

## Legislative Budget and Finance Committee

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Pennsylvania's System for Property Valuation and Reassessment

Conducted Pursuant to House Resolution 2009-334

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### **Table of Contents**

			Page
	Sı	Immary, Conclusions, Recommendations, and Options	S-1
Ι.	Int	troduction	1
II.	Pe Le	ennsylvania's System for Real Property Valuation—the Local	6
	A.	The Majority of Pennsylvania Counties Have Completed One or More Reassessments Since 1986	6
	В.	Pennsylvania Median Property Taxes Are Relatively High In Some Areas, Though This Does Not Appear to Be Due to Countywide Reassessments	12
	C.	Pennsylvania Counties Differ and Their Systems for Real Property Valuation Also Differ	18
		1. Household Income and Unemployment	18
		2. Home Values	18
		3. Number and Composition of Real Property Parcels	23
		4. Staffing and Certified Pennsylvania Evaluators	24
		5. Property Record Updating	25
		6. Systems for Property Valuation	26
		7. Reassessment Methods	26
		8. Required Time to Complete Reassessments	27
		9. Per Parcel Reassessment Costs	28
		10. Use of International Association of Assessing Officer Standards	29
		11. Use of Ratio Studies	29
		12. Other Differences	29
	D.	Many Pennsylvania Counties Have Relatively Few Market-Based Sales, Which Makes Property Valuation Difficult	32
	E.	Countywide Reassessment Costs Are High In Relation to County Real Estate Tax Revenues	39
	F.	Completion of a Comprehensive Countywide Reassessment Does Not Assure Achievement of Statistical Standards for Common Levels of Assessment, Uniformity, and Equity	44
	G.	Significant Housing Price Volatility Makes It Difficult for Counties to Achieve and Maintain Assessment Uniformity	48
	Н.	Since 2000, Housing Prices Have Appreciated More Rapidly Than Median Income and General Inflation	56

## Table of Contents (Continued)

III.	Pe Le	ennsylvania's System for Real Property Valuation—the State	59
	A.	Pennsylvania, Unlike Many States, Does Not Receive State Revenue From Real Property Taxes, But Has Provided for Various Property Tax Reforms	59
	В.	Since 1987, Pennsylvania Has Required Certification for Pennsylvania Real Property Evaluators	71
	C.	Pennsylvania's State Tax Equalization Board Gathers and Provides Data to State Agencies for Use in Formula Allocation of State Funds and to Establish Certain State Tax Rates	75
	D.	The Pennsylvania State Tax Equalization Board Develops and Publishes a Common Level Ratio, Which Is Used In Certain Real Property Appeals	79
	E.	Pennsylvania Courts Have Required Counties to Initiate Countywide Reassessments Based on the Cumulative Effect of a Variety of Factors	99
	F.	The Pennsylvania Constitution's Uniformity Clause Has Been Strictly Interpreted by the Courts and Differs From Those in Many Other States	108
		1. Requirement for Common Level of Assessment	112
		2. Assessment Limits Following Reassessment	113
IV.	Re St	eal Property Valuation and Assessment Systems in Other ates	117
	A.	Real Property Valuation and Assessment Systems in Surrounding States.	117
		1. Maryland	119
		2. Delaware	123
		3. West Virginia	126
		4. Ohio	132
		5. New Jersey	139
		6. New York	149
	В.	California's Real Property Valuation and Assessment System	154
V.	A	opendices	161
	Α.	House Resolution 2009-334	162

## Table of Contents (Continued)

## V. Appendices (Continued)

Β.	LB&FC Survey of Pennsylvania County Chief Assessors	166
C.	Common Level Ratio, by County, 1988 Through 2008	171
D.	Coefficient of Dispersion, by County, 1988 Through 2008	174
E.	Price Related Differential, by County, 1988 Through 2008	177
F.	Glossary of Terms	180
G.	Property Taxes on Owner-Occupied Housing for Pennsylvania and Surrounding States (2004-2007)	182
H.	Calculation of the STEB Certified Aggregate Market Values and the STEB Ratio	184
I.	Common Level Ratio Calculation	186
J.	STEB's Coefficient of Dispersion (COD) Calculation	187

### Summary, Conclusions, Recommendations, and Options

House Resolution 2009-334 directed the Legislative Budget and Finance Committee (LB&FC) to study the systems of real property valuation and assessment in place in Pennsylvania and other states, in particular Maryland and California. It also directed the study consider state systems for protection for taxpayers following reassessment, especially for those on fixed incomes.<sup>1</sup>

We found:

**Real property taxes are an important source of revenue for counties, municipalities, and school districts (pp. 39 and 58).** From 2000 to 2007, local property taxes increased from \$10.23 billion to \$14.85 billion—a 45 percent increase. In 2007, about 70 percent of such revenues went to school districts, 10 percent to municipalities other than Philadelphia, and the remainder to counties, including Philadelphia. Local real estate taxes generated 36 percent more revenues than the state's personal income tax and 75 percent more than the state's sales and use taxes in 2007.

Pennsylvania has relatively high property taxes, and is in the top third nationwide on measures that consider property taxes relative to "typical" home value and household income (pp. 12 to 17). The Commonwealth ranks 15<sup>th</sup> in the nation on median property taxes paid for owner-occupied housing, 11<sup>th</sup> for such taxes as a percent of median home value, and 12<sup>th</sup> as a percent of household income. Seventeen Pennsylvania counties,<sup>2</sup> are in the top 10 percent of counties nationwide on one or more of such measures.

# Since the 1800s, Pennsylvania's property valuation and assessment system has evolved to the one in place today where (pp. 60 to 65):

• All properties are assessed based on "actual value,"<sup>3</sup> and all taxing bodies in a county must use the same property value when taxing local property,<sup>4</sup> though they have flexibility in determining their tax rates.<sup>5</sup>

Montgomery, Northampton, Pike, Venango, and Warren.

 <sup>&</sup>lt;sup>1</sup> HR 334 also directs an additional study of the Pennsylvania Farmland and Forest Land Assessment Act of 1974 be conducted to determine its statewide impact, which is being conducted as a separate study.
<sup>2</sup> Allegheny, Armstrong, Beaver, Berks, Bucks, Chester, Delaware, Erie, Greene, Lehigh, McKean, Monroe,

<sup>&</sup>lt;sup>3</sup> "Actual value" is a construct which refers to market value, though it need not be the amount or price at which a property has recently sold. Act 1982-268 clarified that in arriving at actual value, all three methods of approach to value (i.e., cost, comparable sales, and income) must be considered in conjunction with one another to arrive at a property's "actual value."

<sup>&</sup>lt;sup>4</sup> In New York and Delaware all taxing bodies within a county are not required to use the same property value when assessing a property.

<sup>&</sup>lt;sup>5</sup> In states that cap the overall amount of property taxes for individual properties, such as Ohio, West Virginia, and California, the state is involved in determining the distribution of property tax millage or revenues across all state and local taxing districts.

- Counties are primarily responsible under relevant provisions of the state's constitution and general laws for:
  - maintaining an inventory of all property in the county;
  - valuing all properties and assuring that such values are arrived at uniformly (i.e., equalized values);
  - assessing all properties and assuring all assessments are arrived at uniformly (i.e., equalized assessments);
  - selecting the percent of value on which property in the county is assessed (referred to in Pennsylvania as the county predetermined ratio);<sup>6</sup>
  - deciding to assess property based on current market (i.e., in current dollars) or base year values (i.e., the value of a dollar at the time of the county reassessment);<sup>7, 8</sup>
  - deciding when to revalue the county's property inventory; and
  - serving as the first formal level for taxpayers and others to appeal the county's property values and/or assessments.
- Taxpayers and local municipalities (which until the 1930s determined local property values) or other taxing districts can appeal the county's values and assessments in state court.

In Pennsylvania, counties can choose to assess property based on a property's "current market" value or "base year" value, with the associated advantages and disadvantages of each approach (pp. 88 to 98). The International Association of Assessing Officers (IAAO) has developed standards for mass appraisal<sup>9</sup> of real property which is appraised at "market value." Market value, according to the IAAO, refers to the most probable price a property should bring in a competitive and open market based on sales as of a specific date. "Current market" value refers to recent or present day price. The IAAO has not, however, developed standards for systems in which assessed values differ from current market values, such as "base year" systems in which property is appraised based on values or prices in an earlier year. Base year systems allow for continued use of base year values until a county conducts a comprehensive reassessment.

<sup>&</sup>lt;sup>6</sup> Surrounding states of Maryland, Ohio, and West Virginia have one statewide ratio of assessment.

<sup>&</sup>lt;sup>7</sup> Philadelphia is on a "current market system," and Allegheny County was until 2005.

<sup>&</sup>lt;sup>8</sup> Ohio and West Virginia base assessments on current market values. Maryland has a modified system of current market values in which "current" values are phased in over a three-year period. Like Pennsylvania, Delaware, New Jersey, and New York provide for "base year" systems, and "current market" valuation systems. <sup>9</sup> Mass appraisal is the process of valuing a group of properties as of a given date using common data, standardized methods, and statistical testing, according to the IAAO.

A current market value system implies annual reassessment of all property and reappraisal of all individual properties every four to six years, according to the IAAO. Current market value systems have the advantage of continually tracking current property prices, and therefore avoid the "sticker shock" that can occur when property values are not frequently updated. They are, however, highly labor intensive and costly to maintain.

In 2009, the Pennsylvania Supreme Court rejected an Allegheny County Common Pleas Court opinion that a base year system for assessing property is "facially unconstitutional." In that case (*Clifton*)<sup>10</sup>, the Supreme Court ruled that the base year system in and of itself is not unconstitutional, but as it was implemented in Allegheny County violated the Pennsylvania constitution's uniformity clause. (Findings III D and III E on pp. 90-94 and 103-107 provide additional information on this case.) Commenting on the desirability of a constitutional base year system, the Court noted that base year systems can provide stability in assessed values and efficient use of public funding. The Supreme Court also noted, however, that counties that do not reassess at least periodically are at risk of failing to maintain a uniform (i.e., constitutional) system. In this report, we discuss various approaches to determine if assessed values are failing to meet uniformity criteria (pp. 96-97 and S-24 to S-26).

The Supreme Court in *Clifton*, moreover, recognized that not all counties are the same, and that a county's need to conduct a comprehensive reassessment will arise at different rates depending upon the stability of a county's property market, the variety of real estate in the county, and other economic and market factors. As discussed below, the differences across counties are substantial.

#### Pennsylvania counties differ (pp. 18 to 38):

*In ways that have implication for their real property market.* They differ in their populations, household incomes, unemployment rates, home values, and the age of their housing stock. In 2008, in about half of the counties, fewer than 2 percent of county total parcels were sold in arms-length transactions, which can be problematic when using computer models to project property values. Housing prices also appreciate at different rates across the state. From the first quarter 2000 through 2007, Pittsburgh area had the lowest appreciation with a 33 percent increase, and Philadelphia area had the highest at 87 percent.

<sup>&</sup>lt;sup>10</sup> James C. Clifton v. Allegheny County, 600 Pa. 662, 969 A.2d 1197, 2009.

<u>In their property inventories</u>. Pennsylvania has over 5.9 million parcels. Almost half of the counties, however, have fewer than 50,000 parcels, with the vast majority having fewer than 100,000 parcels. There are, moreover, important differences in the composition of county property inventories. Typically, about three-quarters of real property consists of residential property; however, residential property accounts for less than 70 percent of total parcels in about 60 percent of Pennsylvania's counties, including six counties where it makes up less than 50 percent of the county's property inventory.

<u>In their valuation and assessment systems</u>. To maintain and update their property inventories, counties typically rely on full-time staff, though two counties rely almost totally on private contractors to operate their county assessment offices. About half of the counties have one full-time Certified Pennsylvania Evaluator (i.e., CPE, or state certified assessor) for every 11,000 parcels—a ratio similar to that of neighboring Maryland,<sup>11</sup> where the state itself is responsible for property valuation and assessment. Nine counties, however, have about twice as many parcels per CPE.

Counties use multiple approaches to update their property records, including deed transfers and building permits (98 percent); aerial photography (42 percent); zoning changes and canvassing (20 percent); and planning commission data (15 percent). Two-thirds of the counties rely on vendor-supplied computer assisted mass appraisals systems to value property. At least 14, however, report they rely in whole or in part on manual property record data in valuing property.

<u>In their reassessments</u>. In county responses to an LB&FC survey, more than 75 percent (51 of 66) reported their last reassessments included physical onsite reviews of each property, which typically took more than two years to complete. Nine percent (6 of 66) reported their reassessments were based on property market data, which took from 8 to 48 months and 8 percent (5 of 66) reported they changed the percent of property value that was assessed (i.e., the county changed its predetermined ratio), which took from three to six months.

Ninety percent of the counties (60 of 67) have completed one or more reassessments since 1986. The majority of such reassessments have involved comprehensive countywide reassessment--not just changes in predetermined ratios (pp. 6 to 11). The map on page S-5 shows for each county the date when its last reassessment went into effect based on our analysis of Pennsylvania Department of Revenue data. The map shows that most counties last reassessed sometime after 2000, but seven counties have not conducted a reassessment since at least the mid-1980s. Four of the seven counties that are shown as not completing a countywide

<sup>&</sup>lt;sup>11</sup> State employees value all properties in three states: Kentucky, Maryland, and Montana.

Last County Effective Reassessment Date During the Period July 1, 1986, Through January 1, 2009



NOTE: Graphic includes county-wide reassessments, predetermined ratio changes, and both in combination. Philadelphia reassesses on an ongoing basis and is not on a base year system. Allegheny retrospectively adopted a base year system in 2005.

Source: Developed by LB&FC staff from the Pennsylvania Department of Revenue Common Level Ratio (CLR) Real Estate Valuation Factors..



Pennsylvania Median Household Income and Median Home Value 1990-2008



Source: Developed by LB&FC staff from United States Census Bureau data. The U.S. Census data on value is the respondent's estimate of how much the property would sell for if it were for sale, or the asking price for properties that are for sale.

reassessment since 1986 report they are in the process of completing one, including two that are conducting them as a result of a court order or settlement agreement. Fifteen<sup>12</sup> of the counties that reassessed through changes in their predetermined ratios have not conducted comprehensive countywide reassessments since at least the mid-1980s.

Many of the 22 counties that have not completed a comprehensive countywide reassessment since the mid-1980s are small counties or are struggling financially. Eighteen of the 22 had median home values and household incomes lower than the state median, 13 had a higher percentage of older housing stock than the state as a whole, 9 had population declines in every U.S. Census since 1980, and 8 have populations of less than 50,000.

The cost of a reassessment is clearly a problem for most of the 22 counties (pp. 39-43). All but three of the 22 are permitted by statute to increase their aggregate revenues by 5 percent as a result of a reassessment. For those 19 counties, a 5 percent revenue increase results in increased revenue ranging from \$2.50 to \$20 per parcel, with a median increase of around \$14 per parcel, which is only about 30 percent of the cost of a countywide reassessment (about \$50 per parcel) in larger counties in recent years. Per parcel costs could be much greater for counties with smaller property inventory bases over which to spread fixed costs.

Based on their recent county property tax revenues, only 12<sup>13</sup> of the 67 counties could actually generate an additional \$50 per parcel in the first year following a reassessment, absent significant growth in their property inventory. Not surprisingly, 10 counties in response to our survey reported their last reassessment was financed through county bond issuances. Over 80 percent of the chief assessors, moreover, reported cost, including the fiscal status of the county, as a primary reason they would not advise initiating a countywide reassessment.<sup>14</sup>

**Completion of a comprehensive countywide reassessment does not assure that statistical standards for assessments are met (pp. 44 to 47).** National assessing organizations have developed performance measures and standards to determine if mass or neighborhood appraisals in current market valuation systems have achieved their appraisal goals for level of assessment, uniformity, and equity. In this report, we provide detailed explanations of these statistical measures and how they are calculated, in particular the measure known as a "COD" (i.e., coefficient of dispersion) that some Pennsylvania justices have recommended be used as a trigger to require a county to reassess. Utilizing the State Tax Equalization Board's data,

<sup>&</sup>lt;sup>12</sup> Bedford, Bucks, Butler, Cambria, Clarion, Franklin, Indiana, Jefferson, Juniata, Lackawanna, Lebanon, Mercer, Northumberland, Potter, and Snyder.

<sup>&</sup>lt;sup>13</sup> Berks, Bucks, Chester, Dauphin, Delaware, Lackawanna, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia, and York.

<sup>&</sup>lt;sup>14</sup> Pennsylvania has a total of 5.89 million parcels, according to data provided by the Assessors' Association of Pennsylvania. At \$50 per parcel, comprehensive reassessment statewide would cost \$294.5 million.

we analyzed the performance measures for counties after a comprehensive countywide reassessment and found:

- One year after, only 25 percent (14 of 54) of the reassessments from 1988 through 2008 achieved standards for level of assessment (i.e., within 15 percent of the predetermined ratio), uniformity (i.e., a COD of 20 or less), and equity (i.e., a Price Related Differential, or PRD, between 0.98 and 1.03). More than half of those that met the standards in the first year did not by the second.
- One county, which met the performance measures for six years following the countywide reassessment, initiated a subsequent reassessment after failing to meet one of the three performance measures, and then failed to meet two of the three measures the first year after the subsequent reassessment.
- Even relatively frequent reassessments do not assure that the performance standards are met. Eleven counties completed two or more countywide reassessments from 1988 through 2008, and only 25 percent of such reassessments met the three performance standards. One county conducted three countywide reassessments during the 20-year period, and none of these met all three performance standards one year after the reassessment.

Penn State researchers reported similar findings to the Senate Finance Committee in its 1976 investigation of property tax assessments and the work of mass appraisal firms. They reported only two of the 20 counties that completed reassessments over a six-year period met two performance measures one year after their reassessments, and only two of the 20 had a COD of 20 or less. The researchers concluded that reassessments were not properly performed by county contractors.

Significant housing price volatility contributes to challenges for counties in achieving assessment performance standards after a reassessment (pp. 48 to 55). Typically, mass appraisal processes utilize recent sales data, in part, to derive estimates for "actual values" of property in identified neighborhoods. The volatility of housing prices and the period of sales selected, however, can result in sale prices after reassessment that are very different than the values relied on in the reassessment models. The first graphic on page S-6 displays such house price volatility for Pennsylvania and the Erie area. Erie underwent a court-ordered reassessment after 1998, with the new values and assessments going into effect in 2003. As the graphic shows, the Erie area experienced house price volatility between 1999 and 2002. When the court-ordered reassessment was implemented, the county's COD was 19.66, but one year later it was outside the COD standard of 20.

Reassessments become a particular issue when housing price changes increase more rapidly than other economic indicators, and leads to calls for caps on assessed values and/or limits on property tax rates (pp. 56 to 58). From 2000 to 2007 in Pennsylvania, median household income increased 21 percent, consumer price inflation increased 23 percent, median home values increased 60 percent, and the index for house price changes for homes with repeat sales increased by 74 percent. Historically, in the United States, median housing prices have generally tracked median household income. Since 2000, however, this has not held true. The second graphic on page S-6 displays Pennsylvania's median home values and household income from 1990 to 2008.<sup>15</sup> Based on analysis of the ratios of median home price to median income nationally from the mid-1970s to 2001, some housing experts estimate that the housing price "bubble" that occurred after 2000 has increased the median home price by 44 percent above what it ought to be based on median household income.

One way to offset rapid house price growth is to not require frequent reassessments. States also have in place caps and limits to prevent assessments and/or revenues from growing at the same pace as market value. Pennsylvania has in place "aggregate" revenue caps (in general,  $2^{nd}$  Class A and  $3^{rd}$  Class counties can increase revenues by no more than 10 percent over the previous year as a result of reassessment, and  $2^{nd}$  Class and  $4^{th}$  to  $8^{th}$  Class counties by no more than 5 percent). A 1997 voter-approved amendment to Pennsylvania's constitution, moreover, permitted local taxing authorities to exclude from taxation an amount based on the assessed value of a homestead property not to exceed one-half of the median assessed value of all homestead property within the local taxing district. The amendment, however, specified that "a local taxing authority may not increase the millage rate of its tax on real property to pay for these exclusions."

Eleven (of 66) county chief assessors responding to our survey identified one or more local programs to address the effects of countywide reassessment on those with fixed incomes. Seven of the 11 mentioned the limited homestead provision, two identified exemptions for senior citizens, and two referenced assistance for veterans. A twelfth county noted that it had extended tax payment options for the elderly and those in financial distress. None of the counties reported the availability of real estate tax deferral programs, which are permitted in statute to assist low income elderly and disabled persons to remain in their homes. We were advised a limited number of school districts in southeastern Pennsylvania offered such programs. When we contacted them, we learned their programs were in place, but were without participants. The program's income limitations and the responsibility of the taxpayer for securing the lien against the property were some reasons offered for non-participation. Our review of other states also found such programs are used relatively infrequently.

<sup>&</sup>lt;sup>15</sup> In 2000, the ratio of home price to household income in Pennsylvania was 2.42, but by 2007, it had increased to 3.19.

Assessed value caps are not encouraged by national experts in real property assessments as they can have negative effects, even on the property owners they are intended to protect. In particular, properties that have not appreciated as much as others can end up paying more than they would have without such caps. In the early 1980s, Pennsylvania courts set aside a property assessment freeze in Philadelphia; and in the 1990s, a freeze in Allegheny County—both counties that at the time assessed property based on "current market" values.

