Government of the District of Columbia

Mayor Muriel E. Bowser

Office of the Chief Financial Officer

Mr. Jeffrey S. DeWitt

Office of Tax and Revenue

Real Property Tax Administration

FY 2017 Assessment

Ratio Report

October 25, 2016

The Honorable Muriel E. Bowser
Mayor of the District of Columbia

       and

The Honorable Phil Mendelson

Chairman of the Council of the District of Columbia

Dear Mayor Bowser and Chairman Mendelson:

In accordance with D.C. Code § 47-823(c), I am pleased to submit the Office of Tax and Revenue's (OTR) Fiscal Year 2017 Assessment Ratio Report. This report measures the quality of real property assessments within the District of Columbia.

Uniform and accurate assessments for similar properties 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 requires that all real property be assessed annually, and this reassessment resulted in approximately 200,000 reassessment notices being issued in February 2016 effective for Fiscal Year 2017. These reassessments reflected OTR's estimate of property values as of January 1, 2016. To provide an objective performance measure of that work, this report tests those reassessment results against actual property sales for the 12 months in calendar year 2015.

OTR is guided by national standards for measuring property assessment quality, as promulgated by the International Association of Assessing Officers. Those national standards and our compliance therewith are discussed in this report. The data show that the District has acceptable levels and uniformity of assessments.

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

Sincerely,

Glen Groff
Interim Deputy Chief Financial Officer
Office of Tax and Revenue

FY 2017 ASSESSMENT RATIO REPORT

Overview

The Office of Tax and Revenue's (OTR) Real Property Tax Administration (RPTA) assesses real property for purposes of property taxation. A portion of all properties will be physically reviewed each year.   During the review, RPTA appraisers will visit properties to verify property characteristics existing in our current assessment records. The characteristics include property type, size, quality of construction, condition of structure and any new improvements.

For Fiscal Year (FY) 2017, the District assessed approximately 200,000 properties. The magnitude of the reassessment requires the use of mass appraisal techniques. In using the mass appraisal technique, an RPTA appraiser values all properties in an entire neighborhood at one time with standardized appraisal method(s) and statistical testing. This is in contrast with the practice of a private fee appraiser, who is only concerned with valuing a single property at any particular time.

When real property is transferred, the deed and transfer documents are filed with the Recorder of Deeds of the District of Columbia. These documents are imaged, used as a record to change ownership on the assessment roll, and used to capture sales information. RPTA's Assessment Division reviews all deeds and property sales prices after the deed transferring the property is recorded.   In the appraiser's review and analysis of the sales, the appraiser will develop land rates, depreciation tables, and sales analysis and/or market analysis reports.   After completing the analysis, the appraiser applies the factors uniformly throughout the neighborhood to value all comparable properties.

Supervisory personnel carefully review each RPTA appraiser's work, and the RPTA appraiser's work is also scrutinized by individual property owners. We are continually striving for higher quality in assessment uniformity. Our quality control program begins with the individual appraiser and the appraiser's immediate supervisor.   As work is completed, the supervisor reviews the analysis, making revisions or approving the work. When the appraiser completes his or her assigned revaluations, the supervisor makes a random check using procedural and data editing reports. Following the completion of the revaluation, appropriate computer edits are made to ensure good valuation quality.

A measurement of quality is the assessed value/sale price ratio.   A ratio is the relationship between two numbers; in this case it is the relationship between the assessed value and sale price. The ratio measures how closely our values compare to the actual sales prices.   The average assessed value/sale price ratio indicates the typical level of assessment.   Real estate market is an imperfect market; there will always be properties that sell for more or less than what 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 with the typical level of assessment as indicated by the average assessed value/sale price levels (ratios), but also the degree of spread, or variation, from the typical ratio. One such statistical measurement of variation is called the coefficient of dispersion (COD). The lower the COD, the more uniform the assessments.

The subsequent portions of this report provides detailed explanations 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.

