Taxing Simply

District of Columbia Tax Revision Commission

Taxing Fairly

Full Report

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CHAPTER E

Real Property Taxation

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Introduction

Real property taxation is very complex and involves many diverse issues. This chapter provides an overview of property taxes by the contribution its revenue makes to the District's finances and those of other jurisdictions. It then proceeds with the discussion of real property taxation by dividing the major issues into five sections: 1) Classification, 2) Assessment Quality and Equity, 3) Real Property Tax Relief, 4) Triennial Assessment, and 5) Real Property Tax Appeals.

Property tax overview[1]

The property tax is the largest single source of revenue for state and local governments in the United States. In 1994, the most recent year for which the U.S. Census Bureau has published comparable data for the United States and the 50 states, state and local property taxes yielded $197 billion of revenues. This represented 31.5 percent of total state and local tax revenues, and 22.3 percent of total state and local own-source revenues. While the absolute amount of state and local property taxes tripled over the last 15 years, the property tax share of total tax revenues remained virtually unchanged, and its share of total own-source revenues dropped modestly — from 24.2 percent in 1979 to 22.3 percent in 1994.

This section describes recent trends in the role of property taxes in state and local finances, in their contribution to state and local revenues in the metropolitan area, and in assessed values, rates, collections, and delinquencies in the District of Columbia.

THE ROLE OF PROPERTY TAXES IN STATE AND LOCAL FINANCE

U.S. Census Bureau data show that state and local property tax revenue tripled nationally — i.e., increased 203 percent — between 1979 and 1994 (Figure E-1). They increased significantly faster in the District (282 percent increase) and Virginia (279 percent), and somewhat faster in Maryland (216 percent). Thus, the three major jurisdictions in the Washington metropolitan area

all experienced above-average growth in property taxes in that recent 15-year period, with growth in the District outpacing that in the surrounding states.

The relative strength of growth in the three jurisdictions, however, differed by time period (Figure E-1). As in the 15-year period, property tax growth in the District and its neighboring states outpaced the national average in the 1979–1989 decade. In that decade, also as in the longer period, growth was significantly above the national average (120 percent increase) in both the District (235 percent increase) and Virginia (185 percent), and slightly above average in Maryland (124 percent increase). In the 1989–1994 period, however, the pace of growth slowed. For example, there was only 38 percent growth nationally in that five-year period, compared with 120 percent in the previous decade. But in 1989–1994, unlike the prior decade and the collective 15 years, property taxes grew faster in Maryland (41 percent) than nationally (38 percent). Completing the reversal, property taxes grew at below national average rates in both Virginia (33 percent) and the District (14 percent). Thus, the high-growth jurisdictions of the 1979–1989 decade became the slow-growth jurisdictions in the 1989–1994 period, but the overall pace of growth in the earlier decade was sufficiently strong that the patterns of that decade also describe the total 15-year period.

All three jurisdictions' state-local property taxes increased over the 15-year period not only in absolute dollars, but also relative to other taxes, although property taxes nationwide fell slightly as a percentage of all state-local taxes (Figure E-1). Nationally, property taxes went from 31.6 percent of state-local taxes in 1979 to 31.5 percent in 1994. Although the 1994 figure was down slightly from 1979, it was up from 30.4 percent in 1989. Thus, property taxes experienced relative decline in the 1979–1989 decade, then rebounded in the 1989–1994 period. The relative decline in the 1979–1989 decade reflects, in part, concerns about taxpayer revolts that spread across the U.S. in the wake of California's 1978 adoption of Proposition 13. In the more recent period, there has been a continuing effort to shift revenue raising and service delivery responsibilities from state to local governments, and property taxes are the primary source of local tax revenue.[2]

This same pattern of relative decline followed by relative increase also is observed for Maryland. But in both the District and Virginia, relative reliance on property taxes for state and local tax revenues increased from 1979 to 1989, and from 1989 to 1994. At the start of the period, in 1979, all three jurisdictions' reliance on property taxes for state-local tax revenue had been below the national average. By 1994, the District's reliance on property taxes had increased nearly one-third — from 24.2 percent of all taxes in 1979 to 32.1 percent in 1994 — and had risen above the national average of 31.5 percent. Property tax reliance remained below average in 1994 in both Maryland and Virginia — 27.2 percent and 31 percent — although Virginia was approaching the national average.

Figure E-1

State and Local Property Taxation in D.C., Md., Va., and the U.S.

1994	Percent of Tax Revenues	Percent of Own Revenues	Percent of Personal Income	Revenues ($ Millions)	Percent Change 1989–1994
D.C.	32.1%	26.5%	4.70%	$811.0	14.1%
Maryland	27.2	20.6	3.05	3,618.2	41.1
Virginia	31.0	21.7	3.14	4,389.8	33.0
U.S. Total	**31.5**	**22.3**	**3.68**	**197,139.5**	**38.3**
1989					**Percent Change 1979–1989**
D.C.	31.7%	26.0%	5.39%	$710.8	235.0%
Maryland	24.7	18.8	2.85	2,564.6	123.8
Virginia	29.4	21.4	3.10	3,299.8	184.8
U.S. Total	**30.4**	**21.6**	**3.52**	**142,524.7**	**119.5**
1979					
D.C.	24.2%	21.4%	3.18%	$212.2	
Maryland	26.2	19.9	3.31	1,145.9	
Virginia	27.4	20.8	2.93	1,158.6	
U.S. Total	**31.6**	**24.2**	**3.80**	**64,943.6**	

Source: U.S. Census Bureau.

Similarly, property taxes rose relative to other sources of state and local own-source revenues between 1979 and 1994 in the District, Maryland, and Virginia, while their share of state-local, own-source revenues fell modestly for the nation as a whole. In fact, the general patterns and trends found in relating property taxes to all state-local taxes also are found when property taxes are related to this broader measure of revenue generation (Figure E-1). During 1979–1994, state-local reliance on property taxes fell for the nation as a whole but increased in the District, Maryland, and Virginia. Considering only the 1979–1989 decade, dependence on property taxes fell nationally and in Maryland, but rose in both the District and Virginia — especially in the District.

Finally, in the last five years of the period, 1989–1994, property tax dependence rose nationally as well as in the District and its neighboring states, but the increases were much stronger in Maryland and the nation than in the District and Virginia.

In summary, the District's reliance on property taxes for own-source revenues went from significantly below the national average in 1979 (21.4 percent for the District, 24.2 percent nationally) to well above the national average in 1994 (26.5 percent compared to 22.3 percent). In Maryland and Virginia, however, property tax reliance was below the national average in each of the five years of observation, but by a narrower margin in 1994 than in the earlier years.

A final measure of the relative level of property taxes compares the tax amounts to personal income levels of residents (Figure E-1). As with the previously considered measures, this one also shows the District of Columbia going from below-average to above-average. In 1979, state-local property taxes were equal to 3.8 percent of personal income nationwide, but only 3.18 percent in the District, 3.31 percent in Maryland, and 2.93 percent in Virginia. Between 1979 and 1989, the percentages fell nationally and in Maryland, but rose in the District and Virginia — especially the District, where property taxes soared to 5.39 percent of personal income. From 1989 to 1994, property taxes rose relative to personal income nationally, as well as in Maryland and Virginia, but declined in the District, to 4.7 percent. As with the other measures, however, despite the District's moderation in the 1989–1994 period, the District was above the national average in property tax levels in 1994, while Maryland and Virginia were below the average.

In summary, between 1979 and 1994, the District of Columbia increased substantially the amount of property taxes, not only in absolute dollars, but also relative to total taxes, total own-source revenues, and resident personal income. The biggest increases came in the 1979–1989 decade. While the slowdown after 1989 enabled the District's property taxes to fall relative to personal income, by all other measures, increases continued after 1989 as well. Under all three relative measures, the 15-year period saw the District go from below-average to above-average in property tax use. Moreover, in 1979, the District did not differ much from state and local governments in the neighboring states of Maryland and Virginia in relative property tax levels, and by some measures the District's property taxes were even lower than those in at least one of those states. But by 1994, under each measure in Figure E-1, District property taxes were higher than the national average, and higher than those in either Maryland or Virginia. During the 1989–1994 period, however, the District constrained the growth in property tax revenues and its dependence on the tax. These trends have accelerated in the District recently and are the subject of the next section.

PROPERTY TAXES IN THE DISTRICT OF COLUMBIA: RECENT TRENDS

Data from the District of Columbia Comprehensive Annual Financial Report confirm the general trends identified in the Census data. Property tax levies and total collections increased throughout the mid- to late-1980s and early 1990s. Property tax levies reached a peak of $929 million in 1993 — an atypical year — and total

Figure E-2

Real Property Tax Levies, Collections, and Delinquencies
1986–1996 ($ Millions)

Year	Property Tax Levy	Change from Previous Year	Collections			Collections as a Percent of Levy	
			Current	Delinquent	Total	Current	Total
1986	$416.4		$410.7	$9.3	$420.0	98.6%	100.9%
1987	469.2	12.7%	459.7	8.0	467.7	98.0	99.7
1988	509.7	8.6	501.4	12.0	513.4	98.4	100.7
1989	593.5	16.4	589.3	10.8	600.1	99.3	101.1
1990	648.6	9.3	624.3	20.7	645.1	96.3	99.5
1991	771.6	19.0	752.1	16.4	768.4	97.5	99.6
1992	820.9	6.4	796.4	23.1	819.6	97.0	99.8
1993	928.9	13.2	867.7	21.5	889.2	93.4	95.7
1994	721.9	-22.3	657.9	49.6	707.5	91.1	98.0
1995	720.3	-0.2	649.0	43.9	693.0	90.1	96.2
1996	700.2	-2.8	632.2	48.9	681.1	90.3	97.3

Source: D.C. Comprehensive Annual Financial Report.

collections reached a peak of $889 million the same year.[3] Ignoring 1993, property tax levies and total collections in the District increased at an average annual rate of approximately 12 percent between 1986 and 1992. In fiscal year 1994, property tax levies declined by more than 22 percent and total collections fell by over 20 percent — in significant part because of the inflated values reported for 1993. If the adjusted levies and collections for 1993 are used, property tax levies fell at an average annual rate of 2 percent between 1993 and 1996, while total collections fell at an average annual rate of 1.4 percent during the same period (Figure E-2).[4]

A primary cause for the decline in property tax levies and total collections was a dramatic decline in taxable assessed values, resulting from the softness of the real estate market that started in 1992 (Figure E-3).

In addition to the declining assessed value of commercial and residential real estate, property tax rates have not been increased in the District since 1990 — except for an increase in the rate applied to vacant properties, which went from $3.29 per $100 assessed value to $5 per $100 assessed value in 1993. Thus, declines in assessed value were translated automatically into declines in levies since rates were held constant.

Exacerbating the decline in property tax levies has been an increase in delinquencies.[5] Between 1992 and 1993, the rate of delinquencies more than doubled —

increasing from 3 percent to 6.6 percent. In large part, this is a direct result of changing the end of the tax year from June 30 to September 30. For example, in 1992 the first half of the fiscal year was from July 1 to December 31. Property taxes for that period were due September 15, but they were not considered delinquent until December 31. Changing the tax year meant that tax payments for the second half of the year (April 1–September 30) still were due September 15, but were considered delinquent after September 30. Thus, anyone who had a mortgage escrow account that paid property taxes between October 1 and December 31 would not have been delinquent in 1992, but they would have been delinquent in 1993. It is estimated that this technical issue accounts for a large portion of the increase in the delinquency rate between 1992 and 1993.

In addition, however, the credibility of the property tax has been under attack since 1992. As people lose faith in the tax, they may become less responsible in paying it. A new computer assisted mass appraisal (CAMA) approach was instituted in 1992, but serious technical difficulties in the initial few years resulted in many faulty assessments. Appeals increased substantially as the credibility of the tax came into question. Throughout the mid-1990s, the annual assessment-sales ratio studies revealed consistent deterioration in the quality — i.e., uniformity — of assessments.[6] Nonuniform assessments mean individual property owners may question whether they are being asked to pay their fair share of taxes. If they believe they are not, they may become reluctant to pay their taxes in a timely fashion. High-quality administration is critical for society's acceptance of the property tax.

Another factor affecting the ability of the District to generate revenues from the local property tax is the trend in tax-exempt property (Figure E-4). In 1996, the total assessed value of all real estate in the District was approximately $72.4 billion. Of that total, nearly $30 billion was exempt from the local property tax — 41.1 percent of the total assessed value. In 1986, 47.5 percent of total assessed value was exempt from property taxation, but that share declined steadily to 37.9 percent in 1991. Since 1991, the share of assessed value exempt from property taxation increased steadily to 43.3 percent in 1995 before falling modestly in 1996. In the fall of 1997, over 400 applications for exemption from real property taxes were pending.

According to a recent Brookings study, 65 percent of the property exempt from property taxation in the District is owned by the federal government.[7] Another 7 percent of property exempt from property taxation is directly attributable to the federal presence in the District — foreign government property (e.g., embassies), property exempt by special acts of Congress (e.g., American Association of University Women, National Education Association, National Society of Colonial Dames), and property exempt by executive order of the president (e.g., World Bank, International Monetary Fund, Organization of American States). The

Figure E-3

D.C. Real Estate Assessed Values

1986–1996 ($ Millions)

	Residential		Commercial		Total	
Year	Value	Percent Change	Value	Percent Change	Value	Percent Change
1986	$13,049.0		$11,958.0		$25,007.0	
1987	14,002.8	7.3%	14,130.5	18.2%	28,133.3	12.5%
1988	15,259.7	9.0	16,424.5	16.2	31,684.2	12.6
1989	15,826.0	3.7	19,492.0	18.7	35,318.0	11.5
1990	17,214.4	8.8	21,794.2	11.8	39,008.7	10.4
1991	19,880.8	15.5	25,256.3	15.9	45,137.1	15.7
1992	20,830.4	4.8	27,901.6	10.5	48,731.9	8.0
1993	20,506.0	-1.6	24,478.7	-12.3	44,984.6	-7.7
1994	21,951.1	7.0	22,446.9	-8.3	44,398.0	-1.3
1995	20,480.0	-6.7	21,687.1	-3.4	42,167.1	-5.0
1996	22,041.5	7.6	20,657.1	-4.7	42,698.5	1.3

Percent Distribution of Assessed Value

by Property Type

	Residential	Commercial	Total
1986	52.2%	47.8%	100.0%
1987	49.8	50.2	100.0
1988	48.2	51.8	100.0
1989	44.8	55.2	100.0
1990	44.1	55.9	100.0
1991	44.0	56.0	100.0
1992	42.7	57.3	100.0
1993	45.6	54.4	100.0
1994	49.4	50.6	100.0
1995	48.6	51.4	100.0
1996	51.6	48.4	100.0

Source: D.C. Comprehensive Annual Financial Report.

Figure E-4

D.C. Total Real Property Assessed Value
by Taxable and Exempt Portions, 1986–1996 ($ Millions)

Year	Taxable Value	Exempt Value	Total	Percent Taxable
1986	$25,007.0	$22,585.0	$47,592.0	52.5%
1987	28,133.3	23,115.3	51,248.6	54.9
1988	31,684.2	24,058.6	55,742.8	56.8
1989	35,318.0	26,747.4	62,065.4	56.9
1990	39,008.7	28,764.8	67,773.4	57.6
1991	45,137.1	27,600.2	72,737.2	62.1
1992	48,731.9	33,270.0	82,001.9	59.4
1993	44,984.6	31,892.4	76,877.1	58.5
1994	44,398.0	32,126.5	76,524.5	58.0
1995	42,167.1	32,154.9	74,322.0	56.7
1996	42,698.5	29,749.4	72,447.9	58.9

Source: D.C. Comprehensive Annual Financial Report and author's calculations.

remaining 28 percent represents other exempt property uses, including churches, universities, and nonprofit organizations.

A direct result of the decline in property tax levies and collections has been an increase in the property tax burden on citizens in the District. Property tax levies per capita stood at $736.72 in 1987, increasing to a peak of $1,401.36 in 1992.[8] This represents an increase in per capita property tax levies of 90.2 percent over this period. As a result of declines in property tax levies after 1992, per capita property tax levies fell by 8 percent between 1993 and 1996. Decreases in property tax levies were offset somewhat by declines in population over this period.

Classification

Classification of property for tax purposes means the establishment of differential effective tax rates — i.e., taxes that are different percentages of market value. Precisely what might be considered classification, however, is a matter of interpretation. Clearly, many different policies produce effective tax-rate differentials — e.g., homestead exemptions, use-value assessment of farmland, circuit breakers. The term

"classification," however, tends to be reserved for schemes that assign all property types or uses to some class. Thus, classification is a comprehensive policy for establishing relative tax loads. By contrast, while a homestead exemption, for example, also creates differential effective tax rates across groups of property owners, its terms at least appear generally to be set without explicit attention to the differentials being created. As a practical matter, the difference between classification and other forms of direct property tax relief tends to be small, almost semantic.

From the mid-19th century to the middle of the 20th century, uniformity was the norm for U.S. property taxation. Classification of real property began in Minnesota in 1913, spread to Montana in 1917, and then to West Virginia in 1932. Between 1932 and 1968, no other states adopted comprehensive real property classifications. In that latter year, however, Arizona became the fourth classification state. Since then, more than half the states have become part of the trend. In many cases, however, *de jure* classification was adopted simply to codify, as nearly as possible, the pattern of *de facto* classification that had emerged over a number of years. The codifications were prompted by judicial orders, actual or feared, to enforce the uniformity standards that traditionally had been part of the legal framework of the tax.[9]

Classification in the District of Columbia

District law provides for five classes of real property (D.C. Code 47-813). Briefly stated, the five classes (with their 1997 tax rates, expressed as percentages of assessed value) are:

1. Owner-occupied residential (0.96 percent);
2. Other residential (1.54 percent);
3. Hotels and motels (1.85 percent);
4. Other commercial (2.15 percent); and
5. Vacant (5 percent).

In reality, any brief statement of the classes is not particularly informative. The definitional materials of Sec. 47-813 for the latest period — omitting the changed provisions that had applied in earlier years and are still a part of the code section — occupy several pages.

As recently as tax year 1978, all real property in the District was taxed at a single rate — 1.83 percent of assessed value (Figure E-5). Since then, the number of classes has proliferated. This is consistent with the experience of several states and illustrates the concern that some critics have voiced about classification. This same phenomenon has caused some to characterize classification as the first step on a "slippery slope."[10]

Figure E-5

D.C. Nominal Real Property Tax Percentage Rates

by Category of Property and Currently-Defined Property Class

Tax Years 1976–1998

Year	All	Residential	Residential 1 (Class 1)	Residential 2 (Class 2)	Commercial	Commercial 1 (Class 3)	Commercial 2 (Class 4)	Vacant (Class 5)
1976–1978	1.83							
1979		1.54			1.83			
1980			1.22	1.54	1.83			
1981–1984			1.22	1.54	2.13			
1985			1.22	1.54	2.03			
1986–1990			1.22	1.54		1.82	2.03	
1991			0.96	1.54		1.85	2.03	3.29
1992–1994			0.96	1.54		1.85	2.15	3.29
1995–1998			0.96	1.54		1.85	2.15	5.00

Source: D.C. Office of Tax and Revenue.

The tendency for change in classification shows up not only in the number of classes, but also in the relative rates at which the classes are taxed. At 1.54 percent and 1.83 percent of assessed value, the tax rates for tax year 1979, the District's first year of classification, the commercial rate was less than 20 percent higher than the residential rate (1.83/1.54 = 1.19). However, when residential was split into two classes the next year with owner-occupied residences taxed at the reduced rate of 1.22 percent, the differential between the highest- and lowest-taxed classes jumped to 50 percent (1.83/1.22 = 1.5). The following year, tax year 1981, the differential jumped to 75 percent as the commercial rate was increased to 2.13 percent.

The range of rates actually narrowed for a time when the commercial rate was lowered from 2.13 percent to 2.03 percent, effective in tax year 1985. For tax year 1991, however, tax rates were changed at both ends. A new, fifth class — vacant properties — was created and taxed at 3.29 percent, and the rate for owner-occupied residences was cut to 0.96 percent. Thus, the differential between the highest and lowest rates rose from 66 percent (2.03/1.22 = 1.66) to 243 percent (3.29/0.96 = 3.43). Effective tax year 1992, the Class 4 (other commercial) rate was raised from 2.03 percent to 2.15 percent, but this did not affect the range of rates. The last change (at least through the 1997 tax year) came three years later, when the Class 5 (vacant) rate was increased to 5 percent, widening the differential still more, to 421 percent (5.0/0.96 = 5.21).