Unlike many states, Pennsylvania obtains no state revenues through real property taxes,<sup>16</sup> and has no state level experience in property valuation (pp. 59 to 60 and pp. 71 to 78). The State Tax Equalization Board (STEB), an independent administrative board whose three members are appointed by the Governor to serve four-year terms, is Pennsylvania's property assessment oversight agency, according to the International Association of Assessing Officers. STEB's enabling legislation, however, provides that it have no direct role in property valuation and assessment. Since 1947, its primary responsibility has been to convert aggregate taxable assessments in school districts into equalized market values for use in a formula that determines the allocation of state subsidies to school districts. Counties are required to provide STEB with all sales of taxable real property and certain other aggregate data. STEB's equalized market values are provided to the PA Department of Education and other agencies, which then use them as part of their formulae to allocate funding.

Prior to 1992, STEB was also involved in the state's certification of assessors.<sup>17</sup> In 1992, such responsibility was transferred to the Department of State's Board of Certified Real Estate Appraisers. Initially, state certification requirements applied to all counties except Allegheny and Philadelphia. In 2004, those valuing and assessing property in Allegheny County came under the requirements; and there is a current legislative proposal to extend the requirement to Philadelphia.

Unlike many state "oversight" agencies, STEB is not involved in valuation of certain properties (e.g., utilities); and is not directly involved in equalizing assessed values or tax rates when taxing districts boundaries are not coterminous with assessing districts.<sup>18</sup> For example, in Pennsylvania, when school district boundaries

<sup>&</sup>lt;sup>16</sup>In the late 18<sup>th</sup> century, the federal government imposed a federal tax on dwelling houses and land, and required states to collect such levies. When the tax was repealed, the state discontinued its collection, but permitted local governments to tax property. Only after defaulting on its debt obligation in 1842, did Pennsylvania reintroduce a state tax on real property, which it abolished in 1866.

<sup>&</sup>lt;sup>17</sup> In surrounding states of New Jersey and New York, and in California, a state agency is responsible for certifying those responsible for property assessment. Maryland requires that its employees meet certain training requirements.

<sup>&</sup>lt;sup>18</sup> State agencies in New Jersey, New York, Ohio, and West Virginia are involved in such direct equalization of assessed values or tax rates when assessing and taxing district boundaries are not the same. In Maryland, schools are operated by counties, and the assessed values for all property in the county are used by all taxing districts in the county.

cross county lines, the school district itself selects one of the several options set forth in statute<sup>19</sup> to equalize its tax millage.

STEB's CLR (and its related statistical measure the COD) as currently derived is not designed to evaluate county assessment and valuation systems, or to conclude if a county should be required to reassess (pp. 79 to 94). In the 1980s, the General Assembly authorized STEB to calculate and publish a Common Level Ratio (CLR) for each county (different from the one with education funding). The CLR came about in response to a recognized need by the courts for a "simple" way for taxpayers to consider if their property assessments were in proportion to others in the county. The General Assembly did not specify how the CLR is to be calculated, but did specify it could be used in assessment appeals. In appeals, when the CLR varies by more than 15 percent from the county's predetermined ratio, the CLR is used instead of the predetermined ratio to calculate the percent of market value that is to be assessed. STEB itself, however, is not involved in such appeals.

STEB annually publishes the CLR, which is a ratio of assessments to sale prices for arms-length sales in the county, and a statistic derived from the CLR known as the COD (i.e., coefficient of dispersion), which measures the variation of assessment to sales ratio around the CLR.<sup>20</sup> Before such measures could be used even as one of several factors to evaluate the quality of county assessments, we have concluded several technical issues would need to be addressed. For example, as we illustrate within the report using actual STEB data for one small county:

- Sales data used to calculate the CLR and COD do not necessarily represent the county's property inventory, even though they are expected to represent the "bulk" of properties.
- Values for sold properties may not be representative of the values of unsold properties.
- Geographic locations of sold properties may not represent the county's overall property inventory.
- Available sales may not be sufficient to draw appropriate conclusions.

Pennsylvania's COD, moreover, does not distinguish between property types and property markets, as do International Association of Assessing Officers (IAAO) standards for use of such measures. Two counties may have a COD of 20 suggesting that they value and assess property at the same level of uniformity. However, if one county is a suburban county where most parcels are residential, with relatively newer housing developments in an active housing market, the IAAO's standard is a

<sup>&</sup>lt;sup>19</sup> Such options for equalizing millage rely on the STEB data used for education funding. The options, moreover, are not part of county assessment statutes; and, therefore, outside of this study's scope.

<sup>&</sup>lt;sup>20</sup> Counties review such statistics prior to STEB's publication. Several counties have stated their results, at times, differ from STEB's. As noted in our report, we encountered difficulties replicating STEB's CLR and COD using one county's actual valid sales data.

maximum COD of 10, not 20. If the second county is rural with small communities, mostly older properties, a depressed housing market, and a high proportion of residential vacant land, CODs in the range of 20 to 25 are appropriate based on IAAO standards.

State courts have played a major role in the state's property valuation and assessment system (p. 62 and pp. 99 to 109). In 1874, when the state's constitution was revised, it included a "uniformity clause" that requires: "all taxes shall be uniform, upon the same class of subjects, within the territorial limits of the authority levying the tax, and shall be levied and collected under general laws." Since 1909, courts have held that, under the state constitution's uniformity clause, all real estate is one class and all taxes must be uniform upon the same class of subjects.<sup>21</sup> As a consequence, residential and commercial property cannot be treated differently for purposes of assessment and taxation absent specific constitutional provisions providing an exception (as with the limited homestead exemption discussed above). At least 21 states<sup>22</sup> and the District of Columbia permit different types of real property to have different levels of assessments or different property tax rates.

The Pennsylvania Supreme Court has explained "uniformity." It has stated that while uniformity is necessary so that the tax burden is equitably shared, absolute equality is difficult to attain, and that proximate equality is all that can be reasonably expected. The Court in its 1909 opinion stated "what is known in organic and statutory law as uniformity," results when "the larger property owner and the small holder pay upon the same ratio, and when the valuation has been ascertained and fixed upon a fair basis, which means that valuation should be based as nearly as practicable upon market value, and if not on market value, then upon the relative value of each property to market value...."<sup>23</sup>

In 1965, the Pennsylvania Supreme Court further concluded that where evidence in assessment cases indicates no fixed ratio (i.e., predetermined ratio) of assessment has been applied,<sup>24</sup> and actual ratios vary widely, complaining taxpayers may have their assessments reduced to the level of the actual ratios. Moreover, if the evidence shows there is some percentage of assessed to market value about which the "bulk of individual assessments tend to cluster … such percentage *might* [emphasis in the original] be acceptable as common level."

<sup>&</sup>lt;sup>21</sup> We reviewed court decisions for content related to valuation and assessment practices and procedures and results. We did not review the legal reasoning behind such decisions.

<sup>&</sup>lt;sup>22</sup> Alabama, Arizona, Colorado, District of Columbia, Illinois, Iowa, Kansas, Louisiana, Massachusetts, Minnesota, Mississippi, Missouri, Montana, New York, North Dakota, Ohio, South Carolina, South Dakota, Tennessee, Utah, West Virginia, and Wyoming.

<sup>&</sup>lt;sup>23</sup> Delaware, Lackawanna & Western Railroad Company's Tax Assessment (No. 1), 224 Pa. 240; 73 A. 429 (1909). <sup>24</sup> The Report of the Committee to Study and Report on Assessment Practices, Procedures and Policies in Allegheny County prepared for the Allegheny County Commissioners in 1976, noted Allegheny County did not have an announced ratio of assessed to market value prior to 1965. The report also noted Allegheny's triennial approach to valuation and assessment resulted in parts of the county bearing an unequal burden of county taxes as different market values were used to establish the taxable assessed value from one part of the county to another in different years.

The Court further distinguished between appeals based on comparable properties and appeals based on assessment uniformity. In appeals based on "sale of comparable properties," the taxpayer must demonstrate that the comparable properties differ in ways related to value. But, "in determining...whether the constitutional requirement with respect to uniformity has been complied with within a taxing district, all properties are comparable in constructing the appropriate ratio of assessed value to market value. This is because the uniformity requirement of the Constitution of Pennsylvania has been construed to require that all real estate is a class which is entitled to uniform treatment."<sup>25</sup>

In 1965, the Pennsylvania Supreme Court did not prescribe a method to calculate the common level ratio. In 1981, however, it stated that when sales data are used to develop a common level ratio, they should be representative of all property. It, moreover, approved a county's use of sales stratified by property type to develop an overall common level ratio—an approach similar to the one used by STEB to arrive at market value for education funding purposes, but different than the CLR.<sup>26</sup>

Pennsylvania courts have required counties to initiate countywide reassessments based on the cumulative effect of a variety of factors. We reviewed the courts' written opinions when ordering a countywide reassessment in five counties that valued property on a "base year system"—Lancaster (1991), Chester (1993), Dauphin (1996), Carbon (1997), and Erie (1998)—and one county, Allegheny (2009), which conducted a countywide reassessment implementing a "current market system," and then several years later retrospectively changed to a "base year system." We found the courts required counties to reassess based on evidence demonstrating:

Significant demographic and economic changes occurred that influenced the relative value of properties in the county. In Lancaster, for example, the county's total parcels had almost doubled since the county's last reassessment, and significant zoning changes occurred along with a shift from downtown to suburban commerce centers. In Carbon County, a major interstate highway had been constructed that resulted in certain areas experiencing significant increases in property market values.

Inconsistent valuation methods were used over time to value properties. In Chester County, newer properties and properties that were subject to revaluation due to improvements were assessed based on current market values. Properties that were in place in the base year and had not been sold or revalued, however, were assessed at the values arrived at in the base year. In Erie, county assessors relied on the manual for establishing values for use in the county's last countywide reassessment (i.e., in the base year). They, however, had insufficient and outdated

<sup>&</sup>lt;sup>25</sup> The Deitch Company v. Board of Property Assessment, Appeals and Review of Allegheny County, 417 Pa. 213, 209 A.2d 397 (1965).

<sup>&</sup>lt;sup>26</sup> Keebler Company v. the Board of Revision of Taxes of Philadelphia, and the City of Philadelphia, and the School District of Philadelphia, 496 Pa. 140, 436 A.2d 583 (1981).

guidance and instructions for use in establishing values in subsequent years. In Lancaster, unsubstantiated wholesale changes to grade and depreciation factors were made to properties that were selected for reassessment without regard to whether the properties had actually changed.

Selective reassessment or partial reassessments occurred. In Lancaster, the county identified several municipalities for selected property review based on a newly introduced "maintenance" program, which the court described as a partial reassessment.<sup>27</sup> In Dauphin County, various partial reassessment programs were introduced from the mid-1980s until 1994. In 1983, the county introduced "a ratio reassessment program,"<sup>28</sup> which resulted in property assessments being revised in only one area of the county, and Commonwealth Court struck down the program. In 1985, the county performed a "statistical reassessment" throughout the county by changing the county's predetermined ratio and doubling all base year values to arrive at 1986 market values. It also began to reassess remodeled and rehabilitated properties, but only in the City of Harrisburg. Citing all such practices, the trial court ordered the county to complete a countywide reassessment.

Acknowledged need for reassessment. In Lancaster and Dauphin Counties, the practices engaged in by the counties were in response to their recognizing the need for reassessment. In Erie, the Board of Assessment Appeals explicitly acknowledged to the court that county assessments were "'outdated, inequitable, inaccurate, and non-uniform.'" In Allegheny County, the Pennsylvania Supreme Court, in its decision upholding a court-ordered reassessment, relied in part on data developed by the county showing uneven rates of property appreciation and market changes throughout the county.

*Time since the last countywide reassessment.* With the exception of Allegheny County, considerable time had passed since the county's last countywide reassessment—in Carbon, Erie, and Lancaster almost 30 years.

States differ in their real property valuation and assessment systems and the role of the state in such systems (pp. 117 to 160). Property valuation and assessment is the responsibility of three counties and several municipalities in Delaware; a state agency with 200 assessors in Maryland; over 550 selected and appointed municipal assessors in New Jersey; elected and appointed assessors in over 1,000 towns, cities, counties, and villages in New York; 88 county auditors elected to serve four-year terms in Ohio; and 55 locally elected county assessors who serve four-year terms in West Virginia. In California, 58 locally elected county assessors are responsible for property valuation and assessment; however, its "acquisition value" system is in many ways unique.

<sup>&</sup>lt;sup>27</sup> Our report includes information on New Jersey's "maintenance" program.

<sup>&</sup>lt;sup>28</sup> The county used STEB data in such a reassessment.

	Maryland	Ohio	West Virginia	New Jersey	New York	Delaware	Pennsylvania	California
Current Value	>	>	>					
Current or Base Year Value				>	>	>	>	
One Level of Assessment	>	*	>					
Prescribed Valuation Cycle	>	*	>					
One Value Per Property	>	*	>	>			>	>
Central Valuation Unit	>	*	>	>	>			>
State Taxes Certain Property	>	*	>	>				
Local Assessors Not Accountable to Local Government	NA	>	>	>				>
State Directly Equalizes Values or Taxes	NA	>	>	>	>			NA
State (or its agent) Can Order Se- lected Property Value Changes, and/or Comprehensive Reassess- ment	NA	>	>	>				
Requires Certification of Assessors				>	>		<b>^</b>	>

Valuation and Assessment System Characteristics for Selected States

Source: Developed by LB&FC staff.





Valuation and Assessment Systems: We have summarized other important property valuation and system differences for Pennsylvania, its surrounding states, and California on page S-15. The states in red have "current market systems" and those in green permit local assessing units to elect a "current market" or "base year" system to value and assess property. California, with its "acquisition value" system is in yellow. As shown, the states in red with current market valuation systems all have one state level of assessment, defined cycles for revaluing property,<sup>29</sup> and impose state taxes on certain property. In the states with current market systems, when local assessors carry out valuation and assessment they are not accountable to local governments. In such cases, the assessors perform their duties as authorized by the state's constitution and statutes.

Local assessors are also not accountable to local governments for their valuation and assessment duties in California and New Jersey. In New Jersey, local governments pay all of the cost for the municipal assessors, but they are accountable under the state's constitution and statutes for their valuation and assessment functions to a local board, consisting of members appointed by the Governor and confirmed by the Senate, who are agents of the state<sup>30</sup> (and paid by the state). As this local board is responsible for directly equalizing local municipal property values for county taxes, and the state is responsible for directly equalizing property values for taxing districts that cross county boundaries, the local board and the state can order a municipality to change values and can order a reassessment. Achieving compliance with such orders, however, can be challenging. In 1972, for example, the local board and the state, with the approval of the courts, ordered the City of Newark to revise its tax maps and complete a comprehensive reassessment. Despite the court orders, including enforcement orders that resulted in the arrest of municipal officials, the ordered reassessment did not occur until 2003. New Jersey also has in place guidelines for selected or partial reassessment of neighborhoods or classes of property, which Pennsylvania appellate courts have not permitted.

*Financial Support:* The three surrounding states that require property to be valued based on current market values designate revenues for such activities. In Maryland, where state employees perform local property valuation, state general fund revenues finance such activities. In Ohio, West Virginia, and California, state law provides for the creation of funds into which property tax revenues are deposited and provides for certain portions to be used to support local valuation and assessment functions. In these states, all entities that gain revenue from property taxes (including school districts) fund local assessing activities in proportion to their

 $<sup>^{29}</sup>$  Every three years in Maryland, every six years with three-year updates in Ohio, and every three years in West Virginia.

<sup>&</sup>lt;sup>30</sup> In the 1930s, the Pennsylvania General Assembly passed a law providing for the state's Auditor General to appoint the local board in third class counties responsible for staff conducting property valuation and assessments. The Pennsylvania Supreme Court set aside the statute indicating it contravenes the principle of home rule or local self government, which is a vital part of the framework of state and federal governments. *Smillie v. McElwee*, 327 Pa. 148, 193 A. 628 (1937).

share of the total tax revenues. In Ohio, the state also charges local governments fees for the services it provides.

New York also helps finance local assessing activities through incentive grants, which are among the highest of any state.<sup>31</sup> Since the late 1990s, New York has had incentive grant programs to encourage local assessing units to consolidate, reassess, and adopt "current value" systems. Under such programs, local assessing units can receive up to \$5 per parcel in aid. From 1999 through 2008, New York awarded about \$48 million to about 775 local assessing units.

Pennsylvania does not have a grant program to assist counties with their costs in valuing and assessing property. Allegheny County, however, advised the courts that in 2004, when preparing its last reassessment, it received a \$2.7 million discretionary grant from the state to assist the Office of Property Assessment.<sup>32</sup> We are not aware of other counties receiving such discretionary funding. In 2006, however, all counties other than counties of the first class qualified to receive one-time transition grants from the \$3 million available to Department of Community and Economic Development to assist with implementation of the new school district property tax relief program.

*Median Taxes in Relation to Home Value:* States differ in other ways, such as the relative impact of their property taxes on average households. The first graphic on page S-16 shows that when it comes to taxes relative to home value, New Jersey's property taxes are among the highest in the nation, and Pennsylvania ranks closer to New York and Ohio. Of the surrounding states, West Virginia and Delaware are among the states with the lowest rankings nationally for median property taxes as a percent of median home value. California, with its "acquisition value system," also ranks low on this measure. California's median property tax as a percent of median home value is lower than half of the states.

States also differ in the ways they protect homeowners when property values increase (pp. 122, 125, 129, 138, 146, 152, and 159). As the second graphic on page S-16 shows, the three surrounding states that have current market value systems in place limit property tax increases on individual properties. One other state has limits in part of the state. California also caps the overall percent of a property's value that can be taxed by all taxing districts.

<sup>&</sup>lt;sup>31</sup> LB&FC staff identified three other states (Tennessee, Rhode Island, and Vermont) that provide grants or stipends to local assessing offices. Tennessee, which like New York receives no state revenues from real property taxes, provides approximately \$2 million annually to 95 county assessing units. Rhode Island, which receives state revenue from property taxes, expends about \$1 million annually to assist local assessing units that complete reassessments. Vermont, which has a state property tax in support of education, expends \$3.2 million annually in support of local assessing units. It provides \$8.50 per parcel to aid with the cost of reassessment, \$1.00 per parcel for data provided for state equalization studies, and under \$100,000 to assist local assessors with training costs.

<sup>&</sup>lt;sup>32</sup>This was a Community Revitalization grant, according to Department of Community and Economic Development data.

In Ohio (1 percent of "true value") and West Virginia (e.g., \$1 for each \$100 valuation for owner occupied residences and farms), there are caps on the amount of value a property can be taxed by all taxing districts, absent approval by the voters.

In Maryland, current market values are phased in over a three-year period. In addition, under the Maryland Homestead Tax Credit Program (which has no income, age, or property value limits associated with it), when a property's assessment increases more than 10 percent over the prior year as a result of reassessment, the homeowner receives a local property tax credit equivalent to the related tax over that amount. Local governments absorb the costs for the credit, and they are permitted to opt for a lower credit threshold for local taxes.

In New York, in certain areas, property is divided into different classes. In such areas, the assessment for a family residential property, for example, cannot increase more than 6 percent in any one year or more than 20 percent in any fiveyear period, and the assessed value of certain commercial property cannot increase by more than 8 percent in any one year or more than 30 percent over a five-year period.

Like Pennsylvania, all of the surrounding states and California offer statefunded programs to assist taxpayers with their property taxes.

*Pennsylvania* in 2009, provided \$527.2 million for school district property tax relief from the Property Tax Relief Fund for enrolled homeowners regardless of income or age. Statewide, two million (over 60 percent) residential parcels received such relief. The Pennsylvania Department of Revenue also provided additional support to the elderly and disabled, reporting disbursement of over \$247 million in property tax and rent rebates to almost 600,000 elderly and disabled claimants.

*Maryland* provides a state-funded property tax credit to homeowners of any age, with the benefit amount varying based on income and the amount of taxes levied against the homeowner's principal residence. In 2008, Maryland expended \$47 million to assist 46,000 households in this program.

**Delaware** in 2009, reimbursed school districts \$16.2 million for credits provided to seniors. Seniors, without regard to income, can qualify for a credit on taxes for their primary residence up to a maximum of \$500.

West Virginia has several programs. Seniors can qualify for a homestead exemption for property taxes on the first \$20,000 of total assessed value of their home, and low-income seniors who qualify for such an exemption can receive an additional credit equivalent to the amount of taxes paid on the "next" \$20,000 of taxable assessed value of their homestead. The state spent \$7.7 million to provide 42,000 seniors with the tax credit in 2008. Approximately 210,000 households in the state qualified for the homestead exemption, and one-quarter of these paid no property taxes last year, according to West Virginia officials. When the tax credit is taken into account, about 80,000 to 90,000 households paid no property taxes last year. West Virginia also provides a refundable personal income tax credit of up to \$1,000 for any homeowner whose owner-occupied residential property's tax liability exceeds 4 percent of gross household income, at a state cost of \$2.4 million in the program's first year.

