

Government of the District of Columbia Mayor Anthony A. Williams Office of the Chief Financial Officer Office of Tax and Revenue

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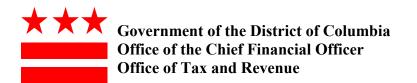
Compliance with IAAO Ratio Study Performance Standards for Tri-Group 1 FY 2002 Assessments Office of Tax and Revenue

Real Property Tax Administration

FY 2002 Assessment Ratio

**Survey Report** 

Real Property Tax Administration 941 North Capitol Street NE Washington, DC 20002 Phone (202) 442-6740 www.assessor@dc.gov February 13, 2002



February 13, 2002 The Honorable Anthony A. Williams And The Honorable Linda Cropp

In accordance with D.C. Code § 47-823(c), published below is the Office of Tax and Revenue 2002 Real Property Assessment/Sales Ratio Study. I am pleased to submit the Office of Tax and Revenue's 2002 Assessment Ratio Report. This report measures the quality of real property assessments within the District of Columbia.

Uniform and accurate assessments are the foundation of fair property taxation. District law and the Federal Constitution require that all real property subject to property taxation be assessed uniformly. District law also requires that assessments be based on the estimated market value (fair market value) of the property. Therefore, uniformity and market value are the standards used to measure the quality of the assessment work performed by the Real Property Tax Administration.

This report measures assessment quality by looking at the most recent reassessment program and comparing the results of that effort to actual market conditions. District law required that one-third of all real property be assessed each year for the last three years. Because the law was changed to move back to annual assessment starting in FY 2001, RPTA's most recent program resulted in approximately 55,000 reassessment notices being issued in May 2001. These reassessments reflected our estimates of property values as of January 1, 2001. To provide an objective quality measure of that work, this report tests those reappraisal results against actual market conditions for the 12 month in Calendar 2000.

The Office of Tax and Revenue has adopted the national standards for measuring property assessment quality as outlined by the International Association of Assessing Officers. Those national standards, as well as our compliance with those standards, are discussed in the body of this report. The data show that the District has excellent assessment uniformity in the areas most recently valued and good uniformity in those areas, which are moving back to annual assessment.

I hope that you find this report useful and informative. Please feel free to share with me any suggestions that you may have to improve this report or the assessment process in the District of Columbia.

Sincerely,

Herbert Huff Deputy Chief Financial Officer Office of Tax and Revenue

11/1/01-WHR

# 2002 ASSESSMENT RATIO REPORT

#### OVERVIEW

The Office of Tax and Revenue's Real Property Tax Administration (RPTA) appraises real property for purposes of property taxation. Properties are valued using the three approaches generally recognized by the appraisal profession: cost, sales comparison, and (when applicable) income. As required by statute, the District of Columbia is moving from a triennial assessment system back to an annual assessment cycle. All properties will continue to be physically reviewed once every three years. During the review, the assessor will visit properties to verify property characteristics existing in our current assessment records. The characteristics include property type, size, grade of construction, condition of structure and any new improvements. In certain circumstances, neighborhood inspections may be made in place of individual property inspections.

For FY 2002, we valued more than 55,000 properties. As we move back to annual assessment, we will value more than 100,000 properties for FY 2003, and more than 160,000 for FY 2004. This requires the use of mass appraisal techniques. While a fee appraiser is concerned with valuing one property at a time, an assessor is valuing whole neighborhoods. To accomplish this, special mass appraisal procedures are used. The assessor will review the data and calculate replacement cost for improvements much like the fee appraiser. Also, individual property type market trends may be developed. The assessor will review the sales from the area. In the District of Columbia, the Recorder of Deeds is a division of the Real Property Tax Administration (RPTA). When real property is transferred, the deed and transfer documents are filed with the Recorder. These documents are imaged and used as a record to change ownership on the assessment roll and capture sales information. The Assessment Division reviews all deeds and property sales prices as the deed transferring the property is recorded. In the assessor's review and analysis of the sales, the assessor will develop land rates, depreciation tables, and sales analysis and/or market trend reports. After completing the analysis, the assessor applies the factors uniformly throughout the neighborhood to value all comparable properties.