CLASSIFICATION ISSUES

Classification is controversial, even though it is now relatively widespread. A possible explanation may be found in an observation by Rolland Hatfield, Minnesota Tax Commissioner, shortly before the comparative explosion of real property classification in the United States, but after 50 years of the system's existence in Minnesota:

> I would sum up by saying that I have observed in respect to the classified property tax system that it cannot work equitably; that it has no effective brake on it; and that it leads to changes in property tax law which are inspired by politics rather than economics. In general, I think it is a hazardous experiment to start.[11]

These and related considerations are discussed briefly below. Often, the various criteria point to different choices. The tradeoffs must then be weighed.

Equity concerns

Ability to pay. Classification proponents typically say the system promotes equity, or fairness. "In the words of Simeon Leland, an early advocate of classifica-

tion, 'Different types of property are not possessed of the same capacity for throwing off taxes onto other property and persons.'"[12] Proliferation of types of property, which intensified in the latter part of the 19th century, is said to have undermined the logic of tax uniformity. A key distinction often drawn is between income-producing and nonincome-producing property, with the former said to represent greater taxpaying ability. In this view, it is logical to devise classification systems that place lower rates on residential property and, particularly, owner-occupied residential property.

But are equity considerations clear-cut? In what sense is it fair to impose different levels of tax on different property uses, causing different burdens on properties of equal value? And if some differentials are fair, how large should they be? What has guided the District in going from one class to five, and from differences in initial rates of less than 20 percent to more than 420 percent now? Was each variant fair? If the answer is yes, then standards of fairness must change radically in relatively short time periods; otherwise, changes on the order of those that have occurred in the District might be characterized as capricious. But if the standards of fairness do change quickly and sharply, what are they, and how can they be tracked or anticipated?

If the answer is no — if not all versions of classification in the District have been fair — then the existence of unfair versions seems to undercut the argument that equity is served by classification. Hatfield may have been correct, 30 years ago, in observing that classification turns the property tax from a levy on accumulated wealth to a tax based on political influence, or lack thereof, with local homeowners (generally perceived as the voting class) being taxed much more lightly than big businesses, whose owners often are not residents, and therefore not voters, in the jurisdiction imposing the tax.

Another consideration is the role of the property tax within the overall tax system. Income taxation bestows favor upon homeowners by excluding the value of the housing services from the definition of income while allowing property taxes and mortgage interest as deductions. This imbalance has been pointed out by many writers (and some politicians), yet it persists. This tilt of the tax system in favor of residences and against income-producing property is compounded by standard classification systems, such as that found in the District.

It is at least open to question whether cumulative tax breaks of this sort are indeed fair. For example, it might be argued that, to help offset the imbalance of the income tax system, classification of property might well impose higher rates on nonincome-producing properties.

Benefits received. So far, discussion of equity has seemed to presume the appropriateness of the ability-to-pay concept of equity. Under that approach, equity requires that taxpayers in essentially equal circumstances should bear essentially

equal taxes. Another approach to equity, however, is to consider benefits received. Under this conception, tax payments should be in proportion to benefits. Many view the property tax as basically a benefits tax. There seem to be important exceptions to this, but there is some merit as well. To the extent that the benefits rationale applies, it seems impossible to justify some of the differences that are found in the District's pattern of tax rates. The treatment of Class 2 residential property seems particularly hard to justify. If the tax is passed on to renters, as many assume, what is the rationale for taxing them 60 percent more heavily (even before counting the effects of the $30,000 homestead exemption)[13] than owner-occupants? And if the tax is not passed forward, what is the rationale for taxing apartments more lightly than other commercial properties?

In summary, the classification system seems not to square well with standard notions of equity. Perhaps there are other advantages that offset this.

Efficiency

Efficiency is valued because it implies the avoidance of waste. One way in which taxes can cause inefficiency — i.e., unnecessarily high costs beyond the amount of taxes collected — is by inducing changes in decisions, thus causing otherwise inferior options to be taken because of tax considerations. In other words, the tax may cause property to be devoted to uses that provide fewer benefits. Economists use the very descriptive term *excess burden* to describe the costs associated with such non-neutralities, because they are costs above what would have to be imposed to raise a given amount of revenue in a more neutral manner. An example of the excess burden of a tax is the relocation of economic activity elsewhere.

The small geographic area occupied by the District contributes to a very open local economy. A very dramatic illustration of this occurred about 20 years ago, following the 1973 oil embargo, when the District gasoline tax, in an effort to offset declining revenues due to diminished taxable gallons sold, was raised to levels above those in the Maryland and Virginia suburbs. The result was a sharp further drop in taxable gasoline sold within the District, and the rate was scaled back.

Response to property tax differences is not so quick or noticeable. After all, one of the standard reasons given for traditional local reliance upon property taxation has been that the property tax base is less affected by interjurisdictional differences than consumption or income taxes might be. Still, reductions in the property tax base have been found to be linked to higher rates of tax — and not just higher property tax rates, but rates of other taxes as well.[14]

This poses a dilemma for many central cities, which must compete with suburban areas for residents and businesses. If taxes get very far out of line, and if they are not perceived to be offset by better services or other advantages of being in the city, the long-term fiscal health of the city is jeopardized by higher taxes. In addition to the

current level of taxes, however, is the uncertainty about what future tax levels may be. The rather rapid increase in differentials through classification logically would induce caution on the part of investors, especially since the District is surrounded by jurisdictions with more stable tax systems.

Administration and compliance costs

Another source of inefficiency (a sort of excess burden) is incurred if the actions required to make the tax system work impose higher costs than would have been necessary for alternative ways of raising the same revenue. In general, two distinct groups incur costs in making a tax system work. Tax administrators (the government) have to prepare tax rolls and tax bills, and enforce the taxes imposed, thus incurring *administrative costs.* Taxpayers also bear some costs through filling out returns, keeping records, and the like; these are *compliance costs*. Compared to income and sales taxes, property taxation entails relatively low compliance costs. The tax is said to be taxpayer-passive, whereas the income tax (for both the employer and the individual filer) and the sales tax (for the vendor) are taxpayer-active.

Classification clearly increases the costs of both administration and compliance, although precise figures are not available. In the case of residential property, for example, when a property goes from being owner-occupied to renter-occupied, it changes from Class 1 to Class 2. Also, mixed-use properties (of which there are about 3,000) get a blended rate, based upon the relative importance of each use. Changes in these shares should trigger tax-rate changes. The Real Property Tax Administration reports that classification changes are constant. Currently, one full-time person (out of a 50-person staff) is assigned to dealing with these matters; other staff members also contribute time. Additional compliance costs are incurred as well. Taxpayers need to determine if they are being treated correctly and, if not, to take steps to make the appropriate changes.

Other concerns

Certainty. One of the longstanding principles of taxation is that taxes should be certain and made clearly known to the taxpayers. As used by Adam Smith in *The Wealth of Nations,* this meant precluding capriciousness by the tax collector.[15] The more modern concern for certainty tends to focus, in part, on the disadvantages of frequent changes in tax law. Such changes create uncertainty and thus make long-term planning more difficult and hazardous. Probably few District investors could have foreseen several years ago, when making decisions about investing in the city, that such pronounced changes in relative tax levels for different types of property would come about. That history of proliferating tax classes and creating ever-larger differentials may discourage future investment, in part because it makes it impossible to predict what taxes will be like in the future, but instead suggests the likelihood of further change.

Fundamental change in tax system. A split-rate, or graded, property tax, under which land would be taxed more heavily than improvements, is the subject of Chapter G. It shows that the combination of classification and a graded tax (especially the extreme version that would zero-rate improvements, leaving only a land tax) would be an uneasy one, pulling policy in very different directions with regard to neutrality. If such fundamental change in the property tax were given serious consideration, the continuation of classification would need careful thought as well.

Summary and conclusions

Classification's proponents point to equity as the main argument in support of the policy. But equity, like beauty, is in the eye of the beholder. It would be difficult to gain consensus that the classified property tax is fairer than a uniform tax, and even more difficult to get agreement on the use of one classification scheme over another.

The advent of classification in the District two decades ago was indeed the first step on a slippery slope. The number of classes has gone from two to five, and the differentials have increased tremendously. Even within the broad category of residential property, initially a single class, renter-occupied property is taxed 60 percent more heavily than owner-occupied property — even before the $30,000 homestead exemption is taken into account. Such differentials have no logical justification. They reveal a tax no longer based on accumulated property wealth, but rather on relative lack of political power. Individuals vote, businesses do not, so classification favors residential property over business property. Removing the discipline of a uniformity requirement opens the tax code to political maneuvering. If there were one logically "right" or fair set of relative tax levels, we would expect neither the changes in relative tax rates that have occurred in the District (and many classification states) nor the differences among such systems at a given time.

Although classification's differentials have been created in the name of equity, they are inequitable, whether considered from the standpoint of ability to pay or benefits received. Indeed, in the context of the whole tax system, a far better case might be made for a reverse classification. Such a system would place the heaviest property tax rates on owner-occupied residential property, which benefits from income tax deductions for property taxes and mortgage interest, even though the associated stream of housing benefits goes untaxed.

Because the District is a comparatively small island of land surrounded by larger land areas in the Maryland and Virginia suburbs, the District's classification system also creates biases in choice of location that work against the District. First, the current rates on commercial properties in the District are considerably higher than in the suburban areas, where real property tax rates are uniform across types of real property. Second, the history of change within the District's classification system is itself a concern. An investor considering location within the metropolitan area

would have to consider not only the current higher tax rates in the District compared to those in the suburbs, but also the likelihood, based on past performance, that the commercial rate(s) might become even higher relative to those for other property types. Is there more of the slippery slope ahead — or has it been sanded and/or leveled?

In summary, a return to uniformity would provide a clear, understandable guide to the valuation of and taxation of property — a uniform rate applied against market value. This would remove the determination of property tax treatment from the political arena. It would also provide more certainty to property owners and prospective investors, and would reduce the costs of administration of (and to a lesser extent, compliance with) the District's tax code.

If embarking upon a return to full uniformity is not a realistic option at this time, the District could modify its classification system to temper some of its worst elements. Intermediate positions between the current system and the logically preferable uniform system would feature a smaller number of classes with reduced differentials, and would add some controls to prevent a return to the proliferation of classes and rising differentials.

The ultimate in class reduction, short of full uniformity, would be a system with only two classes — all residential properties (rental and owner-occupied) in one class, and all other properties in the other — with a modest, fixed differential between the classes.[16] Such a system would not overcome some of the problems with classification — it still would be classification, after all — but it would reduce them. First, fewer classes would reduce complexity and thus make administration and compliance simpler. Second, the smaller number of classes, combined with a modest differential, e.g., a business tax rate no more than 50 percent higher than the (single) residential rate, would be fairer. It also would reduce the locational effects of the tax. Finally, freezing the number of classes and the differential between them would reduce waste and increase certainty by removing the terms of classification from ongoing political maneuvering and negotiation. Mere statutory restriction, however, would not be convincing. Whatever one session of the D.C. Council adopts, another could repeal or supplant. Two decades ago, the District adopted a simple two-class system and it was quickly undone.

In conclusion, the classification system as it now exists seems untenable. Classification tends to convert the property tax into a tax on the relative lack of political power. Residential property owner-occupants get greatly reduced taxes because they have the political clout. Even before taking the homestead exemption into account, a $100,000 Class 5 property is assessed a tax higher than that for a $500,000 home occupied by its owner. A $100,000 Class 4 commercial property is taxed about the same as a $140,000 apartment building (Class 2). Such differences have no underlying logic and cannot be justified by standard tax evaluation criteria. Indeed, it is a stretch to characterize the current system as property taxation.

Figure E-6

Hypothetical Example of Assessment-Sales Ratio Calculations

Property	Assessed Value	Sales Price	A/S Ratio	Deviation from Median A/S, Absolute Value
A	$120,000	$150,000	80	20
B	135,000	150,000	90	10
C	150,000	150,000	100	0
D	165,000	150,000	110	10
E	180,000	150,000	120	20
Sum	$750,000	$750,000	n.a.	60
Median ratio			100	
Mean ratio			100	
Aggregate ratio			100	
Average absolute deviation from median ratio (60/5)				12

Source: Hypothetical data and author's calculations.

Assessment quality and equity

Assessment-sales ratio studies relate the sales prices of sold properties to the assessed values of those same properties, and thus provide a measure of the level of assessments. As part of an effort to inform the public of the assessment process and the level of their property assessments, the D.C. Code (Sec. 47-823) requires annual assessment-sales ratio studies:

> (c) The Mayor shall undertake, publish, and otherwise publicize the results of assessment-sales ratio studies for different types of real property for the entire District and for different types of real property within each of the districts utilized in making assessments. If, for a given year, adequate sales data are lacking for particular studies, the Mayor shall so indicate.

The studies are published in the *District of Columbia Register.* The most recent one, the 1997 ratio study, was transmitted from the Real Property Tax Administration in September 1997. After considering the sorts of information commonly produced by ratio studies, some of the specifics of the District's studies are addressed. Then assessment-sales ratio findings for the District are presented.

RATIO STUDY INFORMATION

Ratio studies can yield several statistics to evaluate property tax assessment quality — i.e., the level and uniformity of assessments. The studies entail computing, for each property in a sample of sold properties, the ratio of the assessed value to its sales price; generally, the result is expressed as a percentage.

Assessment level. To illustrate the information that can be obtained, Figure E-6 presents hypothetical examples. There, all five hypothetical properties are shown to have sold for the same price, $150,000, while their assessed values ranged from $120,000 to $180,000. The ratio for property A is 80 percent (120/150) and, at the other extreme, the ratio for property E is 120 percent (180/150). Three measures of central tendency are shown in the exhibits at the bottom of the table: (1) the median of the individual ratios, which is the value in the middle when the ratios are arrayed in either ascending or descending order; (2) the mean of the individual ratios; and (3) the aggregate ratio, which is the ratio of the sum of the assessed values to the sum of the sales prices. As the example has been constructed, each of these takes a value of 100 percent. Thus, a person looking at only the central tendency measures would conclude that the assessor had done an excellent job — assessed values and sales prices match (on average).

Assessment uniformity I — horizontal equity. Ratio studies almost always go beyond central tendency (average) measures to calculate a measure of variation in individual ratios around the average (usually median) ratio. These further measures permit assessment uniformity to be evaluated. The most commonly used uniformity measure in ratio studies is the coefficient of dispersion, or COD.[17] It divides the median ratio into the average absolute deviation of the individual ratios from that median ratio, and expresses the result as a percentage. Figure E-6 shows the absolute deviations in the last column. Because absolute values ignore the signs, both property A (ratio = 80 percent) and property E (ratio = 120 percent) have deviations of 20 from the median ratio of 100 percent. The sum of these absolute deviations is shown to be 60 and the average (60/5) is shown to be 12. Because the median ratio is 100, the COD is 12. This is considered relatively good performance.[18] It tells us that, on average, individual properties are assessed within 12 percent of the median. If all five properties were assessed at the same level, the COD would be zero, for there would be no deviation around the median;[19] thus, a higher number indicates less uniformity.

Getting a little ahead of the story, the citywide COD for residential property in the 1997 ratio study is 14.5, a bit higher than the hypothetical example, but still respectable. However, the District's ratio studies consider only the middle 50 percent of the properties when arrayed by assessment level: "The coefficient of dispersion reflects the variation of individual ratios around the median ratio, and indicates how close to the median ratio *the middle 50 percent* of the ratios are."[20]

This is not the standard approach, but it has been used elsewhere. It is the approach used in Virginia, for example, until just a few years ago. It can make assessment uniformity appear to be much greater than it is.

The hypothetical data of Figure E-6 do not lend themselves well to using only the middle 50 percent of the ratios, for only five ratios are presented. However, the highest and lowest ratios can be omitted, leaving the middle 60 percent. The truncating in this example, therefore, is less than in the District's practice. But it is sufficient to cut the COD from 12 to four. Is this a misleading example? Data were not obtained to make comparisons for the District, but such comparisons were made for 15 Arizona counties in an earlier study.[21] For one county, there was almost no difference between the standard COD and the one restricted to the middle 50 percent (termed the coefficient of interquartile dispersion), but that county had very high dispersion under each measure. For the other 14 counties, the differences between the standard and interquartile measures were rather striking; in 12 counties, the more restricted measure reduced measured dispersion by more than 50 percent, and by as much as 88 percent.

Omitting the highest and lowest 25 percent of all assessment levels present in the sample might avoid giving too much weight to outliers. Throwing out half of available evidence, however, seems an extremely broad definition of "outliers." It is reasonable to get rid of outliers, or at least to reduce their influence, if they might truly be considered unrepresentative of the population. First, use of the median ratio, rather than the mean, reduces the weight given to outliers. And surely, half of all sales is too great a number by this standard. This practice also might serve as a means of offsetting imperfect screening of sales, on the presumption that sales that did not truly reflect market forces would tend to show up at extremes of the array of assessment ratios (discussed below). This is an overly crude proxy, however.

Assessment uniformity II — vertical equity. While the COD permits determination of the extent of nonuniformity in the valuations of properties of equal value (horizontal equity), another measure — the price-related differential (PRD) — considers whether there is a systematic bias in favor of either high- or low-valued properties (vertical equity).[22] To calculate the PRD, the mean of the individual ratios is divided by the aggregate ratio. The mean of the ratios gives each property equal weight, regardless of its price, while the aggregate ratio (aggregate assessed value divided by aggregate sales price) gives more weight to properties of higher value. There is no systematic bias in favor of either high- or low-value properties if the PRD = 1, but a PRD greater than one indicates a regressive bias (i.e., a tendency to assess low-value properties at relatively high percentages of market value), and a PRD under one indicates a progressive bias. As noted, the example in Figure E-6 results in a value of 100 percent for all measures of central tendency, and thus produces a PRD exactly equal to one.

The District's ratio studies do not report PRD values. This may be a useful measure to add, as it provides a different sort of information about assessment uniformity. Also, it would be relatively simple to add with the use of computers.

ASPECTS OF THE DISTRICT'S RATIO STUDIES

As stated on the first page of the District's 1997 assessment-sales ratio study, "The 1997 real property assessment/sales ratio study compares tax year 1998 preliminary assessments of real property with selling prices of 'arms (*sic*) length' sales transactions which occurred during 1996."

Arm's-length transactions. The use of "arm's-length" transactions is necessary to assure that the sales reflect market forces. "It is important to know whether the transaction was arm's length (between unrelated parties or parties not under abnormal pressure from each other) or resulted from foreclosure, condemnation, or other circumstances in which price was not representative of the market."[23]

According to Real Property Tax Administration officials, assessors qualify the sales for ratio studies, setting aside such transactions as those between parties with the same last name and those with partial interest in the property. Although the qualifying is said not to be detailed — for example, sales between related individuals might not involve parties with the same last name, and some parties with the same last name may not be related — the feeling is that too much effort nonetheless goes into sale qualification, or screening. Up to now, the process has not included a survey of the parties to the transaction. Reportedly, plans are underway to develop a form to gather several pertinent pieces of information on each sale, such as relationship (if any) of the buyer and seller, any special financing arrangements, and conveyance of personal property in the sale of real estate. Use of this form, estimated to be about a year away, may improve the screening process and enable assessors to devote less time to it.

Time periods of sales and assessments. The timing of the sales relative to the assessments is also important. From the above quote, three different years appear to be involved:

- 1996 — The sales being considered occurred in the 1996 calendar year. Also, the assessments would have been determined primarily in the last several months of calendar year 1996.
- 1997 — The study was conducted and published in calendar year 1997.
- 1998 — The taxes based upon the assessments included in the study will be paid in March and September of 1998, and thus during fiscal (and tax) year 1998, as well as calendar year 1998.

Thus, the 1997 ratio study pertains to sales and assessments made in 1996.[24] This same pattern applies to other District ratio studies, i.e, assessed values deter-

mined in the closing months of the year are compared to sales that occurred throughout that year. Because most of the year's sales have occurred before the assessments to which the sales prices are to be compared have been determined, assessments could reflect the sales prices. If this were done, the tendency would be to improve the accuracy of the assessments, evidenced by higher and more uniform assessment-sales ratios. In discussions on this topic, officials of the Real Property Tax Administration indicated that assessors may know of the sales when assessed values are being determined, but that they are not trying to "shoot the sales" in order to come up with high, uniform assessment indicators.