*Ohio* annually provides taxpayers almost \$1.5 billion in property tax relief. Since 1971, Ohio has provided a 10 percent reduction on each taxpayer's real property tax bill. In 2007, the state reimbursed local governments over \$990 million to replace their lost property tax revenue under this taxpayer relief program. Homesteads occupied by homeowners can qualify for an addition 2.5 percent rollback. In 2007, the state reimbursed local governments over \$190 million under this program. Seniors and disabled homeowners can also qualify for a state-funded credit on the taxes that would otherwise be charged on up to \$25,000 of their home's "true value." In 2008, the state expended more than \$315 million for approximately 800,000 homeowners in this program.

*New Jersey* has several taxpayer relief programs, though there are proposals to change these programs. Under the state's homestead rebate program, which provides credits to homeowners on their principal residence, almost 500,000 seniors received average benefits of about \$1,150 in 2007, and over 1.1 million non-seniors received average benefits of about \$285. New Jersey also has a "senior freeze" program for eligible seniors and disabled persons. Those meeting income and other requirements and enrolled in the program are reimbursed for the difference between the amount of property taxes that were due and paid for the prior year and taxes for the current year, if current year taxes are greater than those in the prior year. In 2007, over 160,000 participated in this program, with the average benefit for repeat participants at almost \$900, and for new participants just over \$260.

*New York* also has several taxpayer relief programs, including a school property tax exemption. In 2010-11, the Governor's proposed budget provides for an average school property tax exemption of \$641 for 2.9 million homesteads. An estimated 642,000 senior homeowners who meet income requirements can qualify for enhanced benefits of about \$1,200.

*California* exempts homeowners from paying property taxes on the first \$7,000 of assessed value on their principal residence. The state's FY 2009-10 budget provides \$438 million to reimburse local governments for the lost revenue associated with such exemptions. Prior to 2008, California also provided senior homeowners and renters with over \$145 million in additional relief. All state funding for this program has been eliminated since 2008; as has \$19 million for a property tax deferral program for senior citizens.

#### **Recommendations and Options**

Several options are available for consideration by the General Assembly, Executive Branch agencies, counties, other local governments, professional groups such as the Assessors' Association of Pennsylvania, and the public to enhance or significantly revise Pennsylvania's current system for property valuation.

The recommendations listed below to enhance Pennsylvania's current system for valuing and assessing property can be implemented administratively or through incremental changes to existing statutes. Several of the options for major change, however, require significant statutory changes, and in some cases, possibly amendments to Pennsylvania's constitution. Some of the options for major system revisions have been considered in the past, and despite significant efforts, consensus to move forward on them has not been achieved. We also note that the great diversity of counties in the makeup of their property inventories, housing stock, and economic status limit the availability of fair "one size fits all" measures to determine when reassessments are necessary.

#### **Recommendations to Enhance Pennsylvania's Current System**

We recommend the Commonwealth:

#### 1. Enhance the state's assessor certification process in the following ways:

- Expand the requirement for certification of assessors to all counties in *Pennsylvania*. Certification of Pennsylvania property assessors is a key way in which valuation and assessment "uniformity" is provided for in Pennsylvania. Given the state's reliance on the certification function to help achieve "uniformity," all county and contract personnel responsible for valuations and assessments should be Pennsylvania-certified. At least one county whose reassessments have been the subject of court reviews conducted its reassessments when its assessors and contract staff were not required to be certified. Currently, assessors in first class counties are not required to be certified, though there is a bill pending in the state legislature that would further expand certification requirements statewide.
- **Require representation of certified assessors on the State Board of Certified Real Estate Appraisers.** When responsibility for state certification of assessors was transferred to the State Board of Certified Real Estate Appraisers, the statute did not require that certified assessors serve on the Board. In the past, this has been addressed administratively by the appointment of at least one member who is dually certified as a real estate appraiser and as an assessor. Most recently, the Board's former chair, who is both an appraiser

and assessor, advised us of the need for such background as the two professions differ. He also noted that with his departure, the Board has no certified assessors serving on it. In view of the importance of real property valuation and assessment, executive branch agencies should work with the Assessors' Association of Pennsylvania and the General Assembly's Local Government Commission to revise existing statutes to require certified assessors serve on the Board, and have a role in review of relevant testing.

• Assure all certified assessors, including contracted assessors from out-ofstate, are familiar with the Pennsylvania Constitution's uniformity clause as understood by the Pennsylvania Supreme Court and its implications for valuation and assessment practices. The IAAO national standard setting organization for assessors defines a "reassessment" to mean "the relisting and revaluation of all property, or all property of a given class, within an assessment district...." As a result, in some states, including neighboring states, reassessment can include selective reassessment of certain neighborhoods and/or types of properties such as residential or commercial properties.

The Pennsylvania Supreme Court has for over 100 years understood the state Constitution's uniformity clause to mean that all real property is one class, thus changing the values of one type of property is not permitted in Pennsylvania. State appellate courts, moreover, have required counties to conduct countywide reassessment of all properties upon learning the county engaged in partial or selective reassessments. In the 1990s, taxing authorities in one large county had to pay millions of tax dollars to settle a class action suit with taxpayers whose properties were selectively reassessed. The Department of State in cooperation with the Assessors' Association of Pennsylvania should consider developing a required training program to acquaint all assessors with the Pennsylvania Supreme Court's rulings, their implications for permissible valuation and assessment practices, and their duties as certified assessors.

- 2. Consolidate the state's general assessment laws. Pennsylvania's general assessment laws have evolved over time for different class counties, and at different points in time have been revised to reflect various court decisions regarding valuation and assessment practices. The Assessors' Association of Pennsylvania and the Pennsylvania General Assembly's Local Government Commission have worked to develop legislation to consolidate the laws governing counties other than Allegheny and Philadelphia—two counties that traditionally have not valued property on a "base year" system. Consolidation of existing statutes would promote greater uniformity in understanding of the state's valuation and assessment practices and help facilitate consideration of other reforms.
- 3. Provide counties with tools to assure the quality of the reassessments and the uniformity of county property values and assessments through the following:

• **Develop a set of uniform standards for county reassessment contracting.** Since the late 1970s, concerns have been raised about the quality of reassessments. In the mid-1970s, the then Pennsylvania Department of Justice and researchers from Carnegie-Melon University concluded counties were ill-prepared to develop contracts with mass appraisal firms for countywide reassessments. Our work on this study has led us to concur in this conclusion, and note that Ohio and New Jersey have state-established standards that must be met by firms performing reassessments.

The Local Government Commission and the Assessors' Association of Pennsylvania should consider forming a group to review specific standards in other states to develop and recommend a uniform set of standards to counties to use when contracting with private appraisal firms for reassessments. The group should also include assessors who can share "lessons learned" based on recent contracting experiences. Possible standards include: conflict of interest prohibitions; requirements for bidding and unbundling of hardware and software contracting from other reassessment components; requirements that in arriving at "actual value" all three methods (i.e., cost, comparable sales, and income approaches) must be considered in conjunction with one another to arrive at the value for an individual property; requirements for those familiar with local property markets (e.g., county assessment staff and local realtors) to be involved in the designation of "neighborhoods" used in mass appraisal models; public disclosure of the cost tables and methods used to value property by property type, including models used in such valuation; requirements for use of valid and sufficient data to arrive at changes in value; requirements for ratio studies pre- and post-implementation of new assessed values to test the level of assessment, uniformity, and equity results of the mass appraisal; provision for transferability of data bases for subsequent use by the county; and payment withholding provisions related to independent review of performance measures. Standards that are developed could be required in any contracts that include state financial support, either in the form of loans or grants.

• Create a state revolving loan program for counties that have identified nonuniformity in their property valuations and assessments and that are not financially positioned to conduct reassessments. Countywide reassessments are costly (approximately \$50 per parcel for an "average" county). For efficient use of tax dollars, they should not be conducted unless they are necessary. Although several counties have not completed a comprehensive countywide reassessment since at least the mid-1980s, some of these may not have had substantive changes in their property inventories and property markets. Others may have, but are not financially positioned to complete a reassessment. To assist such counties, the General Assembly may wish to consider establishing a revolving loan fund (possibly administered by the Department of Community and Economic Development) targeted to counties that have identified a reassessment need and that would not gain sufficient tax revenues in the year following a reassessment to recover its costs. As a condition for participation in the revolving loan program with a long-term repayment option, and to assure that public subsidies are effective, a county might be required to agree to routinely maintain an accurate and complete property inventory, validate all sales, and monitor substantive changes in the county's property inventory and markets to provide for continued uniformity in assessments. A single state-approved contract—and possibly stateapproved contractors—could be required in such a revolving loan program.

A limited number of states provide grants to assist local assessing units. Such grants, however, fall well short of the full cost of a countywide reassessment. A grant program, similar to New York's at \$5 per parcel, would not be effective in aiding counties that cannot afford, but need to reassess. A new grant program also could result in counties that have invested local tax revenues to finance reassessments feeling themselves disadvantaged for having previously made such investments.

4. Require public disclosure of the key elements of a county's chosen system for property valuation and assessment, including how properties are valued and assessed. Ohio has requirements for public disclosure and access to information on how property values are derived. Maryland also has a highly transparent system for property valuation and assessment, and provides detailed information on its methods at its website, and other information provided to taxpayers.

Counties in Pennsylvania can choose the type of property valuation and assessment system to be implemented in the county. They can decide to assess on a "current market" basis or a "base year" basis; select the percent of fair market value to be assessed for tax purposes; and select the criteria to be used to decide when to revalue all properties, i.e., to reassess. In the 1980s, the General Assembly required counties to specify their "predetermined" ratios of market value to be assessed for tax purposes. Counties, however, are not required to specify for taxpayers if they are arriving at fair market values on a "current market" basis or a "base year" basis, or routinely make available to the public the methods used to arrive at fair market values when they reassess or value property after the reassessment. The General Assembly's Local Government Commission, in cooperation with the Assessors' Association of Pennsylvania, may wish to consider developing standards for counties to disclose for taxpayers the systems they have implemented to value and assess property. Consideration should also be given to the development of a statutory provision requiring such disclosure.

#### 5. Improve current county performance measures in the following ways:

- Modify existing performance measures to assure they are developed using data that is consistent and verified, and representative of the "bulk" of a *county's property inventory.* The appraisal performance measures that are published by the State Tax Equalization Board (STEB) are used by taxpayers and local governments in property assessment appeals, by the Department of Revenue for certain state realty transfer taxes, and by the courts when considering county assessment uniformity. STEB, however, has not been charged, or provided the necessary resources, to assure that data used to develop such measures are consistently reported by all counties and representative of the "bulk" of the county's property inventory, both sold and unsold properties. County property inventories, moreover, are substantially different, and such differences currently are not taken into account in the development of a county's performance measures. The Governor's Office should consider convening those with the necessary expertise, including staff from STEB and the Department of Revenue, the Assessors' Association of Pennsylvania, and academics outside of state government who have analyzed STEB data to develop criteria and procedures for data submission and verification, to address insufficient sample data, and to assure, or at a minimum disclose, if the sample data relied on to develop a county's performance measure are representative of the "bulk" of the county's property inventory.
- If state-developed and reported performance measures are to be used to evaluate county assessment uniformity, the criteria and methods used to derive such measures should be published in state regulations. In view of the significance of state-reported performance measures for counties, taxpayers, and others, the steps followed by STEB, or another state agency, to assure reliability of sample data and its representativeness should be set forth in regulations. Requirements for representativeness of the data used to develop the performance measure should also be addressed within any such regulation.
- 6. Develop a self-evaluation tool for counties to use to help determine when a reassessment is warranted. In Pennsylvania's current system for property valuation and assessment, "uniformity" does not require that assessments be in current market dollars. It does, however, require that uniform methods be used to derive market values for similar properties, and that the same portion of fair market value in base year dollars be the basis of the assessment.

When most property in a county appreciates (or depreciates) at relatively the same rate and the county's property inventory does not undergo significant changes that alter the relative distribution of the tax burden, reassessment does not provide greater uniformity. Rather, it simply results in the expression of

market values and assessed values in current market dollars rather than the value of a dollar in the prior base year.

The Assessors' Association of Pennsylvania should consider developing guidance for counties to use when determining need for a reassessment. Factors that should be included would be: the composition of a county's property inventory; the methods used to establish and assign values; measures of substantive property inventory changes that would modify the relative distribution of values (e.g., doubling the number of parcels in the county, major zoning changes, etc); and levels of assessment and variability in assessments for the county as a whole, for different geographic areas and for different types of property. Analysis of such information in the "base year" and tracking and comparing it overtime would shine a spotlight on changes that are resulting in non-uniformity.

#### **Options for Major Changes to the Current System**

As House Resolution 334 asked us to identify options based on valuation and assessment systems in other states, we have identified several "major options" for change, which for the most part are based on systems in other states. We are not necessarily recommending these major change options, but offer them as policies to be considered for those who believe major revisions to Pennsylvania's current property valuation and assessment system and its protections for taxpayers are necessary.

- 1. Provide for increased state involvement in county property valuation and assessment functions in the following ways:
  - Authorize a state agency to supervise county property valuation and assessment activities. STEB's enabling legislation currently prohibits it from supervising the county's property valuation and assessment functions. State legislation would be required to authorize STEB or another state agency to supervise county boards and staff responsible for property valuation and assessment. Such supervision could include authority to require counties to assess at 100 percent of current market value, publish regulations with standards for valuing and assessing property, establish criteria for requiring a countywide reassessment, and order a county to reassess. It could also include state approval of all contractors engaged in reassessments, and the mass appraisal models used in reassessments. In the past, legislative proposals to require counties to assess at 100 percent of fair market value and to create a panel of state officials to order counties to reassess were rejected. At the time, legislators opposed assigning a state agency with such authority as it would involve the state in imposing local taxes.

The County Commissioners Association of Pennsylvania (CCAP) has taken the position that it supports uniformity and equity in property reassessment, and to that end would support new laws that would provide a state agency to oversee the assessment function, including development of standards for assessments and legislation providing for a single statewide percent of market value to be assessed for tax purposes across all counties. CCAP notes, however, such oversight would need to provide for the involvement of counties and be accompanied by financial support for county assessment and reassessment activities, along with other changes that would allow for partial reassessments or statistical updating of property values to present market values.

Create a state agency to value and assess all real property. Maryland has a highly transparent property valuation and assessment system in which state agency employees value and assess local real property on behalf of counties. Such employees conduct onsite inspections and reassessments on a threevear cycle. Only two other states (Kentucky and Montana) rely on state employees to value and assess all local property. Maryland state government differs from Pennsylvania in that it receives some state revenue from property taxes, and had experience in valuing certain property prior to taking on county property valuation. In Maryland, different parts of each county are assessed each year based on differing current market values, and counties are responsible for providing a tax credit to property owners when the taxable assessment increases by more than 10 percent following reassessment. Pennsylvania state government has no experience in valuing real properties and receives no state revenues from real property taxes. Allegheny County throughout the 1970s valued different parts of the county based on different current market values until the court required that all properties within the county be reassessed within the same year. It is also not clear if Pennsylvania local governments could be required, or are in position, to absorb costs associated with a tax credit on property tax increases above a certain threshold, which is a key feature of Maryland's system.

# 2. Provide for ongoing financial support for local property valuation and assessment duties in the following ways:

• **Require school districts and other local governments to help fund county property valuation and assessment activities.** The two surrounding states that mandate frequent reassessments (Ohio and West Virginia) require all governments (including the state) that receive revenue from property taxes to pay allowable county assessment costs based on their proportionate share of total property tax revenues. We have also identified other states where similar requirements are in place. Representatives of Pennsylvania school boards expressed concern about such a proposal in view of many upcoming fiscal obligations now before school boards. In Pennsylvania, moreover, many school districts cross county and municipal boundaries, which would complicate the implementation of such a financing approach.

• Designate a percentage (or set amount) of the state's realty transfer taxes to counties as grants for reassessment. The County Commissioners Association of Pennsylvania has endorsed the state creating a grant program providing each county with the greater of 25 percent of the state's share of the realty transfer tax collected in the county, or \$15 dollars a parcel. On a statewide basis, the state realty transfer tax generated \$344 million in FY 2008-09, one quarter of which equals about \$15 a parcel statewide. The larger counties with more highly valued properties, however, would generate much more than \$15 per parcel. About one-third of the 22 counties that have not conducted countywide reassessments since the mid-1980s would receive less than \$5 per parcel, and three-quarters less than \$10 per parcel—significantly under the amount required for them to reassess.

#### 3. Amend the state Constitution to allow for certain property valuation and assessment practices similar to those in other states.

- **Provide for caps on individual property tax increase following reassess***ment.* California and Pennsylvania's neighboring states with limits on individual property tax increases have explicit language in their state constitutions permitting such caps, or the state's constitution does not include a uniformity clause. Pennsylvania's implementation of an individual cap on property tax increases would require a special provision amending the state's Constitution.
- **Permit property to be treated as separate classes.** Many states assess different types of property at different levels of assessment or provide for differential tax rates (e.g., residential rates lower than commercial rates). Such a constitutional amendment could also allow for different standards for appeal for different classes of property, which the County Commissioners Association of Pennsylvania has endorsed. Pennsylvania's implementation of such practices would require a special provision amending the state's Constitution.
- **Provide for partial reassessment or selective reassessment of areas of a county or classes of property.** Professional standard setting organizations, and some of our surrounding states, define reassessments to include changes to values in part of a county or changes to value of selected classes of property, or trending based on overall market values without regard to whether the market change applies to a particular neighborhood or class of property. The

County Commissioners Association of Pennsylvania has endorsed similar practices. In Pennsylvania, appellate courts have not permitted partial reassessments or selective reassessments (either physical or statistical). West Virginia, which permits market trending, has language referencing market trends in its state constitution. For counties to be secure in their implementation of such practices, a special provision amending the state's constitution would be required.

• **Provide for an "acquisition value" system of property valuation.** Given the complexities of maintaining an equitable system for property valuation and assessments, some have suggested that California's system be adopted where the sale price of a property becomes its "base year" value. Our report discusses the fiscal challenges California encountered when it changed its state constitution to implement its "acquisition value" system and some of the complex features associated with its administration. Acquisition value systems do not provide for uniformity in property taxes. For Pennsylvania to implement such a system, the state's Constitution would need to be amended.

### I. Introduction

House Resolution 2009-334 directs the Legislative Budget and Finance Committee to study the systems of real property valuation and assessment in place in Pennsylvania and other states, in particular Maryland and California. It also directs that the study consider state systems for reassessment and protections for taxpayers, in particular those on fixed incomes.<sup>1</sup> Appendix A provides a copy of House Resolution 334.

#### **Study Scope and Objectives**

Specifically, the study seeks to:

- 1. Identify the systems for real property valuation, assessment, and reassessment in Pennsylvania's 67 counties.
- 2. Identify the systems for real property valuation, assessment, and reassessment in place in other states, including approaches to protect individual taxpayers, in particular those on fixed incomes.
- 3. Compare and contrast Pennsylvania's real property assessment and reassessment systems with those of selected other states.
- 4. Provide possible options to improve the system of property valuation, assessment, and reassessment in Pennsylvania.

To identify the systems for real property valuation, assessment, and reassessment in Pennsylvania's 67 counties, with the cooperation and assistance of the Assessors' Association of Pennsylvania, we surveyed the 67 counties to gain information on their assessment office operations, reassessment activities, property valuation standards, appeals, and local programs to assist those on fixed incomes. All but one of the counties responded to the survey, a copy of which can be found in Appendix B.

In addition, LB&FC staff met and spoke with several county chief assessors and had opportunity to meet with county board of assessment appeals members for one large county. We spoke with national consultants and representatives of mass appraisal firms involved in past Pennsylvania county reassessments. We also reviewed various reports analyzing the property valuation and assessment systems in

 $<sup>^1</sup>$  House Resolution 2009-334 also directs an additional study of the Pennsylvania Farmland and Forest Land Assessment Act of 1974 be conducted to determine its statewide impact, which is being conducted as a separate study.

several Pennsylvania counties and reports prepared for counties evaluating the quality of their contracted county reassessments.

We reviewed past and current state constitutions and statutes and the 2008 Edition of Assessment Law & Procedures in Pennsylvania by Bert M. Goodman for their content on practices and procedures for real property valuation, assessment, and reassessment. We also reviewed related legislative journals and court opinions and the work of prior legislative committees that have studied Pennsylvania's system for property valuation and assessment. Our review included past legislative proposals and proposed amendments to the state Constitution that were placed before the state's electorate but not adopted. Such reviews provided a context for understanding the overall structure of Pennsylvania's current valuation and assessment system, and its similarities and differences from those of other states.

We reviewed information provided by state agencies involved with Pennsylvania's property valuation system, including information from the Pennsylvania Department of Revenue, the State Tax Equalization Board (STEB), and the Department of State. We relied on Department of Revenue Common Level Ratio Real Estate Valuation Factor data to identify and analyze the level of assessment in each county, determine when each county last conducted a reassessment, and determine the type of reassessment. The data also allowed us, along with other house price indices for Pennsylvania, to consider trends in selected county property markets before and after reassessments. We used the Department of Revenue's ratios as the state relies on them when taxing real estate transfers.

We reviewed information provided by STEB, including the county appraisal performance indicators it publishes. (See Appendices C, D, and E.) We used STEB data to describe real property markets in counties, and to consider the effect of county reassessment on various appraisal performance indicators STEB publishes. We did not, however, rely on STEB data to evaluate county performance in valuing and assessing property. Our findings note several issues with STEB data that limit its usefulness in evaluating a county's performance or comparing counties' performance.