RPTA's work is reviewed by OTR's internal auditors, by the District's Auditor and is often scrutinized by individual property owners. We are continually striving for higher quality in assessment uniformity. Our quality control program begins with the individual assessor and the assessor's immediate supervisor. As work is completed, each supervisor reviews the analysis, making recommendations and approving the work. When the assessor completes the revaluation, the supervisor makes a random check using procedural and data editing checks. Following the completion of the revaluation, various computer edits are made to assure good valuation quality.

A measurement of quality is the assessed value/sale price ratio. A ratio is the relationship of two numbers, in this case assessed value and sale price. It measures how closely our values compare to the actual sales prices. The average assessed value/sale price ratio indicates the typical level of assessment. Because the marketplace is not perfect, there will always be properties that sell for more or less than can be anticipated due to factors such as sales between people unfamiliar with the market or buyers willing to pay extra for a unique property, among other reasons.

In mass appraisal and assessment ratio studies, we are not only concerned the typical level of assessment as indicated with the average assessed value/sale price levels (ratios) but also the degree of spread, or variation, from the typical ratio. The measurement of variation is called the coefficient of dispersion (COD). The lower the COD, the more uniform the assessments.

In the balance of this report, we will give a more detailed explanation of the statistical terms as applied to assessment administration and quality control and explain the International Association of Assessing Officers' (IAAO) Standard of Performance for ratio studies. The final tables give an overview of assessment ratio statistics for all the neighborhoods in the District of Columbia for FY 2002 assessments.

# RATIO STATISTICS

The purpose of this ratio study is to test the quality of the assessment product of the properties most recently valued, specifically Triennial Group 1, and the need for revaluation in Triennial Groups 2 & 3. From our most recent valuation, we have performed many ratio studies examining neighborhoods, types of structures, age of structures, etc. We use ratio studies as a performance gauge that includes several measures of central tendency. A measure of central tendency indicates the typical level assessments to actual selling prices of real estate. These may be the average of assessed value/sale price ratio, the weighted average of assessed value/sale price ratio or the median of assessed value/sale price ratio. The average assessed value/sale price ratio is simply the average of all the ratios in the sample. The weighted assessed value/sale prices. The median assessed value/sale price ratio is the result of dividing the total of the assessments by the total of the sale prices. The median assessed value/sale price ratio is the ratios are arrayed from highest to lowest.

In addition to the general level of assessments, we are also concerned with the relative spread or variation that individual ratios fall from the typical ratio. This is measured by the coefficient of dispersion. The coefficient of dispersion is calculated by dividing the

average absolute deviation by the average ratio. To calculate the average absolute deviation subtract the average ratio from the individual ratios and add all the results ignoring positive or negative signs and dividing by the number of ratios. The acceptable level for the coefficient of dispersion depends upon the type of properties being reviewed. Coefficients of dispersion should typically be 20% or less, depending on the types of properties being valued.

Another statistical measure used to gauge assessment uniformity is the Price-Related Differential (PRD). The PRD tests to see if higher and lower valued properties are assessed at the same level. It is calculated by dividing the average ratio by the weighted ratio. Typically, PRDs have an upward bias. PRDs should range between 0.98 and 1.03, except for very small samples. For example, a PRD of 1.03 indicates under valuation of high priced properties, while a PRD of .98 shows an under valuation of low priced properties. Table 2 of this report illustrates a sample computation of these statistics.

Other descriptive statistical methods that may be used to analyze the assessment product are histograms, frequency distributions, scatter diagrams and coefficient of variation. Due to the scope of this report, we have not fully examined these here. For further information on statistics relating to assessments the IAAO's publication "Improving Real Property Assessment" is recommended.