RATIO STATISTICS

The purpose of this ratio study is to test the quality of the assessment product of the properties most recently valued. 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 of assessments to actual selling prices of real estate. These may be the average of the assessed value/sale price ratios, the weighted average of the assessed value/sale price ratios or the median of the assessed value/sale price ratios. The average assessed value/sale price ratio is simply the average of all the ratios in the sample. The weighted 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 midpoint ratio of all ratios after 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 depart 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 median ratio. To calculate the average absolute deviation, subtract the median ratio from the individual ratios and add all the results, ignoring positive or negative signs, and then divide the sum by the number of ratios. The acceptable level for the coefficient of dispersion depends upon the type of properties being reviewed. According to IAAO, 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. PRD is calculated by dividing the mean ratio by the weighted mean ratio. According to IAAO, PRDs should range between 0.98 and 1.03, except for very small samples. For example, a PRD of 1.03 indicates an under-valuation of high-priced properties, while a PRD of .98 shows an under-valuation of low-priced properties. Table 1 of this report illustrates a sample computation of these statistics.

Table 1

Illustration of Ratio Study Statistics

Sample Jurisdiction

(1) Property Number	(2) Sale Price	(3) Assessed Value	(4) Ratio A/S%	(5) Deviation 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%**

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

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

RATIO STUDY STANDARDS - VALUES TO SALE PRICES

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

The IAAO's Standard on Ratio Studies was first published in September 1990 and was revised in April, 2013. The IAAO standards are advisory in nature and provide guidance to those performing ratio studies in the mass appraisal field regarding design, statistics, performance measures and related issues in conducting ratio studies. The RPTA uses the fundamental ratio statistical measures of IAAO standards, and is guided by the criteria of IAAO's Assessment Ratio Performance Standards, to judge the performance of the District's reassessments. See Table 2 below.

Table 2

IAAO's Ratio Study Performance Standards

Type of property—General	Type of property—Specific	COD Range**
Single-family residential (including residential condominiums)	Newer or more homogeneous areas	5.0 to 10.0
Single-family residential	Older or more heterogeneous areas	5.0 to 15.0
Other residential	Rural, seasonal, recreational, manufactured housing, 2–4 unit family housing	5.0 to 20.0
Income-producing properties	Larger areas represented by large samples	5.0 to 15.0
Income-producing properties	Smaller areas represented by smaller samples	5.0 to 20.0
Vacant land		5.0 to 25.0
Other real and personal property		Varies with local conditions
These types of property are provided for guidance only and may not represent jurisdictional requirements. *Appraisal level for each type of property shown should be between 0.90 and 1.10, unless stricter local standards are required.* *PRD's for each type of property should be between 0.98 and 1.03 to demonstrate vertical equity.* *PRD standards are not absolute and may be less meaningful when samples are small or when wide variations in prices exist. In such cases, statistical tests of vertical equity hypotheses should be substituted (see table 1-2).* ** *CODs lower than 5.0 may indicate sales chasing or non-representative samples.*		

Source: Standard on Ratio Studies; International Association of Assessing Officers; Kansas City, Mo; April, 2013; p 17.

Ratio studies may be performed for various reasons, including assessment accuracy and equity studies, to judge the need for and management of a reassessment, to identify problems with assessment procedures, to assist in market analysis, and to

adjust assessed 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 2015 before the valuation date of January 1, 2016 (the valuation date for the FY 2017 assessments). Generally, only sales that are verified as arms-length transactions are included in the study. Sales between related parties, to or from financial institutions or government agencies, or sales with extreme ratios (which indicate abnormal transactions) are not used in this study. An attempt was made to contact the property owner and physically inspect all sales. Where property owners were not at home or failed to respond to the "Sales Verification Questionnaire" mailed to them, an exterior inspection was performed. Thus, some of these transactions may have had conditions that could have warranted their exclusion from the study; but the transactions were included notwithstanding. Generally, RPTA's ratio performance is good and conforms to IAAO standards.