The Department of State is currently responsible for certifying most, but not all, Certified Pennsylvania Evaluators (i.e., CPEs or assessors) in Pennsylvania. Our review included all relevant statutes and regulations, and all final orders related to CPE prosecutions in recent years.

To identify systems for real property valuation, assessment, and reassessment in place in other states, including approaches to protect individual taxpayers, in particular those on fixed incomes, we reviewed several nationally recognized works. Such works included those of the International Association of Assessing Officers (IAAO), including its *2002 Standard on Mass Appraisal of Real Property*, 2007 Standard on Ratio Studies, 2004 Guide to Assessment Administration Standards, 2004 Standard on Property Tax Policy, 2003 Standard on Automated Valuation Models, 2003 Standard on Administration of Monitoring and Compliance Responsibilities, 2002 Standard on Contracting for Assessment Services, 2001 Standard on Assessment Appeal, and 2000 Standard on Professional Development. With the assistance of IAAO staff, we were also able to speak with those involved in developing such standards to obtain clarification concerning their application. Through such contacts we learned that IAAO's standards are designed for assessment systems in which property is valued based on "current market value," and the IAAO has not developed standards for "base year" valuation systems.

Some of the terms we use in the report are technical. While we have explained them within the report, to assist the reader, we have also included a Glossary in Appendix F based primarily on IAAO definitions of such terms.

The national works we reviewed also included the 2009 U.S. Master Property Tax Guide,<sup>2</sup> and various other reports. The Guide provides a state-by-state synopsis of property tax concepts, cycles, assessments, and local tax administration.

We conducted a more in-depth study for selected states, including all of our surrounding states and California. This included review of relevant portions of each state's constitution, statutes, and regulations; and review of relevant assessor manuals and guidelines, ratio studies, performance audits, and state budgets. We contacted officials in these states and conducted a site visit to Maryland.

We also reviewed information gathered by the Assessors' Association of Pennsylvania concerning property tax systems in other states and how reassessments are financed in such states. The Association's survey provided information for 22 states, and supplemented information we had gathered from our in-depth reviews and contacts with various states reported to be involved in state financing of assessment functions.

To compare and contrast Pennsylvania's real property assessment, valuation, and reassessment system, we have described Pennsylvania's system in detail and provided comparative information for each of our surrounding states and California. Such comparisons are especially challenging as Pennsylvania's Constitution with respect to real property valuation is substantially different than those of other states, and there is no single definition of the term "reassessment" that applies to all states.

Nonetheless, we have provided detailed comparative information for Pennsylvania's surrounding states and California. This includes information on each state's administrative framework for property valuation and assessment, including

<sup>&</sup>lt;sup>2</sup> Published by CCH, February 2009.
relevant constitutional provisions; approach to equalization; level(s) of assessment, valuation methods, including frequency and nature of "reassessments;" limitations on property tax increases following changes in property values, including limits on individual property tax increases; and assistance to taxpayers, including property tax relief programs.

To provide possible options to improve the system of property valuation and assessment in Pennsylvania, we reviewed past recommendations for improvements and the extent to which they were considered and acted on. We solicited suggestions from assessors, counties, state associations, and others. We also reviewed options proposed in a recent court opinion.

# Acknowledgements

LB&FC staff completed this study with significant consultation and assistance from the Local Government Commission. The Commission's staff are experts in Pennsylvania's assessment laws and have worked closely with local government associations and the Assessors' Association of Pennsylvania to refine and improve them.

The State Tax Equalization Board also provided valuable assistance, including making available its staff and consultant to allow us to become familiar with its county appraisal performance measures, researching past Board decisions, and providing contacts in and outside of state government to assist our work.

We also thank the Legislative Data Processing staff for providing technical assistance to help us understand STEB's automated system. Without their help, we would not have been able to address certain issues we encountered in understanding STEB's automated programs to calculate county appraisal performance measures.

We also thank the Assessors' Association of Pennsylvania who assisted with our survey and whose members generously gave their time to "teach us" property valuation and assessment. During our study, we spoke with most members of the Assessors' Association Executive Board and staff, and they consistently provided support.

In particular, we thank Doug Hill, the Executive Director of the Assessors' Association and also the Pennsylvania County Commissioners Association; Joan Righter Price, Esq., Solicitor to the Montgomery County Board of Assessment Appeals and Chair of the Assessors' Association Assessment Reform Committee; and Randy Waggoner, CPE, currently the Perry County Chief Assessor and formerly the Cumberland County Chief Assessor. Many others also assisted our work. The Pennsylvania State Library staff patiently researched and provided copies of Pennsylvania assessment laws dating back to the 1800s. Others generously shared their expertise, including Bert Goodman, Esq., who in addition to his authoritative work in the area, previously chaired a local county board of assessment and appeal. Several retired chief assessors also took time to share their experiences and "lessons learned" through conducting countywide reassessments.

# **Important Note**

This report was developed by the Legislative Budget and Finance Committee staff. The release of this report should not be construed as an indication that the Committee or its individual members necessarily concur with the report's findings and recommendations.

Any questions or comments regarding the contents of this report should be directed to Philip R. Durgin, Executive Director, Legislative Budget and Finance Committee, P.O. Box 8737, Harrisburg, Pennsylvania 17105-8737.

# II. Pennsylvania's System for Real Property Valuation—the Local Level

# A. The Majority of Counties Have Completed One or More Reassessments Since 1986.

In general, Pennsylvania's assessment statutes require counties to have their chief assessor annually revise the assessment roles to include the value placed on each parcel or tract of real property in the county. In 1983, Pennsylvania's Commonwealth Court opined that such a statutory provision does not require the county to perform annual "countywide parcel-by-parcel assessments" or revalue and reassess each parcel of land annually.<sup>1</sup> The court noted that the relevant statute provides for the:

- *initial valuation and assessment* of *all* real property on a parcel-by-parcel basis, and
- *subsequent changes* in the valuation of *individual* parcels after the initial valuation when:
  - improvements are made to or removed from a property,
  - land is divided and conveyed in smaller parcels, or
  - the economy depreciates or appreciates to such an extent that real estate values in general are affected.<sup>2</sup>

When such subsequent value correction to an individual parcel is made for a particular year, such changes do not require that all properties in the county be reassessed in that year, according to the court.

Commonwealth Court further noted that the relevant statute governing assessment appeals only required notices of changes in assessment to all property owners when the county had:

• completed a parcel-by-parcel revision of assessments, i.e., countywide reassessment, for all parcels,<sup>3</sup> or

<sup>&</sup>lt;sup>1</sup> Carino v. The Board of Commissioners of the County of Armstrong et al, 79 Pa. Commw. 242, 468 A.2d 1201 (1983).

 $<sup>^2</sup>$  When a "base year" valuation system is used, such subsequent changes are to be expressed in "base year" values, according to the court.

<sup>&</sup>lt;sup>3</sup> Except for Philadelphia, state statute prohibits counties from levying real estate taxes based on a countywide reassessment until the reassessment has been completed for the entire county. A specific exception is provided for Philadelphia.

• changed the county's established predetermined assessment ratio—also known as the county's announced level of assessment.

Effectively then, Pennsylvania counties conduct a reassessment when they:

- complete comprehensive countywide reassessments involving a parcel-byparcel revision of assessments of all parcels, and/or
- change the county's predetermined assessment ratio.

Exhibit 1 shows the number of reassessments and the types of reassessment completed by each county from 1986 to 2009.<sup>4</sup> As shown in Exhibit 1, 90 percent of the counties (60 of 67) completed one or more reassessments from 1986 to 2009. The exhibit also shows that the majority of reassessments have involved comprehensive countywide reassessments involving parcel-by-parcel revision of assessments of all parcels.

As shown in the exhibit, 22 counties have not completed comprehensive countywide reassessments involving parcel-by-parcel revision of the assessments of all parcels since July 1986. They include seven counties that have not conducted a countywide reassessment or changed the county's predetermined ratio since 1986, and an additional 15 that have only reassessed by changing their county's predetermined ratio. In response to an LB&FC survey of county chief assessors, one of the seven counties reported that it is in the process of completing a change to its predetermined ratio, and a second reported that it is completing a countywide reassessment. In all, four (of the seven) counties that have not completed a countywide reassessment since 1986 report they are in process of completing such a reassessment, including two that are currently conducting reassessments as a result of a court order or settlement agreement.<sup>5</sup>

As shown in Exhibit 1, some counties report "other" types of reassessment. In the past, Allegheny County routinely adjusted its assessed values every few years, relying on computer-assisted models to arrive at updated values. Philadelphia also reports modifying its assessed values based on market analyses.

Typically, counties complete countywide reassessments during periods when property values are rising. LB&FC staff utilized Department of Revenue Realty Transfer Tax Collections by County data from FY 1998-99 through FY 2007-08 to identify periods when property values were increasing. For the most part, such revenues increased annually from 5.5 percent to as high 25.4 percent from 1998

<sup>&</sup>lt;sup>4</sup> The LB&FC's analysis relied on Pennsylvania Department of Revenue data on reassessments by their effective date. Counties that were in process of completing a reassessment in 2009, or that had conducted a reassessment and not made it effective, are, therefore, not included in the data or reflected in the exhibit.

<sup>&</sup>lt;sup>5</sup> For reasons discussed in Finding II C, the reader should not conclude that in counties that have not completed a countywide reassessment since 1986 the county's assessed values are expressed in pre-1986 dollars.

through 2004. Beginning in 2005, however, realty tax revenues started to decline, with a 30 percent decline from 2007 through 2008. Thirty-one countywide reassessments were completed by 26 counties from FY 1998-99 through FY 2007-08. Seventy-four percent of such assessments were completed during the years when property values were rising as evidenced by increased realty transfer tax collections.

Counties report a variety of reasons for not initiating a countywide reassessment. Exhibit 2 provides some of the responses of county chief assessors when asked: *"What are some of the reasons why you would not initiate a countywide reassessment?"* Cost is a primary reason, with 82 percent of the question respondents (41 of 50) indicating they would not advise initiating a countywide reassessment for that reason. Other typical reasons include public opposition (34 percent), unstable market values (22 percent), taxing or borrowing required to finance the reassesment (16 percent), and limited staffing (14 percent).

Reassessments are costly for counties, including reassessments that involve only a change in the county's predetermined ratio. Finding II E provides additional information on the costs of reassessments incurred by counties.

# Exhibit 1

# Reassessments by County and Type With Effective Dates of July 1, 1986, Through January 1, 2009

	Number of	Countywide Reassessment and Predetermined	Countwide	Prodetermined	
County	Reassessments	Ratio Change	Reassessment	Ratio Change	Other
Adams	1	✓			
Allegheny	2 <sup>a</sup>	✓			$\checkmark$
Armstrong	1	✓			
Beaver	0				
Bedford	2			✓ (2)	
Berks	1	$\checkmark$			
Blair	0				
Bradford	2	$\checkmark$	$\checkmark$		
Bucks	1			$\checkmark$	
Butler	1			$\checkmark$	
Cambria	1			$\checkmark$	
Cameron	1		$\checkmark$		
Carbon	1	$\checkmark$			
Centre	1	✓			
Chester	1	✓			
Clarion	2			<b>√</b> (2)	
Clearfield	1	$\checkmark$			
Clinton	1	✓			
Columbia	1	✓			
Crawford	0				
Cumberland	2	$\checkmark$	$\checkmark$		
Dauphin	2		✓	$\checkmark$	
Delaware	1		✓		
Elk	2		✓	$\checkmark$	
Erie	1	✓			
Fayette	2		✓	✓	
Forest	0				
Franklin	1			$\checkmark$	
Fulton	2		✓	$\checkmark$	
Greene	2	✓	✓		
Huntingdon	0				
Indiana	2			✓ (2)	
Jefferson	1			$\checkmark$	
Juniata	2			✓ (2)	
Lackawanna	1			$\checkmark$	

# Exhibit 1 (Continued)

		Countywide Reassessment			
County	Number of Reassessments	and Predetermined Ratio Change	Countywide Reassessment	Predetermined Ratio Change	Other
Lancaster	2		✓ (2)		
Lawrence	2	$\checkmark$		$\checkmark$	
Lebanon	1			$\checkmark$	
Lehigh	1		✓		
Luzerne	1	✓			
Lycoming	3	✓	✓ (2)		
McKean	2		✓	$\checkmark$	
Mercer	1			$\checkmark$	
Mifflin	1		✓		
Monroe	1		✓		
Montgomery	1	✓			
Montour	3		✓	✓ (2)	
Northampton	2		✓ (2)		
Northumberland	2			✓ (2)	
Perry	2	✓		$\checkmark$	
Philadelphia	Annually <sup>b</sup>			✓ (2)	$\checkmark$
Pike	2	✓ (2)			
Potter	1			✓	
Schuylkill	1	✓			
Snyder	2			✓ (2)	
Somerset	1	✓			
Sullivan	2	✓	✓		
Susquehanna	1		✓		
Tioga	2	✓	✓		
Union	2	✓		✓	
Venango	2	✓	✓		
Warren	1		✓		
Washington	0				
Wayne	1	✓			
Westmoreland	0				
Wyoming	2		✓	√	
York	3	✓	✓ (2)		

<sup>&</sup>lt;sup>a</sup> Prior to 2005, Allegheny County was on a current market value, and not a base year system. It used its C.A.M.A. (Computer Assisted Mass Appraisal) system and sales data to make values current every few years. In 2001, it implemented a comprehensive county-wide reassessment, and in 2002 a subsequent comprehensive statistical reassessment.

<sup>&</sup>lt;sup>b</sup> Philadelphia is on a current market value and not a base year system.

Source: Developed by LB&FC staff from the Pennsylvania Department of Revenue Common Level Ratio (CLR) Real Estate Valuation Factors.

# Exhibit 2

# Selected Reasons for Not Initiating a Countywide Reassessment

- Cost, unstable market values, political and public outcry, and tax increases [necessary] to fund the revaluation.
- Current economic downturn in economy leading to questionable market value, taxpayer burden to fund the project, i.e., millage increase.
- Cost to the county; county staff fall way behind on regular assessment work, causing school district and other taxing bodies to get extremely upset; taxpayers and community have unrealistic expectations of a perfect system.
- Cost to county. We currently have a [low] Standard and Poors rating with limited borrowing power or funds available. Economic hardship on taxpayers.
- Unstable economy at this time. (2) Estimated cost to complete would be \$7 million, which would include new CAMA [Computer Assisted Mass Appraisal] system.
- Cost, political fallout, unwillingness of the taxing bodies to hold the line on budget increases during the base year.
- Cost. Commissioners' concern with the impact on senior citizens/low income families.
- Funding plus lack of understanding from property owners of a reassessment's true purpose.
- If values are within standards for COD [uniformity], PRD [equity], and ratio [common level of assessment]. This does not preclude adjustments to individual neighborhoods. (2) If funding/resources are not available to do the re-val properly.
- Cost; state of the market; if common level ratio is within 15 percent of predetermined ratio; coefficient of dispersion are within guidelines.
- A countywide reassessment project is tremendously labor intensive requiring execution within a limited period of time, necessary to complete the project, and become[s] fragmentally outdated on the date of implementation. It is aggravating, confusing and frustrating to many property owners, due to misinformation and the uncertainty of their future tax burden. Saddled with time constraints and with the ever changing cycle of increasing and decreasing values in the Real Estate Market the completed project will be inherent with scattered problems of equity that under current Pennsylvania statutes can only be addressed by conducting another countywide reassessment to correct these identifiable problem areas.

Source: Developed by LB&FC staff from responses to the LB&FC survey of county chief assessors.

# B. Pennsylvania Median Property Taxes Are Relatively High in Some Areas, Though This Does Not Appear to Be Due to the Frequency of Countywide Reassessments.

Pennsylvania ranks in the top third of states on measures such as median property taxes paid for owner-occupied housing, taxes as a percent of home value, and taxes as a percent of income, according to U.S. Census data. Seventeen Pennsylvania counties, however, are in the top 10 percent of counties nationwide on one or more of these measures.

# **Pennsylvania Median Property Taxes and Other States**

In 2008, Pennsylvania had the 15<sup>th</sup> highest owner-occupied housing median property taxes in the nation—placing it in the top third nationwide. As shown in Exhibit 3, however, three surrounding states—New Jersey, New York, and Maryland—had higher median property taxes than Pennsylvania.<sup>1</sup> In 2008, New Jersey's owner-occupied housing median property taxes were the highest in the nation.

Pennsylvania, however, moves up in the national ranking when median property tax as a percent of median home value is considered. On this measure, it ranks 11<sup>th</sup> in the nation.<sup>2</sup> Also among the states with some of the higher rankings on this indicator are the surrounding states of New Jersey and Ohio. Interestingly, New York and Maryland, which have higher median property taxes than Pennsylvania, are not among the top ranking states when taxes relative to home value are taken into account. This is due in part to the significant difference in median home values for Pennsylvania and New York and Maryland. As shown in Exhibit 3, New York and Maryland have median home values about two times that of Pennsylvania.

Pennsylvania also moves up in the national rankings when median property taxes as a percent of median household income are considered. As shown in Exhibit 3, Pennsylvania ranks 12<sup>th</sup> in the nation on this measure. Of the surrounding states, only New Jersey and New York have higher rankings than Pennsylvania.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Other states with median property taxes higher than Pennsylvania include Alaska, California, Connecticut, Illinois, Massachusetts, New Hampshire, Rhode Island, Texas, Vermont, Washington, and Wisconsin.

<sup>&</sup>lt;sup>2</sup> Other states with a higher ranking than Pennsylvania for median property taxes as a percent of median home value include Connecticut, Illinois, Michigan, Nebraska, New Hampshire, New Jersey, North Dakota, Texas, Vermont, and Wisconsin.

<sup>&</sup>lt;sup>3</sup> Other states with a higher ranking than Pennsylvania for median property taxes as a percent of median household income include Connecticut, Illinois, Massachusetts, Michigan, Nebraska, New Hampshire, Rhode Island, Vermont, and Wisconsin.

# Median Property Taxes in Pennsylvania Counties and Counties Nationwide<sup>4</sup>

Similar data averaged over three years (2006-2008) are available for most Pennsylvania counties, with some exceptions due to small population. Table 1 provides the median real estate taxes paid for owner-occupied housing, median home values, median taxes as a percent of home value, median household income for homeowners, and median taxes as a percent of homeowner's income for 61 Pennsylvania counties<sup>5</sup> and counties nationwide.

LB&FC staff analyzed Pennsylvania county national rankings on these measures. When we analyzed each county's national ranking, we found:

- 25 of the 61 counties are in the top 25 percent of counties nationwide in median real estate taxes paid, including nine counties that are in the top 10 percent of counties nationwide;
- 43 of the 61 counties are in the top 25 percent nationwide in terms of median real estate taxes as a percent of median home value, including nine counties that are in the top 10 percent nationally on this measure;
- 30 of the 61 counties are in the top 25 percent nationwide in terms of median real estate taxes as a percent of median household income, including 10 counties that are in the top 10 percent nationally on this measure.

Overall, 17 of the 61 counties are in the top 10 percent of counties nationwide on one or more of the three measures.

- One county (Berks) is in the top 10 percent of counties nationwide on all three measures.
- Nine counties (Allegheny, Bucks, Chester, Delaware, Lehigh, Monroe, Montgomery, Northampton, and Pike) are in the top 10 percent of counties nationwide on two of the three measures.
- Seven counties (Armstrong, Beaver, Erie, Greene, McKean, Venango, and Warren) are in the top 10 percent of counties nationwide on one of the three measures.

The frequency or infrequency of countywide reassessments does not appear to be responsible for a county's rankings on these property tax measures. Ten counties (Beaver, Bucks, Butler, Crawford, Indiana, Jefferson, Lackawanna, Lebanon, Mercer, and Westmoreland) that did not complete comprehensive countywide

<sup>&</sup>lt;sup>4</sup> These data represent real property taxes of those residing in the county geographic area, and include not only county but also municipal and school district property taxes.

<sup>&</sup>lt;sup>5</sup> Data are not reported for Cameron, Forest, Fulton, Montour, Potter, and Sullivan Counties.

reassessments from 1986 to 2009<sup>6</sup> were in the top 25 percent of counties nationwide on one or more of the three measures. Of the 17 counties in the top 10 percent of counties nationwide on one or more of the three measures:

- five (Allegheny, Greene, Northampton, Pike, and Venango) completed two countywide reassessments from July 1986 through January 1, 2009,
- ten (Armstrong, Berks, Chester, Delaware, Erie, Lehigh, McKean, Monroe, Montgomery, and Warren) completed one countywide reassessment, and
- two (Bucks and Beaver) did not complete a countywide reassessment during the period.

Six counties (Bradford, Cumberland, Lancaster, Lycoming, Tioga, and York), moreover, that completed two countywide reassessments did not rank in the top 10 percent nationwide on these measures.

 $<sup>^{6}</sup>$  Twenty-two counties did not complete countywide reassessments during the period; however, two of the 22 are not included in this U.S. Census data set due to their size.