# RATIO STUDY STANDARDS - VALUES TO SALE PRICES

The International Association of Assessing Officers is a professional organization of assessing officials that provides educational programs, assessment administration standards and research on appraisal and tax policy issues. The IAAO has developed numerous standards and texts on appraisal and assessment administration. Additionally, the organization is a founding member of the national Appraisal Foundation that developed the Uniform Standards of Professional Appraisal Practice (USPAP).

The IAAO's Standard on Ratio Studies was first published in September 1980 and was revised in July of 1999. The Standard is advisory in nature. This Standard provides guidance to those performing ratio studies in the mass appraisal field regarding the design, statistics, performance measures and related issues in conducting ratio studies. The District of Columbia Real Property Tax Administration uses the fundamental ratio statistical measures of the Standard and has adopted IAAO's Assessment Ratio Performance Standard as the criteria to judge the performance of the District's revaluations. See Table 1 below.

#### Table 1

Type of Property	Measure of Central Tendency	Coefficient of Dispersion	Price-Related Differential		
Single-Family Residential					
Newer, homogeneous areas Older, heterogeneous areas Rural residential and seasonal	.90 - 1.10 .90 - 1.10 .90 - 1.10	15.0 or less	.98 - 1.03		
Income Producing Properties					
Larger, urban jurisdictions	.90 - 1.10	15.0 or less	.98 - 1.03		
Smaller, rural jurisdictions	.90 - 1.10	20.0 or less	.98 - 1.03		
Vacant Land	.90 - 1.10	20.0 or less	.98 - 1.03		
Other Real and Personal Property	90 - 1.10	Varies with local conditions			

## Ratio Study Performance Standards

Source: Standard on Ratio Studies; International Association of Assessing Officers; Chicago, Illinois; July 1999; p.34.

Ratio studies may be performed for various reasons including appraisal accuracy and assessment equity studies, to judge the need for and management of a reappraisal, to identify problems with appraisal procedures, to assist in market analysis, and to adjust appraised values. Many ratio study design issues must be considered depending on the purpose of the ratio study.

This study considers unadjusted sales price data during calendar year 2000 before the date of finality for which assessments have become effective for FY 2002. Generally, only sales that are arms-length transactions between a buyer and seller are included in the study. Sales between related parties, with financial institutions or government agencies involved, or sales with extreme ratios which indicate abnormal transactions, have not been used in this study. A detailed physical inspection of all sales did not occur. Thus, some of these transactions may have had conditions that should have warranted their exclusion from the study, but were not. Generally, the District's ratio performance is good and conforms to the IAAO Standard.

While several measures of central tendency may be calculated (average, median, and weighted average) the median is less affected by extreme ratios. Therefore, the IAAO observes in its Standard that the median is generally the preferred measure of central tendency for monitoring appraisal performance. For this reason, median ratios are used in this study to measure compliance with IAAO standards.

In circumstances where property values are rapidly changing, ratio statistics will be adversely affected. Where real estate prices have been increasing, ratio statistics will indicate a lower assessed value/sale price ratio. This rapid escalation in property values has lowered the average ratio. This has occurred in several neighborhoods in Tri-Group 1, and has occurred in Tri-Groups 3 and 2 since these two Tri-Groups have not been valued for two and three years respectively. However, one should review the average deviation, coefficient of dispersion, and standard deviation to assure that assessments are uniform.

# COMPARISON OF RPTA'S VALUES TO SALE PRICES

Quality is the degree of excellence of a product or service. Also, quality is the extent to which a product measures up to certain standards. In this case, a measure of quality is the ratio study measuring whether the assessor appraised properties uniformly and at market value. The ratio study conducted in this report is based upon sales data collected, for the most part, after the time period of sales used by the assessor in the group of properties reassessed. Assuming the assessor applied the mass appraisal model uniformly to all properties, this ratio study should show uniformity of assessment. This ratio study is a cross-check by the RPTA management to assure quality of the mass appraisal. It was conducted on 6,789 improved residential property sales from January 1, 2000 to December 31, 2000 and compares the administration's valuations on the tax roll for FY2002.