While several measures of central tendency may be calculated (average, median, and weighted average), the median is less affected by extreme ratios. Therefore, IAAO observes in its standards that the median is generally the preferred measure of central tendency for monitoring assessment 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 (decreasing), ratio statistics will indicate a lower (higher) assessed value/sale price ratio. However, one should review the average deviation, coefficient of dispersion, and standard deviation to ensure 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 RPTA appraiser assessed properties uniformly and at estimated market value. Assuming the appraiser applied the mass appraisal model uniformly to all properties, this ratio study should show uniformity of assessment. The ratio study is a cross-check by the RPTA management to ensure quality of the mass appraisal. The ratio study was conducted on 6,752 sales of improved residential property and 299 sales of improved commercial property from January 1, 2015 to December 31, 2015, and it compares such sales to the administration's valuations on the tax roll for FY 2017.

Table 3 summarizes the FY 2017 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 a histogram, for residential properties; the sales used in this study were calendar year 2015 real estate sales. Table 6 provides a summary of the compliance with standards, by property type, for the FY 2017 assessment program.

The histogram in Table 5 graphically represents the frequency distribution of individual residential ratios in the study. The general shape of the graph helps 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 less desirable uniformity. The histogram of RPTA's results illustrates both good central tendency and reasonable dispersion. The measures of central tendency indicate that properties, on average, have been valued for FY 2017 at approximately 97% of their respective sale prices and that on average all other properties have very similar ratios as indicated by the 7% coefficient of dispersion.

The analysis from Table 6 and the following descriptive statistics indicate that values determined by appraisers for the most recent valuation attained a uniform and appropriate level of value. Table 6 shows that of the fifty-six residential neighborhoods that were valued for FY 2017, forty-nine had a sufficient number of sales to be statistically relevant. All forty-nine residential neighborhoods met all applicable IAAO standards for assessment performance. In the case of commercial property, more weight is generally given to the income approach to valuation; additionally, there are fewer sales thereby impeding a more thorough investigation.

The summary data presented in Table 7 indicate that District-wide, for the category of all property types, the sales ratio statistics are in full compliance with IAAO's standards.

TABLE 3

FY 2017

Residential Real Property Assessment Ratio by Neighborhood

This table shows the real property assessment ratio data for residential properties. The ratios concern arms-length sales of properties. The sales used were sold between January 1, 2015 and December 31, 2015, and such sales are compared with RPTA's FY 2017 reassessment effective January 1, 2016. In neighborhoods with fewer than 20 sales, the statistics may not represent actual market conditions due to the small sample size.

Type of Property: Residential

Number	Neighborhood Name	Number of Sales	Average Sale Price	Median Sale Price	Median Ratio	Mean Ratio	Weighted Mean Ratio	Coefficient of Dispersion	Price-Related Differential
1	AMERICAN UNIVERSITY	103	986,481	975,000	97.7	98.5	98.2	6	1
2	ANACOSTIA	45	294,014	293,550	99.2	98.9	96.7	13	1.02
3	BARRY FARMS	16	296,797	292,000	99.8	97.8	97.5	8	1
4	BERKELEY	40	1,685,841	1,550,000	97.6	98.7	98.5	6	1
5	BRENTWOOD	32	351,530	342,000	94.7	93.7	93.2	7	1.01
6	BRIGHTWOOD	154	518,709	499,350	98.2	98.4	98.4	7	1
7	BROOKLAND	225	537,402	525,000	97.4	97.4	97.2	8	1
8	BURLEITH	41	1,225,928	1,195,000	99	100	99.6	6	1
9	CAPITOL HILL	187	907,470	871,000	96.6	98.6	97.7	8	1.01
10	CENTRAL	347	721,437	560,000	98.8	98.2	97.3	7	1.01
11	CHEVY CHASE	194	1,018,652	955,445	99.1	99.5	98.7	5	1.01
12	CHILLUM	22	475,200	522,500	95.7	97.4	98.1	6	0.99
13	CLEVELAND PARK	149	871,334	469,000	98.1	98.3	96.7	5	1.02
14	COLONIAL VILLAGE	18	924,328	834,500	96.3	97.3	97.3	6	1
15	COLUMBIA HEIGHTS	542	552,336	544,000	97.5	97.6	97.2	7	1
16	CONGRESS HEIGHTS	109	290,226	280,000	97	96.8	95.7	12	1.01
17	CRESTWOOD	26	1,044,985	952,500	97.8	98.4	98.4	5	1
18	DEANWOOD	133	271,053	275,000	96.1	95.5	94.4	11	1.01
19	ECKINGTON	110	644,827	645,250	95.1	95.5	95.5	5	1
20	FOGGY BOTTOM	57	410,536	299,000	98.1	96.5	96.9	8	1
21	FOREST HILLS	59	981,801	357,500	97.8	99.1	96	7	1.03
22	FORT DUPONT PARK	80	283,822	276,400	95.1	98.1	98.2	11	1
23	FOXHALL	17	930,794	862,500	98.6	98.9	98.5	4	1
24	GARFIELD	45	599,486	453,000	98	98	96.3	7	1.02
25	GEORGETOWN	171	1,546,460	1,225,000	97.4	97.6	97.8	5	1
26	GLOVER PARK	78	625,993	700,000	98.2	98.9	98.7	4	1
27	HAWTHORNE	6	879,470	846,250	98.6	99.2	99	2	1
28	HILLCREST	62	324,021	316,500	99.3	99.9	99.5	9	1
29	KALORAMA	168	889,164	572,500	97.3	97.6	97.3	5	1