Whether this timing sequence is a problem depends upon assessors' access to sales data and the uses to be made of the ratios. The timing sequence is unfortunate to the extent the ratio studies are intended as a means of evaluating the accuracy (quality) of assessor performance, whether by his or her supervisors or by the taxpaying public. More confidence could be placed in the accuracy of the assessments of unsold properties if the ratio studies compared the assessed values of record at the time of sale to the sales prices. In many jurisdictions, this is the practice. For example, the 1995 Virginia study (published in 1997) gives the following information: "The 1995 assessment/sales ratios are calculated from a selected statistical sample of all fair market sales of real estate in 1995. ... For each selected sale in a locality, the assessed value in 1995 is compared to its selling price to calculate an assessment/sales ratio."[25]

Uses of ratio studies. Besides informing the public of the level and uniformity of assessments relative to market values, ratio studies have several uses, many of them internal to the assessment process.[26] For this reason, the published study is not the only one made. Assessors conduct their own studies for such purposes as identifying areas or property types that seem to require special attention to improve the level of assessment, and those properties for which assessments are advantageous. Such information can help in determining how to best deploy available resources.

Assessors may, for example, calculate ratios for shorter periods of time to get a sense of market trends. They also may calculate ratios by pooling sales for closely similar properties located in different areas as a way to augment a small number of sales in one neighborhood.[27] Or sales may be drawn from only part of a neighborhood. While the published ratio study includes information for each of 56 neighborhoods that have been used for several decades, assessors also look at ratios within the smaller sub-neighborhoods that now are the focus of assessing activities. Because Sec. 47-823(c) of the D.C. Code requires public access to ratio studies for "each of the districts utilized in making assessments," it would seem to require publishing ratios for more than the 56 neighborhoods.

Use of assessment-sales ratios. Assessment-sales ratios can be used to develop multipliers to adjust the average level of assessment for a group of properties. If the

calculated assessment ratio is 90 percent and the target is 100, and all else remains unchanged, application of a multiplier equal to 1.11 (100/90) would increase values enough to raise the average assessment level to 100. This approach, however, leaves any underlying nonuniformity of assessments within the group of properties to which it is applied, so it is not a substitute for reappraisal when there is significant nonuniformity. Uniform percentage increments (multipliers) generally should not be applied unless the coefficient of dispersion — properly measured, using the standard approach discussed above — is quite low, perhaps less than 10.

For such multipliers, the property group(s) used to derive the multiplier and to which the multiplier is to be applied are important. They could range from very narrow to very broad — anything from single-family housing in one part of the city built prior to 1950 to all types of real estate citywide. In general, the broader the group, the more suspect the use of the uniform multiplier approach. Properties of different types and in different areas tend to change in value at different rates because of the underlying differences in their attributes.

Finally, assessment-sales ratios can be used for several internal purposes. They can be helpful in identifying areas or property types requiring special attention. They can be calculated for shorter time periods to get a sense of market trends. Assessment ratios can also be used to develop multipliers to adjust the average level of assessment for a group of properties. This application should be restricted to groups with low CODs.

FINDINGS FROM THE DISTRICT'S RATIO STUDIES

The District's annual assessment-sales ratio studies include statistics for five groups of property. These groups do not, however, exactly match the five property classes. Three of the ratio-study groups are residential — residential, condominium, and multifamily — and they do not break out into owner-occupied (Class 1) and tenant-occupied (Class 2) sets. The other two ratio-study groups are commercial and vacant land. The last one, vacant land, is narrower than Class 5, which can include improved properties that are vacant. The commercial group is comprised mostly of Class 4 properties, but could also include some properties from Classes 3 and 5.

Citywide data

Figure E-7 presents citywide summary statistics for the five groups for the eight most recent years (tax years 1991–1998, or studies performed in calendar years 1990–1997). The first impression is that assessments have been rather good, with median assessment ratios relatively high and tending upward over the period, and with dispersion for most groups within the good range (CODs of 15 or under) for most of the groups. The exceptions tend to be for groups with relatively few sales (especially multifamily) and those generally regarded as being difficult to assess uniformly (especially vacant land and, to some extent, commercial).

Figure E-7

D.C. Sales, Median Assessment-Sales Ratios, and Coefficients of Dispersion
by Property Class, Tax Years 1991–1998

	Residential			Condominium			Multifamily			Commercial			Vacant		
TY*	Sales	A/S	COD	Sales	A/S	COD	Sales	A/S	COD	Sales	A/S	COD	Sales	A/S	COD
1998	3,083	99.5	14.5	1,030	101.1	12.7	66	95.8	26.2	257	104.1	31.7	28	88.3	28.1
1997	3,146	98.7	14.7	1,098	98.7	13.3	26	102.1	29.2	228	100.0	29.3	45	100.3	64.3
1996	3,285	97.5	13.0	1,312	98.1	10.5	70	96.4	20.2	192	100.0	17.4	36	99.6	29.5
1995	2,871	96.2	11.1	1,342	97.2	10.6	51	82.8	23.2	191	98.0	6.5	32	91.9	34.9
1994	3,058	97.6	9.2	1,483	98.4	6.8	66	95.1	15.7	167	100.0	10.5	66	94.5	18.5
1993	3,301	97.5	8.9	1,554	96.3	7.9	56	84.2	21.4	167	98.0	9.0	79	93.2	19.2
1992	3,570	94.7	9.8	1,820	93.8	10.0	126	91.5	16.2	254	94.3	9.9	152	89.1	21.8
1991	4,432	94.6	9.6	2,185	93.1	10.4	152	95.5	11.5	343	92.0	14.0	238	79.4	26.2

**Reflects studies performed in previous calendar year (e.g., TY 1998 reflects 1997 study).*

Source: D.C. Office of Tax and Revenue.

After presenting an overview for both assessment level and assessment uniformity, summary observations are made.

Assessment level — median assessment sales ratio. For each of three groups — residential, condominium, and commercial — median assessment ratios have been within 5 percent of the 100 percent target for at least the last six years and show some upward trend over the eight years. For both multifamily housing and vacant land, the median ratios exhibit more variability over the period and the upward trend, if present, was less clear, as there were years in which the ratio was less than for the preceding year.

It should be noted that the number of sales in each category in each year was greater than 30, generally taken as the threshold for statistical reliability, with the exception of multifamily properties in tax year 1997 (26 sales) and vacant land in 1998 (28 sales). In fact, for each of the last four years, there were fewer than 50 sales of vacant land. Except for the cases just noted, every other group had more than 50 sales in each year.

Assessment uniformity — coefficients of dispersion. In addition to the median assessment levels generally being high, the coefficients of dispersion also look respectable, as noted above.[28] For the residential group, for example, the highest COD — i.e., the greatest degree of nonuniformity — was 14.7 in tax year 1997, followed by 14.5 in tax year 1998. While their level was relatively low, the upward drift in the residential CODs tends to be disturbing.

For each of the other three property groups, however, it is difficult to be sanguine about the degree of assessment uniformity. Generally, they also exhibit the pattern observed above, with CODs for the most recent years being among the highest, if not the highest, in the eight-year period. They started from a higher degree of nonuniformity and went up from there. Finally, vacant land had only two CODs below 20 (18.5 for tax year 1994 and 19.2 for tax year 1993). While it often is the case that assessment ratios for vacant land show considerable variation, some of the recent levels suggest basis for concern, particularly since the top and bottom quartiles are ignored in the District's COD statistics.

Neighborhood data

The published ratio studies also report, as required by statute, the statistics for each of the assessment neighborhoods. Data pertain to the 56 neighborhoods defined several decades ago. Each is assigned a numerical code as well as a name, and both identifiers appear in the table. Neighborhoods with fewer than 15 sales have no statistics reported. Because the law of large numbers generally applies to samples of 30 and over, some of the data presented may lack statistical reliability. While a major appraisal handbook states that there is no one right answer to how large the sample must be for reliability, it does note that where the population data are more

Figure E-8

D.C. Single-Family Residential Sales, Median Assessment-Sales Ratios, and Coefficients of Dispersion

Arrayed by Descending Value of Coefficient of Dispersion

Neighborhood	Sales	A/S	COD
Ledroit Park	43	88.6	23.3
Eckington	57	87.2	21.6
Columbia Heights	191	100.0	20.3
Old City #2	176	98.8	19.6
Old City #1	423	103.8	18.0
Cleveland Park	46	95.4	17.1
Woodridge	54	83.5	16.5
Randall Heights	49	94.4	16.1
Trinidad	63	94.5	15.9
Petworth	151	94.9	15.1
Congress Heights	72	94.1	14.1
Capitol Hill	145	102.2	13.9
Brookland	141	97.5	13.7
Deanwood	117	96.3	13.7
Brightwood	92	100.3	13.1
Mount Pleasant	83	98.6	12.7
16th Street Heights	49	93.2	12.7
Anacostia	37	96.3	12.5
Georgetown	129	103.6	12.4
Hillcrest	61	97.5	12.4
Glover Park	36	98.4	11.0
Fort Dupont Park	69	102.6	10.7
North Cleveland Park	32	101.7	10.6
Chevy Chase	191	101.8	10.5
Burleith	49	98.6	9.7
Berkley	37	101.9	9.5
Spring Valley	50	100.6	8.8
Palisades	50	97.7	8.5
Riggs Park	71	102.9	8.3
American University Park	91	100.0	7.8
D.C. Total	**3,259**	**99.5**	**14.5**

Note: For tax year 1998; includes only neighborhoods with 30 or more sales.

Source: D.C. Office of Tax and Revenue.

variable, a larger sample is needed.[29] The relatively high CODs for several areas and types of property suggest 15 is too small a number for reliable statistics. This report presents the data from the 1997 ratio study (for tax year 1998) for those situations in which there were at least 30 arm's-length sales (Figures E-8 and E-9).

Of the 56 neighborhoods, 30 had at least 30 sales of single-family residences. Figure E-8 presents the number of sales, median assessment-sales ratio, and coefficient of dispersion for each of the 30 neighborhoods, arrayed in descending order of the COD values.

Moving beyond residential property, there are very few instances in which a neighborhood had at least 30 sales of a given property type. Figure E-9 presents the data for the 14 exceptions — 12 for condominiums and two for commercial.

OTHER EVIDENCE ON ASSESSMENT QUALITY

The relatively good impression of assessment quality gained from examination of the official District ratio studies is at odds with some other views encountered on the District's real property tax assessment system. *Washington Post* stories from 1996[30] described large fractions of residential properties being either over- or under-assessed by more than 10 percent, and irregularities in the Real Property Tax Administration that led to the firing of the top two people there. Similarly, a citizen group reported, among other things in a generally negative report, that the "quality of 1997 real property assessments declined probably due to poor or incompetent management, failure to use the CAMA (computer assisted mass appraisal) system, and errors in property record cards."[31]

The Citizens for Fair Assessment (CFA) study is based on the data used in the District's 1996 (tax year 1997) ratio study, supplied to CFA and reworked by that group to provide more detailed information than the official study presents. It presents the distribution of sales across 15 assessment-ratio ranges for each neighborhood and for the city as a whole for both single-family residences and condominiums, and somewhat less data for other types of property, limited by the small number of sales of those properties in many neighborhoods. A summary table pulls together some of the key statistics for the city as a whole; the summary data are reproduced here as Figure E-10.[32]

The CFA data paint a rather bleak picture of assessment quality in the District, at least for tax year 1997. Because that year is not an atypical one among recent years based on data from the District's official ratio studies, the CFA data for 1997 probably are reasonably representative of other years as well. For at least seven sales in each of the five property types, the assessed value was over 175 percent, and for at least two it was under 45 percent. In fact, the maximum and minimum A/S ratios for each type (not shown in Figure E-10) are well beyond the upper and lower bounds of the ranges shown in the table, as shown in Figure E-11.[33]

Figure E-9

Number of Sales, Median Assessment-Sales Ratios, and Coefficients of Dispersion for Nonresidential Property
Arrayed by Descending Value of Coefficient of Dispersion

Neighborhood	Sales	A/S	COD
Condominiums			
Kalorama	104	96.1	14.0
Georgetown	36	107.6	13.6
Mount Pleasant	49	97.9	13.4
Old City #2	199	97.9	13.4
R.L.A. (S.W.)	52	112.2	13.4
Observatory Circle	49	99.8	12.8
Wesley Heights	59	102.2	12.4
Foggy Bottom	42	105.9	11.3
Central	140	98.0	11.1
Forest Hills	58	102.3	10.6
Cleveland Park	55	101.5	9.8
Garfield	30	98.4	8.8
D.C. Total	**1,043**	**101.1**	**12.7**
Commercial			
Central	33	97.1	25.6
Old City #2	40	109.8	17.2
D.C. Total	**265**	**104.1**	**31.7**

Note: For tax year 1998; includes only neighborhoods with 30 or more sales.
Source: D.C. Office of Tax and Revenue.

Keeping in mind that the District excludes the top and bottom 25 percent of sales, arrayed by the assessment-sales ratio, Figure E-10 makes it possible to see how much variation in individual assessments is ignored. For residential properties, for example, the middle 50 percent of the sales fall within just three of the 15 ranges shown in the table, and only the middle of the 15 ranges (95 percent to 105 percent) is included in its entirety. Thus, the middle 50 percent of sales cluster rather closely around the median ratio (98.9 percent). This is, of course, what the official COD tells us — 14.7 for tax year 1997 (Figure E-7, page 141).

While some outliers legitimately may be thrown out in conducting a ratio study, ignoring half of all arm's-length sales seems indefensible. The CFA data in Figure

Figure E-10

Distribution of Sales by Assessment-Sales Ratio Class and Property Type

Tax Year 1997

	Residential		Condominium		Multifamily		Commercial		Vacant Land	
A/S Ranges	Sales	Percent	Sales	Percent	Sales	Percent	Sales	Percent	Sales	Percent
< 45	11	0.4%	9	0.8%	2	2.9%	4	1.8%	2	4.4%
45–55	13	0.4	5	0.5	3	4.3	3	1.3	4	8.9
55–65	40	1.3	6	0.6	0	0.0	7	3.1	1	2.2
65–75	104	3.3	40	3.6	7	10.0	9	4.0	3	6.7
75–85	239	7.6	103	9.4	10	14.3	13	5.7	4	8.9
85–95	647	20.7	259	23.6	9	12.9	34	14.9	6	13.3
95–105	1,105	35.3	359	32.7	9	12.9	75	32.9	5	11.1
105–115	447	14.3	162	14.8	9	12.9	18	7.9	2	4.4
115–125	200	6.4	62	5.6	4	5.7	13	5.7	0	0.0
125–135	116	3.7	44	4.0	3	4.3	10	4.4	2	4.4
135–145	62	2.0	23	2.1	1	1.4	13	5.7	4	8.9
145–155	34	1.1	10	0.9	3	4.3	2	0.9	3	6.7
155–165	36	1.2	5	0.5	1	1.4	2	0.9	0	0.0
165–175	25	0.8	3	0.3	2	2.9	6	2.6	0	0.0
> 175	40	1.5	8	0.7	7	10.0	19	8.3	9	20.0
Total	**3,119**	**100.0%**	**1,098**	**100.0%**	**70**	**100.0%**	**228**	**100.0%**	**45**	**100.0%**

Note: Percentages may not add to 100.0 due to rounding.

Source: Citizens for Fair Assessment.

Figure E-11

Range of Assessment to Sales Ratios

Land	Residential	Condominium	Multifamily	Commercial	Vacant
Maximum	446.9	218.1	250.6	463.3	493.0
Minimum	39.9	13.9	20.9	30.8	13.9
Max:Min	11.2 : 1	15.7 : 1	12.0 : 1	15.0 : 1	35.5 : 1

Source: Citizens for Fair Assessment.

E-10 make it clear that the ignored sales represent a great deal of disparity or dispersion around the average assessment ratio. Similar tales are told by the data for the other four property types. The official ratio study statistics clearly overstate the degree of assessment uniformity, which, as noted earlier, was found to be the case when the inter-quartile approach used by the District was applied to Arizona counties.[34]

ADDITIONAL CONSIDERATIONS

Diminished uniformity over time. The upward drift of CODs in recent years is troublesome. This occurred before the change in leadership within the Real Property Tax Administration in the fall of 1996. In talks with current officials, however, one possible explanation offered was the previous tendency to apply uniform multipliers to assessed values as a means of raising the assessment level and, indeed, the median ratios generally have risen in recent years, as we have seen. This practice, it was suggested, magnified existing dispersion and thus generated higher CODs.

A truly uniform application of a single multiplier within an assessment area, however, would not increase the measured dispersion of assessment within that area, all other factors remaining constant. An example of such an application would be to apply a multiplier of 1.25 to the assessed values of all properties in an area with an average assessment ratio of 80 percent, to bring the average to 100 percent (80 x 1.25 = 100). Comparison of Figures E-6 (page 135) and E-12 demonstrates this using a simple example.

Figure E-6 was used earlier to show the calculation of several measures of central tendency (assessment level) and of the coefficient of dispersion (assessment uniformity). The example presented there was constructed to yield assessment ratios of 100 percent as measured by each of three measures of central tendency (the mean and median of the individual ratios, and the aggregate ratio relating the sum of assessed values to the sum of sales prices). Figure E-12 applies a multiplier of 0.8 to each of the five assessed values in Figure E-6. This reduced each assessment-sales

Figure E-12

Hypothetical Example of Assessment-Sales Ratio Calculations

Property	Assessed Value	Sales Price	A/S Ratio	Deviation From Median A/S, Absolute Value
A	$96,000	$150,000	64	16
B	108,000	150,000	72	8
C	120,000	150,000	80	0
D	132,000	150,000	88	8
E	144,000	150,000	96	16
Sum	600,000	750,000	n.a.	48
Median ratio			80	
Mean ratio			80	
Aggregate ratio			80	
Average absolute deviation from median ratio (60/5)				9.6

Source: Author's calculations.

ratio to 80 percent of its former level and thus lowered the median ratio to 80 percent. These changes reduced the sum of the absolute deviations from the median ratio from 20 in Figure E-6 to 16 in Figure E-12 and dropped the average absolute deviation from 12 to 9.6, i.e., to 80 percent of the previous level. With both the numerator and the denominator of the COD formula (average absolute deviation from the median ratio divided by the median ratio) reduced by 20 percent, the coefficient of dispersion was unchanged at 12 (12/100 = 0.12, and 9.6/80 = 0.12).

Of course, not everything other than the assessed value remained unchanged from one year to the next as multipliers were applied to raise assessment levels. Because another year had passed, different groups of sales were used in calculating the two years' assessment ratios. Also, changes in underlying market values continued. If existing assessments are essentially uniform, equal upward or downward percentage changes in assessed values can bring the average level of assessment into the target range, provided underlying values do not change. But assessments that are relatively uniform in one year tend to become less uniform the next year if there is no change in relative assessments, because different properties within an area and in different geographic areas within a larger jurisdiction tend to change in value at different rates. This is the reason for periodic reassessments.

For citywide ratios, a further consideration is that assessments are conducted for many relatively small areas within the city, in part to permit more appropriate adjustments to assessed values reflecting different rates of change in market values in different areas. Thus, uniform multipliers within each assessment area generally will not translate into uniform multipliers citywide.

Measured level of uniformity. The relatively low level of CODs reported in the official ratio studies is not very reassuring given the manner in which the District calculates the COD. The use of just the interquartile range of assessment ratios already has been discussed at some length and its tendency to understate assessment variability noted. The distribution of ratios for individual properties across 15 assessment ratio ranges by Citizens for Fair Assessment confirms the suspicion of overstated uniformity by the official measures.

Changes set in motion. While the quality of real property assessment within the District has not been very good in recent years, the problem has been recognized and acted upon. New leadership of the Real Property Tax Administration was installed in the fall of 1996 and, as discussed in another section, many changes either have been adopted or are being planned — correction of errors in property records, adoption of more homogeneous assessment areas, addition of audits and other management techniques, etc. — all for the purpose of improving assessment accuracy.

SUMMARY AND CONCLUSIONS

The following discussion considers the statistics to be generated from ratio studies, the data to be used in their generation, and the use of ratios in adjusting assessed values.

Statistics generated by ratio studies. The District should adopt the more common form of the COD based on all sales in the sample reported to be the most common for gauging the uniformity of assessments of similarly situated properties (horizontal equity).[35] But the District's interquartile variant ignores fully half of the sales in the sample of sold properties — the 25 percent at each end of the array. Because so much of the available information is omitted, the current measure understates the degree of assessment nonuniformity.