Exhibit 3

# Property Taxes on Owner-Occupied Housing for Pennsylvania and Surrounding States

5)	08)*
5	(20

	Median Property	National	Median Home	Taxes as % of Home	National	Median Income for	Taxes as % of	National
	<u>Taxes Paid</u>	<u>Rank</u>	<u>Value</u>	<u>Value</u>	<u>Rank</u>	Home Owners	Income	Rank
United States	\$1,897	ł	\$197,600	0.96%	1	\$65,385	2.90%	ł
Delaware	1,075	39	250,900	0.43	47	68,004	1.58	42
Maryland	2,612	11	341,200	0.77	29	86,373	3.02	19
New Jersey	6,320	-	364,100	1.74	2	90,010	7.02	~
New York	3,622	4	318,900	1.14	17	76,409	4.74	9
Ohio	1,807	23	140,200	1.29	12	60,493	2.99	20
Pennsylvania	2,207	15	164,700	1.34	1	62,082	3.55	12
West Virginia	457	48	95,900	0.48	45	46,105	0.99	48

\*Appendix G provides data for 2004 through 2007.

Source: Tax Foundation Calculation of U.S. Census Bureau data.

# Table 1

# Pennsylvania Property Taxes on Owner-Occupied Housing, by County (2006-2008 3-Year Average)

	Median Real	Median Value	Tax as	Median Household	Tax as
	Estate	Owner-Occupied	% of	Income for	% of
<u>County</u>	<u>Taxes Paid</u>	Housing Units	Home Value	<u>Homeowners</u>	<u>Income</u>
United States	\$1,854	\$192,400	0.96%	\$65,088	2.85%
Adams County	\$1,965	\$199,500	0.98%	\$64,527	3.05%
Allegheny County	2,547	112,800	2.26	61,916	4.11
Armstrong County	1,690	87,300	1.94	48,111	3.51
Beaver County	1,920	111,500	1.72	54,957	3.49
Bedford County	1,149	111,300	1.03	44,347	2.59
Berks County	2,948	169,700	1.74	64,975	4.54
Blair County	977	94,500	1.03	50,925	1.92
Bradford County	1,395	95,200	1.47	47,004	2.97
Bucks County	3,988	330,700	1.21	88,014	4.53
Butler County	1,985	154,500	1.28	66,841	2.97
Cambria County	1,127	84,800	1.33	46,843	2.41
Carbon County	2,083	134,600	1.55	53,546	3.89
Centre County	2,113	167,200	1.26	63,319	3.34
Chester County	4,108	338,000	1.22	99,337	4.14
Clarion County	1,047	92,800	1.13	49,967	2.1
Clearfield County	1,196	83,300	1.44	43,291	2.76
Clinton County	1,481	95,700	1.55	47,047	3.15
Columbia County	1,317	109,300	1.20	48,609	2.71
Crawford County	1,503	95,400	1.58	45,763	3.28
Cumberland County	1,933	171,500	1.13	71,508	2.7
Dauphin County	2,304	148,700	1.55	67,997	3.39
Delaware County	3,806	231,800	1.64	76,562	4.97
Elk County	1,400	88,700	1.58	52,820	2.65
Erie County	2,020	108,000	1.87	55,382	3.65
Fayette County	1,068	81,600	1.31	43,052	2.48
Franklin County	1,651	171,600	0.96	61,028	2.71
Greene County	1,337	75,500	1.77	48,407	2.76
Huntingdon County	1,085	102,600	1.06	46,982	2.31
Indiana County	1,429	97,900	1.46	48,201	2.96
Jefferson County	1,096	76,700	1.43	41,720	2.63
Juniata County	1,377	122,700	1.12	49,167	2.8
Lackawanna	1,941	132,400	1.47	56,414	3.44

# Table 1 (Continued)

	Median			Median	
	Real	Median Value	Tax as	Household	Tax as
	Estate	Owner-Occupied	% of	Income for	% of
<u>County</u>	<u>Taxes Paid</u>	Housing Units	Home Value	<u>Homeowners</u>	Income
United States	\$1,854	\$192,400	0.96%	\$65,088	2.85%
Lancaster County	\$2,552	\$180,600	1.41%	\$65,690	3.88%
Lawrence County	1,406	88,900	1.58	47,815	2.94
Lebanon County	1,856	149,700	1.24	60,523	3.07
Lehigh County	2,939	201,900	0.02	67,348	4.36
Luzerne County	1,468	110,800	1.32	52,063	2.82
Lycoming County	1,840	116,100	1.58	51,286	3.59
McKean County	1,237	71,200	1.74	45,798	2.7
Mercer County	1,424	98,500	1.45	50,654	2.81
Mifflin County	1,418	91,600	1.55	42,399	3.34
Monroe County	3,343	209,100	1.60	62,986	5.31
Montgomery County	3,762	302,100	1.25	91,628	4.11
Northampton County	3,261	222,400	1.47	69,798	4.67
Northumberland County	1,004	89,800	1.12	47,939	2.09
Perry County	1,789	138,100	1.30	57,922	3.09
Philadelphia County	1,191	130,400	0.91	47,470	2.51
Pike County	2,842	215,900	1.32	61,877	4.59
Schuylkill County	1,338	84,500	1.58	48,335	2.77
Snyder County	1,454	119,700	1.21	53,401	2.72
Somerset County	1,046	89,400	1.17	43,905	2.38
Susquehanna County	1,727	122,400	1.41	49,864	3.46
Tioga County	1,536	98,800	1.55	46,008	3.34
Union County	1,605	137,400	1.17	52,895	3.03
Venango County	1,268	74,100	1.71	45,059	2.81
Warren County	1,403	81,400	1.72	47,686	2.94
Washington County	1,539	130,100	1.18	61,152	2.52
Wayne County	1,811	169,400	1.07	50,411	3.59
Westmoreland County	1,844	124,600	1.48	56,193	3.28
Wyoming County	2,036	137,300	1.48	55,713	3.65
York County	2,576	171,100	1.51	65,959	3.91

Source: Tax Foundation Calculation of U.S. Census Bureau data.

# C. Pennsylvania Counties Differ and Their Systems for Real Property Valuation Also Differ

Pennsylvania counties vary greatly. They vary, for example, in their populations, with two counties having populations of more than 800,000 and 11 counties fewer than 45,000.<sup>1</sup> Over one-half of all Pennsylvania counties (35 of 67), moreover, have populations less than 95,000. Counties also vary in other ways that have implications for their property markets, including their typical household incomes and unemployment rates.

# Median Household Income, Unemployment, and Population Change

Pennsylvania's median household income for the 2000 U.S. Census was below that of the nation as a whole (\$40,106 compared to \$41,994). As shown in Table 2, only 19 of Pennsylvania's 67 counties had median household incomes at or above the state's median income.<sup>2</sup>

A somewhat similar picture emerges when unemployment data are considered. As shown in Table 3, 24 of the 67 counties had unemployment rates below that of the state's in late 2009.<sup>3</sup> Similarly, 25 of the 67 counties saw population increases from 1980 to 1990, 1990 to 2000, and 2000 to 2009.<sup>4</sup>

# **Home Values**

Pennsylvania counties also vary in the characteristics of their real property. As shown in Table 4, for example, in 2000, median home values in Pennsylvania ranged from \$53,500 in McKean County to \$182,500 in Chester County. In 2000, Chester was one of 20 counties with median home values greater than the statewide median. Table 4 shows the median home value for the 67 counties in 2000. As shown in Table 4 Pennsylvania's median home value is lower than the value nationwide (\$97,000 compared to \$119,600).

Table 4 also shows that Pennsylvania housing tends to be much older than national housing stock. About 10 percent of Pennsylvania's housing stock was constructed between 1990 and 2000, compared to 17 percent nationwide. In 2000, moreover, about 30 percent of Pennsylvania's housing stock had been constructed

 $<sup>^1</sup>$  Of the 22 counties listed in Finding II A that have not conducted a countywide reassessment since 1986, eight had populations of less than 50,000, according to 2000 U.S. Census data.

 $<sup>^2</sup>$  Of the 22 counties that have not conducted a countywide reassessment since 1986, 18 have median household incomes below the state median income.

 $<sup>^3</sup>$  Of the 22 counties that have not conducted a countywide reassessment since 1986, 14 had unemployment rates above the statewide rate in late 2009.

 $<sup>^4</sup>$  Of the 22 counties that have not conducted a countywide reassessment since 1986, 9 had declining population between 1980 and 1990, 1990 and 2000, and 2000 and 2009.

# Table 2

# U.S. Census 2000 Median Household Income in Pennsylvania by County in 1999

Area	Median Income
United States	\$41,994
Pennsylvania	40,106

Area	Median Income	Area	Median Income
Adams County	\$42,704	Lackawanna County	\$34,438
Allegheny County	38,329	Lancaster County	45,507
Armstrong County	31,557	Lawrence County	33,152
Beaver County	36,995	Lebanon County	40,838
Bedford County	32,731	Lehigh County	43,449
Berks County	44,714	Luzerne County	33,771
Blair County	32,861	Lycoming County	34,016
Bradford County	35,038	McKean County	33,040
Bucks County	59,727	Mercer County	34,666
Butler County	42,308	Mifflin County	32,175
Cambria County	30,179	Monroe County	46,257
Cameron County	32,212	Montgomery County	60,829
Carbon County	35,113	Montour County	38,075
Centre County	36,165	Northampton County	45,234
Chester County	65,295	Northumberland County	31,314
Clarion County	30,770	Perry County	41,909
Clearfield County	31,357	Philadelphia County	30,746
Clinton County	31,064	Pike County	44,608
Columbia County	34,094	Potter County	32,253
Crawford County	33,560	Schuylkill County	32,699
Cumberland County	46,707	Snyder County	35,981
Dauphin County	41,507	Somerset County	30,911
Delaware County	50,092	Sullivan County	30,279
Elk County	37,550	Susquehanna County	33,622
Erie County	36,627	Tioga County	32,020
Fayette County	27,451	Union County	40,336
Forest County	27,581	Venango County	32,257
Franklin County	40,476	Warren County	36,083
Fulton County	34,882	Washington County	37,607
Greene County	30,352	Wayne County	34,082
Huntingdon County	33,313	Westmoreland County	37,106
Indiana County	30,233	Wyoming County	36,365
Jefferson County	31,722	York County	45,268
Juniata County	34,698		

Source: U.S. Census 2000.

# Unemployment Rates by County in Pennsylvania, Not Seasonally Adjusted December 2009

Dec. 2009

8.7

7.4

9.7

9.3 9.9

9.7

10.5

11.9

10.9 9.3

6.8

6.2 8.9

10.3

9.1

10.6

9.2 11.8

10.4 9.1

10.4

8.7

8.4

9.2 9.2

9.5

8.1 8.3

8.1

8.4 9.7

8.6

7

Area	<u>Dec. 2009</u>	
United States	9.7	
Pennsylvania	8.5	
Area	<u>Dec. 2009</u>	Area
Adams County	7.8	Lackawanna County
Allegheny County	7.2	Lancaster County
Armstrong County	10.3	Lawrence County
Beaver County	8.2	Lebanon County
Bedford County	12.8	Lehigh County
Berks County	9.1	Luzerne County
Blair County	7.9	Lycoming County
Bradford County	8.1	McKean County
Bucks County	7.2	Mercer County
Butler County	7.5	Mifflin County
Cambria County	9.4	Monroe County
Cameron County	16.4	Montgomery County
Carbon County	11.2	Montour County
Centre County	6	Northampton County
Chester County	6.2	Northumberland County
Clarion County	9.7	Perry County
Clearfield County	10.9	Philadelphia County/City
Clinton County	10.2	Pike County
Columbia County	9.2	Potter County
Crawford County	10.2	Schuylkill County
Cumberland County	7	Snyder County
Dauphin County	7.9	Somerset County
Delaware County	7.9	Sullivan County
Elk County	11.9	Susquehanna County
Erie County	10	Tioga County
Fayette County	10.5	Union County
Forest County	13	Venango County
Franklin County	8.5	Warren County
Fulton County	13.8	Washington County
Greene County	7.8	Wayne County
Huntingdon County	12.3	Westmoreland County
Indiana County	8	Wyoming County
Jefferson County	10.5	York County
Juniata County	8.9	

Source: U.S. Bureau of Labor Statistics Mid-Atlantic Information Office.

Tabl	е	4
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# Financial and Structural Characteristics of Pennsylvania Housing (by County in 2000)

				Year Struct	ure Built
Counties	Total <u>Housing Units</u>	Occupied Housing Units	Median Value ( <u>dollars)</u>	1990 to <u>March 2000</u>	1939 or <u>Earlier</u>
United States	115,904,641	105,480,101	\$119,600	17.0%	15.0%
Pennsylvania	5,249,750	4,777,003	97,000	10.4	30.3
Adams	35,831	33,652	110,100	20.9	25.5
Allegheny	583,646	537,150	84,200	5.3	32.2
Armstrong	32,387	29,005	64,500	8.4	36.4
Beaver	77,765	72,576	85,000	7.5	28.5
Bedford	23,529	19,768	80,200	13.9	30.5
Berks	150,222	141,570	104,900	13.7	32.6
Blair	55,061	51,518	73,600	9.3	39.9
Bradford	28,664	24,453	73,900	12.6	38.1
Bucks	225,498	218,725	163,200	15.3	11.6
Butler	69,868	65,862	114,100	20.7	20.1
Cambria	65,796	60,531	62,700	6.0	39.2
Cameron	4,592	2,465	61,300	11.9	29.1
Carbon	30,492	23,701	82,100	11.1	39.9
Centre	53,161	49,323	114,900	17.0	17.4
Chester	163,773	157,905	182,500	19.4	16.4
Clarion	19,426	16,052	68,800	10.0	31.1
Clearfield	37,855	32,785	62,600	12.0	37.1
Clinton	18,166	14,773	78,000	11.7	30.4
Columbia	27,733	24,915	87,300	10.3	35.2
Crawford	42,416	34,678	72,800	11.0	31.8
Cumberland	86,951	83,015	120,500	16.4	19.0
Dauphin	111,133	102,670	99,900	12.1	22.1
Delaware	216,978	206,320	128,800	5.4	24.2
Elk	18,115	14,124	78,000	11.0	32.4
Erie	114,322	106,507	85,300	10.2	29.7
Fayette	66,490	59,969	63,900	9.6	37.1
Forest	8,701	2,000	57,300	8.4	20.9
Franklin	53,803	50,633	97,800	18.5	25.0
Fulton	6,790	5,660	83,900	14.0	24.8
Greene	16,678	15,060	56,900	10.5	35.2
Huntingdon	21,058	16,759	72,800	13.6	32.8
Indiana	37,250	34,123	72,700	11.8	29.0
Jefferson	22,104	18,375	59,100	8.4	37.1

# Table 4 (Continued)

	<b>T</b> ( )			Year Struct	ure Built
	l otal Housing Units	Occupied Housing Units	Median Value	1990 to March 2000	1939 or Farlier
luniata	10.031	9 594	¢ 87.000	15.9%	29.7%
	10,031	0,004	\$ 67,000 02,400	7 1	20.170
	95,362	80,218	93,400	7.1	48.3
Lancaster	179,990	172,560	119,300	16.6	25.5
Lawrence	39,635	37,091	72,200	8.3	35.0
Lebanon	49,320	46,551	100,700	12.6	30.8
Lehigh	128,910	121,906	113,600	10.4	28.4
Luzerne	144,686	130,687	84,800	7.5	43.8
Lycoming	52,464	47,003	86,200	10.6	36.0
McKean	21,644	18,024	53,500	7.9	42.9
Mercer	49,859	46,712	76,000	9.2	32.1
Mifflin	20,745	18,413	73,300	11.9	34.3
Monroe	67,581	49,454	125,200	24.6	10.6
Montgomery	297,434	286,098	160,700	13.0	20.2
Montour	7,627	7,085	93,400	14.5	31.8
Northampton	106,710	101,541	120,000	13.1	32.2
Northumberland	43,164	38,835	69,300	8.0	48.8
Perry	18,941	16,695	96,500	15.4	27.8
Philadelphia	661,958	590,071	59,700	2.1	41.7
Pike	34,681	17,433	118,300	24.9	7.6
Potter	12,159	7,005	68,700	14.1	33.8
Schuylkill	67,806	60,530	63,300	7.0	52.9
Snyder	14,890	13,654	87,900	12.3	29.9
Somerset	37,163	31,222	70,200	10.1	33.8
Sullivan	6,017	2,660	74,900	15.7	33.6
Susquehanna	21,829	16,529	81,800	15.4	34.6
Tioga	19,893	15,925	72,000	15.2	35.2
Union	14,684	13,178	97,800	15.2	28.8
Venango	26.904	22.747	55,900	7.1	39.0
Warren	23.058	17.696	64,300	8.8	36.0
Washington	87.267	81,130	87.500	10.0	32.2
Wavne	30,593	18,350	102,100	20.1	21.0
Westmoreland	161.058	149,813	90.600	9.4	26.5
Wyoming	12 713	10 762	93,900	15.6	30.4
York	156 720	148 219	110,500	17.5	24.0
	100,120	110,210	110,000		<b>L</b> T.V

Source: United States Census 2000, Summary File 3.

prior to 1940 compared to 15 percent nationwide. In 2000, over-half of Pennsylvania's counties (39 of 67) had more than 30 percent of their housing constructed prior to 1940.<sup>5</sup> Nonetheless, about one-third (21 of 67) of the counties experienced both relatively higher rates of new construction between 1990 and 2000 and had more recent housing stock than the state as a whole. Other differences among counties in their housing markets are discussed in Findings II G and II H.

In late July 2009, LB&FC staff surveyed county chief assessors about their real property assessment systems. The survey responses further highlight the variation across Pennsylvania's 67 counties.

# Number and Composition of Real Property Parcels

There are over 5.9 million parcels in Pennsylvania, including over 4.3 million residential parcels. Almost half of the counties have fewer than 50,000 parcels, and the majority of counties have fewer than 100,000 parcels. Table 5 shows the distribution of total parcels across counties.

Number of	Parcels	
Number of Counties*	Total Parcels	
29	≤ 50,000	
17	50,000 - 99,999	
14	100,000 - 199,999	
3	200,000 - 299,999	
0	300,000 - 399,999	
0	400,000 - 499,999	
2	≥ 500,000	

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Data not available for two counties.

Source: Developed by LB&FC staff from County Chief Assessor Survey Responses.

Typically, three-quarters of real property consists of residential property, according to the International Association of Assessing Officers (IAAO). Residential property, however, accounted for fewer than 70 percent of total parcels for about 60 percent (36 of 62) of the Pennsylvania counties providing counts of residential parcels in their survey responses. Six counties, moreover, reported that residential properties accounted for fewer than 50 percent of their total parcels. Table 6 shows the distribution of residential property across the reporting counties.

<sup>&</sup>lt;sup>5</sup> Of the 22 counties that have not conducted a countywide reassessment since 1986, more than three-quarters (18 of 22) have median home values below the median value statewide, more than half (13 of 22) have more older housing stock than the state as a whole, and one-half (11 of 22) had a lower percentage of housing constructed between 1990 and 2000 than the state as a whole.

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	Residentia	al Parceis	
<u>Nu</u>	mber of Counties*	Percent <u>Residential Parcels</u>	
	26 19	≥ 70% 60 - 69%	
	11	50 - 59%	
	6	40 - 49%	
*Data not available for five countie	es.		

Source: Developed by LB&FC staff from County Chief Assessor Survey Responses.

Many Pennsylvania counties are rural and parts of Pennsylvania are noted for their recreational resources. This may account for the high proportion of parcels in some counties accounted for by land, agriculture, and mobile homes.

- Land accounts for 8.5 percent of parcels statewide, but 15 percent or more of total parcels in about 40 percent of reporting counties (25 of 62).
- Agriculture accounts for 3.6 percent of parcels statewide, but 8 percent or more of total parcels in about 30 percent of the reporting counties (19 of 62).
- Mobile homes accounted for 2.3 percent of parcels statewide, but 5 percent or more of total parcels in about one-third of the reporting counties (21 of 62 reporting).

Pennsylvania is also noted for its mineral resources, however, minerals account for only 0.7 percent of total parcels statewide. Nonetheless, in 13 counties minerals accounted for 1.5 percent or more of total parcels. In six of the 13 counties, they account for 5 percent or more of total parcels.

# **Staffing and Certified Pennsylvania Evaluators**

Counties rely on county employees to perform valuation and assessment functions, and in some cases contract staff to supplement or fully staff their assessment offices. In all, counties reported:

- 912 full-time county employees performing valuation and assessment functions.
- 41 county employees involved part-time,
- 22 full-time contracted employees, and •
- 24 part-time contracted employees. •

All of the reporting counties utilize full-time county staff in their assessment offices, with the exception of two small counties that have part-time county staff and two counties that rely almost totally<sup>6</sup> on private contractors to operate their county assessment offices. In addition to the two counties that rely on private contractors to staff and operate their county assessment offices, five counties with fulltime county staff also employ full-time contract staff. Two of these five counties rely on contractors to provide their chief assessors.

All counties, with the exception of Philadelphia, are required to utilize Certified Pennsylvania Evaluators to value real property. (Finding III B provides information on Pennsylvania's statutory requirements for Certified Pennsylvania Evaluators.) Sixty percent of the full-time county employees are Certified Pennsylvania Evaluators, according to the reporting counties. About 20 percent of such evaluators, however, are full-time county employees who are not employed full-time in the assessment office itself.