Number	Neighborhood Name	Number of Sales	Average Sale Price	Median Sale Price	Median Ratio	Mean Ratio	Weighted Mean Ratio	Coefficient of Dispersion	Price-Related Differential
30	KENT	34	1,465,667	1,282,000	98.2	98.1	97.7	6	1
31	LEDROIT PARK	84	724,581	731,000	95.4	95.1	94.8	5	1
32	LILY PONDS	71	270,038	274,900	97.1	96.3	95.9	6	1
33	MARSHALL HEIGHTS	36	268,368	277,500	97.3	96	95.3	9	1.01
34	MASS. AVE. HEIGHTS	4	5,062,500	3,000,000	99	101	99	3	1.02
35	MICHIGAN PARK	30	484,800	480,000	95.7	97	96.9	7	1
36	MOUNT PLEASANT	251	599,165	503,400	97	97.9	98.2	4	1
37	N. CLEVELAND PARK	30	1,059,760	1,000,500	98.9	100	100.6	5	1
38	OBSERVATORY CIRCLE	56	739,251	641,000	97.9	97.6	97.2	5	1
39	OLD CITY #1	854	643,111	608,500	96.1	97	96.7	6	1
40	OLD CITY #2	879	619,564	521,000	97	97.5	96.4	7	1.01
41	PALISADES	39	1,051,691	980,000	98.4	98.6	100.2	7	0.98
42	PETWORTH	234	559,665	569,450	97	95.8	95.4	8	1
43	RANDLE HEIGHTS	51	272,629	270,000	99.1	102	99	10	1.03
44	NOMA	0	0	0	0	0	0	0	0
46	SW WATERFRONT	124	405910	342500	95	94.4	94.8	7	1
47	RIGGS PARK	88	405,519	387,000	95.9	95.4	95.3	8	1
48	SHEPHERD PARK	27	778,574	765,000	98.2	97.5	97.4	6	1
49	16TH STREET HEIGHTS	81	661,383	680,000	97.9	98.4	98.3	8	1
50	SPRING VALLEY	32	1,582,141	1,391,000	98.5	99	98.9	5	1
51	TAKOMA PARK	57	522,707	525,000	99.4	97.1	97.1	7	1
52	TRINIDAD	172	451,810	437,000	95.4	95.8	94.2	11	1.02
53	WAKEFIELD	28	770,339	540,000	98.6	98.8	97.5	6	1.01
54	WESLEY HEIGHTS	79	755,629	640,000	96.4	95.3	95.6	6	1
55	WOODLEY	10	1,604,400	1,450,000	97.7	98.6	99.1	6	1
56	WOODRIDGE	78	546,279	559,500	95.5	94.6	93.9	5	1.01
66	FORT LINCOLN	87	512,278	523,900	97.6	97.6	97.3	5	1

TABLE 4

FY 2017

Commercial Real Property Assessment Ratio by Neighborhood

This table shows the real property assessment ratio data for commercial properties. The ratios concern arms-length sales of properties. The sales used were sold between January 1, 2015 and December 31, 2015, and such sales are compared with RPTA's FY 2017 reassessment effective January 1, 2016. In neighborhoods with fewer than 20 sales, the statistics may not represent actual market conditions due to the small sample size.