This is not a minor point, for the differences can be quite extreme. Evidence from Arizona, cited earlier, found that the most extreme understatement of assessment nonuniformity — 85 percent or more — occurred in two counties with CODs very similar to those observed for the District when calculated under the interquartile variant that the District uses. Data for five counties show that: 1) the degree of understatement caused by the District's approach can be very great; and 2) the understatement is not uniform — i.e., there is no single multiplier that can be applied to derive the true degree of nonuniformity represented by a COD calculated under the District's approach (Figure E-13).[36]

Figure E-13

Coefficient of Dispersion
D.C. Approach Compared to Standard Approach

	County 1	County 2	County 3	County 4	County 5
D.C.-type COD calculation	7.7%	11.1%	11.2%	15.4%	15.9%
Standard COD calculation	15.8	22.1	74.7	48.0	133.8
Difference (from standard)	51.0%	50.0%	85.0%	68.0%	88.0%

Source: Author's calculations based on Bell and Bowman (1991).

While changing to the standard calculation of the COD would provide a more accurate picture of the quality of real property assessment in the District, it also would produce statistics that are not comparable to those for prior years. This is not sufficient reason not to make the change. The desired comparability of data over time could be achieved by publishing CODs for both the current and the new methods for the first three to five years in which the new method is used. This would provide a transition period in which people could get used to the new data series and develop some understanding of how its numbers relate to the old ones to which they have been accustomed. This should not be a major item in terms of time or cost, given the use of computers to generate the numbers.

In addition to changing the COD to the more standard — and illuminating — approach, the District should also add the price-related differential (PRD) to its ratio studies, at least for the citywide portion of the studies. The PRD could be of use to both taxpayers and the Real Property Tax Administration, and could be easily generated.

Information used in ratio studies. Assessment-sales ratio studies must be restricted to bona fide market transactions for valid results. Thus, sales must be screened out if they do not represent arm's-length transactions between a willing buyer and a willing seller. Moreover, the screening process should identify and either set aside or adjust for sales that involve some irregularity that would affect the sales price significantly (e.g., sales price includes the value of personal property as well as real property, sales price represents nonmarket financing). The District's efforts to develop a form to collect the pertinent information on each sale should improve the screening of sales and reduce assessor time.

There has been some suggestion that existing screening deficiencies are offset by, and therefore may justify, the interquartile approach to calculating the COD. This is a poor substitute for proper screening. Throwing out 50 percent of all sales

in the sample — which the inter quartile approach to the COD does — is an extremely crude adjustment for improper qualification of sales. It can result in ignoring many sales with ratios far from the average level, not because the sales were not arm's-length, but because of problems in the assessment process, per se. Uncommonly high and low ratios resulting from such problems should be retained in the ratio studies, while non-arm's-length sales should not. Better screening of sales, therefore, is an integral part of making the ratio studies more informative and reliable. It is hoped, therefore, that the Real Property Tax Administration will be able to implement soon the new instrument, noted above, for gathering better data on real property sales.

Another concern with the data used in conducting assessment-sales ratio studies is the relationship between the date of sale and the date of assessment. Currently, many of the assessed values are generated after the sales have occurred — e.g., sales in early 1997 are compared to assessed values derived in late 1997. To increase public confidence in the accuracy of assessments, it would be better to have the Real Property Tax Administration compare and publish sales prices in a given year with the assessed values of record at the time of sale, rather than to the assessed value developed in the year of, and often after, the sale.

Real property tax relief

Property tax relief has become a very common feature of real property taxation. Each state has at least one form of real property tax relief. The popularity of property tax relief is explained in part by the unpopularity of the property tax. Property taxation is the least popular of the three major state-local taxes, according to public opinion surveys such as the former annual series done for the U.S. Advisory Commission on Intergovernmental Relations (ACIR). The tax's relatively poor standing in the public's eye is, in turn, attributable to several features. One is its sheer magnitude, for property taxation accounts for more state-local revenue than either of the other major state-local taxes, the general sales tax, and personal income tax. Further, property taxation is levied on accumulated asset values, whereas income and consumption taxes are linked to current economic flows. Because property tax liability does not vary with changes in current economic circumstances, it can pose cash flow problems. Moreover, property taxes are paid less frequently and in larger amounts at a time, and thus tend to be more visible than other taxes.

Direct versus indirect property tax relief

Property tax relief takes many forms. Casting the net very broadly, any revenue source that takes pressure off the property tax is a form of property tax relief. In this

light, local income and sales taxes, intergovernmental grants, and other revenue sources are property tax relief.[37] Such relief is termed *indirect* property tax relief. *Direct* property tax relief, by contrast, is extended in ways that relate clearly to the property tax, sometimes through features of the property tax itself. These include property classification, homestead exemptions, and use-value assessment of farm land. Other direct relief mechanisms also tie explicitly to the property tax, but lie outside that tax's structure. Examples are credits against income taxes, or separate refund programs, designed to relieve a portion of property taxes.[38] The focus here is on direct relief mechanisms, primarily for residential properties.

TYPES OF DIRECT PROPERTY TAX RELIEF

It is fairly common for a single state to provide more than one type of property tax relief.[39] The District is a case in point. Direct real property tax relief, excluding full exemptions for government, religious, educational, and other such entities, includes:

- *Real property classification.* The lowest tax rate applies to owner-occupied residential properties and the next-lowest applies to other residential properties (Classes 1 and 2, respectively) (D.C. Code 47-813(c)).
- *Homestead exemption.* The first $30,000 of otherwise taxable value is removed from the tax base for owner-occupants of a dwelling unit within a structure containing up to five dwelling units or a single unit within a condominium (D.C. Code 47-850(c)). Exemption claimants must be subject to the District's income tax (D.C. Code 47-850(c)(1)(A)(i)), an application is required every fifth year, and the taxpayer is to notify the city when he or she is no longer eligible for this relief (D.C. Code 47-850(e)(3)).
- *Senior citizen tax reduction.* Owners of Class 1 property who are at least 65 years old and who have under $100,000 in "annual household adjusted gross income" are eligible for a 50 percent reduction in real property tax liability (D.C. Code 470-863(b)); an application is required every fifth year (D.C. Code 47-863(c)(2)).
- *Circuit breakers.* The District extends residential property tax relief conditioned by income through credits against the personal income tax (D.C. Code 47-1806.6). The basic characteristic is that the amount of relief declines as income rises, all else being equal. In the District, renters may qualify for circuit breaker relief, with 15 percent of rent payments considered to be property tax. Two sets of credits are offered, one for persons of all ages, and a more generous one for those who are elderly (aged 62 or over), blind, or disabled;[40] the maximum income in each case is $20,000 and the maximum credit is $750.

- *Lower-income home ownership tax abatement.* The District provides a five-year, 100 percent tax abatement for first-time home buyers and selected organizations to promote home ownership (D.C. Code 47-3501–47-3507).
- *Condominium and cooperative trash collection tax credit.* Owners of housing in condominium or cooperative housing buildings with over three dwelling units are eligible for a tax credit if the District does not provide trash collection service to the building. The credit, initially $60 in tax year 1993, is to be indexed by the consumer price index for the Washington metropolitan area (D.C. Code 47-871).
- *Property tax deferral.* Owners of Class 1 property may defer the amount of tax in excess of 110 percent of the preceding year's tax, at an 8 percent rate of interest. Combined tax deferred and accumulated interest cannot exceed 25 percent of the assessed value of the property or they become a lien against the property (D.C. Code 47-845).

Discussion of tax relief alternatives

The District's real property tax relief menu is broad, even considering that most states offer more than one relief program and often more than one program for residential property. Whether the District's system is overly complex depends in part on the rationale for relief.

Rationale for property tax relief

Property tax relief may exist for many reasons. Equity is the most commonly given motive. If equity is viewed from the benefits-received perspective, it would be targeted to properties not receiving some service benefits. The trash collection tax credit for condominium and cooperative housing not receiving city trash collection service seems to be an example of such relief.

More commonly, equity arguments are based on ability to pay. Attention then is focused on the level of the tax rather than the level of services. Ability might be represented by proxy, such as use of property (e.g., residential versus nonresidential), occupancy status (owner- versus renter-occupied), or some characteristic of the owner or occupant (e.g., age or disability). Within such broad groupings, however, the merits of tax relief surely vary because circumstances vary, often considerably. For example, home values in the District in 1995 are said to have ranged from well under $100,000 to over $50 million, which suggests great diversity in households' financial circumstances, including taxpaying ability.[41] Similarly, old age no longer is associated with financial need to the degree it once was, as a larger percentage of the nonelderly now are below the poverty line. And not all persons with a given disability, such as blindness, are equally diminished in their ability to earn a living. Thus, consideration of personal financial circumstance is preferable to reliance upon flawed proxies. In other

words, if relief is undertaken to improve equity under the ability-to-pay rationale, it should be targeted based upon a measure of ability. Income is the basic measure of ability, provided it is defined more broadly than in income tax statutes.

Consideration of the District's direct property tax relief

The first two of the District's direct property tax relief programs listed above — classification and the homestead exemption — grant tax relief to owner–occupants of residential property (Class 1 property owners), regardless of their need for tax relief. The senior citizen tax reduction, although still very broad, is targeted somewhat more narrowly.

Classification. Classification is dealt with in an earlier section of this chapter, and thus is not treated in detail here. The earlier section suggests that the differentials created by the system are at best hard to justify, at least on the basis of ability to pay.

Homestead exemption. The homestead exemption is an extension of the classification system in that it is available only to Class 1 property owners. The homestead exemption is largely redundant, as similar relief could be provided through the basic classification provisions. One difference, however, is that the $30,000 homestead exemption provides relatively more relief to owners of low-value homes than to those with more valuable homes because the exempt amount is a larger percentage of total value for the low-value homes.[42] Thus, while classification alone would leave all Class 1 property owners with an effective tax rate of 0.96 percent (assuming assessment at 100 percent of market value), data for tax year 1995 show that the constant $30,000 homestead exemption caused effective tax rates to range from a low of 0.53 percent for owner-occupants falling at the first decile of home values, to 0.91 percent for those at the threshold of the top decile.[43]

If not wholly redundant, the separate homestead exemption, like classification, can be criticized for its high cost. For each home worth at least $30,000, the exemption's annual cost is $288 — the product of the Class 1 tax rate times the exempt amount (0.96 x $30,000). Aggregate base reduction in tax year 1996 was $2.7 billion, or nearly 6 percent of the real property tax base. This relief goes to virtually all Class 1 homeowners, regardless of their need for relief.[44]

Senior citizen reduction. Although somewhat more targeted than classification and the homestead exemption, the senior citizen tax relief is extremely generous. It gives a 50 percent reduction in tax for all age-eligible households with under $100,000 of adjusted gross income. Adding this on top of classification and the general homestead exemption reduced 1995 effective tax rates further, to a low of 0.18 percent for homes within the first value decile to 0.46 percent for those in the highest value decile. Even in the highest decile, with homes worth $358,000 and up, 14 percent of homes received this tax break. The aggregate base reduction of $1.4 billion was roughly half that of the general homestead exemption.[45]

Figure E-14

Provisions of General Property Tax Circuit Breaker

Household Gross Income (HGI) Bracket	Threshold Percentage of HGI: Property Tax Over This Threshold Eligible for Relief	Percentage of Property Tax Over Threshold That Is Credited	Maximum Relief (Credit)
Under $2,999	1.5%	95%	$750
3,000–4,999	2.0	75	750
5,000–6,999	2.5	75	750
7,000–9,999	3.0	75	750
10,000–14,999	3.5	75	750
15,000–20,000	4.0	75	750

Note: Renters treat 15% of rent as property tax equivalent.
Source: D.C. Code 47-1806.6.

The $100,000 income ceiling for claimants of senior citizen relief is extraordinarily high, and defining it in terms of adjusted gross income makes the relief especially generous — and also uneven within the age-eligible group. Income tax code distinctions based on sources of income are meaningless in terms of ability to pay; a dollar of Social Security income, for example, will buy the same as a dollar of income from wages, interest, or any other source. A broader income definition, such as that used for circuit breaker relief, would provide somewhat better targeting.

Circuit breakers. The circuit breaker approach makes property tax relief vary inversely with income; thus it targets relief more narrowly than the other programs. This is a clear advantage to the extent that the objective is to improve upon ability-based equity. The District, however, complicates what could be a relatively simple program. First, it has two separate circuit breaker programs. Second, rather complex formulas are used to determine tax relief (Figures E-14 and E-15).

Although the unifying characteristic of circuit breakers is that they provide relief that declines as income rises, they come in a variety of forms. The two basic types of circuit breakers are often referred to as the *threshold* and *sliding scale* approaches.[46]

- **Threshold.** This approach defines an acceptable, or target, level of property tax as some percentage of income. Property tax in excess of that threshold percentage is eligible for relief. Sometimes only a portion of the excess property tax is relieved, in part to keep the taxpayer from having no incentive to

Figure E-15

Provisions of Property Tax Circuit Breaker Credit for Persons at Least 62 Years Old, or Blind or Disabled

Household Gross Income (HGI) Bracket	Threshold Percentage of HGI: Property Tax Over This Threshold Eligible for Relief	Percentage of Property Tax Over Threshold That Is Credited	Maximum Relief (Credit)
Under $4,999	1.0%	100%	$750
$5,000–9,999	1.5	100	750
$10,000–14,999	2.0	100	750
$15,000–20,000	2.5	100	750

Note: Renters treat 15% of rent as property tax equivalent.
Source: D.C. Code 47-1806.6.

oppose any property tax increase. Thus, if 60 percent of the excess is relieved, the remaining 40 percent is said to represent "co-insurance."[47]

- **Sliding Scale**. This approach defines several income brackets and specifies the percentage of property tax that will be relieved for eligible taxpayers. The relief percentages decline as income rises.

Some states adopt hybrids rather than going with either basic approach. The District of Columbia is also included in this category.

The District's general circuit breaker is basically of the threshold type (Figure E-14). It is made more complicated than most, however, through use of six different threshold percentages, ranging from 1.5 percent of household gross income (HGI) to 4 percent. Additionally, it uses two different "co-insurance" percentages — 5 percent (95 percent relief of the property tax in excess of the threshold percentage) for those with HGI below $3,000, and 25 percent (relieving 75 percent of the property tax over the threshold level) for those in the higher HGI brackets. The six threshold percentages thus define the six HGI brackets that are used.

Other. Among the other direct property tax relief programs listed above, the only one seemingly based on the benefits-received rationale is the trash collection credit for condominium and cooperative housing owners whose buildings do not receive trash collection services from the city.

The property tax deferral approach is one that appeals to many analysts but generally is not very popular with intended beneficiaries.[48] The same features explain

both groups' reactions. Noting that property owners are better off than persons who do not own property, all else being equal, many students of public finance argue that if relief from the possible cash flow crunch of the property tax is to be provided, deferral is the way to go. This ameliorates the immediate cash flow problem, but no permanent subsidy is given, assuming that a market interest rate is charged against the deferred balance. If this is done, the deferral is simply a loan. Property owners typically prefer an outright gift to a loan. The District's 8 percent interest rate probably is reasonable under current circumstances. Long-term mortgages can be obtained at somewhat lower interest rates, but there may be some risk differences.

SUMMARY AND CONCLUSIONS: GENERAL TAX RELIEF

First and foremost, the property tax should be a revenue instrument. Its provisions should be relatively simple. Differences in tax treatments across categories of owners and property uses should be kept to a minimum. And where they exist, those differences should be justified by one or more of the major criteria for evaluating taxes. Probably the strongest case for treatment differing from the baseline (or basic, before tax relief) provisions is ability-based equity.

Current policy

Although states typically have more than one real property tax relief program, the array of such programs within the District seems excessive, unduly complex, and often extremely generous. Some, such as the homestead exemption and the Class 1-Class 2 distinction, reinforce each other and thus at least exhibit logical consistency. However, there is no compelling justification for these very broad, very generous programs. They are quite costly and of dubious merit on equity and neutrality (efficiency) grounds. Probably the main argument to support retaining the programs is the fact that they now exist; their repeal or reduction would be unpopular with the recipients.

Similarly, the senior citizen reduction is difficult to justify by standard criteria. The $100,000 income ceiling for eligibility is very high. For example, it is five times as high as the income ceiling used for the circuit breaker programs, even without taking into account that the income definition under the latter programs is broader than for the senior citizen reduction.

The first three, and largest, of the relief programs all favor owner-occupancy over renter-occupied units. They produce large, effective, tax rate differences that are difficult to justify from a benefits-received perspective. And if renters pay at least a portion of the property taxes imposed on their dwellings, the sharply different treatments are also at odds with ability-based equity. Also, these programs are logically inconsistent with the District's circuit breakers, which include renters and assume that 15 percent of rent constitutes property tax. Perhaps the justification lies in encouraging homeownership. As noted earlier, however, the income tax

provides this encouragement. Joint consideration of the two taxes is desirable to determine whether the degree of subsidy they provide is appropriate. One suspects that it is not.

If the most persuasive rationale for direct property tax relief is easing hardships caused or exacerbated by the tax, then the circuit breaker approach is preferable to the others (except for deferral). It can relieve hardships where they occur without lavishing money on all homeowners, and thus does less violence to the property tax. The homestead exemption and senior citizen tax reduction provide large amounts of tax relief with the spray of a shotgun blast, rather than targeting the relief to those most in need in a manner more akin to a rifle shot. Each dollar of foregone property tax revenue, due to whatever relief program, is a dollar not available for other uses — including more appropriately targeted property tax relief. The District's property tax system would be made simpler and more equitable if the various relief programs were eliminated and replaced by a single, new circuit breaker, and the cost of meaningful relief could be reduced in the bargain.

A new, single circuit breaker adopted to consolidate and simplify real property tax relief should retain the broad income definition of the current circuit breakers. A sufficiently broad definition of income provides greater equity among taxpayers in need of some assistance with their property taxes because it avoids artificial or meaningless distinctions among types or sources of income. A broad income definition also is preferable to crude proxies for need, such as age or disability. While the current circuit breakers incorporate a reasonable definition of income, they do not fare well under the basic evaluation criteria because of their other provisions.

The separate, more generous provisions for the elderly and disabled are misguided. Clearly, age is not as good a proxy for need as it was a few decades ago, as poverty incidence among the elderly has dropped below that for the nonelderly. Nor are disabilities necessarily good proxies for need. Even those with the same sort of disability — e.g., blindness — may experience different degrees of impairment in their earning abilities. More importantly, in attempting to define disabilities that might serve as proxies for need, it is necessary to enumerate those disabilities, and the disability percentages, that will qualify individuals for tax relief. Any such attempt almost certainly will omit some people who are at least as needy as many who would qualify, because they are unfortunate enough to have the "wrong" form of disability. There also may be significant administrative and compliance costs attending use of such proxies. Consider, for example, the definition of blindness in the District's circuit breaker (D.C. Code 47-1806.6(b)):

> (6) The term "blind claimant" means a claimant whose central visual acuity does not exceed 20/200 in the better eye with correcting lenses or whose visual

> acuity is greater than 20/200 but is accompanied by a limitation in the field of vision such that the widest diameter of the visual field subtends an angle no greater than 20 degrees.

In the case of blindness, those falling short of the 20/200 standard, for example, by even a little bit, are to be denied relief, while those meeting that criterion qualify. Such sharp cutoffs, or notches, may be necessary in spelling out qualifications for such programs. It is highly doubtful, however, that they accurately reflect the debilitating effects of the disability, which probably occur more gradually.

But why use proxies for need, when income can be measured? Reduced income-earning ability, whether due to a particular degree of vision impairment, a "medically determinable physical or mental impairment," or some other circumstance or combination of circumstances, will show up in income.

Possible alternatives

Exact provisions of a new circuit breaker could cover a very broad range; there is no one right formula. One consideration is the current relief offerings. Each has its constituency. The more relief offerings that are replaced, the more generous the circuit breaker will likely be in order to gain acceptance. This was the case in Michigan a few decades ago when it consolidated tax relief.[49]

One is the *sliding scale approach*. When differences in taxes across households are determined to a considerable extent by differences in fiscal capacity per capita or per household, the threshold approach is preferable.[50] Within the District, however, interjurisdictional capacity disparities are not an issue. Because differences in property tax liability across households should reflect only differences in home value, it is appropriate to leave in place the relative highs and lows, simply reducing all via the sliding scale formula.

Under the sliding scale approach, a threshold percentage is not needed. The multiple thresholds of the District's programs add to the complexity. By relieving only a fraction of the tax in each income bracket defined by the formula, no household goes to zero tax liability. This takes care of the "co-insurance" concern.