Table 3 summaries the Fiscal Year 2002 Real Property Assessment/Sale Ratio by neighborhood within the District of Columbia for residential properties. Table 4 displays similar information for commercial properties. Table 5 illustrates the frequency of assessment sale ratios, in the form of histograms, for residential properties by the three Triennial-Groups (Tri-Groups) of the city. Tri-Group 1 was the most recently valued area, Tri-Group 2 was last valued two years ago and Tri-Group 3 was valued one year ago. The sales used in this study were calendar year 2000 real estate sales. Thus, the charts in Table 5 indicate the performance of the most recent reappraisal in Tri-Group 1 and the need for reappraisal in the remaining Tri-Groups. Table 6 measures RPTA's compliance with nationally recognized assessment performance standards in the area most recently valued, Tri-Group 1 for FY 2002.

The histograms in Figure 5 graphically represent the frequency distribution of individual ratios in the study and thus allowing comparison between the tri-groups. The general shapes of the graphs also help to illustrate the amount of dispersion existing in the data. A tall, narrow shape usually indicates less dispersion from the measure of central tendency, whereas a more flat and broad shape illustrates more dispersion and poor uniformity. The histogram for Tri-1, the most recently appraised area, illustrates both good central tendency and little dispersion. The measures of central tendency indicate that properties are valued at approximately 92% of sale price and that on average all other properties have very similar ratios as indicated by the 10.5% coefficient of dispersion. Because this was the most recently appraised area of the District, our appraisals are more current with the increasing real estate market.

Tri-group 3, the next to oldest appraised area, shows a large number of ratios clustered around a slightly lower average ratio of 89%, and about the same number of ratios

"dispersed" away from that average ratio. With appraisals a year old than Tri-1, the level of assessment has lagged a bit behind the market but still acceptable.

The histogram for Tri-2 illustrates a need to return to annual assessments. The ratios are based on appraisals that are the oldest of the group and consequently show the results of their age. The level of assessment is the lowest, at 76%. The shape of the histogram, more flat and broad, shows more dispersion than the other two tri-groups. Annual assessment of all the property in the District will improve both the central tendency and uniformity of the values.

The analysis from Table 6 and the following descriptive statistics indicates that values determined by assessors for the most recent triennial Group 1 valuation attained a uniform and appropriate level of value. In summary, the data show that properties consistently sell at a price close to the Department's values.

The 2002 Ratio Study shows that twenty-two residential neighborhoods in Tri-Group 1 were valued for FY2002. Fifteen of the twenty-two neighborhoods met all applicable IAAO standards for assessment performance, and six met all but one. In the case of commercial property, more weight is given to the income approach to valuation, and there are fewer sales allowing more thorough investigation. In the neighborhoods where data was adequate, all but one exceeded the IAAO's standard for median ratios.

12/1/2001 WHR

# Table 2

# Illustration of Ratio Study Statistics

(1) Property	(2) Sale	(3) Assessed	(4) Ratio	(5) Deviation
Number	Price	Value	A/S%	from Average
1	\$280,000	\$224,000	80%	20%
2	\$220,000	\$192,500	88%	12%
3	\$635,000	\$555,750	88%	12%
4	\$559,000	\$517,000	92%	7%
5	\$200,000	\$190,000	95%	5%
6	\$210,000	\$204,750	98%	2%
7	\$800,000	\$800,000	100%	0%
8	\$400,000	\$400,000	100%	0%
9	\$330,000	\$333,000	101%	1%
10	\$450,000	\$461,250	103%	3%
11	\$240,000	\$252,000	105%	5%
12	\$390,000	\$419,250	108%	8%
13	\$370,000	\$416,250	113%	13%
14	\$403,000	\$458,000	114%	14%
15	\$510,000	\$599,250	118%	18%
TOTAL	\$5,997,000	\$6,023,000	1500%	120%