Statewide, counties employ or contract with one full-time Certified Pennsylvania Evaluator for every 11,000 parcels. As shown in Table 7, most of the counties employ or contract with one-full time Certified Pennsylvania Evaluator for every 11,000 or less parcels. Nineteen counties, however, have more than 15,000 parcels for every full-time Certified Pennsylvania Evaluator they employ or contract.

Full-Time County or Contract Cer	tified PA Evaluators Per Parcel
Number of Counties*	Certified PA Evaluators Per Parcel
31	≤ 11,000
13	11,000 - 14,999
10	15,000 - 19,999
9	≥ 20,000

Source: Developed by LB&FC staff.

# Property Record Updating

One area of similarity across counties is in their approach to updating individual property records. Most counties rely on multiple approaches to maintain

<sup>&</sup>lt;sup>6</sup> One of the counties employs a contract employee part-time as a county employee and the remainder of the employee's time is attributed to the county's private contractor.

up-to-date individual property records. Such approaches routinely include deed transfers and building permits (65 of 66 reporting counties). In addition,

- 42 percent (28 of 66) use aerial photography,
- 20 percent (13 of 66) use zoning changes, and
- 15 percent (10 of 66) use planning commission data.

Twenty percent (14 of 66) of the counties also identified canvassing and field work, and 6 percent (4 of 66) identified appeals as ways in which they maintain up-to-date property records.

# **Systems for Property Valuation**

Two-thirds of the counties responding to our survey (44 of 66) report they use various vendor-supplied Computer-Assisted Mass Appraisal Systems (CAMA) in their property valuation activities. Twenty percent (14 of 66), however, rely in whole or part on manual property record data bases. All of the counties that use manual property record data bases are counties that have not conducted comprehensive countywide assessments since the mid-1980s.

The survey did not ask, and the counties did not report, the types of mass appraisal valuation models they used to establish property values. As a result, we do not know how many counties utilize valuation approaches that rely primarily on replacement costs, how many utilize valuation approaches that rely primarily on sales comparison, or how many rely on various hybrid or other approaches to property valuation.

# **Reassessment Methods**

Counties differ widely in their methods of reassessment. Our survey of counties asked chief assessors what type of reassessment they last conducted. Of the responding counties:

- 47 percent (31 of 66) reported physical on-site reviews of each property by other than a certified PA evaluator,<sup>7</sup>
- 30 percent (20 of 66) reported the last reassessment involved physical onsite reviews of each property by a certified PA evaluator,<sup>8</sup>
- 9 percent (6 of 66) reported revisions based on property or market data,

<sup>&</sup>lt;sup>7</sup> Fourteen of the 31 countywide reassessments were conducted prior to the 1987 requirement for use of certified PA evaluators for property valuation in Pennsylvania; however, 17 of the 31 countywide reassessments were conducted after the 1987 requirement went into effect.

 $<sup>^8</sup>$  Some of these counties also reported physical on-site reviews of each property by other than a certified PA evaluator.

- 8 percent (5 of 66) reported changing the county's predetermined ratio, and
- 6 percent (4 of 66) reported another type of reassessment (i.e., neighborhood appraisal, market, and staggered field work).

# **Required Time to Complete Reassessments**

Reassessments that involved an on-site review of each property typically took more than two years to complete. Table 8 shows the time required to complete their last reassessment for the 51 counties whose reassessment involved such reviews.

# Table 8 Time Required to Complete Countywide Reassessment With On-Site Reviews of Each Property On-Site Reviews of Each Property Number of Months From Property Number of Counties<sup>a</sup> Number of Months From Property Others 4....... <12</td>

10.....12 - 2313....24 - 3510....36 - 478... $\geq 48$ 

<sup>a</sup>Data not available for six counties that completed countywide reassessments with onsite reviews of each property.

Source: Developed by LB&FC staff.

Reassessments that involve only changes in a county predetermined ratio take much less time to complete. Such changes require less than 12 months to complete. Three to six months is the mid-range time for such completion.

State statute does not address a countywide reassessment that is based on review of "property or market data," though some counties report completion of such assessments. In theory, such "property or market data" reassessments can be carried out in a variety of ways. Such "market data reassessments" without on-site review of all parcels can take two or more years to complete, according to reporting counties. Of the six counties that report completing such reassessments, five provided data on their times for completion. Two of the five counties reported completion times of 24 months and a third 48 months. The two remaining counties each required eight months to complete their revisions based on market data.

# **Per Parcel Reassessment Costs**

Reassessments that involve on-site reviews are more costly than those involving changes in county predetermined ratios. Of the 51 counties reporting on-site reviews of individual properties, 39 reported total costs for their last reassessment. As shown in Table 9, almost two-thirds of such counties reported costs equivalent to more than \$30 per current parcel.<sup>9</sup> One county that recently completed a countywide reassessment incurred costs of about \$50 per parcel. Ten of the counties reported their reassessment costs were financed through county bond issuances. Six counties that have not completed countywide reassessments in recent years reported anticipated costs in the range of \$50 to \$100 dollars per parcel. Finding II E provides more information on county reassessment costs.

Table 9

# Cost of Last Countywide Reassessment for Reassessments With On-Site Review of Individual Parcels

Number of Counties <sup>a</sup>	Cost Per Parcel Based on 2009 Parcel Counts
3	< \$10
4 7	\$10 - \$19 \$20 - \$29
9	\$30 - \$39
13 3	\$40 - \$49 ≥ \$50

<sup>a</sup>Data not available for 12 of the 51 counties with countywide reassessments involving on-site reviews of individual parcels.

Source: Developed by LB&FC staff.

Reassessments that do not involve on-site reviews of individual parcels are less costly than those that do. As shown in Table 10, two-thirds of the reassessments that involved a change in the county's predetermined ratio or a revision based on market value costs less than \$10 per parcel.

 $<sup>^9</sup>$  Such costs probably understate the cost per parcel as many of these assessments occurred in prior years and parcel counts may have increased since the county's last countywide reassessment.

## Table 10

# Cost Per Parcel for Reassessments Involving Pre-Determined Ratio Changes and Revisions Based on Market Data

Cost Per Parcel Based on 2009 Parcel Counts
< \$5
\$5 - \$9
\$10 - \$20

<sup>a</sup>Data not available for 5 of the 11 counties with countywide reassessments involving changes in predetermined ratios and revisions based on market data.

Source: Developed by LB&FC staff.

# Use of International Association of Assessing Officers Standards

State law does not require counties to use International Association of Assessing Officers' standards in their countywide reassessments. We are, however, aware of one county that adopted such standards as part of its home rule charter. Our survey of chief assessors, however, asked if IAAO standards had been used, or were being used in the county's most recent reassessment. Thirty-six of the 66 responding counties noted they used one or more IAAO standards as guidelines in their reassessments, including five counties that performed "market data" reassessments. Of the 36 counties, 22 used three IAAO standards in their reassessments, and eight used one of the IAAO standards.

# **Ratio Studies**

Ratio studies are important tools in real property assessment. Twelve of the 66 counties responding to our survey reported they at times have carried out ratio studies. For the most part, such counties conducted studies to monitor their performance against the State Tax Equalization Board common level ratio (see Finding III D for a discussion of this ratio). One county that reported conducting ongoing ratio studies noted that it used standards that differed from the current IAAO performance standards in its ratio studies.

# **Other Differences**

Counties administer real property valuation in Pennsylvania under a variety of different statutes. Some counties, moreover, administer their assessment systems under home rule charters. Some of the variation in county real property valuation systems may be due in part to such differences. A county, for example, that adopts IAAO standards would be opting to value property in the county on a "current market" basis (rather than a "base year" basis) and effectively agreeing to revalue and inspect properties on a defined cycle and meet certain appraisal uniformity standards.

Other factors, however, also may account for the variation across counties. Chief assessors in their survey responses highlighted some of the reasons in their suggestions for change, including differing interpretations by county solicitors, different mass appraisal contractors with different systems, and the absence of a state clearinghouse for real property assessment matters. Exhibit 4 lists reasons for variation across counties in their real property systems referenced by chief assessors in their suggestions for changes to the current system.

# Selected Reasons for Differences in County Systems

- [There is] no one "state board of assessment" to provide one interpretation of assessment law as all counties use their own solicitors, or one "state solicitor's office" to handle court appeals.
- It would be helpful to have more guidance from the state on legal assessment issues, or at least a contact department or person as a liaison for the assessment offices. Most counties rely on a legal interpretation from their solicitors, which vary.
- More consistency [needed] between assessment offices with forms, fees, and handling of different situations; ....[Legislation needs to be] more specific to detail when related to assessments, cut off dates, and procedures for handling different situations.
- Every CAMA system should meet a minimal standard. Several states offer a minimal state CAMA system with the option to acquire a more sophisticated system from an independent vendor. In Pennsylvania, a simple explanation of "gross living area" varies from county to county. Each county has its own vocabulary, i.e., some use "scripts and additions" others use "exonerations."
- [Need for] a uniform sales data bank throughout the state, standardized codes, and consolidated law on assessment by county class.
- State funded reassessments and uniformity across the state. Everyone should be using the same methods. Statewide uniformity—building code and permits should be uniform and assessment offices should always get copies.
- The assessment consolidation bill needs to be passed;<sup>a</sup> there is too big a difference between statutes for different class counties. Pennsylvania needs to establish a statewide system with an oversight office that performs and certifies crucial assessment statistics to the 67 counties....Pennsylvania needs to adopt a single software CAMA packages for all counties to utilize....A statewide database should be established for special purpose property type properties such as hotel/motel chains, Walmarts, regional malls, truck terminals, etc. that many counties only have one or two of and are always looking for sales of other type facilities....Chief Assessors should be required and should receive additional training on statistics and mass appraisal....

<sup>&</sup>lt;sup>a</sup> See Finding III A for additional information on this bill.

Source: Developed by LB&FC staff.

# D. Many Pennsylvania Counties Have Relatively Few Market-Based Sales, Which Makes Property Valuation Difficult

Each year Pennsylvania counties are responsible for reporting their real property sales to the State Tax Equalization Board (STEB), based on county deed transfers. STEB then utilizes such market sales to estimate the current market value of real property for use in the Commonwealth's school funding formulas. (Finding III C provides additional information about STEB and its statutory responsibilities.)

LB&FC staff analyzed the State Tax Equalization Board's 2008 Yearly Sales Report data. Counties regularly submit such data to STEB noting on such submissions those sales that are not market-based. Such "non-market sales" include those involving:

- no assessed valuation,
- family or corporation transfer,
- high ratios—more than 100 percent for counties with a predetermined ratio of less than 100 percent, and 200 percent for counties with a predetermined ratio of 100 percent,
- low ratios—less than 1 percent,
- two municipalities,
- duplicate sales,
- part interest sales—properties owned by more than one party and less than all parcels were sold,
- part of larger tract—assessment not yet divided among new parcels,
- forced sales—sheriff sale,
- property purchased or sold by church, government, or other tax exempt agencies,
- partial assessment—assessment for lot only building not yet assessed,
- equipment included in sale price,
- other (e.g., Clean & Green, transfers with circumstances that distort selling price, etc.), and
- no stamp value \$1.00 or less.<sup>1</sup>

Table 11 shows for each county, their total number of deed transfers for 2008 as reported to the Pennsylvania Department of Revenue and their total sales for all types of parcels and for residential parcels as reported to STEB. The table also shows the percent of reported total and residential sales that are deemed by STEB and the county to be market-based sales for each county.

<sup>&</sup>lt;sup>1</sup>LB&FC staff reviewed the reasons sales were categorized as non-market sales for a small number of such sales for each county, and all such sales for two small counties. Based on our limited review, sales typically tend to be classified as non-market sales as a result of family or corporate transfer, property with no stamp value, other reasons (such as Clean & Green), forced sales, and partial assessments.

Table 11

# State Tax Equalization Board Sales Review Data and Deed Transfers, by County (2008)

Total Market and

		Total Parcels			Non-Market		
	Total	Market and	<b>Total Parcels</b>	<u>Market Sales</u>	Residential	<u>Market Resi</u>	dential Sale
County	<u>Deed Transfers</u>	<u>Non-Market</u>	<u>Total</u>	<u>%</u>	<u>Sales</u>	<u>Total</u>	%
Adams	2,468	2,295	1,134	49.41%	1,497	864	57.72%
Allegheny	36,713	35,665	16,666	46.73	28,538	14,636	51.29
Armstrong	1,919	1,380	723	52.39	006	582	64.67
Beaver	4,484	2,674	1,734	64.85	1,985	1,481	74.61
Bedford	1,490	908	705	77.64	490	473	96.53
Berks	9,885	25,970	12,019	46.28	19,154	10,803	56.40
Blair	3,388	1,346	1,245	92.50	1,208	1,137	94.12
Bradford	2,084	1,200	636	53.00	659	448	67.98
Bucks	14,336	11,587	11,215	96.79	10,388	10,135	97.56
Butler	5,681	3,872	3,807	98.32	3,664	3,601	98.28
Cambria	4,597	4,227	2,113	49.99	3,273	1,711	52.28
Cameron	294	128	49	38.28	62	21	33.87
Carbon	2,557	1,453	1,247	85.82	902	846	93.79
Centre	3,458	3,455	1,533	44.37	2,205	1,226	55.60
Chester	10,616	7,639	5,707	74.71	5,757	5,270	91.54
Clarion	1,460	1,712	461	26.93	749	283	37.78
Clearfield	3,357	1,136	704	61.97	1,038	664	63.97
Clinton	1,220	589	274	46.52	320	187	58.44
Columbia	1,849	1,925	200	36.36	1,160	520	44.83
Crawford	2,664	1,486	980	65.95	671	544	81.07
Cumberland	5,864	5,585	3,189	57.10	4,421	2,794	63.20

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					Total Market and		
		Total Parcels			Non-Market		
	Total	Market and	<b>Total Parcels</b>	<u>Market Sales</u>	Residential	<u>Market Res</u>	idential Sale
County	<u>Deed Transfers</u>	<u>Non-Market</u>	<u>Total</u>	<u>%</u>	<u>Sales</u>	<u>Total</u>	<u>%</u>
Dauphin	7,667	3,157	3,111	98.54%	2,888	2,859	<b>60.00%</b>
Delaware	12,772	8,838	8,416	95.23	8,027	7,707	96.01
EIK	1,008	577	442	76.60	381	291	76.38
Erie	6,312	2,566	1,405	54.75	2,145	1,252	58.37
Fayette	3,681	ъ	982	ŋ	ອ	769	ŋ
Forest	595	563	213	37.83	95	34	35.79
Franklin	3,949	3,289	1,519	46.18	2,499	1,337	53.50
Fulton	482	а	71	σ	ŋ	47	ອ
Greene	1,275	108	66	61.11	81	51	62.96
Huntingdon	1,444	529	394	74.48	303	256	84.49
Indiana	2,149	2,342	784	33.48	1,544	582	37.69
Jefferson	2,017	617	564	91.41	464	426	91.81
Juniata	744	409	328	80.20	329	268	81.46
Lackawanna	5,593	3,514	2,470	70.29	2,418	1,805	74.65
Lancaster	11,333	7,867	4,773	60.67	6,572	4,487	68.27
Lawrence	2,124	924	796	86.15	715	623	87.13
Lebanon	3,292	3,109	1,737	55.87	2,264	1,457	64.36
Lehigh	7,590	5,683	4,149	73.01	4,836	3,731	77.15
Luzerne	9,885	7,651	2,443	31.93	5,251	1,814	34.55
Lycoming	3,145	1,552	790	50.90	1,121	619	55.22
McKean	1,415	1,494	277	18.54	836	189	22.61
Mercer	2,979	1,372	1,177	85.79	1,185	1,029	86.84
Mifflin	1,278	1,411	530	37.56	856	379	44.28
Monroe	7,206	6,340	2,261	35.66	4,031	1,742	43.22

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Total Market and

		Total Parcels			Non-Market		
	Total	Market and	Total Parcels N	<u> Market Sales</u>	Residential	<u>Market Resi</u>	dential Sale
County	<u>Deed Transfers</u>	<u>Non-Market</u>	<u>Total</u>	<u>%</u>	<u>Sales</u>	<u>Total</u>	<u>%</u>
Montgomery	20,371	11,946	8,962	75.02%	10,465	8,444	80.69%
Montour	1,088	366	148	40.44	227	107	47.14
Northampton	6,548	7,321	3,412	46.61	5,611	2,960	52.75
Northumberland	2,573	1,996	1,301	65.18	1,897	1,268	66.84
Perry	1,296	1,276	590	46.24	711	353	49.65
Philadelphia <sup>b</sup>	44,461	15,429	7,094	45.98	12,403	6,056	48.83
Pike	4,387	2,826	1,670	59.09	1,432	1,041	72.70
Potter	834	425	343	80.71	141	118	83.69
Schuylkill	4,897	2,613	1,875	71.76	1,931	1,488	77.06
Snyder	395	552	474	85.87	462	409	88.53
Somerset	2,758	2,900	1,001	34.52	1,673	730	43.63
Sullivan	539	278	174	62.59	64	40	62.50
Susquehanna	1,931	1,865	440	23.59	696	288	41.38
Tioga	1,492	1,157	556	48.06	451	286	63.41
Union	967	731	431	58.96	502	321	63.94
Venango	1,944	1,628	496	30.47	823	309	37.55
Warren	1,474	1,389	543	39.09	767	367	47.85
Washington	6,234	4,343	2,396	55.17	2,953	2,061	69.79
Wayne	3,331	2,676	1,105	41.29	1,824	756	41.45
Westmoreland	12,944	6,554	4,794	73.15	5,117	4,083	79.79
Wyoming	929	940	294	31.28	523	210	40.15
York	11,635	9,277	5,225	56.32	7,526	4,798	63.75

<sup>a</sup>Data unavailable.

bSTEB data are for 2007 as 2008 data were not available.

Sources: Developed by LB&FC staff from Pennsylvania Department of Revenue Recorder of Deeds Collections Summary for 2008 and State Tax Equalization Board 2008 Sales Review Data.

As shown in Table 11, the proportion of total sales that counties reported to STEB and that were market sales in 2008, varied widely across counties. They ranged from 18.54 percent in McKean to 98.54 percent in Dauphin County for all sold parcels and from 22.61 in McKean to 99 percent in Dauphin County for all residential sales. Typically, about 60 percent of county reported sales to STEB are market transactions.

# Proportion of Total County Property/Parcels Sold That Are Market-Based Sales

In addition to considering sales reported by counties to STEB, LB&FC staff reviewed such sales to compare them with all property/parcels within the county. Such a review is important when considering if sales data available for use in establishing new property values as part of a countywide reassessment are representative of the county's property inventory. (See Finding III D for further discussion of sales data and issues related to its representativeness.)

Using the total number of parcels reported by the counties in response to the LB&FC survey (which are not routinely reported by counties to STEB), we found that the proportion of total county parcels that are sold in arms'-length-transactions varied across counties. As shown in Table 12, about half of the counties had less than 2 percent of their total parcels that were sold in a market sale in a recent 12 month period. Table 13 shows that about one-third of the counties had less than 2 percent of their total residential parcels that were sold in a market sale. This is problematic because often the computer models used in county reassessments assume that the market sales are representative of the county as a whole, an assumption that is questionable when only a relatively few market sales have occurred.

Proportion That Were	of All County Parcels Market Sales in 2008*	
Number of <u>Counties</u> <sup>a</sup>	Percent of All County Parcels That Were Market Sales	
4 26 25 6 2 1	<1% 1.00 - 1.99% 2.00 - 2.99 3.00 - 3.99 4.00 - 4.99 >5	

Table 12

<sup>a</sup>Data not available for three counties.

Source: Developed by LB&FC staff from STEB and LB&FC survey of county chief assessors data.

Table	13
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Proportion of All County Residential Parcels That Were Market Sales in 2008					
Number of <u>Counties</u> a	Percent of All County Residential Parcels That Were <u>Market Sales</u>				
5 17 24 13 0 3	<1% 1.00 - 1.99% 2.00 - 2.99 3.00 - 3.99 4.00 - 4.99				

### Deside

<sup>a</sup>Data not available for four counties.

Source: Developed by LB&FC staff from STEB and LB&FC survey of county chief assessor survey data.

# Proportion of All County Residential Parcels That Are Non-Market Sales

We also considered the proportion of all county residential parcels that sold in a county that were not market sales. Remarkably, one quarter of the reporting counties (15 of 61) had a higher proportion of their total residential parcels that were non-market transfers than were market sales in 2008. Some of this may be due to transfer of "Clean and Green," urban redevelopment, and tax delinguent parcel sales, all of which are considered non-market transfers. The 15 counties include both large and small, and rural and urban counties.

As shown in Table 14, in about two-thirds of the counties, less than two percent of total residential parcels were transferred as non-market sales in 2008. In about 10 percent of the counties, however, non-market sales accounted for 3 percent or more of county total residential parcels.

Table 14

Proportion of All County Residential Parcels That Were Transferred in Non-Market Sales in 2008				
Number of	Percent of Total Residential			
<u>Counties</u> <sup>a</sup>	Non-Market Sales			
26	<1%			
12	1.00 – 1.99%			
16	2.00 – 2.99			
0	4.00 – 4.99			
6	3.00 – 3.99			
1	>5			

<sup>a</sup>Data not reported for six counties.