Type of Property: Commercial

Number	Neighborhood Name	Number of Sales	Average Sale Price	Median Sale Price	Median Ratio	Mean Ratio	Weighted Mean Ratio	Coefficient of Dispersion	Price-Related Differential
1	AMERICAN UNIVERSITY	1	1,700,000	1,700,000	80.3	80.3	80.3	0	1
2	ANACOSTIA	6	885,333	976,000	104	104	104.8	4	0.99
3	BARRY FARMS	2	6,287,500	6,287,500	82.1	82.1	76.9	19	1.07
5	BRENTWOOD	12	4,031,519	2,956,500	75.3	77.9	72.7	25	1.07
6	BRIGHTWOOD	11	2,955,064	1,849,000	96.7	90.6	94.5	11	0.96
7	BROOKLAND	11	2,138,398	800,000	85.4	81.3	86.5	12	0.94
9	CAPITOL HILL	5	3,235,426	2,900,000	73.9	74.1	70.8	6	1.05
10	CENTRAL	35	74,173,399	41,000,000	94.6	92.3	91.8	10	1.01
11	CHEVY CHASE	1	2,270,000	2270000	104.3	104	104.3	0	1
12	CHILLUM	2	447,500	447,500	99.7	99.7	98.1	3	1.02
15	COLUMBIA HEIGHTS	19	2,986,951	1,250,000	85.1	82.8	82.8	18	1
16	CONGRESS HEIGHTS	9	2,570,824	800,000	102.3	104	107	6	0.97
18	DEANWOOD	5	843,554	472,770	99.9	97.2	84.7	16	1.15
19	ECKINGTON	4	53,675,000	712,500	109.3	108	117.4	27	0.92
20	FOGGY BOTTOM	3	61,896,667	1,875,000	75.3	74.7	75.2	22	0.99
21	FOREST HILLS	3	31,688,000	13,300,000	98.9	98.3	99.7	2	0.99
22	FORT DUPONT PARK	4	5,277,773	4,299,500	111.4	112	118	12	0.95
25	GEORGETOWN	11	3,230,000	3,265,000	94.3	92.8	92.1	3	1.01
26	GLOVER PARK	2	1,600,000	1600000	94.5	94.5	93.7	5	1.01
28	HILLCREST	5	672,098	420,490	99.3	112	105.1	15	1.07
29	KALORAMA	6	8,729,667	2001500	97.9	98.4	97	2	1.01
30	KENT	1	1,100,000	1,100,000	74.8	74.8	74.8	0	1
31	LEDROIT PARK	3	1,491,667	1,700,000	78.3	78.4	81.6	13	0.96
32	LILY PONDS	1	1,000,000	1,000,000	125.2	125	125.2	0	1
33	MARSHALL HEIGHTS	5	674,400	600,000	108	116	114.5	9	1.01
36	MOUNT PLEASANT	11	4,700,832	2,144,000	98.4	94	80.2	10	1.17
37	N. CLEVELAND PARK	1	10,400,000	10,400,000	96.3	96.3	96.3	0	1
39	OLD CITY #1	38	5,306,956	1550000	90.3	89.5	86.2	16	1.04

