data from the same year.

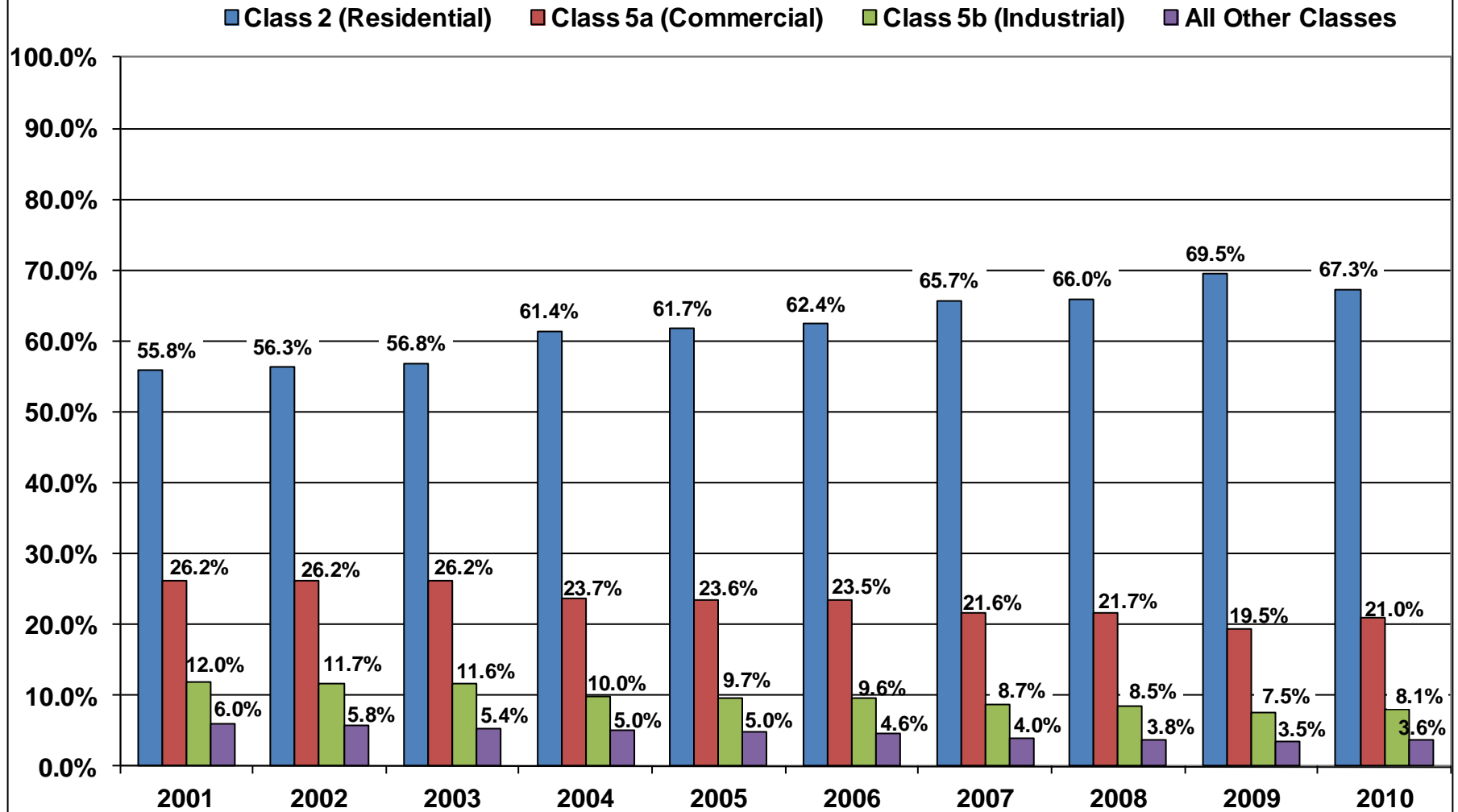


### City of Chicago Triad Assessed Value By Class as % of Total: 2001-2010