# Sample Jurisdiction

Average Ratio	=	Total of Ratios (4)	÷	Number of Sales (1)	=	100%
		1500%		15		
Weighted Ratio	Π	Total of Assessed Values (3)	÷	Total of Sale Prices (2)		100%
		\$6,023,000		\$5,997,000		
Average Deviation	Π	Total Deviations (5)	÷	Number of Sales (1)		8%
		120%		15		
Median Ratio	Π	Middle Value of Data Array	=		=	100%
		(i.e. property #8)				
Coefficient of Dispersion	Π	Average Deviation (5)	÷	Median Ratio (4)	=	8%
		8%		100%		
Price-Related Differential	Π	Average Ratio (4)	÷	Weighted Ratio	=	1.00
		100%		100%		

## Fiscal Year 2002

#### Residential Real Property Assessment Ratio by Neighborhood

This table shows the real property assessment ratio data for residential properties. The ratios are of arms-length sales of properties and the Triennial Group number indicates the last year of valuation (Group 1 = FY2002, Group 2 = FY 2000, Group 3 = FY 2001). The sales used sold between January 1, 2000 and December 31, 2000, compared with RPTA's values on the FY 2002 assessment roll. In neighborhoods with fewer than twenty sales, statistics have not been presented because of an insufficient sample size. Type of Property: Residential

Number	Neighbor- hoods	Number of Sales	Average Sale Price	Median Sale Price	Mean Ratio	Median Ratio	Triennial Group	Weighted Ratio	Coefficient of Dispersion	Price- Related Differential
1	American University	115	\$439,551	\$432,000	77.6	78.0	3	76.5	11	1.01
2	Anacostia	54	\$93,639	\$92,000	98.8	94.3	1	94.3	23	1.05
3	Barry Farms	9	\$0	\$0	0.0	0.0	1	0	0	0
4	Berkeley	25	\$649,866	\$705,000	84.3	84.0	2	86	8	0.98
5	Brentwood	38	\$110,746	\$125,000	103.0	98.4	1	98.3	14	1.05
6	Brightwood	158	\$172,617	\$169,975	89.4	89.9	3	86	14	1.04
7	Brookland	207	\$134,886	\$130,000	91.8	89.5	3	88.4	16	1.04
8	Burleith	52	\$510,542	\$394,000	68.8	67.7	2	66.6	12	1.03
9	Capitol Hill	193	\$302,905	\$308,000	69.8	67.8	2	66.5	15	1.05
10	Central	232	\$244,354	\$160,500	89.5	92.1	1	88.7	15	1.01
11	Chevy Chase	171	\$363,285	\$385,000	85.0	82.6	3	84.5	11	1.01
12	Chillum	26	\$157,832	\$148,500	97.8	90.2	3	93.6	19	1.05
13	Cleveland Park	144	\$337,612	\$224,000	95.4	96.1	1	92.3	11	1.03
14	Colonial Village	26	\$503,154	\$404,500	82.1	82.9	3	78.1	20	1.05
15	Columbia Heights	347	\$151,892	\$140,000	93.5	93.0	1	88.5	20	1.06
16	Congress Heights	116	\$101,564	\$105,500	104.0	100.3	1	101.3	13	1.02