The number of brackets to be defined is an issue. Some states define many more than others. Use of a relatively large number of brackets with relatively small differences in the relief percentages will avoid large "notch" problems in effective tax rates with respect to income. For example, instead of having five brackets with relief percentages declining by 10 percentage points or more from one to the next, it is preferable to have a large number of brackets featuring small decreases in the relief percentage in moving up the income scale. Thus, one might envision brackets $5,000 wide with 5 percentage point reductions in the relief percentage: under $5,000 of money income, relieve 85 percent of property tax; $5,000–$10,000 of

income, relieve 80 percent; and so on. If no relief were given above $40,000 of income, the lowest relief percentage under this formula would be 50 percent. However, relief could be extended up to $85,000 of income, with the lowest relief percentage being 5 percent (Summary Report, Figure 31).

Several tables have been generated to portray some current relief provisions and the illustrative circuit breaker just described. They employ a wide range of home values and income levels. Specifically, income is increased from $5,000 to $100,000 in increments of $5,000 to give 20 income levels. Seven home values are used.

Showing a wide range of combinations of income levels associated with various home values is important because the relationship between income and home value varies a good deal across individuals. A home typically is a long-term investment. One does not dispose of it quickly if income drops due to unemployment, illness, and the like, and often people wish to stay in their homes after retirement. Indeed, one rationale for circuit breaker relief is that tax relief should make it possible for people to stay in their homes despite a reversal of fortunes — at least a temporary one. If the decline in income that makes burdensome the property tax on a given home is of long duration or "permanent," as in retirement, some argue that it is inefficient to encourage over-consumption of housing by subsidizing it.

Clearly, there is a trade-off between what might seem fair to those wishing to hold onto a house that is too large for current circumstances and what is fair to those who are being asked to subsidize them. Resolution of this conflict is a task for policymakers.

Current policy — no relief except classification. Using a $100,000 home as an example, the 0.96 percent tax rate on Class 1 property — owner-occupied residences — results in a tax that ranges from over 19 percent of income for a household with $5,000 income to under 1 percent for a household with $100,000 income (Figure E-16). Because the nature of the property tax does not distinguish among property owners on the basis of income, similar differences in the level of tax relative to income are possible for different home values.

In 1994, property taxes in the District amounted to 4.7 percent of personal income. Personal income is different from money income, in part because personal income includes the imputed rental value of owner-occupied housing. The measure of property taxes, however, includes all property taxes, not just those on the housing occupied by residents. Because of the lower property tax load on residential property in the District, it is safe to say that the average level of taxes relative to the broad measure of money income is less than 4.7 percent.

Suppose property taxes on residences average 3.5 percent — which still may be high — or that for some other reason 3.5 percent of income was selected as the relief threshold, with some relief for taxes in excess of that amount. The tax on a $40,000 home would be unduly burdensome by that measure only for incomes below $11,000 (the $384 tax divided by 0.035 = $10,971). From Figure E-16 we see that

Figure E-16

Tax as Percentage of Income for Nonelderly Class I Residential Property Owners

With No Tax Relief Other Than Classification

	Home Value						
Income	**$40,000**	**$60,000**	**$80,000**	**$100,000**	**$140,000**	**$200,000**	**$500,000**
$5,000	7.68%	11.52%	15.36%	19.20%	26.88%	38.40%	96.00%
10,000	3.84	5.76	7.68	9.60	13.44	19.20	48.00
15,000	2.56	3.84	5.12	6.40	8.96	12.80	32.00
20,000	1.92	2.88	3.84	4.80	6.72	9.60	24.00
25,000	1.54	2.30	3.07	3.84	5.38	7.68	19.20
30,000	1.28	1.92	2.56	3.20	4.48	6.40	16.00
35,000	1.10	1.65	2.19	2.74	3.84	5.49	13.71
40,000	0.96	1.44	1.92	2.40	3.36	4.80	12.00
45,000	0.85	1.28	1.71	2.13	2.99	4.27	10.67
50,000	0.77	1.15	1.54	1.92	2.69	3.84	9.60
55,000	0.70	1.05	1.40	1.75	2.44	3.49	8.73
60,000	0.64	0.96	1.28	1.60	2.24	3.20	8.00
65,000	0.59	0.89	1.18	1.48	2.07	2.95	7.38
70,000	0.55	0.82	1.10	1.37	1.92	2.74	6.86
75,000	0.51	0.77	1.02	1.28	1.79	2.56	6.40
80,000	0.48	0.72	0.96	1.20	1.68	2.40	6.00
85,000	0.45	0.68	0.90	1.13	1.58	2.26	5.65
90,000	0.43	0.64	0.85	1.07	1.49	2.13	5.33
95,000	0.40	0.61	0.81	1.01	1.41	2.02	5.05
100,000	0.38	0.58	0.77	0.96	1.34	1.92	4.80
	Gross Tax						
	$384	$576	$768	$960	$1,344	$1,920	$4,800
	Effective Tax Rates as Percentage of Home Value						
	0.96	0.96	0.96	0.96	0.96	0.96	0.96

Source: Author's calculations.

the tax on such a home amounts to 3.84 percent of income at a $10,000 income level, but it is 7.68 percent of income at the $5,000 income level. As the value of housing rises, the tax rises above 3.5 percent at successively higher income levels.

Current policy — homestead exemption. The other major form of property tax relief for owner-occupied residences is the $30,000 homestead exemption. This

Figure E-17

Tax as Percentage of Income for Nonelderly Class 1 Residential Property Owners

After Current $30,000 Homestead Exemption With No Property Tax Relief Other Than Classification

	Home Value						
Income	**$40,000**	**$60,000**	**$80,000**	**$100,000**	**$140,000**	**$200,000**	**$500,000**
$5,000	1.92%	5.76%	9.60%	13.44%	21.12%	32.64%	90.24%
10,000	0.96	2.88	4.80	6.72	10.56	16.32	45.12
15,000	0.64	1.92	3.20	4.48	7.04	10.88	30.08
20,000	0.48	1.44	2.40	3.36	5.28	8.16	22.56
25,000	0.38	1.15	1.92	2.69	4.22	6.53	18.05
30,000	0.32	0.96	1.60	2.24	3.52	5.44	15.04
35,000	0.27	0.82	1.37	1.92	3.02	4.66	12.89
40,000	0.24	0.72	1.20	1.68	2.64	4.08	11.28
45,000	0.21	0.64	1.07	1.49	2.35	3.63	10.03
50,000	0.19	0.58	0.96	1.34	2.11	3.26	9.02
55,000	0.17	0.52	0.87	1.22	1.92	2.97	8.20
60,000	0.16	0.48	0.80	1.12	1.76	2.72	7.52
65,000	0.15	0.44	0.74	1.03	1.62	2.51	6.94
70,000	0.14	0.41	0.69	0.96	1.51	2.33	6.45
75,000	0.13	0.38	0.64	0.90	1.41	2.18	6.02
80,000	0.12	0.36	0.60	0.84	1.32	2.04	5.64
85,000	0.11	0.34	0.56	0.79	1.24	1.92	5.31
90,000	0.11	0.32	0.53	0.75	1.17	1.81	5.01
95,000	0.10	0.30	0.51	0.71	1.11	1.72	4.75
100,000	0.10	0.29	0.48	0.67	1.06	1.63	4.51
	Net Tax						
	$96	$288	$480	$672	$1,056	$1,632	$4,512
	Effective Tax Rates as Percentage of Home Value						
	0.24	0.48	0.60	0.67	0.75	0.82	0.90

Note: Data are based on tax rate of 0.96 percent, the current Class 1 rate.
Source: Author's calculations.

alters the tax in a fundamental way, lowering the tax on homes of all values, but providing the highest percentage reductions for lower-valued homes (compare

Figure E-17 to Figure E-16) — e.g., relief falls from 100 percent for a $20,000 home, to 75 percent for a $40,000 home, to 50 percent for a $60,000 home, and so forth; for a $200,000 home, the exemption provides only a 15 percent tax reduction. Thus, Figure E-17 shows lower taxes relative to income at all levels of income and for all home values than those in Figure E-16, but the differences are greatest for the lower-value homes.

Because such an exemption results in larger percentage reductions in tax liability for those in lower-value homes, it may seem to be a targeted relief device. However, it must be kept in mind that the exemption is providing the same $288 of tax relief ($30,000 times the 0.96 percent tax rate) to all homeowners with homes worth at least $30,000, and thus the exemption scatters large numbers of dollars of tax relief to those who are not especially burdened by the tax. A circuit breaker can provide narrower targeting and thus more meaningful relief for a lower overall cost.

Current policy — general circuit breaker. The District now has two circuit breakers, as noted above (Figures E-14 and E-15, pages 155–156). The so-called general circuit breaker applies to all but the elderly and disabled. Eligibility expires when income exceeds $20,000 (by a broad measure of income), and relief is limited to $750. The effects of this program are shown in Figure E-18.

Figure E-18 commences consideration of circuit breakers by looking at the District's current general program. Figure E-19 focuses on just the income levels that qualify for tax relief. The relief provided naturally rises within a given income level as the value of the home rises, and falls for any home value as income rises. The third panel shows the net tax — the gross tax from the exhibit, less the tax reduction in the second panel — while the fourth panel relates these net taxes to income. Comparing the first and fourth panels can show the extent of tax reduction relative to income. The net tax rises above 3.5 percent of income (an illustrative figure singled out above, but certainly not a magical one or necessarily the right one for tax relief) in 43 of the 52 cells in the example. This occurs with home value as low as $60,000, and is true for that value of home until income rises above $15,000. For all home values of $80,000 and above, the tax is higher than 3.5 percent of income; by the time home value reaches $160,000, virtually all of those eligible for circuit breaker relief would have net property taxes in excess of 5 percent of income.

There clearly is a trade-off between the desire to enable people to stay in their homes after their incomes fall, and the desire to keep the cost of the relief program relatively low. However, if the circuit breaker becomes the only form of property tax relief — other than classification — the current general circuit breaker formula probably is unduly restrictive.

Proposed sliding-scale circuit breaker. As noted above, a sliding-scale circuit breaker makes sense for the District. Such a circuit breaker relieves a given percent-

Figure E-18

Tax as Percentage of Income for Nonelderly Class I Residential Property Owners

With Current District General Circuit Breaker, but No Property Tax Relief Other Than Classification

	Home Value						
Income	**$40,000**	**$60,000**	**$80,000**	**$100,000**	**$140,000**	**$200,000**	**$500,000**
$5,000	3.42%	4.38%	5.34%	6.30%	8.22%	11.10%	25.50%
10,000	3.21	3.69	4.17	4.65	5.61	7.05	14.25
15,000	2.56	3.59	3.91	4.23	4.87	5.83	10.63
20,000	1.92	2.88	3.84	4.20	4.68	5.40	9.00
25,000	1.54	2.30	3.07	3.84	5.38	7.68	19.20
30,000	1.28	1.92	2.56	3.20	4.48	6.40	16.00
35,000	1.10	1.65	2.19	2.74	3.84	5.49	13.71
40,000	0.96	1.44	1.92	2.40	3.36	4.80	12.00
45,000	0.85	1.28	1.71	2.13	2.99	4.27	10.67
50,000	0.77	1.15	1.54	1.92	2.69	3.84	9.60
55,000	0.70	1.05	1.40	1.75	2.44	3.49	8.73
60,000	0.64	0.96	1.28	1.60	2.24	3.20	8.00
65,000	0.59	0.89	1.18	1.48	2.07	2.95	7.38
70,000	0.55	0.82	1.10	1.37	1.92	2.74	6.86
75,000	0.51	0.77	1.02	1.28	1.79	2.56	6.40
80,000	0.48	0.72	0.96	1.20	1.68	2.40	6.00
85,000	0.45	0.68	0.90	1.13	1.58	2.26	5.65
90,000	0.43	0.64	0.85	1.07	1.49	2.13	5.33
95,000	0.40	0.61	0.81	1.01	1.41	2.02	5.05
100,000	0.38	0.58	0.77	0.96	1.34	1.92	4.80
	Gross Tax						
	$384	$576	$768	$960	$1,344	$1,920	$4,800
	Property Tax That Must Be Paid* Before Relief Is Granted						
2.0%	$100	$100	$100	$100	$100	$100	$100
3.0%	300	300	300	300	300	300	300
3.5%	525	525	525	525	525	525	525
4.0%	800	800	800	800	800	800	800

**Portions of income — 2.0%, 3.0%, 3.5%, and 4.0%, respectively, at income levels of $5,000, $10,000, $15,000, and $20,000.*

Note: Data are based on tax rate of 0.96 percent, the current Class 1 rate.

Source: Author's calculations.

Figure E-19

Effects of Proposed Sliding-Scale Circuit Breaker

Income	Home Value $40,000	$60,000	$80,000	$100,000	$140,000	$200,000	$500,000
Gross Tax as Percentage of Income							
$5,000	7.68%	11.52%	15.36%	19.20%	26.88%	38.40%	96.00%
10,000	3.84	5.76	7.68	9.60	13.44	19.20	48.00
15,000	2.56	3.84	5.12	6.40	8.96	12.80	32.00
20,000	1.92	2.88	3.84	4.80	6.72	9.60	24.00
Tax Reduction							
$5,000	$213	$357	$501	$645	$750	$750	$750
10,000	63	207	351	495	750	750	750
15,000	0	38	182	326	614	750	750
20,000	0	0	0	120	408	750	750
Net Tax							
$5,000	$171	$219	$267	$315	$594	$1,170	$4,050
10,000	321	369	417	465	594	1,170	4,050
15,000	384	538	586	634	730	1,170	4,050
20,000	384	576	768	840	936	1,170	4,050
Net Tax as Percentage of Income							
$5,000	3.42%	4.38%	5.34%	6.30%	11.88%	23.40%	81.00%
10,000	3.21	3.69	4.17	4.65	5.94	11.70	40.50
15,000	2.56	3.59	3.91	4.23	4.87	7.80	27.00
20,000	1.92	2.88	3.84	4.20	4.68	5.85	20.25
Gross Tax at All Income Levels							
	$384	$576	$768	$960	$1,344	$1,920	$4,800

Note: Amounts are for nonelderly Class 1 residential property owners. Assumes no tax relief other than classification. Data are based on tax rate of 0.96 percent, the current Class 1 rate.

Source: Author's calculations.

age of property tax for all eligible households within a given income range and the relief percentage declines as income rises. Because of this, the relative peaks and valleys of property tax in relation to income remain in place, albeit at lower levels, whereas a pure threshold circuit breaker eliminates the peaks and valleys, lowering all claimants to the threshold level of property tax relative to income — i.e., if the threshold were 3.5 percent, all taxes in excess of 3.5 percent of income would be

relieved.[51] Aside from assessment errors, differences in tax liability in the District are due to differences in property value. In this setting, leaving relative peaks and valleys in place does not seem unreasonable.

A specific sliding scale arrangement is set forth in the Summary Report, Figure 31. It sets the maximum relief percentage at 85 percent for gross household money incomes of $5,000 or less, and decreases the relief percentage in five percentage point steps for each $5,000 increase in income; thus, relief does not reach zero until income rises above $85,000. The maximum relief probably should be set above the current $750 limit, perhaps at $1,000. This is but one of many possible formulas that could be used. It tends to be on the generous side, compared to most states' circuit breakers, because it substitutes for several other forms of property tax relief, including a general homestead exemption. Michigan provides an earlier example of a state consolidating several relief programs into a circuit breaker[52] and, as a consequence, making the circuit breaker relatively generous.[53]

The effects of such a program are shown in Figures E-20–22. These provide information comparable to that for the current circuit breaker that appears in Figure E-19. More tables are needed here because the proposed circuit breaker extends relief over a much greater range of incomes. Figure E-20 shows the tax reduction for each home value-property tax combination, for each of the 20 levels of income (gross property tax is shown at the bottom of the table). Because the relief percentage falls to zero above $85,000 in income, the last three rows of the table show no tax reduction.

Tax relief rises with home value within each income band because the gross tax rises with home value and the relief percentage is the same for everyone within a given income band — e.g., each household with no more than $5,000 income gets 85 percent of its property tax relieved. This rises to more than the current $750 maximum tax relief for homes worth at least $100,000 and to more than $1,000 by the time home value reaches $140,000. These levels are reached only at higher home values for households with higher incomes. No ceiling is imposed on the relief amounts in this example. Although there are not likely to be many, if any, households representing combinations of the very highest home values and lowest income levels, it still is likely that policymakers would wish to cap the relief at some level to avoid giving very large amounts of relief to the property rich. As shown in the table, even at the low tax for Class 1 property, relief could rise above $1,500 on a $200,000 home. Once again, however, it will be necessary to balance the objective of protecting households from what are considered excessive property tax burdens relative to current income, and the competing objective of not giving unduly large subsidies to those who, on the basis of property ownership, are relatively well off.

To assist in this balancing act, the next two tables give the dollar amounts of net tax (Figure E-21) and show net tax as a percentage of income (Figure E-22). Although

Figure E-20

Amount of Tax Reduction Under Proposed Circuit Breaker

	Home Value						
Income*	**$40,000**	**$60,000**	**$80,000**	**$100,000**	**$140,000**	**$200,000**	**$500,000**
$5,000	$326	$490	$653	$816	$1,142	$1,632	$4,080
10,000	307	461	614	768	1,075	1,536	3,840
15,000	288	432	576	720	1,008	1,440	3,600
20,000	269	403	538	672	941	1,344	3,360
25,000	250	374	499	624	874	1,248	3,120
30,000	230	346	461	576	806	1,152	2,880
35,000	211	317	422	528	739	1,056	2,640
40,000	192	288	384	480	672	960	2,400
45,000	173	259	346	432	605	864	2,160
50,000	154	230	307	384	538	768	1,920
55,000	134	202	269	336	470	672	1,680
60,000	115	173	230	288	403	576	1,440
65,000	96	144	192	240	336	480	1,200
70,000	77	115	154	192	269	384	960
75,000	58	86	115	144	202	288	720
80,000	38	58	77	96	134	192	480
85,000	19	29	38	48	67	96	240
90,000	0	0	0	0	0	0	0
95,000	0	0	0	0	0	0	0
100,000	0	0	0	0	0	0	0
	Gross Tax						
	$384	$576	$768	$960	$1,344	$1,920	$4,800

**Relief percentages fall 5 percentage points with each additional $5,000 of income, starting at 85% for income under $5,000.*

Note: Table shows amount of tax reduction for nonelderly Class 1 property owners with no property tax relief other than classification. Data are based on tax rate of 0.96 percent, the current Class 1 rate.

Source: Author's calculations.

the circuit breaker does cause the tax amount to rise with income for any given value of home (assuming that the tax relief amount is not capped), the tax remains regressive with respect to income. That is, the property tax accounts for a declining percentage of household income as income rises (Figure E-22). This also is true of the

Figure E-21

Net Tax Amounts Under Proposed Circuit Breaker

	Home Value						
Income*	**$40,000**	**$60,000**	**$80,000**	**$100,000**	**$140,000**	**$200,000**	**$500,000**
$5,000	$58	$86	$115	$144	$202	$288	$720
10,000	77	115	154	192	269	384	960
15,000	96	144	192	240	336	480	1,200
20,000	115	173	230	288	403	576	1,440
25,000	134	202	269	336	470	672	1,680
30,000	154	230	307	384	538	768	1,920
35,000	173	259	346	432	605	864	2,160
40,000	192	288	384	480	672	960	2,400
45,000	211	317	422	528	739	1,056	2,640
50,000	230	346	461	576	806	1,152	2,880
55,000	250	374	499	624	874	1,248	3,120
60,000	269	403	538	672	941	1,344	3,360
65,000	288	432	576	720	1,008	1,440	3,600
70,000	307	461	614	768	1,075	1,536	3,840
75,000	326	490	653	816	1,142	1,632	4,080
80,000	346	518	691	864	1,210	1,728	4,320
85,000	365	547	730	912	1,277	1,824	4,560
90,000	384	576	768	960	1,344	1,920	4,800
95,000	384	576	768	960	1,344	1,920	4,800
100,000	384	576	768	960	1,344	1,920	4,800
				Gross Tax			
	$384	$576	$768	$960	$1,344	$1,920	$4,800

**Relief percentages fall 5 percentage points with each additional $5,000 of income, starting at 85% for income under $5,000.*

Note: Amounts are for nonelderly Class 1 property owners with no property tax relief other than classification. Data are based on tax rate of 0.96 percent, the current Class 1 rate.