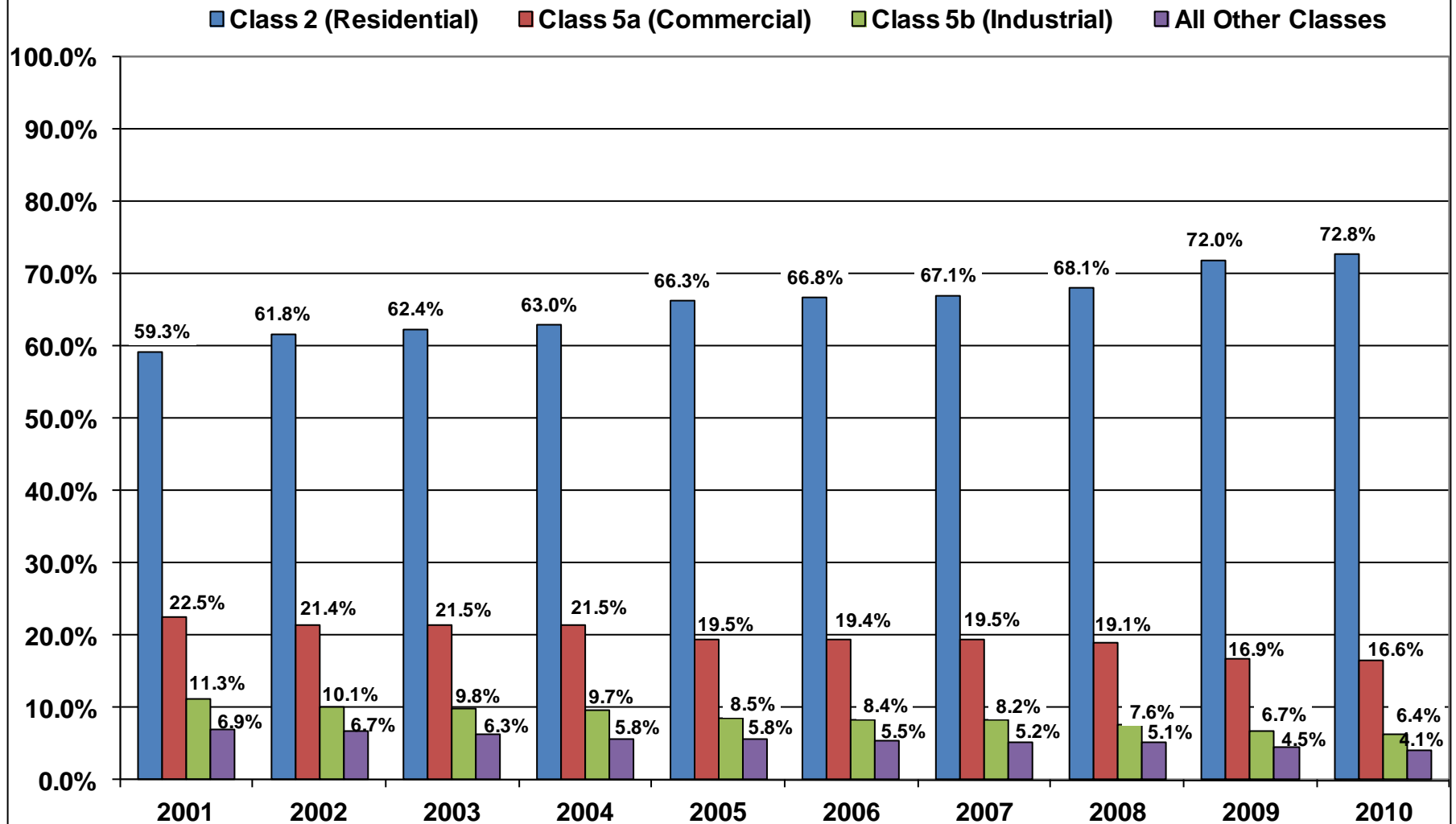
Note: Minimal differences in totals may occur due to rounding.  
 Sources: Assessed Value (Cook County Assessor's Office).