17	Crestwood	25	\$423,098	\$419,000	89.3	84.7	2	86.5	19	1.03
18	Deanwood	171	\$92,486	\$93,266	97.1	94.9	3	93.2	20	1.04
19	Eckington	89	\$147,784	\$145,000	93.5	89.1	1	89.1	22	1.05
20	Foggy Bottom	128	\$138,784	\$89,500	71.8	70.5	2	69.8	15	1.03
21	Forest Hills	149	\$271,426	\$160,900	86.1	88.6	1	88.7	16	0.97
22	Fort Dupont Park	88	\$106,138	\$109,925	100.0	98.5	1	98.5	14	1.02
23	Foxhall	34	\$415,308	\$400,500	67.6	67.2	2	64.9	16	1.04
24	Garfield	97	\$326,847	\$257,000	95.9	97.0	1	93	10	1.03
25	Georgetown	269	\$497,474	\$435,000	71.7	69.1	2	67.5	20	1.06
26	Glover Park	120	\$226,401	\$167,500	72.3	68.8	2	68.6	14	1.05
27	Hawthorne	17	\$0	\$0	0.0	0.0	3	0	0	0
28	Hill Crest	88	\$126,889	\$117,907	101.0	97.3	1	96.1	14	1.05
29	Kalorama	240	\$364,270	\$229,500	90.8	91.7	1	87.5	14	1.04
30	Kent	25	\$651,581	\$550,000	90.0	90.0	2	88	11	1.02
31	LeDroit Park	88	\$170,466	\$164,373	89.1	86.7	1	85.5	21	1.04
32	Lily Ponds	24	\$0	\$0	0.0	0.0	3	0	0	0
33	Marshall Heights	27	\$83,750	\$81,900	104.0	97.0	1	99.7	17	1.04
34	Mass. Ave. Heights	11	\$0	\$0	0.0	0.0	1	0	0	0
35	Michigan Park	25	\$174,517	\$179,900	91.1	86.3	2	88.3	15	1.03
36	Mount Pleasant	256	\$258,650	\$265,000	88.1	93.5	1	84.3	15	1.05
37	N. Cleveland Park	53	\$411,092	\$430,000	81.9	79.0	3	78.2	15	1.05
38	Observatory Circle	99	\$264,972	\$165,000	86.4	89.5	1	85.5	15	1.01
39	Old City #1	736	\$179,097	\$155,000	80.3	74.9	2	72.9	25	1.1
40	Old City #2	916	\$202,525	\$156,293	74.0	69.6	2	71	24	1.04
41	Palisades	57	\$302,471	\$342,000	74.6	68.2	2	70.4	22	1.06

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42	Petworth	212	\$128,381	\$130,250	93.7	89.3	3	89.6	20	1.05
43	Randle Heights	81	\$110,680	\$115,990	100.0	99.9	1	99	10	1.01
44	R.L.A. (N.E.)	0	\$0	\$0	0.0	0.0	2	0	0	0
45	R.L.A. (N.W.)	4	\$0	\$0	0.0	0.0	2	0	0	0
46	R.L.A. (S.W.)	110	\$143,795	\$112,900	87.6	85.3	2	82.7	20	1.06
47	Riggs Park	58	\$133,130	\$132,693	93.6	91.0	3	92.4	9	1.01
48	Shepherd Park	41	\$319,051	\$300,000	85.5	83.2	3	82.9	18	1.03
49	16th Street Heights	61	\$244,933	\$230,000	75.6	72.1	3	71.5	22	1.06
50	Spring Valley	56	\$923,246	\$872,464	73.7	70.6	2	70.8	19	1.04
51	Takoma Park	19	\$0	\$0	0.0	0.0	3	0	0	0
52	Trinidad	108	\$88,109	\$90,000	103.0	98.4	1	95.6	24	1.08
53	Wakefield	46	\$214,594	\$165,750	75.1	74.6	3	72.9	14	1.03
54	Wesley Heights	137	\$347,676	\$245,000	71.8	73.8	2	71.1	15	1.01
55	Woodley	11	\$0	\$0	0.0	0.0	1	0	0	0
56	Woodridge	100	\$132,206	\$131,500	93.9	91.4	3	90.2	18	1.04

#### Fiscal Year 2002

#### Commercial Real Property Assessment Ratio by Neighborhood

This table shows the real property assessment ratio data for commercial properties. The ratios are of arms-length sales of properties and the Triennial Group number indicates the last year of valuation (Group 1 = FY2002, Group 2 = FY 2000, Group 3 = FY 2001). The sales used sold between January 1, 2000 and December 31, 2000, compared with RPTA's values on the FY 2002 assessment roll. In neighborhoods with fewer than twenty sales, statistics have not been presented because of an insufficient sample size.