Source: Author's calculations.

current District circuit breaker (Figure E-19, page 165), despite its multiple, rising thresholds. Comparison of Figures E-16 (page 161) and E-22, however, demonstrates that the proposed sliding-scale circuit breaker would provide significant tax relief, and that it would be concentrated most on those with the lowest incomes. Making the net

effect actually progressive with respect to income would be to deviate even further from the nature of the property tax, which, after all, is a tax on asset value.

COOPERATIVE HOUSING

A separate issue that may fit generally within the area of property tax relief concerns the tax treatment of dwellings in buildings owned by cooperative housing associations. Such housing qualifies for other forms of tax relief listed above, although sometimes with some differences, but also receives different treatment in determining assessed values. Some have proposed eliminating the valuation difference, while the Cooperative Housing Association argues that the difference is justified. After defining cooperative housing and sketching the treatment of such housing under the tax relief programs, the issue of its valuation is addressed.

Cooperative housing defined

As noted, cooperative housing is owned by a cooperative housing association. The D.C. Code offers the following definition:

> The term "cooperative housing association" means an association, whether incorporated or unincorporated, organized for the purpose of owning and operating residential real property in the District of Columbia, the shareholders or members of which, by reason of their ownership of a stock or membership certificate, a proprietary lease or other evidence of membership, are entitled to occupy a dwelling unit pursuant to the terms of a proprietary lease or occupancy agreement (D.C. Code 47-803(2)).

Common areas exist in both condominiums and cooperative housing, causing them to differ from single-family, detached housing. In condominium buildings, each dwelling unit is owned individually, whereas in cooperative housing, people have an ownership stake in the property owned by an association, and that stake may permit them to occupy a dwelling unit.

Property tax relief for cooperative housing

For purposes of classification, if at least 50 percent of the dwelling units in property owned by a cooperative housing association are occupied by shareholders or members, the property qualifies as Class 1 property; otherwise, it is Class 2 (D.C. Code, 47-813(c-3)(1)(B) and (2)(B)). The homestead exemption reduces the estimated market value of cooperative housing association property by 60 percent, up to the amount equal to the $30,000 exemption times the number of dwelling units occupied by shareholders or members of the association (D.C. Code 47-850(d)(2)). The cooperative and condominium trash collection tax credit is granted to a cooperative housing association for each dwelling unit occupied by its shareholders or members

Figure E-22

Net Tax as Percent of Income Under Proposed Sliding-Scale Circuit Breaker

	Home Value						
Income*	**$40,000**	**$60,000**	**$80,000**	**$100,000**	**$140,000**	**$200,000**	**$500,000**
$5,000	1.152%	1.728%	2.304%	2.880%	4.03%	5.76%	14.40%
10,000	0.768	1.152	1.536	1.920	2.69	3.84	9.60
15,000	0.640	0.960	1.280	1.600	2.24	3.20	8.00
20,000	0.576	0.864	1.152	1.440	2.02	2.88	7.20
25,000	0.538	0.806	1.075	1.344	1.88	2.69	6.72
30,000	0.512	0.768	1.024	1.280	1.79	2.56	6.40
35,000	0.494	0.741	0.987	1.234	1.73	2.47	6.17
40,000	0.480	0.720	0.960	1.200	1.68	2.40	6.00
45,000	0.469	0.704	0.939	1.173	1.64	2.35	5.87
50,000	0.461	0.691	0.922	1.152	1.61	2.30	5.76
55,000	0.454	0.681	0.908	1.135	1.59	2.27	5.67
60,000	0.448	0.672	0.896	1.120	1.57	2.24	5.60
65,000	0.443	0.665	0.886	1.108	1.55	2.22	5.54
70,000	0.439	0.658	0.878	1.097	1.54	2.19	5.49
75,000	0.435	0.653	0.870	1.088	1.52	2.18	5.44
80,000	0.432	0.648	0.864	1.080	1.51	2.16	5.40
85,000	0.429	0.644	0.858	1.073	1.50	2.15	5.36
90,000	0.427	0.640	0.853	1.067	1.49	2.13	5.33
95,000	0.404	0.606	0.808	1.011	1.41	2.02	5.05
100,000	0.384	0.576	0.768	0.960	1.34	1.92	4.80
				Gross Tax			
	$384	$576	$768	$960	$1,344	$1,920	$4,800

**Relief percentages fall 5 percentage points with each additional $5,000 of income, starting at 85% for income under $5,000.*

Note: Calculations are for nonelderly Class 1 property owners with no property tax relief other than classification. Data are based on tax rate of 0.96 percent, the current Class 1 rate.

Source: Author's calculations.

as their primary residences, provided there are more than three dwelling units and trash collection is not provided by the city (D.C. Code 47-873).

Valuation of cooperative housing

Two options are provided for determining the assessed value of improved residential property owned by a cooperative housing association (D.C. Code 47-820.1(a)):

(1) (A) The aggregate estimated market value of the proprietary leases, stock, or other interests in the cooperative housing association as of January 1 preceding the date of assessment; or
(B) If the mayor lacks sufficient information upon which to arrive at the aggregate estimated market value of the proprietary leases, stock, or other cooperative interests in the real property, then an amount equal to the estimated market value of the real property assessed as if it were a condominium determined by use of the comparable sales approach, multiplied by 70 percent;
(2) Minus the value of all nonreal property assets owned by the cooperative housing association;
(3) Multiplied by 65 percent.

Justification for the 65 percent factor (35 percent reduction) is provided. It rests on "factors common to all sales of improved residential real property owned by cooperative housing associations" — but implicitly not other forms of housing — and assumes that one year is required "for the purchaser of the real property to sell out the proprietary leases, stock, or other cooperative interests in the real property" (D.C. Code 47-820.1(c)). Those factors include discounting eventual receipts to their present value; taxes and interest costs during the one-year period; operating and marketing expenses during the one-year period; other costs during that period, such as appraisal, surveying, and legal fees; and profit.

Assuming that valuation starts in the manner it would for condominiums, the net result is that cooperative housing would be valued at less than half as much as condominiums if the only difference were ownership form [0.7 x 0.65 = 0.455].

Summary and conclusions: cooperative housing

The justification for not treating cooperative housing the same as condominiums is not convincing. The special tax treatment accorded cooperative housing seems unduly favorable and should be eliminated. If insufficient information exists to value based on leases, stock, and the like, and valuation in the first instance is determined as if the property were condominium property, the value so determined is reduced by 30 percent. The further reduction of 35 percent applies to whichever valuation method is used. In other words, if there were two properties, identical except for ownership form — one owned by a cooperative housing association, the

other under condominium ownership — and each were determined in the first instance to be worth $100,000, the one owned by the cooperative housing association would be valued for tax purposes at $45,500 ($100,000 x 0.7 x 0.65), while the other would be valued at $100,000. It is hard to believe that ownership form effectively destroys over half the value of the property. If it does, investors should hardly expect others to subsidize a bad investment decision.

A search of several state laws failed to turn up similar provisions. Further, discussions with a private valuer and representatives of the Real Property Tax Administration failed to identify a convincing rationale for the differential treatment of cooperative housing in relation to condominiums.

With regard to the separate 65 percent factor (35 percent reduction), the justification in the statute seems to suggest that the sort of cost factors enumerated are not applicable to other forms of real estate. Certainly, developers and sellers of other types of real estate incur financing fees, interest, legal fees, and the like as well as striving to make a profit. Whether the "sell-out period" is more or less than the one year assumed for cooperative housing, there almost certainly is a period before full occupancy occurs.

Triennial assessment

Historically, real property in the District of Columbia has been revalued annually. In 1997, however, legislation was adopted moving the District to a triennial assessment system.[54] Under this system, to be effective with the 1999 tax year, the city is divided into three areas with essentially equal amounts of taxable property, each to be revalued in turn. Thus, assessments will be performed on a staggered basis, the first area for tax year 1999, the second for tax year 2000, and the third for 2001. After completion of the first round, the cycle will begin again with revaluation of the first area for 2002, and so on. Moreover, the new values will be phased in via equal increments in each of the three years between revaluations for each triennial group.

RATIONALE FOR TRIENNIAL ASSESSMENT

Reasons for the triennial assessment process, including problems with the District's real property tax system and relatively poor performance in recent years in attaining high-quality assessments, were reviewed earlier in this chapter. These reasons fuel the move to triennial assessment. The motivating factor was to allow the limited number of assessors more time to do their job properly. According to the District's

Triennial Assessment Process Briefing Package:

> The existing annual valuation cycle is currently unmanageable. It has not allowed for an effective property inspection and data collection process. If the current annual valuation process remains in effect with existing staff levels, each assessor would be assigned 8,500 parcels of real property to value. Under these circumstances, it would be impossible to keep current with changes in the market and factual data for every property located in the District.

Under the triennial approach, each assessor is responsible each year for valuing about 2,850 real property parcels.

Another argument for moving away from annual revaluation is that most states do not undertake annual revaluation. As reflected in the *Triennial Assessment Process Briefing Package*, while 30 states have an annual assessment requirement, only six have a true annual appraisal system.

A similar picture emerges from the Census of Governments. Statutory language appears to require annual assessment in 28 states and the District of Columbia.[55] From this source, the number of annual valuation states does not seem to be as low as six, but the wording in several instances is quite vague; some requirements may be different from how they appear. For example, the Census report indicates that in Alabama the "tax assessor has the *right and authority* to assess real estate annually" (emphasis added); Georgia is said to provide for "the opening of books for return of taxes each year"; and in several states the provision is only for production of an annual tax roll, not necessarily of new values.

On the other hand, some provisions reported by the Census Bureau make it clear that in some states annual assessment does not mean annual physical inspection or complete reappraisal. For example, Nebraska requires "an annual review of the appraised values for the purpose of maintaining and updating the assessment roll" but "a complete reappraisal" is undertaken only "when ordered by the Tax Commissioner." Similarly, in Utah "assessors are required to visit each separate district or precinct ... annually, including inspection *where necessary*" (emphasis added).

Even where there appears to be a requirement for annual valuation, it is clear that values are not always changed annually. One researcher found, in fact, that states with requirements for revaluation less frequently than annually generally had better results — more uniform assessments — than the presumed annual valuation states.[56] Apparently, it is often not feasible to carry out a complete revaluation annually, so the requirement is considered unrealistic and is not met. And once the annual requirement is ignored for one year, two years, or more, it is not obvious when revaluation actually should occur. States with a stipulated multiyear cycle,

however, seem more likely to enforce the requirement, thus assuring that revaluation does, in fact, occur periodically.

Based on the Census Bureau report noted above, legally provided, multiyear assessment cycles range from two to 10 years. Iowa reports a two-year cycle, and at the other extreme, both Connecticut and Rhode Island have 10-year cycles. The most common assessment cycle lengths are four years and five years, observed by six states each. Again making the distinction between revaluation and complete reappraisal, two states with longer assessment cycles (Ohio: six years, North Carolina: eight years) seem to require complete reappraisal at the stipulated intervals, but also require values to be updated by less costly means in the middle of those cycles.

In short, the District has plenty of company in opting to abandon the once typical requirement that all real property be reappraised annually. One neighboring state, Maryland, has a triennial system very similar to that now established for the District. Virginia requires revaluation every two to four years for independent cities and every four to six years for counties; for each type of unit, those with smaller populations are permitted to go longer between revaluations. Virginia localities may elect to revalue more often than required and many of the larger ones do so annually; in these cases, however, annual revaluation typically does not mean annual physical inspection. As already noted, available evidence suggests that multiyear cycles can result in comparatively good assessment results.

Thus, the rationale for the staggered triennial assessment system is, in part, the likelihood of improved assessments. Indeed, assessment uniformity in the District probably will improve in the coming years. Nonetheless, the triennial process itself tends to produce assessed values that are lower overall and less uniform than otherwise might be obtained. A basic reason is that assessments will always lag behind market developments.

This section explores these tendencies under different circumstances regarding the rate of change in market value and whether or not new values are phased in or implemented immediately. Considered first are the effects within a single triennial group. Subsequently, effects across the three triennial groups are examined. Because there is no experience with the District's triennial system, hypothetical data are used.

EFFECTS ON A SINGLE TRIENNIAL GROUP

Steady increase in market value

To illustrate the effects of the triennial assessment system, an example is constructed which assumes no assessment error from other sources (Figure E-23). Thus, in the base period, the market value is $100,000; the city valuer's estimate of market value (here termed *appraisal* value) is $100,000; and the assessed value (the tax base) also is $100,000. Because both the assessed value (AV) and market value (MV) are $100,000, the ratio of assessed value to market value (AV/MV) is 100

Figure E-23

Hypothetical Examples of Effects of Triennial Assessment With Changes Phased In

Year	Market Value	Appraisal	Change	Assessed Value	AV/MV
Base	$100,000	$100,000		$100,000	100.0%
Case 1 – Values Rise by 5% Per Year					
1	$105,000	$105,000	$5,000	$101,667	96.8%
2	110,250			103,333	93.7
3	115,763			105,000	90.7
4	121,551	121,551	16,551	110,517	90.9
5	127,628			116,034	90.9
6	134,010			121,551	90.7
7	140,710	140,710	19,159	127,937	90.9
Case 2 – Values Rise by 10% Per Year					
1	110,000	110,000	10,000	103,333	93.9
2	121,000			106,667	88.2
3	133,100			110,000	82.6
4	146,410	146,410	36,410	121,137	83.4
5	161,051			134,273	83.4
6	177,156			146,410	82.6
7	194,872	194,872	48,462	162,564	83.4
Case 3 – Values Decline by 3% Per Year					
1	97,000	97,000	-3,000	99,000	102.1
2	94,090			98,000	104.2
3	91,267			97,000	106.3
4	88,529	88,529	-8,471	94,176	106.4
5	85,873			91,353	106.4
6	83,297			88,529	106.3
7	80,798	80,798	-7,731	85,952	106.4

Note: Rounding may cause slight discrepancies in details.

Source: Author's calculations; see text.

percent. AV/MV ratios are the same as the assessment-sales ratios considered earlier in this chapter.

Case 1 of Figure E-23 uses a 5 percent annual increase in market value. Under the assumption that city valuers are accurate, the appraisal exactly reflects this

increase. Thus, both market and appraisal values rise to $105,000 in the first year of the triennial system. However, due to the phase-in of the increase over the three-year cycle, only one-third of the $5,000 increase shows up in assessed value — the actual tax base — each year. By the third year of the cycle, the home is finally valued at its market value in the first year of the cycle. Because of this timing, the ratio of assessed value to market value (AV/MV) falls from 100 percent in the base year to 96.8 percent in the first year of the triennial cycle, and then to 93.7 percent and 90.7 percent, respectively, in the last two years of the first triennial cycle.

The next year — year 4 in the table — it is time for the home to be reappraised once more, for the first time in three years. Meanwhile, market value has risen by 5 percent each year, so the market value in year 4 is $121,551. Again assuming accurate valuation, the appraised value also is $121,551. The difference in appraised values between the first and second triennial valuations is $16,551 (121,551 - 105,000). As before, only one-third of this increase is reflected on the assessment roll each year, so the AV/MV value continues to stay well below 100 percent. In fact, in this example, the assessment level stays just over 90 percent after full implementation of the triennial system — i.e., from year 3. Three key assumptions underlie this outcome:

- the annual percentage increase in market value is constant
- the value of that percentage increment is 5 percent
- the valuers estimate market value precisely at market value in each triennial valuation

As later examples will show, deviations from these assumptions change the outcome.

Faster increase in market value

One such deviation is a different assumed rate of change in market value. Case 2 of Figure E-23 shows a constant rate of increase of 10 percent per year. The result is the same as in the first panel (5 percent annual increase), except that the annual dollar increases in market value and assessed value are higher, while the level of assessed value to market value falls lower. Combining a 10 percent annual increase in market value with revaluation every third year and increases in assessed value phased in over a three-year period causes the AV/MV ratio to drop to approximately 83 percent by the third year of the initial triennial cycle.

Thus, taken alone, triennial valuation changes phased in over the three-year cycle would lower the average assessment level in a period of rising market values, for the assessments on the tax roll would always lag behind the market. The magnitude of the reduction increases as the rate of increase in market value rises.

Declining market value

Drops in market value have also been experienced in the District, as well as in other areas, in recent years. Case 3 of Figure E-23 shows the effects of a 3 percent annual drop in home value, together with the triennial system. Because estimating new appraised values only once every three years causes assessed values to lag behind market values, and phasing in the new values over the three-year cycle amplifies the lag, annually falling market value causes assessed value to be above market value. In the example of Figure E-23, with a 3 percent annual fall in market value, the AV/MV ratio rises to a bit more than 106 percent by the third year of the initial triennial cycle and remains there.

Summary of assessment level effects

Using the simplified example of Figure E-23, we see that triennial assessment with phased-in changes in appraised values over the three-year cycle causes the assessment level to depart from market value. If market values rise steadily — or fall steadily — assessed values will never be at market value, even if the initial appraisals by city valuers are accurate. Changes in the value used as the tax base lag behind changes in the market. This would be true with triennial assessment without a phase-in feature, but the phase-in heightens the departure from market value assessment. In a period of steadily rising market value, assessed value falls below market value. The higher the rate of increase in market value, the greater the gap between assessed and market values. In a period of steadily falling market value, the results are the same except the departure of assessments from market value is in the opposite direction — i.e., AV/MV becomes greater than 100 percent.

EFFECTS OF STAGGERED VALUATION ACROSS MULTIPLE GROUPS

The examples of Figure E-23 follow changes in only one house — or, alternatively, changes for a representative property in one triennial group. Although helpful as far as it goes, this cannot portray the effects of the staggered (or sequential) triennial cycle adopted for the District. Under that system, approximately one-third of the properties are placed into each of three groups and the three groups are reappraised in successive years. One group is revalued for 1999, the next for 2000, and the third for 2001, after which the first group is reappraised for 2002, the second for 2003, and so on. Thus, there is never a period in which all properties will be valued as of the same date. Some degree of assessment nonuniformity is the result. It can be measured by the COD, explained earlier in this chapter. Before getting to COD figures, however, it is important to outline the tables used in this analysis.

Four tables are used to show the uniformity effects of the triennial system and to amplify its implications for assessment level. The first two tables use a constant annual rate of increase in market value to show the effects of the triennial valua-

Figure E-24

Effects of Triennial Assessment and Average Annual Change in Value With Phase-In

by Triennial Assessment Group

Year	Market Value* (MV)	Assessed Value (AV)			Ratio: AV/MV			Mean	COD
		Group 1	Group 2	Group 3	Group 1	Group 2	Group 3		
Base	$100,000	$100,000	$100,000	$100,000	100.0%	100.0%	100.0%	100.0%	0.0
1	105,377	**101,792**	100,000	100,000	96.6	94.9	94.9	95.5	0.6
2	111,043	103,585	**103,681**	100,000	93.3	93.4	90.1	92.2	1.2
3	117,013	105,377	107,362	**105,671**	90.1	91.8	90.3	90.7	0.6
4	123,305	**111,353**	111,043	111,342	90.3	90.1	90.3	90.2	0.7
5	129,935	117,329	**117,340**	117,013	90.3	90.3	90.1	90.2	0.7
6	136,921	123,305	123,638	**123,649**	90.1	90.3	90.3	90.2	0.7
7	144,283	**130,298**	129,935	130,285	90.3	90.1	90.3	90.2	0.7
8	152,041	137,290	**137,304**	136,921	90.3	90.3	90.1	90.2	0.7
9	160,216	144,283	144,672	**144,686**	90.1	90.3	90.3	90.2	0.7
10	168,830	**152,465**	152,041	152,451	90.3	90.1	90.3	90.2	0.7

**Home values are assumed to change at the actual annual average percentage rate for aggregate residential assessed values, 1986–1996 (5.3768%).*
Figures in bold indicate first year of triennial cycle.

Source: Author's calculations.

tions, with phase-in (Figure E-24) and without (Figure E-25). The annual rate of increase used is 5.3768 percent. This seemingly too-precise figure is the compound annual average increase in residential assessments for the District over the period 1986–1996 (Figure E-3, page 125). It is used, in part, because the second pair of tables uses the actual annual percentage increases for that period. By using the exact average, the beginning and ending market value figures are the same in all four tables. As in the first set of tables, the second set also shows the effects of triennial assessment with phase-in and without (Figures E-26 and E-27, respectively).