### Northwest Suburbs Triad Assessed Value By Class as % of Total: 2001-2010



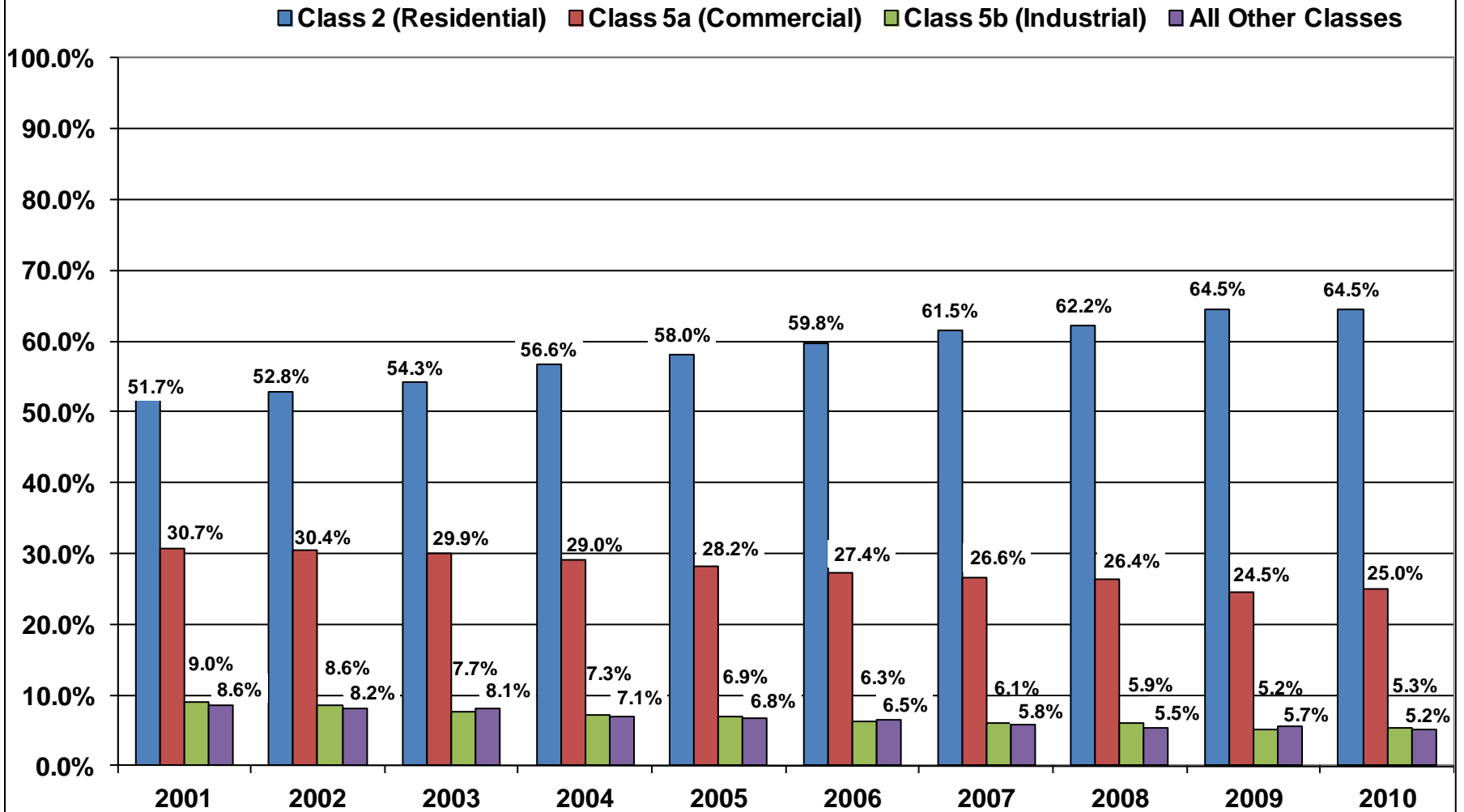
Note: Minimal differences in totals may occur due to rounding.  
 Sources: Assessed Value (Cook County Assessor's Office).

### Southwest Suburbs Triad Assessed Value By Class as % of Total: 2001 -2010



Note: Minimal differences in totals may occur due to rounding.  
 Sources: Assessed Value (Cook County Assessor's Office).

### Cook County Total Assessed Value By Class as % of Total: 2001-2010



Note: Minimal differences in totals may occur due to rounding.  
 Sources: Assessed Value (Cook County Assessor's Office).