Number	Neighborhood Name	Number of Sales	Average Sale Price	Median Sale Price	Median Ratio	Mean Ratio	Weighted Mean Ratio	Coefficient of Dispersion	Price-Related Differential
40	OLD CITY #2	28	25,717,702	2,400,000	89.7	86.8	92.6	16	0.94
41	PALISADES	2	1,101,250	1,101,250	91.6	91.6	91.3	1	1
42	PETWORTH	10	861,150	514,500	88	92.1	86.7	18	1.06
43	RANDLE HEIGHTS	8	8,763,159	699,500	102.6	101	102.2	2	0.99
44	NOMA	3	8,465,333	660,000	97.9	96.7	99.7	3	0.97
46	SW WATERFRONT	1	91,000,000	91000000	94.3	94.3	94.3	0	1
48	SHEPHERD PARK	1	995,730	995,730	103.8	104	103.8	0	1
49	16TH STREET HEIGHTS	5	1,309,212	900,000	98.5	103	105.7	9	0.97
51	TAKOMA PARK	1	5,230,307	5,230,307	71.5	71.5	71.5	0	1
52	TRINIDAD	7	1,295,478	780,000	93.6	89.6	88.6	8	1.01
56	WOODRIDGE	16	8,740,214	1261709	82	85.1	79.8	23	1.07

TABLE 5

FY 2017 HISTOGRAM OF RESIDENTIAL SALES RATIOS

GRAPH OF SALES RATIOS

Residential City-wide

Mean =97.41
Std. Dev. =9.817
N =6,752
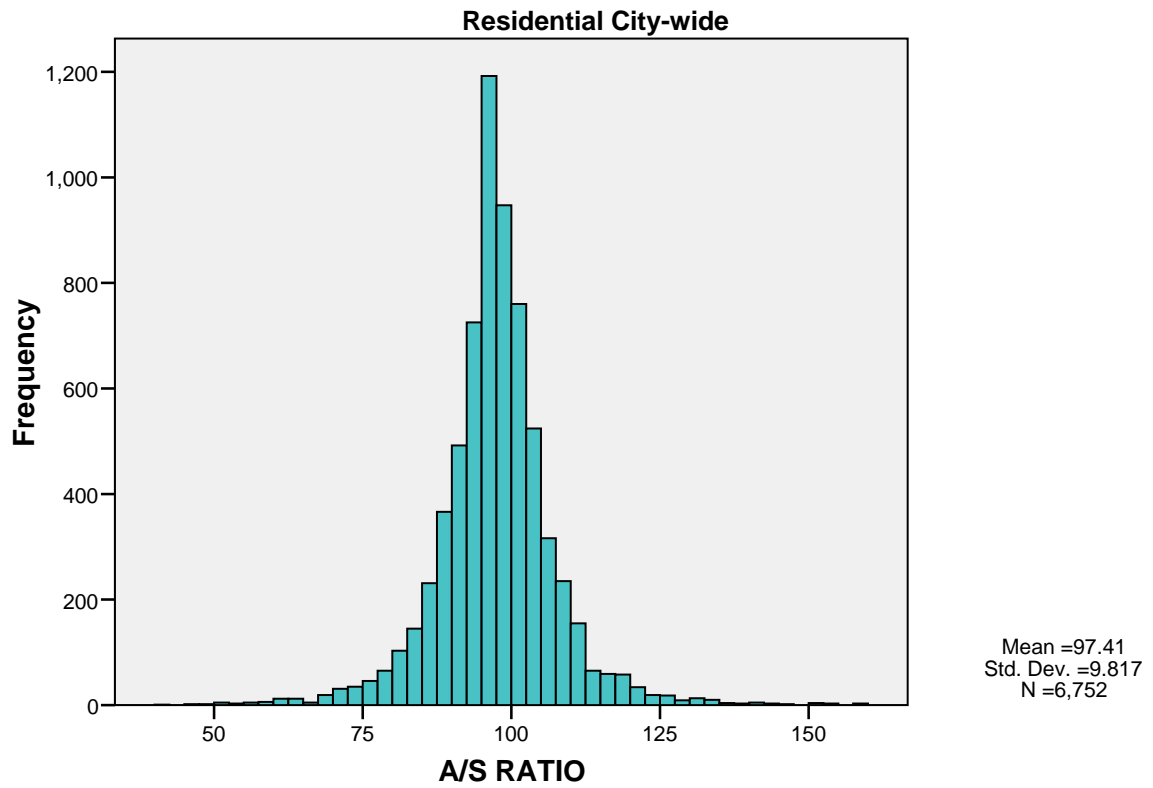
TABLE 6

Compliance with IAAO Ratio Study Performance Standards for FY 2017 Assessments

The IAAO sets advisory standards for assessment statistics. These standards are depicted in Table 2. In this table, a "+" indicates compliance with the standards.