In each of these four tables, the first two columns show the year and the market value for that year (percentage changes are given in footnotes in each table). Starting from $100,000 in the base year, market value rises to $168,830 by the 10th year in all four. In Figures E-24 and E-25, this results from uniform yearly increases of 5.3768 percent, while in Figures E-26 and E-27, the annual growth rates are varied, including two negative changes. The percentage changes in the latter pair of tables range from -6.7 percent to 15.5 percent, reflecting aggregate actual experience with residential property in the District in the 1986–1996 period. The next three columns show assessed values in each year for each of three triennial assessment groups. Under the simplifying assumption of perfect appraisal accuracy, the appraised value for each group is the market value in the year of reappraisal. A further assumption is that there are no changes to the properties that would warrant other valuation changes. As under new District law, the three groups are valued sequentially, one group per year over the three-year cycle. With phase-in, the change in assessed value each year is one-third of the change in appraised (market) value. Without phase-in, the change is posted in the year of reappraisal and then left unchanged for the next two years.

Steady growth of market value, phase-in of changes

Group 1 revaluation occurs in year 1. Appraised value rises from $100,000 to $105,377 and the assessed value on the tax roll rises from $100,000 to $101,792. The increase in assessed value, $1,792, is one-third of the $5,377 change in market value. The same increment is posted on the assessment roll in each of the next two years, so that at the end of the first triennial cycle for group 1, the assessed value has risen to equal market value in the first year of that cycle. Group 2 is revalued for year 2 of the example, when market value is $111,043, so assessed value rises from $100,000 to $103, 681. And for group 3, year 3 marks the launch of the triennial system. By this time, market value is $117,013 — up $17,013 from the base year — so assessed value is increased by $5,671 (one-third of $17,013). The first year of the triennial cycle for each group is shown in bold type in all four tables.

There are four columns under the ratio heading. The first three columns give the ratios of the assessed values (from columns 3–5) to market value (column 2), while the fourth column presents the mean ratio for the three triennial groups taken

together. In the base year, the ratio of assessed value to market value (AV/MV) is 100 percent, reflecting the assumption of perfect assessment accuracy to permit isolation of the effects of triennial valuation. The first year of the triennial approach results in adjustments to assessed values only for group 1; for that group only one-third of the increase in market value is added to assessed value. Thus, the assessment level (AV/MA) falls for all three groups, but by less for group 1. In year 2, market value again grows by more than 5 percent; because group 3 still has not been revalued, its assessment remains unchanged and the ratio AV/MV drops further. The assessment ratios for groups 1 and 2 also drop more because the increase in assessed values is less than the increase in market value. In year 3, assessed values are changed for all three triennial groups but, of course, they still lag behind market developments, so AV/MV values fall more.

For each group, the assessment level approaches 90 percent in year 3 (still a little higher for group 2 until year 4), where it will stay as long as the percentage increase in market value is the same each year and there is no assessment error to affect the assessment ratio. The mean assessment ratios in the last column of this set show that, for the three groups taken together, the average assessment level falls in steps from 100 percent in the base year to 90 percent by year 4.

The last column presents the coefficient of dispersion (COD — the absolute average deviation of each ratio from the median ratio, expressed as a percentage of the median ratio). Because the example was structured to have no valuation error as such, the CODs measure the degree of assessment nonuniformity attributable solely to the staggered triennial assessment system — i.e., to the practice of estimating value changes only every third year and then phasing in the changes via increases of equal dollar value in each year of the three-year cycle. Because up through the base year assessed values have been estimated annually, the COD value for that year is zero. (Recall that greater degrees of nonuniformity result in higher COD values.) Under the market conditions assumed in Figure E-24, the nonuniformity from triennial assessment features is negligible. After the first triennial cycle is completed (i.e., from year 3 forward), the COD value is below one in this table.

Steady growth of market value, no phase-in of changes

Figure E-25 differs from Figure E-24 in that the latter dispenses with the phase-in of new appraised values, entering the full changes for a triennial group onto the assessment roll in the first year of the triennial cycle. Annual percentage changes in market values remain constant, as in Figure E-24. Eliminating the phase-in introduces more variation across the three triennial groups in the level of assessed values relative to market value (AV/MV), which shows up as a higher degree of nonuniformity. The COD values in the last column of the table are five times as high as in Figure E-24 — 3.5 versus 0.7. While even 3.5 is a relatively low COD, this nonuniformity results solely from the stag-

Figure E-25

Effects of Triennial Assessment and Average Annual Change in Value Without Phase-In

by Triennial Assessment Group

Year	Market Value* (MV)	Assessed Value (AV)			Ratio: AV/MV			Mean	COD
		Group 1	Group 2	Group 3	Group 1	Group 2	Group 3		
Base	$100,000	$100,000	$100,000	$100,000	100.0%	100.0%	100.0%	100.0%	0.0
1	105,377	**105,377**	100,000	100,000	100.0	94.9	94.9	96.6	1.8
2	111,043	105,377	**111,043**	100,000	94.9	100.0	90.1	95.0	3.5
3	117,013	105,377	111,043	**117,013**	90.1	94.9	100.0	95.0	3.5
4	123,305	**123,305**	111,043	117,013	100.0	90.1	94.9	95.0	3.5
5	129,935	123,305	**129,935**	117,013	94.9	100.0	90.1	95.0	3.5
6	136,921	123,305	129,935	**136,921**	90.1	94.9	100.0	95.0	3.5
7	144,283	**144,283**	129,935	136,921	100.0	90.1	94.9	95.0	3.5
8	152,041	144,283	**152,041**	136,921	94.9	100.0	90.1	95.0	3.5
9	160,216	144,283	152,041	**160,216**	90.1	94.9	100.0	95.0	3.5
10	168,830	**168,830**	152,041	160,216	100.0	90.1	94.9	95.0	3.5

**Home values are assumed to change at the actual annual average percentage rate for aggregate residential assessed values, 1986–1996 (5.3768%). Figures in bold indicate first year of triennial cycle.*

Source: Author's calculations.

gered triennial assessment cycle. Other sources of assessment error — assumed away in these examples to focus on the effects of the triennial approach — will be present.

Comparing Figures E-24 and E-25, the trade-off is between a higher average level of assessment without the phase-in and a lower degree of nonuniformity with the phase-in. The relevant figures are in the last two columns of each table. Abandoning the standard of annual estimation of current market value as the tax base in favor of triennial valuation reduces the average level of assessment (the AV/MV ratio). With the phase-in, the average assessment level falls from 100 percent to 90 percent; without a phase-in, the assessment level is 95 percent. But the phase-in has the effect of smoothing out the differences across triennial assessment groups that result from the staggered revaluation cycle and this shows up in lower COD values.

Irregular changes in market value, phase-in of changes

Figure E-26 relaxes the assumption of uniform annual percentage changes in market value used in the previous two tables. Instead, the pattern of actual annual aggregate market value changes for residential property in the 1986–1996 period is used. Except for years 7 and 9, all changes were positive, with values ranging from as small as 3.7 percent to as high as 15.5 percent; the negative figures were -1.6 percent and -6.7 percent (see notes to Figures E-27 and E-26 for annual detail). The average over the 10-year period (5.3768 percent) was used in Figures E-24 and E-25. As in Figure E-24, value changes in Figure E-26 are phased in.

The primary result of the pattern of irregular market value changes is the inability to make easy generalizations about the degree of under- or over-assessment relative to market value. In Figure E-24, it was shown that uniform annual increases of roughly 5 percent caused the assessment level for each triennial group in a mature triennial system to be about 90 percent of market value, as shown by AV/MV ratios. Figure E-23 showed that faster growth resulted in a larger drop in the assessment level, while negative value change caused assessed values to exceed market values. In Figure E-26, the mix of positive and negative market value changes of different sizes causes the value of AV/MV to bounce around over time rather than to move smoothly toward a given value. Moreover, because reappraisal years — and the extent of change in market value between reappraisal years — differ across the three triennial groups, the assessment levels tend to vary more across those groups in any given year. For the mature system — i.e., beginning with year 3 — the assessment levels within group 1 range from 81.2 percent to 100.2 percent. For groups 2 and 3, respectively, the assessment levels range from 84.5 percent to 103.8 percent and from 79.6 percent to 101.2 percent. For the three groups taken together, the mean assessment level of the mature system varies from 81.8 percent to 101.7 percent.

Because of the specifics of the situation, only group 3 experienced year-to-year decreases in absolute assessed values in the 10-year period considered. Those were

Figure E-26

Effects of Triennial Assessment and Actual Annual Change in Value With Phase-In

Year	Market Value* (MV)	Assessed Value (AV)			Ratio: AV/MV				
		Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Mean	COD
Base	$100,000	$100,000	$100,000	$100,000	100.0%	100.0%	100.0%	100.0%	0.0
1	107,300	**102,433**	100,000	100,000	95.5	93.2	93.2	94.0	0.8
2	116,957	104,867	**105,652**	100,000	89.7	90.3	85.5	88.5	1.8
3	121,284	107,300	111,305	**107,095**	88.5	91.8	88.3	89.5	1.3
4	131,957	**115,519**	116,957	114,189	87.5	88.6	86.5	87.6	0.8
5	152,411	123,738	**128,735**	121,284	81.2	84.5	79.6	81.8	2.0
6	159,727	131,957	140,593	**134,098**	82.6	88.0	84.0	84.9	2.1
7	157,171	**140,362**	152,411	146,913	89.3	97.0	93.5	93.2	2.7
8	168,173	148,766	**157,665**	159,727	88.5	93.8	95.0	92.4	2.3
9	156,905	157,171	162,919	**158,786**	100.2	103.8	101.2	101.7	1.5
10	168,830	**161,057**	168,173	157,846	95.4	99.6	93.5	96.2	2.1

**Percentage increases in market value for 1986–1996, years 1–10 respectively, are: 7.3, 9.0, 3.7, 8.8, 15.5, 4.8, -1.6, 7.0, -6.7, and 7.6. Figures in bold indicate first year of triennial cycle.*

Source: Author's calculations.

in the ninth and 10th years because group 3 was up for reappraisal in year 9, the year of a significant drop (6.7 percent) in market value. Thus, for the next three years that reduction is phased in for group 3. In the same interval, groups 1 and 2 both receive assessment increases. For the 10th year, the homes in groups 1–3, respectively, are valued at $161,057, $168,173, and $157,846, although all three have the same market value ($168,830).

The coefficient of dispersion (COD) values under triennial assessment in Figure E-26 range from 0.8 to 2.7, compared with 0.6 to 1.2 (and 0.7 for the years of the mature system) in Figure E-24, which also includes a phase-in, but features uniform annual percentage changes in market value. Thus, uneven growth in market value results in more variability of assessments — both across triennial groups in a given year and with each group over time.

Irregular changes in market value, no phase-in of changes

The situation portrayed by Figure E-27 is the same as that in Figure E-26, except that new appraised values are entered in full onto the tax rolls the first year of the triennial cycle. Thus, properties in each group are valued at their respective market values in the reappraisal year, and those values remain on the tax roll for three years (still assuming no changes in the properties to trigger a revaluation). Compared to the phase-in case, and considering only years 3 through 10, lack of a phase-in is associated with a higher average assessment level within each triennial group, generally more variability of assessment levels across triennial groups in a given year, and mixed changes in the uniformity of assessments within each group over time.

Summary of effects

As noted at the outset, triennial assessment tends to reduce overall assessment levels and to increase variation in assessment levels across property owners. The differences vary, however, with such things as the rate and pattern of annual market value changes and whether or not new values are phased in. To help facilitate comparisons, data based on Figures E-24–27, but not contained in those tables, are displayed in Figure E-28.

The first half of Figure E-28 considers assessment level. Particularly for Figures E-26 and E-27, the variation in AV/MV values within and among triennial groups makes it difficult to gauge averages by casual inspection. Mean ratios have been computed for the last eight years — i.e., what has been termed the period of the mature triennial system. Because the mean is better than the median for gauging overall revenue effects by group and for the sum of all groups, mean values are noted here. As shown in Figure E-28, the average assessment level is roughly 5 percentage points higher without a phase-in than with a phase-in, regardless of whether market values change by uniform percentage increments or follow an irreg-

Figure E-27

Effects of Triennial Assessment With Annual Change in Value Without Phase-In

Year	Market Value* (MV)	Assessed Value (AV)			Ratio: AV/MV				
		Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Mean	COD
Base	$100,000	$100,000	$100,000	$100,000	100.0%	100.0%	100.0%	100.0%	0.0
1	107,300	**107,300**	100,000	100,000	100.0	93.2	93.2	95.5	2.4
2	116,957	107,300	**116,957**	100,000	91.7	100.0	85.5	92.4	5.3
3	121,284	107,300	116,957	**121,284**	88.5	96.4	100.0	95.0	4.0
4	131,957	**131,957**	116,957	121,284	100.0	88.6	91.9	93.5	4.1
5	152,411	131,957	**152,411**	121,284	86.6	100.0	79.6	88.7	7.9
6	159,727	131,957	152,411	**159,726**	82.6	95.4	100.0	92.7	6.1
7	157,171	**157,171**	152,411	159,726	100.0	97.0	101.6	99.5	1.5
8	168,173	157,171	**168,173**	159,726	93.5	100.0	95.0	96.1	2.3
9	156,905	157,171	168,173	**156,905**	100.2	107.2	100.0	102.5	2.5
10	168,830	**168,830**	168,173	156,905	100.0	99.6	92.9	97.5	2.4

**Percentage increases in market value for 1986–1996, years 1 through 10 respectively, are: 7.3, 9.0, 3.7, 8.8, 15.5, 4.8, -1.6, 7.0, -6.7, and 7.6. Figures in bold indicate first year of triennial cycle.*

Source: Author's calculations.

Figure E-28

Long-Term Effect of Triennial Assessments

Mean AV/MV, years 3–10:	Group 1	Group 2	Group 3
Uniform annual market value change, phase-in (Figure E-24)	90.2%	90.4%	90.3%
Uniform annual market value change, no phase-in (Figure E-25)	95.0%	94.4%	95.6%
Irregular annual market value change, phase-in (Figure E-26)	89.2%	93.4%	90.2%
Irregular annual market value change, no phase-in (Figure E-27)	93.9%	98.0%	95.1%
CODs of AV/MV ratios, years 3–10:			
Uniform annual market value change, phase-in (Figure E-24)	0.08	0.29	0.06
Uniform annual market value change, no phase-in (Figure E-25)	3.9	3.2	3.3
Irregular annual market value change, phase-in (Figure E-26)	4.7	5.6	6.2
Irregular annual market value change, no phase-in (Figure E-27)	6.3	3.7	5.4

ular path. (Recall that the magnitude of the difference is sensitive to the average rate of change.) Irregular change causes significant variation across groups in terms of the eight-year average assessment level. This was seen earlier via the COD values in Figures E-24–27.

While the mean assessment level figures are instructive, they mask year-to-year variation. Coefficients of dispersion of the AV/MV ratios for years 3 through 10 (calculated with respect to the median ratio) have been calculated to provide some insight into this aspect of the effects of the features of triennial assessment, as shown in the second half of Figure E-28. Clearly, the least fluctuation results from uniform annual percentage changes in market value, reflected accurately by the valuers: COD values are less for Figures E-24 and E-25 than for their counterparts in Figures E-26 and E-27 — i.e, comparing E-24 to E-26, and E-25 to E-27. Another conclusion is that the phase-in feature serves to reduce variation in year-to-year assessment levels within a triennial group. This clearly is the case when value change is uniform (comparing Figure E-24 to E-25), but is less clear when market value change is irregular (comparing Figure E-26 to E-27).

In comparing the four cases presented in the four tables, the pattern of nonuniformity revealed by CODs for assessment levels within triennial groups over time is essentially the same as that revealed by the CODs for assessment levels across groups within a given year. There is more nonuniformity due to triennial assessment when market value growth is irregular, but the phase-in feature tends to reduce the measured nonuniformity.

In short, triennial assessment reduces the level of assessment, but there is a trade-off between assessment-level reduction and uniformity. Specifically, we conclude that:

- staggered triennial assessment reduces the overall level of assessment
- phasing in value changes amplifies the departure of assessments from market values
- staggered triennial assessment adds some nonuniformity to assessment outcomes
- the additional nonuniformity is slight when market value changes follow a smooth path
- phasing in value changes generally reduces the nonuniformity from the triennial approach

The magnitude of these effects depends upon both the average rate of change in market values over time and the particular pattern of year-to-year changes.

Summary and conclusions

The District adopted the triennial valuation system in large part due to the lack of resources to reappraise each property every year. While there was good reason to reform the assessment process, it is a mistake to equate annual valuation with annual inspection of each property. As a good data base of the relevant attributes of each property is developed and maintained, it will be possible to use this information to generate estimated values of all properties more frequently. Several states already draw a distinction between valuation and physical inspection. The latter is particularly onerous if the requirement is to be meaningful, but is not needed as often when computers are used to develop and maintain the information on real property needed to generate estimated values without physical inspection.

Although the District joins a large number of states in not making annual appraisals, and although the triennial system is barely off the ground, it is preferable that it not be retained. Ultimately, the District should move to greater reliance upon a computer-assisted mass appraisal system to permit annual changes in assessed values, where warranted. Annual physical inspection is not envisioned.

A principal concern is the depressing effect of the triennial system on the average level of assessment — i.e., of the tax base. Any reduction in the base implies either

a reduction in the level of services or an increase in the nominal tax rates. Growth averaging roughly the same as in the 1986–1996 period (i.e., a little more than 5 percent annually) would result in nearly a 10 percent reduction in the average assessment level. The District's history is one of relatively stable nominal rates. Continuation of this stability would translate into generally reduced revenue levels, assuming a continued general upward movement of market values.

Another concern is that triennial assessment adds to assessment nonuniformity, particularly when market value changes do not occur in uniform percentage increments. While this effect can be diminished through the phasing in of valuation changes, the phase-in also substantially increases the reduction of the revenue base. Assuming a general upward trend in property prices, triennial valuation causes assessed value to fall below market value in at least two of the three years of the cycle; with a phase-in feature, assessed value will always be below market value.

If triennial assessment is maintained, elimination of the phase-in should be considered to avoid the adverse effect on the level of the tax base and, indirectly, on revenues. However, this effect is offset by the fact that the phase-in tempers the nonuniformity effects of staggered triennial valuation. Also, without a phase-in, the one-year changes in assessed value could at times be large — and larger increases are more unpopular with the public. Avoidance of large increases in assessed values is, of course, an important consideration favoring annual valuations.

Real property tax appeals[57]

The District of Columbia real property assessment system has taken its lumps in recent years. Media reports in 1996 highlighted poor assessment quality, use of improper procedures by some assessors, large numbers of assessment appeals, and the firing of some key assessment personnel.[58] Citizen groups have criticized not only the assessment system, but also the appeals mechanism.[59] The Board of Real Property Assessments and Appeals experienced a large increase in appeals in the early- and mid-1990s.[60] Concerns about the appeals process placed this item on the agenda of the District of Columbia Tax Revision Commission, even though new leadership and procedures installed at the Real Property Tax Administration (RPTA) since the fall of 1996 may reduce demands on the appeals system.

The appeals process is an important part of the property tax system. It can provide not only relief for aggrieved taxpayers, but also information on the functioning of the assessment system and ways to improve it. To serve these purposes well, however, the appeals process must be accessible easily and at low cost, and it must be perceived as fair and efficient.

OVERVIEW

The primary arbiter of appeals concerning real property tax assessments is the Board of Real Property Assessments and Appeals (BRPAA or board) (D.C. Code 47-825.1). It is the successor to the previous Board of Equalization and Review (D.C. Code 47-825, repealed 1993). BRPAA has the authority to review and adjust incorrect real property tax assessments, and until recent statutory changes, has been the first step in the appeals process; property owners not satisfied with the board's resolution of their cases may appeal to the Superior Court.[61]

BRPAA membership

The legislation creating BRPAA established it as an 18-member board whose members are appointed by the mayor and approved by the D.C. City Council. All BRPAA members must be residents of the District of Columbia, with six members from each of the following groups:

- active members of the District bar with real estate experience
- either District-certified general real estate appraisers or District residential appraisers, but at least four shall be District general real estate appraisers
- certified public accountants, mortgage bankers, licensed District real estate brokers, or persons possessing significant real property experience

BRPAA members' terms run for five years and the chairman serves for two years. No member can serve more than two consecutive terms, or 12 years. Compensation is set at $25 an hour, with annual caps of $10,000 ($12,000 for the chairman). The board convenes in panels of three to hear appeals unless the appellant agrees to a two-member panel. The chairman has the authority to bring before the board any assessments the chairman believes to be incorrect.