Source: Developed by LB&FC staff from STEB and LB&FC survey of county chief assessor survey data.

Such data confirm that the 67 counties not only vary in their real property valuation systems, but also in their real property markets, with turnover varying from less than 1 percent of properties to 3 percent or more of properties. In some, a large portion of these sales are not market sales. As a result, real property values change at very different rates across counties. In counties with relatively fewer parcels and fewer market transactions, moreover, problems can arise in using sales data to develop new property values because sales may not be representative of all property in the county. (See Finding III D for further discussion of such issues.)

# E. Countywide Reassessment Costs Are High in Relation to County Real Estate Tax Revenues

Real property taxes are an important source of revenue for counties, municipalities, and school districts. From 2000 to 2007, local government real property taxes increased from \$10.23 billion to \$14.85 billion. In 2007, as shown in Table 15, counties generated about one-third of their total revenues and 97 percent of their tax revenues from real property taxes. As shown in Table 15, the largest share (71 percent) of real property tax revenues goes to school districts. Counties, including Philadelphia, receive 19 percent of such revenues, and other municipalities 10 percent.

Table 15

# Total Revenues, Total Taxes and Real Estate Taxes Pennsylvania Local Governments, 2007

		(	φ III DIIIOIIS)			
	Total <u>Revenues</u>	Total <u>Taxes</u>	Real Estate <u>Taxes</u>	% of Real Estate Tax Revenues for Local <u>Government</u>	Real Estate Taxes as % of Revenues	Real Estate Taxes as % of <u>Taxes</u>
School Districts <sup>a</sup>	\$23.07	\$12.78	\$10.47	70.5%	45.4%	81.9%
Counties	7.08	2.51	2.43	16.4	34.3	96.6
Philadelphia	8.61	2.81	.40	2.7	4.6	14.2
Municipalities	8.82	3.50	1.55	10.4	17.6	44.2
Total	\$47.59	\$21.60	\$14.85 <sup>b</sup>	100.0%	31.2%	68.7%

<sup>a</sup> Includes data for Philadelphia.

<sup>b</sup> In FY 2007-08, the state's General Fund collected \$10.9 billion in personal income taxes and \$8.5 billion in all sales and use taxes.

Source: Developed by LB&FC staff from Departments of Community and Economic Development and Revenue data.

Countywide reassessments are costly, with the current rate reported to be \$50 or more per parcel, and 82 percent of the chief assessors responding to an LB&FC survey indicated cost is a primary reason they would not advise initiating a countywide reassessment.<sup>1</sup> For smaller counties and counties without automated systems and up-to-date automated records, such costs are significantly higher. Five of the six counties that reported estimated costs for countywide reassessment in

<sup>&</sup>lt;sup>1</sup> Pennsylvania has a total of 5.89 million parcels, according to data provided by the Assessors' Association of Pennsylvania. At \$50 per parcel, reassessment statewide would cost \$294.5 million.
response to the LB&FC survey, reported costs greater than \$50 per parcel, with one county reporting costs in excess of \$100 on a per parcel basis.

LB&FC staff considered the impact of the cost of countywide reassessment on county revenues. Table 17 provides each county's real estate tax revenue based on audited 2007 data from the Department of Community and Economic Development.

Statewide counties generate just about \$480 per parcel. As shown in Table 16, 15 of the counties generate at least \$460 per parcel, and 15 generate less than \$230 in revenue per parcel.

County Real Estate Revenue Per Total Parcels					
Number of	Real Estate				
<u>Counties</u> <sup>a</sup>	Revenue Per Parcel				
5	≥ \$700				
10	\$460 \$699				
16	\$360 \$459				
20	\$230 \$359				
13	\$150 \$229				
2	< \$150				

<sup>a</sup>Data not reported for one county.

Source: Developed by LB&FC staff from Department of Community and Economic Development 2007 county revenue data and Total Parcel Counts by County from the Assessors' Association of Pennsylvania.

When such revenues are considered in relationship to countywide reassessment costs, a typical county that generates \$344 in revenue per parcel (i.e., the median revenue per parcel) would need to expend:

- 9 percent of total annual real estate revenue for a reassessment costing \$30 per parcel,
- 15 percent for a reassessment costing \$50 per parcel, and
- 29 percent for a reassessment costing \$100 per parcel.

For those counties that generate the least revenues per parcel, however, the cost of a countywide reassessment is significantly greater. The three counties generating real estate revenues less than \$200 per parcel would need to expend:

- 16 to 21 percent of total annual real estate revenue for a reassessment costing \$30 per parcel,
- 27 to 35 percent for a reassessment costing \$50 per parcel, and
- 54 to 70 percent of total annual revenue for a reassessment costing \$100 per parcel.

#### Table 17

## 2007 County Real Estate Revenue

	Real Estate Tax			
<u>County</u>	Governmental Total			
Adams	\$ 24,238,876			
Allegheny	273,781,207			
Armstrong	13,708,042			
Beaver	38,494,475			
Bedford	8,230,634			
Berks	123,844,898			
Blair	19,395,021			
Bradford	10,831,009			
Bucks	172,902,475			
Butler	31,762,875			
Cambria	25,913,276			
Cameron	NA <sup>a</sup>			
Carbon	10,431,742			
Centre	20,060,474			
Chester	135,308,144			
Clarion	6,074,915			
Clearfield	10,413,712			
Clinton	9,213,830			
Columbia	7,422,693			
Crawford	23,484,212			
Cumberland	374,452,773			
Dauphin	94,483,528			
Delaware	132,541,187			
Elk	6,097,321			
Erie	54,402,710			
Fayette	15,746,231			
Forest	1,600,177			
Franklin	26,432,877			
Fulton	3,552,555			
Greene	9,987,034			
Huntingdon	6,499,537			
Indiana	11,783,273			
Jefferson	7,239,417			
Juniata	4,345,320			

	Real Estate Tax				
<u>County</u>	Governmental Total				
Lackawanna	\$ 52,527,624				
Lancaster	94,489,341				
Lawrence	17,741,656				
Lebanon	17,709,934				
Lehigh	90,778,357				
Luzerne	75,798,920				
Lycoming	25,154,366				
McKean	7,955,299				
Mercer	23,371,875				
Mifflin	10,262,867				
Monroe	30,002,325				
Montgomery	162,417,018				
Montour	3,321,145				
Northampton	80,195,233				
Northumberland .	15,637,169				
Perry	8,047,085				
Philadelphia <sup>b</sup>	397,542,355				
Pike	13,649,396				
Potter	3,982,679				
Schuylkill	26,905,311				
Snyder	7,187,303				
Somerset	13,587,517				
Sullivan	1,863,694				
Susquehanna	9,777,495				
Tioga	9,189,029				
Union	7,524,466				
Venango	9,909,136				
Warren	8,190,732				
Washington	30,647,325				
Wayne	13,151,766				
Westmoreland	78,071,141				
Wyoming	7,398,371				
York	98,751,116				
Total	\$2,830,415,496				

<sup>a</sup> Data not available. <sup>b</sup> Philadelphia does report as a county.

Source: Department of Community and Economic Development.

At most, as a result of a reassessment, counties are permitted to increase total revenues by 10 percent in the year when they implement the reassessment, though in Philadelphia there is no restriction. The revenue increase is limited to 5 percent in Allegheny and less populous counties.<sup>2</sup> We considered if the county revenue increase in the year after the reassessment is sufficient to cover the cost of a countywide reassessment. We found that if counties were to increase their revenues by 10 percent when they conducted a countywide reassessment, only 13 counties (Adams, Berks, Bucks, Chester, Dauphin, Delaware, Lackawanna, Lancaster, Lehigh, Montgomery, Northampton, Philadelphia, and York) would be able to generate sufficient increased revenues to cover the cost of a reassessment at \$50 per parcel. As shown in Table 18, 26 counties would not be able to cover the cost of a countywide reassessment costing \$30 per parcel.

Table 18

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26 .....

< \$30

<sup>a</sup>Data not reported for one county.

Source: Developed by LB&FC staff from Department of Community and Economic Development and the Assessors' Association of Pennsylvania data.

The cost of a countywide reassessment to counties is clearly a factor for the 22 counties that have not completed a countywide reassessment since 1986 (see Finding II A). Eleven such counties would generate \$30 or less per parcel if they could increase their total revenues by 10 percent in the effective year of a countywide reassessment. Two of the 11 counties would generate less than \$20 per

<sup>&</sup>lt;sup>2</sup> According to the Department of Community and Economic Development's Taxation Manual (pp. 13-14), "in counties of the second A and third classes, each political subdivision is required to reduce its tax rate for the first year after a countywide reappraisal or after the county changes its established predetermined ratio in order that the total amount of taxes levied that year against real properties contained in the duplicate for the preceding year does not exceed 110 percent of the total amount levied the preceding year. The law excludes the amount to be levied on newly-constructed buildings or structures or on increased valuations based on new improvements made to existing buildings in determining the total amount of taxes to be levied for the first time. The same restrictions apply to political subdivisions within counties of the fourth to eighth class. However, the percentage is not to exceed 110 percent in the case of a school district or 105 percent for any other taxing district. All political subdivisions within counties of the second A to the eighth class, if good cause is shown, are authorized to increase the tax rate prescribed with court approval. This restriction also applies to third class cities bringing themselves under county assessment values for the first time after a countywide reassessment. The Second Class County Code limits taxing bodies within second class counties to 105 percent of the total amount of real estate revenues received the prior year when the county carries out a reassessment or changes its predetermined ratio. The real estate revenue limit excludes new construction and improvements to existing structures. The Allegheny County Court of Common Pleas ruled that the 'anti-windfall provisions' do not prevent tax increases in excess of the 105 percent limit as long as any increase is publicly announced and enacted."

parcel in additional revenue, with one county generating only \$5 per parcel. Only two of the 22 would generate at least \$50 per parcel.

All but three of the 22 counties are Fourth to Eighth class counties that can only increase their revenues by 5 percent as a result of a reassessment (unless their tax base increases as a result of new construction and improvements). For those 19 counties, a 5 percent revenue increase would result in revenue increases ranging from \$2.50 to \$20 per parcel, with a median increase of approximately \$14 per parcel.

## F. Completion of a Comprehensive Countywide Reassessment Does Not Assure Achievement of Statistical Standards for Common Levels of Assessment, Uniformity, and Equity

Various performance indicators have been identified to determine if common levels of assessment, uniformity, and equity have been achieved through mass appraisals. Such indicators include the:

- Level of Assessment, which is a ratio of a property's assessed value in relationship to its market value. Such a measure can be used to determine if a property is uniformly assessed relative to other properties in the taxing district. They can also be used to track how closely assessed values are to actual sale prices. In Pennsylvania, this indicator is referred to as the Common Level Ratio (CLR).
- Coefficient of Dispersion (COD), which measures the dispersion of assessment to sales ratios (i.e., how closely assessed values are to subsequent sale prices). This measure may be considered a statistical indicator of assessment uniformity.
- Price Related Differential (PRD), which measures systematic differences in the appraisal of low- and high-value properties (i.e., whether assessments may be biased in a progressive or regressive manner).

#### **Pennsylvania Assessment Performance Measures**

In Pennsylvania, the Common Level Ratio is used as an indicator to determine if a common level of assessment has been achieved in a county. It is developed by comparing the recent arms' length selling price of individual sold properties in the county with their assessed value and averaging such ratios for the county. When a county's CLR is 15 percent less than or 15 percent greater than the county's established level of assessment (i.e., on average, properties are selling for 15 percent more or less than the county's targeted level of assessment) a common level of assessment may not be present in the county. (See Finding III D for additional information on Pennsylvania's CLR and some of the issues associated with its use to evaluate county assessment performance.)

The International Association of Assessing Officers (IAAO) has developed standards for appraisal uniformity (CODs) that vary by property type, with "acceptable" COD performance measures in the range of 5 to 10 for single family residential property and CODs as high as 25 for vacant land.<sup>1</sup> In Pennsylvania, the courts have interpreted the Pennsylvania Constitution's uniformity clause as requiring all

<sup>&</sup>lt;sup>1</sup>Appendix B provides the IAAO's most recent performance standards for different types of property.

real property be treated as one class. The IAAO, however, has not recognized a composite COD or single COD performance measure for all types of real property combined. In a recent case involving a county that had adopted IAAO standards, a Pennsylvania County Common Pleas Court used an overall COD of 20 or less to assess appraisal uniformity in the county. Some have suggested, moreover, that such a standard be adopted in Pennsylvania to evaluate county valuation and assessment systems and to trigger requirements for counties to conduct countywide reassessments.

The IAAO has also developed an indicator called the Price Related Differential to measure equity. In general, when PRDs are found to be between 0.98 and 1.03 equity in appraisals exists (i.e., there is little systematic bias that would favor either low-value or high-value properties), according to the IAAO. PRD measures considerably above 1 tend to indicate assessment regressivity (i.e., low-value properties are appraised at greater percentages of market value than high-value properties). PRD measures below 1.00 suggest assessment progressivity (i.e., low-valued properties are appraised at smaller percentages of market value than high-value properties).

To determine if comprehensive countywide reassessments achieve common levels of assessment, uniformity, and equity as measured by the above standards, as is often assumed, LB&FC staff analyzed performance on such measures for counties one year after the county completed a comprehensive countywide reassessment.<sup>2</sup> Using STEB's published data,<sup>3</sup> we found:

- One year after a countywide reassessment, about 25 percent (14 of 54) of the reassessments from 1988 through 2008 achieved the standards for common levels of assessment, uniformity, and equity.
- From 1988 through 1998, 25 counties<sup>4</sup> completed 30 countywide reassessments. One year later, only 7 of the 30 reassessments resulted in common level ratios within 15 percent of the county's predetermined ratio, CODs of 20 or less, and price related differentials between 0.98 and 1.03.
- From 1999 through 2008, 21 counties<sup>5</sup> completed 24 countywide reassessments. One year later, only 7 of the 24 reassessments resulted in

 $<sup>^2</sup>$  Only countywide reassessments were included in this analysis. While changes in predetermined ratios and/or other systematic changes in current values for counties not on a base year system technically are reassessments under Pennsylvania's statutes, such reassessments are excluded from this analysis.

<sup>&</sup>lt;sup>3</sup> LB&FC staff utilized STEB data in this analysis as it is the only data available and has been used by the courts. Finding III D provides information on STEB data and identifies issues related to its use in evaluating county performance.

<sup>&</sup>lt;sup>4</sup> Adams, Armstrong, Berks, Bradford, Centre, Chester, Clearfield, Columbia, Fulton, Greene, Lancaster, Lehigh, Lycoming, Monroe, Montgomery, Northampton, Pike, Schuylkill, Somerset, Sullivan, Susquehanna, Tioga, Warren, Wyoming, and York.

<sup>&</sup>lt;sup>5</sup> Allegheny, Bradford, Carbon, Cumberland, Dauphin, Delaware, Erie, Fayette, Greene, Lancaster, Lawrence, Lycoming, Mifflin, Montour, Perry, Sullivan, Tioga, Union, Venango, Wayne, and York.

common level ratios within 15 percent of the county's predetermined ratio, CODs of 20 or less, and price related differentials between 0.98 and 1.03.

When we reviewed the 14 countywide reassessments that achieved the standards for common levels of assessment, uniformity, and equity one year after the reassessment, we found that more than one-half did not meet one or more of the standards by the third year after the reassessment. We also found:

- About 25 percent (3 of 13) of the counties met the performance standards for at least three years following their countywide reassessment, including one that met all three performance measures for six years following its county-wide reassessment.
- One county met the performance measures for six years following the countywide reassessment. Remarkably, this county initiated a subsequent reassessment after failing to meet one of the three performance measures, and did not meet two of the three performance measures (i.e., common level of assessment and equity) the first year following the subsequent reassessment.
- Two additional counties completed a subsequent reassessment before not meeting the three performance measures. After completing the subsequent countywide reassessment, however, one of the two counties did not meet the three performance measures one year later, and the second failed to meet the standards within two years after the subsequent reassessment.

Completion of more frequent countywide reassessments also does not appear to assure that statistical performance standards for common level of assessment, uniformity, and equity are met. Eleven counties completed two or more (i.e., 24) countywide reassessments from 1988 through 2008. Only 25 percent (6 of 24) of such reassessments, however, met all three performance standards within one year of the reassessment. One county conducted three countywide reassessments during the 20-year period, and none of these met all three performance standards one year after the reassessment.

Some of the countywide reassessments that did not result in the county meeting the statistical performance measures one year after reassessment were courtordered reassessments. Finding III E provides additional information on such reassessments.

Similar findings were reported by the Senate of Pennsylvania Finance Committee in its report on its investigation of property tax assessments and the work of mass appraisal assessment firms in response to Senate Resolution 1976-69. The report includes the work of Pennsylvania State University researchers (using STEB data) that considered the assessment to sales ratios and coefficients of dispersion of 20 counties one year after they completed a reassessment for reassessments completed between 1967 and 1973.

The Penn State researchers found that only two of the 20 counties<sup>6</sup> met both of the performance measures one year following their reassessments. One year after their reassessment:

- only 5 of the 20 counties had assessment to sales ratios within 15 percent of their predetermined ratios, and
- only 2 of the 20 had coefficients of dispersion of 20 or less.

One year following their reassessment, two of the 20 counties actually had CODs that were higher than their CODs prior to the reassessment. The report concluded that reassessments were not being properly performed by county contractors.<sup>7</sup>

There are several possible reasons that countywide reassessments may not meet various mass appraisal performance standards one year following such a reassessment. According to the 1976 report, for example, counties may not have had the expertise required to select a mass appraisal contractor, and may not have included relevant standards in their contracts. As noted in Finding IV A, some surrounding states have standards that mass appraisal contractors must meet before they can conduct countywide reassessments in the state.

Other factors, however, that are outside of the control of the counties may also play a part. The Pennsylvania courts, for example, require that all property be treated as one class. If performance measures were developed for different types of property, results might be different for performance measures one year following county reassessments (see the discussion in Finding III D). From the available data, moreover, housing market volatility also appears to be an important contributing factor. Finding II G provides information on housing market changes for Pennsylvania and major urban areas.

<sup>&</sup>lt;sup>6</sup> Adams, Bucks, Butler, Cambria, Carbon, Crawford, Erie, Indiana, Lackawanna, Lebanon, Mifflin, Monroe, Northumberland, Sullivan, Susquehanna, Tioga, Wayne, Westmoreland, Wyoming, and York.

<sup>&</sup>lt;sup>7</sup> LB&FC staff are aware of at least one county that in 2010 initiated legal action against a mass appraisal firm due to the quality of its 2008 work. The county, which did not certify the values developed by the appraisal firm and used the mass appraisal firm's reassessment values, filed suit for failure to meet contract requirements, including failure to timely provide the estimated values to the county for review prior to the county certifying the values for use in assessment. A nationally respected valuation consultant hired by the county also determined that the mass appraisal firm did not meet the assessment performance standards set forth in the contract. The county's consultant noted the mass appraisal firm's values showed substantial bias as its estimates were based more on data and less on actual inspection of properties. The county's consultant further noted that the appraisal firm's values were skewed to make properties that were at the lowest end of the value scale seem to be worth more than they really were, and as a result, would have the owners of such properties paying a disproportionately higher share of the real property tax burden.

# G. Significant Housing Price Volatility Makes It Difficult for Counties to Achieve and Maintain Assessment Uniformity

In Pennsylvania, real property assessments are to be based on their "actual value." "Actual value" refers to market value when a willing seller, without compulsion, sells to a willing buyer, who is not obligated to buy. "Actual value" is a theoretical value and need not be the amount or price at which a property has recently sold.<sup>1</sup> In Pennsylvania, "actual value" is to be arrived at by considering the results of the cost, market (i.e., comparable sales) and income approaches to value in conjunction with one another to identify the value of a specific property.<sup>2</sup> It is, moreover, more than a statistical indicator. As noted by the New Jersey Supreme Court: "value for purposes of taxation has some measure of permanency which renders it secure against general temporary inflation or deflation."<sup>3</sup>

Typically, residential real property assessment mass appraisal processes utilize recent sales data to derive estimates of actual values in identified neighborhoods. The volatility of housing price changes, however, can complicate mass appraisal assessments processes and achievement of assessment uniformity following a countywide reassessment. As discussed below, such volatility can be seen in the federal House Price Index (HPI).<sup>4</sup>

The Federal Housing Finance Agency developed the House Price Index (HPI) to measure changes in housing prices in various geographic areas for use by economists, analysts, and researchers. Nationally, the quarterly HPI is based on more than 36 million repeat transaction pairs over 34 years, thus making it a more accurate measure of current property price than other available data that is based on small samples. The index has other advantages.

The HPI, for example, measures changes in the price of detached singlefamily homes based on conventional mortgages purchased or securitized by Fannie Mae or Freddie Mac<sup>5</sup> based on average price changes in repeat sales or refinancing on the same properties. In other words, the HPI estimates house price appreciation based on repeated valuation of the same property over time. The use of repeat sales

<sup>&</sup>lt;sup>1</sup> See Finding III D for a discussion of the differences between market value and sales prices and some of the steps that the State Tax Equalization Board takes to adjust for such differences in its market data.

<sup>&</sup>lt;sup>2</sup> Act 1982-268.