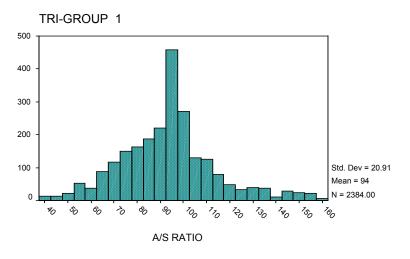
Number	Neighbor- hoods	Number of Sales	Average Sale Price	Median Sale Price	Mean Ratio	Median Ratio	Triennial Group	Weighted Ratio	Coefficient of Dispersion	Price- Related Differential
1	American University	0	\$0	\$0	0.0	0.0	3	0.0	0	0
2	Anacostia	8	\$0	\$0	0.0	0.0	1	6	2	0
3	Barry Farms	5	\$0	\$0	0.0	0.0	1	5	0	0
4	Berkeley	0	\$0	\$0	0.0	0.0	2	0.0	0	0
5	Brentwood	6	\$0	\$0	0.0	0.0	1	0.0	0	0
6	Brightwood	2	\$0	\$0	0.0	0.0	3	0.0	0	0
7	Brookland	13	\$0	\$0	0.0	0.0	3	0.0	0	0
8	Burleith	0	\$0	\$0	0.0	0.0	2	0.0	0	0
9	Capitol Hill	25	\$929,870	\$300,000	79.5	74.4	2	71.4	21	1.11
10	Central	45	\$19,102,882	\$3,300,000	89.5	97.4	1	95.0	20	0.94
11	Chevy Chase	1	\$0	\$0	0.0	0.0	3	0.0	0	0
12	Chillum	1	\$0	\$0	0.0	0.0	3	0.0	0	0
13	Cleveland Park	0	\$0	\$0	0.0	0.0	1	0.0	0	0
14	Colonial Village	0	\$0	\$0	0.0	0.0	3	0.0	0	0
15	Columbia Heights	50	\$169,132	\$117,000	100.0	100.0	1	93.8	16	1.07

#### **Type of Property: Commercial**

16	Congress Heights	15	\$0	\$0	0.0	0.0	1	0.0	0	0
17	Crestwood	0	\$0	\$0	0.0	0.0	1	0.0	0	0
18	Deanwood	12	\$0	\$0	0.0	0.0	3	0.0	0	0
19	Eckington	15	\$0	\$0	0.0	0.0	1	0.0	0	0
20	Foggy Bottom	1	\$0	\$0	0.0	0.0	2	0.0	0	0
21	Forest Hills	2	\$0	\$0	0.0	0.0	1	0.0	0	0
22	Fort Dupont Park	0	\$0	\$0	0.0	0.0	1	0.0	0	0
23	Foxhall	0	\$0	\$0	0.0	0.0	2	0.0	0	0
24	Garfield	2	\$0	\$0	0.0	0.0	1	0.0	0	0
25	Georgetown	18	\$0	\$0	0.0	0.0	2	0.0	0	0
26	Glover Park	4	\$0	\$0	0.0	0.0	2	0.0	0	0
27	Hawthorne	0	\$0	\$0	0.0	0.0	3	0.0	0	0
28	Hill Crest	6	\$0	\$0	0.0	0.0	1	0.0	0	0
29	Kalorama	2	\$0	\$0	0.0	0.0	1	0.0	0	0
30	Kent	9	\$0	\$0	0.0	0.0	2	0.0	0	0
31	LeDroit Park	1	\$0	\$0	0.0	0.0	1	0.0	0	0
32	Lily Ponds	2	\$0	\$0	0.0	0.0	3	0.0	0	0
33	Marshall Heights	0	\$0	\$0	0.0	0.0	1	0.0	0	0
34	Mass. Ave. Heights	0	\$0	\$0	0.0	0.0	1	0.0	0	0
35	Michigan Park	0	\$0	\$0	0.0	0.0	3	0.0	0	0
36	Mount Pleasant	7	\$0	\$0	0.0	0.0	1	0.0	0	0
37	N. Cleveland Park	0	\$0	\$0	0.0	0.0	3	0.0	0	0
38	Observatory Circle	2	\$0	\$0	0.0	0.0	1	0.0	0	0
39	Old City #1	58	\$226,373	\$150,000	87.2	83.7	2	73.9	26	1.18