In the summer of 1997, BRPAA had only 12 of the required 18 members (with four additional inactive members). Requirements for a specific mix of professional backgrounds and expertise pose serious practical problems, but have been adhered to as much as possible. The 12 members of the current board include four attorneys, two real estate brokers, one District general licensed appraiser, two District residential licensed appraisers, and two business people.

Historically, the requirement of six real estate appraisers has been especially difficult for BRPAA (and the predecessor Board of Equalization and Review) to meet for two reasons. First, there are relatively few certified property appraisers in the District and restrictions on BRPAA service make it difficult to find potential new members. Also, monetary considerations — the hourly and annual pay constraints already noted — add to the difficulty. BRPAA members are drawn from professional fields in which compensation is greater.

Figure E-29

Assessment Appeals per Tax Year

	1993	1994	1995	1996	1997	1998
Cases	5,060	4,092	3,371	3,341	4,533	2,945

Figure E-30

Effects of BRPAA Decisions
1993–1998 ($ Millions)

	1993	1994	1995	1996	1997	1998
Tax reduction	$23.25	$36.49	$21.28	$12.90	$18.47	$21.17
Percent of levy	2.5%	5.1%	3.0%	1.8%	*	*

**Not yet available.*

As a result, BRPAA operates below full strength, and the chairman divides the case loads between three panels of three and two panels of two.[62] Panelists often have neither direct experience in property assessment and valuation procedures, nor experience with the specific property class they are required to render judgment upon. The board as a whole, however, is fairly diverse and panel members can draw upon the expertise of others in coming to decisions.

Case Load

For each of the five tax years preceding 1998, BRPAA adjudicated over 3,000 cases (Figure E-29).[63] Over this period, the number of cases generally declined from highs earlier in the 1990s when problems associated with computer-assisted mass appraisal (CAMA) spurred a large increase. With a moratorium on assessments in 1997, adopted to permit the Real Property Tax Administration to remedy some problems with its records and procedures, the number of appeals coming to BRPAA dropped somewhat below 3,000 for tax year 1998.

Unfortunately, no data exist on the causes for appeals to BRPAA.[64] Thus, any causal relationships must be inferred. Frustration in resolving assessment issues with the Real Property Tax Administration could be a primary impetus to appeal. The new leadership at RPTA has conducted an evaluation of its operations, identified and prioritized revisions to be made, and secured D.C. Council adoption of some

of its proposed changes. As these changes take effect in the coming years, it is quite possible that the BRPAA case load will decline. Certainly this should be the result of the triennial revaluation process, under which each property will be reassessed only once every three years.

THE APPEALS PROCESS

Tax bills are mailed out twice yearly, the first for a given tax year in March and the second in September. Appeals to BRPAA must be filed by April 30 and BRPAA decisions are mailed by July 14. Appeals from BRPAA rulings must reach the Superior Court by the following March 31 and the disputed tax must be paid before taking the matter to court; Superior Court decisions may result in credits or refunds being issued by the District government.

BRPAA APPEALS

Appeals can be brought to BRPAA by petitioners, either the property owners or their legal representatives, from March 30 to April 30. A BRPAA panel (typically three members) then reviews each appeal and determines whether the assessment should be changed. BRPAA will consider cases only when the reduction sought is greater than 5 percent and the board has the authority to raise or lower the assessment. Petitioners are encouraged to craft their petitions carefully and to ensure that their requested value is similar to values for surrounding, similar properties.[65] BRPAA hears all cases by July 7, mails decisions by July 14, and submits to the mayor by July 21 a revised assessment roll — the preliminary assessment roll from RPTA, adjusted for BRPAA changes in value.[66]

As noted earlier, BRPAA currently is not operating at full strength and each panel conducts a large number of hearings. The chairman divides the board into panels that stay together for the duration of the term; if the chairman has not assigned a case to a panel of three, the petitioner may request a panel of three. Hearings before BRPAA panels last, on average, about twenty minutes.[67] During tax year 1998, BRPAA: 1) sustained 695 cases; 2) increased the assessments in 23 cases; and 3) reduced the assessments in 2,191 cases (1,120 were referred to BRPAA by the Office of Tax and Revenue). Assessment reductions awarded by BRPAA are estimated to result in more than $21 million in tax reductions, of which more than $18 million pertains to commercial properties.[68] Figure E-30 shows the estimated revenue reduction (in millions of dollars) due to BRPAA decisions for each of the six most recent years and relates those figures to the real property tax levy for the first four years (Figure E-2, page 123, and Figure E-31). In the peak year, tax year 1994, the reductions were 5.1 percent of the real property tax levy. Data on the number of cases and their estimated revenue impacts, by class, for tax years 1993–1998 are presented in Figure E-31.

Figure E-31

Number of BRPAA Property Tax Appeal Cases and Estimated Revenue Impact

Tax Years 1993–1998 ($ Millions)

	1998		1997		1996		1995		1994		1993	
Class	Cases	Revenue	Cases	Revenue	Cases	Revenue	Cases	Revenue	Cases	Revenue	Cases	Revenue
0	38	—	35	—	28	—	13	—	14	—	26	—
1	479	$0.49	1,363	$0.49	546	$0.24	621	$0.24	792	$0.25	1,245	$0.45
2	1,148	0.75	1,646	0.73	1,281	0.61	1,104	0.61	1,518	0.95	2,038	1.39
3	30	0.55	38	0.58	43	0.29	53	1.57	46	0.92	39	0.90
4	1,033	18.40	1,192	15.99	1,145	10.90	1,325	17.67	1,455	33.24	1,323	18.88
5	180	0.52	208	0.41	229	0.54	190	0.77	186	0.36	315	0.22
7	5	0.04	7	0.10	10	0	8	0.04	6	0	2	—
8	28	0.12	39	0.06	53	0.27	49	0.18	64	0.38	63	0.60
9	4	0.31	3	0.10	5	0.01	6	0.16	8	0.35	8	0.81
11	0	—	2	—	1	0.04	2	0.03	3	0.04	1	—
Total	**2,945**	**$21.17**	**4,533**	**$18.47**	**3,341**	**$12.90**	**3,371**	**$21.28**	**4,092**	**$36.49**	**5,060**	**$23.25**

Note: Class 0 is tax-exempt; classes 7, 8, 9, and 11 are mixed-use categories.

Source: D.C. Board of Real Property Assessments and Appeals.

Although appeals currently begin with BRPAA, many cases may result from technical errors that could easily be corrected by administrative review. A first-stage appeal at the level of the Real Property Tax Administration, in fact, was recommended by the new RPTA head and is being implemented starting with tax year 1999, along with the new triennial assessment system.

Superior Court

Once BRPAA has rendered its judgment, a property owner may appeal the decision to the Superior Court of the District of Columbia. Appeals must be made by September 30, almost three months after BRPAA's decisions have been made, and more than six months after the notices of assessments were mailed (D.C. Code 57-825, 47-3305). All appeals must go to BRPAA before they can go to the Superior Court and, as noted, the full amount of taxes in dispute must have been paid.

In most cases, the appeals are referred to mediation. The petitioner makes an offer of settlement using a form available from the corporation counsel, who then will seek a response from the Office of Tax and Revenue (OTR). If a settlement is not then agreed to, the presiding judge may order mediation through the Multidoor Alternative Resolution Services, in which case the petitioner is required to offer a pre-mediation settlement.[69] There are no published analyses of the results of court decisions, but OTR periodically lists refunds made pursuant to court decisions. Refunds of tax and interest ran between roughly $30 million and $40 million in each of the three years from 1995 to 1997. The payments in each year were from cases dealing with assessments for several different tax years.

Triennial assessment system and changes within RPTA

Appeals going to BRPAA should be reduced by each of two new features sought and obtained by the Real Property Tax Administration. One is the new triennial appraisal system (considered earlier in this chapter). The other is initiation of appeals at the administrative level — i.e., with RPTA assessors — as the first stage of the appeals process. Even though property owners still may appeal their assessments in any year, whether or not they are in the current triennial assessment group, fewer reassessments in any year should translate into fewer appeals. The appeals calendar also is changed. Property owners will have 30 days to appeal assessments from the time notice of final determination from the administrative review (by the assessor) is issued. All final determinations on review will be made by August 1. If the administrative appeal outcome is unsatisfactory to the owner, appeals may be made to BRPAA by September 30. Appeals from BRPAA to the Superior Court may be filed within six months following the September 30 deadline.

Once some experience is gained under the new system, BRPAA's role and composition should be reconsidered.

PROPOSITION 51

Proposition 51, a voter initiative approved overwhelmingly by District voters in 1996, is now part of the D.C. Code (Act 11-458). It poses as-yet unanswered questions about how the appeals process will be affected. The initiative was sparked by distrust of the appeals process and the perception that commercial properties were being treated unduly favorably by that process.

A key provision of Proposition 51 is that all property assessment hearings before BRPAA — and the supporting materials used by appellants — are to be made public. This presents a serious issue. Granting the public access to appellants' financial records seems to conflict with existing statutes protecting the confidentiality of such information; a court test may be necessary to determine which requirement is superior. Although all information used in a case becomes public once it reaches Superior Court, most appeals do not go that far; Proposition 51 would make the information public at the BRPAA appeal stage, without judicial oversight. Because the information could provide critical details about a firm to its competitors, there is concern that making it public in all appeals ultimately could make doing business from a base in the District less attractive.

Proposition 51 also establishes the Office of Public Advocate, charged with representing the public's interest before the boards and courts in relation to property assessments (D.C. Code 47-825.2). Because the public advocate can challenge the assessment or classification of any property, or the appeal of a property pertaining to these issues, this could affect the cases coming before BRPAA. So far, this position has not been filled and there is some doubt as to whether it will be, due in part to budgetary constraints.

BRPAA PROPOSALS

As noted, there has been some controversy surrounding BRPAA. Critics have suggested that the board is too political, from the appointment stage forward; that commercial properties are treated too favorably in appeals; that board members do not receive adequate training; and that there is too little concern for conflict of interest. Current BRPAA chairman James Murphy feels that the board is hampered by the statutory restrictions on membership, pay restrictions, and an inadequate budget. In 1997, BRPAA proposed new rules intended to bring about greater responsiveness to the concerns of the taxpayers, and to reduce the likelihood that conflict of interest may impede a fair hearing on assessment appeals.

In addition to the proposed rule changes, based on interviews and public testimony, Chairman Murphy has proposed repeal of the restrictions on BRPAA membership composition to allow the mayor more flexibility in filling board positions; elimination of the pay caps so that those who are able to work more hours could be

compensated for doing so; and increasing the budget by 30 percent to enable BRPAA to process additional work load. More flexible staffing of BRPAA may be warranted, but this could make training for members even more important. Also, as noted above, the BRPAA case load seems likely to decrease.

Other concerns relate to the nature of the hearings, and the ability of taxpayers to prepare for them. Several taxpayers expressed concern that complainants too often do not learn of the assessor's (i.e., RPTA's) response to their complaint until they get into the hearing; this may leave them unprepared to respond adequately in the short hearings. They urge that assessors: (1) give greater effort to evaluating a petitioner's proposed value, and (2) provide the petitioner with enough time to review the assessor's responses prior to the hearing. Some advocate reversing the burden of proof, placing it not on the complainant, as now, but on the assessor — i.e., to assume the property owner's value is correct unless the assessor can establish satisfactorily that it is not. This is in keeping with a more general concern that the quality of the evidence brought forth be the principal criterion for deciding complaints.

Summary and conclusions

BRPAA is constrained by strict statutory staffing requirements that are, at best, difficult to meet. This has resulted in the board operating with far fewer than the 18 authorized members. Staffing shortages were exacerbated by a sharp upward spike in real property assessment appeals in the early- and mid-1990s. The combination resulted in hearings that are, on average, very short — about 20 minutes. Another problem has been the perception that commercial properties receive assessment reductions that are too large, in part because of what some see as a system lacking appropriate checks and balances. Falling property values and a declining property tax base may have heightened these concerns.

The concerns are deeply held. They probably deserve closer examination than was possible within this study. Fundamental changes in the real property tax assessment system and appeals system are being implemented for the 1999 tax year. The time for careful reconsideration of BRPAA and its role may be near.

Meanwhile, five steps could be taken to improve the dealings between BRPAA and the Real Property Tax Administration, and within BRPAA itself.

- BRPAA should maintain data on the most common causes of appeal and bring the most common problems to the attention of RPTA. This could be a part of the required BRPAA reports on problems and suggestions for dealing with them.
- The District Auditor should perform annual management audits, as required by law; the last such audit occurred in 1993.

- Professional experience and affiliation requirements in the statutes should be eased to make it easier to fill board positions and to allow the board greater flexibility in creating panels of professionals with diverse, relevant backgrounds.
- An updated manual should be provided, to be used for a strengthened BRPAA training program and as a reference for BRPAA members.
- Appropriate conflict-of-interest regulations should be developed and enforced for BRPAA members.

When a careful review of the appeals process is undertaken, it could benefit from some of the information that would be generated under these suggestions. Also, at least preliminary information on the effects of the assessment and appeals changes would be of benefit. Options considered should include possibly major change. One member of the Tax Revision Commission suggested the possibility of using an administrative law judge for hearing property tax appeals. This and other possible changes might be viable solutions to the staffing and other problems that have plagued BRPAA.

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Endnotes

[1] This overview was prepared principally by Michael E. Bell.
[2] Bell and Johnston (1997), pp. 15–16 and Table 4.
[3] The numbers for 1993 are difficult to interpret. In 1993, the District changed the end of the tax year from June 30 to September 30. Thus, the data for FY 1993 really represent five quarters of property tax levies and collections. If one were to take four-fifths of the total levy and collections for 1993, the total levy would be $743 million and total collections would be $711 million. Each would be a decline from their 1992 levels, reflecting the general decline in the real estate market that started in 1992. We use such "adjusted" data for 1993 when analyzing trends in property tax levies and collections.
[4] The data in Figure E-2 are unaudited data from the District's Comprehensive Annual Financial Report for 1996. CAFR data on property tax levies differ from those reported by O'Cleireacain (1997, note 39, p. 64), who developed independent estimates of property tax levies by multiplying the net assessed value of taxable property in each property class by the appropriate rate and then summing the levies for each class. Following this methodology, property tax levies fell by an average annual rate of 5 percent from 1993 to 1996 after increasing at an average annual rate of 10.5 percent from 1985 to 1992.

[5] The numbers discussed here represent net new delinquencies. That is, we are looking at the ratio of current collections as a percent of current property tax levies.
[6] Assessment-sales ratios and measures of uniformity are the subject of a later section of this chapter.
[7] O'Cleireacain (1997), p. 57.
[8] We have adjusted 1993 data to reflect the fact that, as reported in the CAFR, it consists of five quarters of data. Taking 80 percent of these figures indicates that the adjusted property taxes per capita would be $1,285.50.
[9] Bowman (1987).
[10] Sonstelie (1978), p. 237.
[11] Hatfield (1967), p. 244.
[12] Sonstelie (1978, p. 235) quoting Leland's 1928 volume, *The Classified Property Tax in the United States.*
[13] The District's homestead exemption is discussed later in this chapter, in the section on property tax relief.
[14] Ladd and Bradbury (1988).
[15] Smith, Adam, *The Wealth of Nations* (1937), p. 778.
[16] A recent Brookings study recommended property tax changes featuring a two-class system with rates (0.90 percent for residential property, 1.35 percent for other property) that would reduce overall property tax revenue by 27 percent, thus permitting a reduction in property taxes across the board (O'Cleireacain 1997, p. 11 and p. 81). Provided a good way could be found to make up for the revenue loss, this may be the best possible compromise.
[17] Eckert (1990), p. 534.
[18] Ibid, p. 534 and p. 540.
[19] This would be true no matter what that uniform assessment level was — 100 percent, 200 percent, or 10 percent.
[20] Quoted from p. 2 of an advance copy of the 1997 ratio study; emphasis added. The same approach is indicated in studies from prior years.
[21] Bell and Bowman, "Gauging Assessment Uniformity: A Comparison of Measures" (1991).
[22] Eckert (1990), pp. 539–540.
[23] Eckert (1990), p. 27.
[24] A very good explanation of the tax year is provided by O'Cleireacain (1997), pp. 70–71.
[25] Virginia Department of Taxation (1997), p. 2.
[26] Eckert (1990), pp. 518–19.
[27] District tax regulation 3073(b) specifically allows this: "Sales comparisons should be made by property type within an assessment area; provided, that if sufficient sales data for an assessment area is not available, sales data from other similar areas may be used."

[28] More will be said below, but the manner in which the District calculates CODs — using only the middle 50 percent of sales from the array of sold properties — should be kept in mind.
[29] Eckert (1990), p. 526.
[30] O'Cleireacain (1997), p. 79.
[31] Citizens for Fair Assessment (1997), p. 1.
[32] Ibid, p. 25.
[33] Ibid, p. 25.
[34] Bell and Bowman, "Gauging Assessment Uniformity: A Comparison of Measures" (1991).
[35] True outliers would, of course, be disregarded, but 1) there should be reason to believe they were not representative of the population of properties, and 2) there should be relatively few of them.
[36] Bell and Bowman, "Gauging Assessment Uniformity: A Comparison of Measures" (1991), p. 349.
[37] Gold (1979).
[38] Bowman (1986), pp. 281–293.
[39] For summary listings, see U.S. Advisory Commission on Intergovernmental Relations (ACIR) (1994, pp. 138–149) and Gold (1984).
[40] For details, see Figures E-16 and E-17. Under the general circuit breaker, however, relief ranges from 95 percent of the tax over 1.5 percent of household gross income (HGI) for those whose household income is under $3,000, to 75 percent of the property tax over 4 percent of HGI for those with household income between $15,000 and $20,000. For the elderly, blind, and disabled, the relief ranges from all property tax over 1 percent of HGI for those with less than $5,000 of such income, to all the tax over 2.5 percent of HGI for those with $15,000–$20,000 of such income. Note that "household gross income" is much broader than "household income," the latter of which is the same as adjusted gross income for income tax purposes, while the former includes essentially all cash income.
[41] O'Cleireacain (1997), pp. 59–60.
[42] The requirement that homestead exemption claimants be subject to District income tax, however, tends to narrow the range of eligibility somewhat, eliminating those who may reside in the District while being domiciled elsewhere.
[43] O'Cleireacain (1997), p. 60.
[44] Recall the requirement of liability for the District's income tax. More than 99 percent of all homeowners in each home-value decile (other than the lowest one) received the exemption for tax year 1995. O'Cleireacain (1997), p. 60.
[45] O'Cleireacain (1997), pp. 58–61.
[46] ACIR (1975), pp. 9–10; Bowman (1980), pp. 367–369; and Gold (1979), pp. 63–65 provide discussions.

[47] Both this term and the circuit breaker name itself were coined by John Shannon in the 1960s, when this form of tax relief was new and he was at ACIR.
[48] Aaron (1973).
[49] ACIR (1975), p. 7.
[50] Bowman (1980).
[51] Either a "co-insurance" feature or a maximum relief amount would introduce exceptions to this generalization.
[52] ACIR (1974), pp. 129–130.
[53] In 1992, Michigan's circuit breaker had an income ceiling of $82,650, a relief maximum of $1,200, and a 35 percent threshold for nonelderly claimants — although only 60 percent of the excess was relieved for the nonelderly (ACIR 1994, Table 39).
[54] District of Columbia, *Triennial Assessment Process Briefing Package* (1997).
[55] U.S. Census Bureau (1989), Appendix D.
[56] Mikesell (1980).
[57] This section has benefitted substantially from assistance by Thomas E. Heinemann.
[58] O'Cleireacain (1997), pp. 79–80.
[59] Citizens for Fair Assessment.
[60] BRPAA reports.
[61] The D.C. Council has approved legislation providing for first-stage appeals to be handled by assessors within the Real Property Tax Administration.
[62] Murphy.
[63] BRPAA estimates the cumulative revenue impact over those five years to have been $112,384,180.
[64] BRPAA is required by statute to report by property class total assessments sustained, increased, or decreased; the percentages of assessments increased, decreased, and sustained; the gains and losses in tax revenue due to assessed value changes; and net revenue impact on the District. The legislation also requires that an analysis of the board's operations for the year include identification of any problems and recommendations. BRPAA also is to undergo a yearly evaluation and provide new board members with training in property valuation.
[65] Institute for Property Assessment Studies (IPAS).
[66] O'Cleireacain (1997).
[67] Murphy; IPAS.
[68] The reductions break down as follows: Class 1, $486,037; Class 2, $754,031; Class 3, $573,934; Class 4, $18,454,357; and Class 5, $518,560.
[69] Pearlstein.