2017	Residential Median Ratio	Residential Coefficient of Dispersion	Residential Price-Related Differential	Commercial Median Ratio
AMERICAN UNIVERSITY	+	+	+	Ø
ANACOSTIA	+	+	+	Ø
BARRY FARMS	Ø	Ø	Ø	Ø
BERKELEY	+	+	+	Ø
BRENTWOOD	+	+	+	Ø
BRIGHTWOOD	+	+	+	Ø
BROOKLAND	+	+	+	Ø
BURLEITH	+	+	+	Ø
CAPITOL HILL	+	+	+	Ø
CENTRAL	+	+	+	+
CHEVY CHASE	+	+	+	Ø
CHILLUM	+	+	+	Ø
CLEVELAND PARK	+	+	+	Ø
COLONIAL VILLAGE	Ø	Ø	Ø	Ø
COLUMBIA HEIGHTS	+	+	+	Ø
CONGRESS HEIGHTS	+	+	+	Ø
CRESTWOOD	+	+	+	Ø
DEANWOOD	+	+	+	Ø
ECKINGTON	+	+	+	Ø
FOGGY BOTTOM	+	+	+	Ø
FOREST HILLS	+	+	+	Ø
FORT DUPONT PARK	+	+	+	Ø
FOXHALL	Ø	Ø	Ø	Ø
GARFIELD	+	+	+	Ø
GEORGETOWN	+	+	+	Ø
GLOVER PARK	+	+	+	Ø
HAWTHORNE	Ø	Ø	Ø	Ø

2017	Residential Median Ratio	Residential Coefficient of Dispersion	Residential Price-Related Differential	Commercial Median Ratio
HILLCREST	+	+	+	Ø
KALORAMA	+	+	+	Ø
KENT	+	+	+	Ø
LEDROIT PARK	+	+	+	Ø
LILY PONDS	+	+	+	Ø
MARSHALL HEIGHTS	+	+	+	Ø
MASS. AVE. HEIGHTS	Ø	Ø	Ø	Ø
MICHIGAN PARK	+	+	+	Ø
MOUNT PLEASANT	+	+	+	Ø
N. CLEVELAND PARK	+	+	+	Ø
OBSERVATORY CIRCLE	+	+	+	Ø
OLD CITY #1	+	+	+	+
OLD CITY #2	+	+	+	x
PALISADES	+	+	+	Ø
PETWORTH	+	+	+	Ø
RANDLE HEIGHTS	+	+	+	Ø
NOMA	Ø	Ø	Ø	Ø
SW WATERFRONT	+	+	+	Ø
RIGGS PARK	+	+	+	Ø
SHEPHERD PARK	+	+	+	Ø
16TH STREET HEIGHTS	+	+	+	Ø
SPRING VALLEY	+	+	+	Ø
TAKOMA PARK	+	+	+	Ø
TRINIDAD	+	+	+	Ø
WAKEFIELD	+	+	+	Ø
WESLEY HEIGHTS	+	+	+	Ø
WOODLEY	Ø	Ø	Ø	Ø
WOODRIDGE	+	+	+	Ø
FORT LINCOLN	+	+	+	Ø

+ = Meets IAAO Standard

x = Does not meet IAAO Standard

Ø = Insufficient data

TABLE 7

SUMMARY OF SALES RATIO STATISTICS FY 2017

SALES RATIO BY PROPERTY: CITY WIDE								
PROPERTY TYPE	**NO. OF SALES**	**AVERAGE SALE PRICE**	**MEDIAN SALE PRICE**	**MEDIAN RATIO**	**MEAN RATIO**	**WEIGHTED MEAN**	**COD**	**PRD**
All	7,051	1,317,842	560,000	97.1	97.2	94.5	7	1.03
Residential	6,752	667,171	548,950	97.2	97.4	97.1	7	1.00
Commercial	299	16,011,239	1,800,000	94.5	91.3	92.0	14	.99