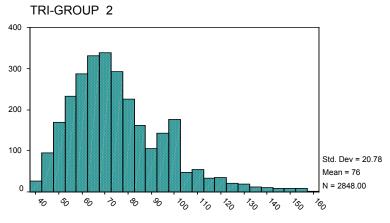
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40	Old City #2	63	\$516,572	\$250,000	79.1	76.2	2	70.1	28	1.13
41	Palisades	3	\$0	\$0	0.0	0.0	2	0.0	0	0
42	Petworth	13	\$0	\$0	0.0	0.0	3	0.0	0	0
43	Randle Heights	8	\$0	\$0	0.0	0.0	1	0.0	0	0
44	R.L.A. (N.E.)	1	\$0	\$0	0.0	0.0	2	0.0	0	0
45	R.L.A. (N.W.)	0	\$0	\$0	0.0	0.0	2	0.0	0	0
46	R.L.A. (S.W.)	0	\$0	\$0	0.0	0.0	2	0.0	0	0
47	Riggs Park	1	\$0	\$0	0.0	0.0	3	0.0	0	0
48	Shepherd Park	0	\$0	\$0	0.0	0.0	3	0.0	0	0
49	16th Street Heights	10	\$0	\$0	0.0	0.0	3	0.0	0	0
50	Spring Valley	0	\$0	\$0	0.0	0.0	2	0.0	0	0
51	Takoma Park	0	\$0	\$0	0.0	0.0	3	0.0	0	0
52	Trinidad	4	\$0	\$0	0.0	0.0	1	0.0	0	0
53	Wakefield	0	\$0	\$0	0.0	0.0	3	0.0	0	0
54	Wesley Heights	0	\$0	\$0	0.0	0.0	2	0.0	0	0
55	Woodley	0	\$0	\$0	0.0	0.0	1	0.0	0	0
56	Woodridge	6	\$0	\$0	0.0	0.0	3	0.0	0	0

## HISTOGRAMS OF RESIDENTIAL SALES RATIOS



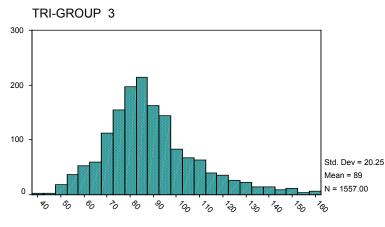
## **RESIDENTIAL SALES RATIOS**





A/S RATIO





A/S RATIO

## Fiscal Year 2002

## Compliance with IAAO Ratio Study Performance Standards for Tri Group 1 FY 2002 Assessments

The International Association of Assessing Officers sets advisory standards for assessment statistics. These standards are discussed in Section III of the text. A "+" indicates compliance with the standard.

2000	Residential Median Ratio	Residential Coefficient of Dispersion	Residential Price-Related Differential	Commercial Median Ratio
Anacostia	+	+	×	+
Barry Farms	+	+	×	+
Brentwood	+	×	×	+
Central	+	+	+	+
Cleveland Park	+	+	+	Ø
Columbia Heights	+	+	+	Ø
Congress Heights	+	+	+	+
Crestwood	+	+	+	+
Eckington	+	+	×	+
Forest Hills	+	+	×	Ø
Fort Dupont Park	+	+	+	+
Garfield	+	+	+	+
Hill Crest	+	+	+	+
Kalorama	+	+	+	+
LeDroit Park	+	+	×	+
Marshall Heights	+	+	+	+
Mass. Ave. Heights	+	+	+	+
Mount Pleasant	+	+	+	×
Observatory Circle	+	+	+	Ø
Randall Heights	+	+	+	Ø
Trinidad	+	+	×	Ø
Woodley	+	+	+	+

+ = Meets IAAO Standard

 $\times$  = Does not meet IAAO Standard

Ø = Insufficient data