<sup>&</sup>lt;sup>3</sup> Switz v Township of Middletown, 23 N.J. 580; 130 A.2d 15. The Court, moreover, noted in its decision that "The sales-assessment ratio data do not provide the basis for an intra-municipal true value assessment of individual parcels of real property."

 $<sup>^4</sup>$  The former chief assessor of one major county advised LB&FC staff that the HPI was used in the county's reassessments to adjust (i.e., trend upward) sales data from prior years to arrive at the county's new current market assessed values as of the reassessments' implementation dates.

<sup>&</sup>lt;sup>5</sup> Mortgage transactions on attached and multi-unit properties, properties financed by the FHA, VA, or other government insured loans, and properties financed by mortgages exceeding the eligibility limits by Freddie Mac or Fannie Mae are excluded from the index. Freddie Mac or Fannie Mae mortgage limits were \$207,000 in 1996 and in 2009 were increased to \$729,750 in certain high-cost areas in the continental United States.

on the same property helps to control for differences in the quality of the housing comprising the sample. The HPI, however, does not attempt to estimate changes in the appreciation of properties that are not repeat sales.<sup>6</sup>

Exhibit 5 provides the changes in housing price by quarter for Pennsylvania from 1990 through 2009. Exhibit 5 shows Pennsylvania housing price changes fluctuate substantially. As shown in the exhibit, they tended to increase from 1990 through 1991. Starting in the fourth quarter of 1991, however, they started to decline, and the decline continued through 1994. In 1995, housing prices again started to appreciate. The price appreciation that occurred starting in 1995 was not steady and continuously upward, but nonetheless, Pennsylvania housing prices appreciated substantially from 1995 until 2004. Starting in late 2004, however, they started on a steep decline that has continued.



Exhibits 6 through 10 provide similar data for certain other geographic areas in the HPI database, including Erie, Pittsburgh, Philadelphia, Reading, and Scranton/Wilkes-Barre. The exhibits illustrate that different areas of the state

<sup>&</sup>lt;sup>6</sup>The HPI allows consideration of changes in housing prices, but it is not a measure of the property tax base. The property tax base includes not only price appreciation but also actual growth in the number of housing units and non-residential real estate as well. The HPI, moreover, is not inflation adjusted.





Calendar Year

---- Pittsburgh Area

Source: Developed by LB&FC staff from Federal Housing Finance Agency data.

Pennsylvania

Exhibit 8





-1.00%

-3.00%

Exhibit 10



experience housing price appreciation that can be more volatile than that for the state as a whole, and that greater housing price volatility is experienced in some areas at different points than in others. For example, housing price changes were much steeper in Erie in the first-half of the 1990s than in the state as a whole. Similarly, in the second-half of the 1990s housing price appreciation in the Scranton/Wilkes-Barre area was more volatile than it was statewide.

Such volatility has important implications for residential mass appraisal model development. Such models rely on "snapshots" of sales data to develop assessed values for residential properties. The picture emerging from such snapshots will differ depending upon the period of time in which the model sales occur. Some examples help illustrate the complex challenges faced by counties in establishing assessed values that are reflective of "actual market" values and that meet statistical uniformity standards.

Exhibit 11 illustrates the complex challenges faced by one county in establishing new reassessment values that reflected "actual market" values following the county's reassessment. The exhibit provides the House Price Index changes by quarter for the Allentown area from 1990 through second quarter 2009. Lehigh County has a high proportion of residential parcels and a reputation for a wellmanaged county assessment office, according to a long-time State Tax Equalization Board official with whom we spoke.

Exhibit 11



Prior to 1990, the sale price of single-family homes nationally had been on the rise.<sup>7</sup> Lehigh County implemented a countywide reassessment with a predetermined ratio of 50 percent of current market value effective January 1, 1991, according to Pennsylvania Department of Revenue data. The county's common level ratio real estate valuation factor established by the Department of Revenue was, therefore, 2.00 as of January 1, 1991. When real property values are increasing following a countywide reassessment, the Department of Revenue's common level ratio real estate valuation factor (see Finding III C for information on this factor) increases. It declines, however, when real property values are in decline. Typically, an increase in property value and the valuation factor are anticipated following a countywide reassessment. With Lehigh County's 1991 reassessment, however, this did not immediately occur.

Lehigh County's common level ratio real estate valuation factor rose from 1991 to 1992, and then started to decline. Except for the brief period around 1995 when the county's common level ratio real estate valuation factor rose back up to 2.00 (i.e., the assessment level established for the January 1, 1991, reassessment), from 1993 until mid-1999, the county's common level ratio real estate valuation

<sup>&</sup>lt;sup>7</sup> HPI data for local areas are not available prior to 1990.

factor remained below 2.00.<sup>8</sup> In other words, average assessments for properties that sold were higher than average sales for approximately a six-year period following the 1991 countywide reassessment. As Exhibit 11 shows, starting in July 1999 housing prices in the Allentown area once again started to appreciate, and such appreciation continued into 2005.

Several counties have advised the LB&FC staff that when they become aware of systematic problems in their assessments due to market changes, they cannot "go back" and correct identified problems short of instituting another countywide assessment.<sup>9</sup> A new countywide reassessment, however, may not actually correct the systematic valuation problem because of continued volatility over long periods.

Housing price volatility can also affect the ability of a county to achieve assessment uniformity based on statistical performance measures, even when a county performs frequent countywide reassessments. Cumberland County, for example, has a well-respected county assessment office, and over 75 percent of the county's parcels are residential.

From 2001 to 2009, the county conducted two countywide reassessments. It established a predetermined ratio of 100 percent of market value for both reassessments. Exhibit 12 provides changes in the House Price Index from 1990 through 2009 for the Harrisburg/Carlisle area.

As shown in Exhibit 12, the first reassessment became effective in January 2001, a time when area housing prices had been appreciating. In 2001, when the reassessment became effective, Cumberland County had a common level ratio, or common level of assessment, of 98.6, well within national performance standards (i.e., 90 to 110) for a county with a predetermined ratio of 100 percent of market value.

<sup>&</sup>lt;sup>8</sup> Lehigh County's common level ratio real estate valuation factors from January 1, 1991, through June 30, 1992 were 2.00; 2.11 from July 1, 1992, through June 30, 1993; 2.08 from July 1, 1993, through June 30, 1994; 1.99 from July 1, 1994, through June 30, 1995; 2.00 from July 1, 1995, through June 30, 1996; 1.89 from July 1, 1996, through June 30, 1998; and 1.98 from July 1, 1998, through June 30, 1999.

<sup>&</sup>lt;sup>9</sup> In Pennsylvania, property owners have the right to appeal their assessed values, and many do following countywide reassessments. In recent years, one county that completed a countywide reassessment reduced its initial assessed values by over \$50 million as a result of such administrative appeals. Taxpayers can further challenge the results of the initial appeal process in the courts. Currently, the county is before the court of common pleas in a case involving a taxpayer whose property was initially reassessed at \$392,300. Subsequently, the county reduced the assessment to \$333,700 at informal review and to \$285,200 by the county appeals board. The taxpayer is in court challenging the \$285,200 assessed value as the property sold for only \$250,000 at the time of the assessment and appeal.





Cumberland County implemented a subsequent assessment in January 2005. The county relied on prior year sales data to model its assessed values for 2005. As shown in Exhibit 12, house price appreciation declined from late 2003 through 2004, and then rose again in 2005 and 2006. As a consequence, the county's common level ratio or common level of assessment in the year in which the 2005 reassessment became effective was 87.8—below national performance standards, and by 2006, the ratio had dropped further to 82. Despite its recent reassessments, the county failed to meet national statistical performance measures.

Housing price volatility has important implications for assessment valuation, and the selection of indicators to consider county performance. If, for example, the state or a court judged a county's performance based on its assessment to sales ratio, or common level ratio, a county could be disadvantaged simply as a result of reassessment during a period of housing price volatility

Housing price volatility also has important implications for property taxes and tax revenues. As discussed in Finding IV A, many states have both explicit and less explicit policies in place to address some of the implications of this volatility for the taxpayer.

# H. Since 2000, Housing Prices Have Appreciated More Rapidly Than Median Income and General Inflation

As noted in Finding II G, housing prices appreciated rapidly after 1999.<sup>1</sup> Such appreciation far outpaced the increase in typical household income and inflation. This has important implications for real property valuation and assessment systems as property taxes are taxes based on wealth and paid for with income.

As shown in Exhibit 13, the Consumer Price Index for Urban Consumers in Northern United States increased by 23.23 percent from 2000 through 2007, while the House Price Index for Pennsylvania for the same period increased 74.1 percent.

#### Exhibit 13

## Change in House Price Index and Other Indicators 2000 Through 2007

Indicator	Percent Change
House Price Index—Pennsylvania	74.1 %
Consumer Price Index—Urban Consumers Northeast United States	23.23
Median Household Income—Pennsylvania	21.11
Median Home Price	59.79

Source: Developed by LB&FC staff from Federal Housing Finance Agency, United States Department of Labor, and United States Census Bureau data.

Housing price appreciation in Pennsylvania has not increased at the same rate in all parts of the state. Pittsburgh area had the lowest appreciation, with a 33.1 percent increase from the first quarter 2000 through 2007, and Philadelphia area had the highest, with an 87.1 percent increase.<sup>2</sup>

As shown in Exhibit 13, median home prices have also increased more rapidly than other economic indicators. Housing affordability, however, becomes an issue when housing price changes increase more rapidly than typical household income. In 2000, the ratio of median home price to median household income in

<sup>&</sup>lt;sup>1</sup> The appreciation in house prices from 2000 through 2006 is one of the two major expansions in housing prices since 1965, according to academic researchers. The first price cycle increase occurred from 1976 to 1980, and resulted in housing prices rising about 16 percent above trend. It was followed by a 12 percent drop between 1980 and 1985. As of late 2009, one national composite index of home prices showed home prices are down by almost 30 percent since the second quarter 2006.

<sup>&</sup>lt;sup>2</sup> Altoona area had a 45.7 percent increase, Allentown/Bethlehem/Easton an 85.4 percent increase, Erie a 30.9 percent increase, Harrisburg/Carlisle a 53.7 percent increase, Johnstown a 33.9 percent increase, Lancaster a 53.7 percent increase, Lebanon a 52.1 percent increase, Reading area a 62.2 percent increase, Scranton/Wilkes-Barre a 48.6 percent increase, State College a 49.2 percent increase, Williamsport a 38.6 percent increase, and York/Hanover area a 61.2 percent increase.

Pennsylvania was 2.42. By 2007, the ratio had increased to 3.19. Exhibit 14 graphically displays the relationship between median home price and median household income for Pennsylvania from 1990 through 2008.



Source: Developed by LB&FC staff from United States Census Bureau data. The U.S. Census data on value is the respondent's estimate of how much the property would sell for if it were for sale, or the asking price for properties that are for sale.

Historically, median home prices nationally have consistently tracked median income. Based on analysis of the ratios of median home price to median income nationally from the mid-1970s to 2001, some housing experts estimate that the housing price "bubble" that occurred after 2000 has increased the median home price by 44 percent above what it ought to be, based on median household income.

Table 19, provides the real estate tax revenues for local governments in Pennsylvania in 2000 and 2007. As shown in Table 19, real property tax revenues for local governments overall increased 45 percent—two times the increase in Pennsylvania median household income and consumer inflation for the same period.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Real estate taxes make up the major portion (69 percent) of tax revenue for local governments. Although total local tax revenue rose 47 percent between 2000 and 2007, other local tax revenue, excluding real estate taxes, increased by 52 percent. School districts showed the largest increase, with other tax revenue increasing over 75 percent.

#### Table 19

# Change in Local Government Real Property Tax Revenues 2000 Through 2007

(\$ in Billions)

Local <u>Government</u>	Real Property Tax <u>Revenue 2000</u>		Real Pro <u>Rever</u>	operty Tax iue 2007	% Change 2000 <u>Through 2007</u>	
School Districts	\$7.27	(71.0%)	\$10.47	(70.5%)	44.1%	
Counties (w/o Philadelphia)	1.56	(15.3)	2.43	(16.4)	55.5	
Philadelphia	0.35	(3.4)	0.40	(2.7)	12.4	
Municipalities (w/o Philadelphia)	1.05	( <u>10.3</u> )	<u>1.55</u>	( <u>10.4</u> )	47.4	
Total	\$10.23	(100.0%)	\$14.85	(100.0%)	45.1%	

Source: Developed by LB&FC staff from Pennsylvania Department of Education and Department of Community and Economic Development data.

Researchers have noted that as housing prices rise, property taxes increase but not at the same rate. Federal Reserve researchers that have studied the relationship between house price appreciation and property tax revenues have reported that it takes three years for changes in house prices to influence growth in property tax revenue, and that on average a 10 percent increase in home values produces a 4 percent increase in property tax revenues in years three through five following the price increase. Such a lag occurs as the property tax is assessed in a retrospective manner (i.e., current year taxes are based on assessed values from a prior year), and assessed values may lag market values.

Policymakers, moreover, at times offset some of what the researchers term the "mechanical increase" that occurs with rapid price appreciation by reducing the effective tax rate. As a consequence of such policy offsets, "most states have some form of caps and/or limits on property tax rates, tax revenues or taxable assessments. During periods of rapid house price growth, these limits will help prevent assessments or revenues from growing at the same pace as market value."<sup>4</sup> Findings III F and IV A provides additional information about such programs in Pennsylvania and other states. As noted in Finding III F, however, Pennsylvania's Constitution precludes counties from adopting practices that are used in some states to limit the rate of increase in property assessed values during periods when house prices are rapidly accelerating.

<sup>&</sup>lt;sup>4</sup> Lutz, B. "The Connection Between House Price Appreciation and Property Tax Revenues," *National Tax Journal*, 2008, 61 (3), 555-572.

# III. Pennsylvania's System for Real Property Valuation—the State Level

## A. Pennsylvania, Unlike Many States, Does Not Receive State Revenue Through Real Property Taxes, But Has Provided for Various Property Tax Reforms.

The Commonwealth of Pennsylvania is unlike many states in several important ways that have implications for how real property is valued and assessed. In particular, Pennsylvania does not have a history of reliance on real property taxes to generate state revenues. In part for this reason, it does not have administrative experience in appraising or valuing real property, as do many states. Its method of providing financial assistance to local school districts, moreover, is not directly tied to real property tax revenues.

The Pennsylvania General Assembly has passed legislation that is part of the foundation for Pennsylvania's real property valuation system at the local level. It has also acted to promote uniformity in real property assessment. Despite significant efforts, the General Assembly, local governments, and the Commonwealth's electorate, however, have not been able to achieve consensus around major proposals to reform the state's property tax system.

#### Pennsylvania Real Property Tax Levies

In the late 18<sup>th</sup> century, the newly established federal government imposed a federal tax on "dwelling-houses, lands and slaves," and required each state to provide for collection of the federal tax. The federal tax assessed house values based on the number and size of windows, and resulted in militant oppositions from citizens in southeastern Pennsylvania (i.e., Fries' Rebellion) that required state militia to quell. In 1799, Congress repealed the federal property tax, and the state discontinued its collection. While no longer imposing a state real property tax levy, the General Assembly permitted local governments to impose such taxes.

Only after it defaulted on its debt obligation in 1842 did Pennsylvania reintroduce a state tax on real property. By 1866, however, the General Assembly once again abolished the property tax for state purposes.<sup>1</sup> A 1906 report by the state Auditor General notes that by repealing various taxes for state purposes, including the state real property tax, the Commonwealth viewed itself as assisting counties.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> See Auditor General, Compendium and Brief History of Taxation in Pennsylvania, Harrisburg, 1906.

 $<sup>^2</sup>$  The Auditor General noted that in 1906, \$14 million in state real estate taxes had been "returned" to the counties, and \$340 million had been "returned" from 1866 though 1905.

Pennsylvania's experience with real property valuation and taxation differs substantially from many states. In many states, state executive agencies are responsible for valuation of certain real property, such as utilities and business property, and the state imposes a state tax on such property. State agencies in Pennsylvania do not directly appraise utility property. The state, however, does impose and collect taxes on certain utilities in lieu of real property taxes, and it distributes such revenues to local governments.<sup>3</sup> As a result, in 2007 Pennsylvania ranked 24<sup>th</sup> in the nation in terms of state property tax collections per capita, but its per capita rate was significantly lower than the nation's as a whole (\$5.20 compared to \$42).

Pennsylvania's per capita state property tax collections, moreover, are significantly lower than Maryland's (\$5.20 compared to \$106.12) and California's (\$5.20 compared to \$63.56), where state agencies are responsible for valuation of certain property.

The states in the top 10 rankings for state property tax collections per capita are Vermont (\$1,433), Wyoming (\$515), New Hampshire (\$294), Washington (\$264), Michigan (\$231), Arkansas (\$225), Montana (\$212), Arizona (\$148), Minnesota (\$131), and Kentucky (\$117). Six (Vermont, Wyoming, New Hampshire, Washington, Michigan, and Montana) of the ten states are among those that impose state property taxes to fund education.

# The General Assembly and Real Property Valuation and Assessment at the Local Level—A Brief History

The Pennsylvania General Assembly has played an important role in creating the state's locally based system of property valuation and assessment. As discussed below, the General Assembly:

- authorized local governments to collect real property tax revenues,
- provided for local selection of local assessors,
- authorized local county commissioners to directly equalize real property values established by the locally selected municipal assessors,
- provided that property be valued according to its "actual value,"
- authorized property owners and local governments to appeal property values equalized by the county, and
- assigned an important role to the courts to oversee property assessments.

<sup>&</sup>lt;sup>3</sup> In a 1975 opinion, the Supreme Court of Pennsylvania discussed the history of the Public Utility Realty Tax Act tax. Quoting from the 1968 Constitution Convention proceedings, the opinion noted the Committee on Taxation considered and rejected a state realty tax on utilities because it involved too much red tape, many additional state employees to administer, probably the establishment of a new state department, increased costs for utilities, and higher costs to consumers.

**1790s and 1800s**: In 1799, the General Assembly authorized counties to levy taxes on real property. At the time, locally selected assessors from wards, districts, and townships were responsible for determining the value of all property subject to local taxation as authorized by the General Assembly. In order for the county to levy a county tax, the General Assembly authorized county commissioners to bring together all local assessors every three years to "settle and adjust" the relative value of property in their wards, districts, and townships to determine how the county tax levy would be apportioned among the county's local units on all local assessors' valuations. Looking back, this was the beginning of the county's role in direct equalization to assure that all real property is assessed in a uniform way throughout the county—a responsibility that continues to this day.

In 1808, the General Assembly further authorized the county commissioners, before levying county taxes, to convene all local municipal and township assessors to "fix upon" a "uniform standard" (e.g., a specified dollar amount per acre) to determine the value of property subject to taxation. The General Assembly directed that such standards be used by the local assessors and that the resulting assessments be reviewed by all the local assessors and errors corrected. Based on such reviews, a local assessor could appeal to the county commissioners the assessed values of other local assessors. Following such appeals, the commissioners would then "apportion the quotas of the county tax among the several wards, townships, incorporated boroughs and districts within their county" based on the aggregate amount of property in each.

In 1841, the General Assembly set forth the duties of all local assessors in statute. It also repealed the requirement for a uniform standard of value (i.e., at a flat rate), and required that assessors, when determining value for state, county, city, district, ward, township, or borough purposes, value property according to its "actual value." The General Assembly described actual value as the rate or price for which the property would sell in a "bona fide sale." In effect, this was the beginning of the standard requiring that real property be valued differentially based on its "actual value."<sup>4</sup>

In the 1840s, when the counties became involved in collecting property taxes on behalf of the state, the General Assembly authorized county commissioners and associate judges of each county to compose a county "board of revision." Such board members were required to publish the aggregate values and assessments of each assessor, examine and review such values for conformity with state law, consider written communications from taxpayers objecting to property values that are either too low or too high, revise and equalize property values they believe to be too high or too low, and decide on appeals.

<sup>&</sup>lt;sup>4</sup> Act 1982-268 clarified that in arriving at actual value, all three methods, cost (reproduction or replacement, as applicable, less depreciation and all forms of obsolescence), comparable sales, and income approaches, must be considered in conjunction with one another.

In 1846, moreover, the General Assembly clarified that a property's actual value would be the same for different taxing bodies. Such property, however, need not be assessed at the same level by the state and the county. County commissioners were permitted to establish a county's level of assessment that was different than the state's level.<sup>5</sup> The General Assembly thus early on permitted counties to have different levels of assessment (today known as predetermined ratios) rather than one single state level of assessment, as is the practice in some states (see the discussion in Finding IV A).

In 1876, the General Assembly authorized owners of real estate in counties with less than 500,000 inhabitants to appeal the county's assessment determination in court. The General Assembly, moreover, authorized the courts to issue decrees:

Appraising or reducing the assessment complained of as the judges of the said court shall seem equitable, having regard to the valuation and assessment made of other real estate, in said county, so adjusting the assessment complained of that it shall be equal in proportion to its value in all parts of said county as nearly as may be....<sup>6</sup>

Later, in 1889, the General Assembly provided the right to appeal the decisions of the county commissioners, or board of revision, to the court of common pleas in all counties;<sup>7</sup> and in 1901, it authorized appeals from decisions of common pleas courts to the Superior or Supreme Court of the Commonwealth.<sup>8</sup>

The General Assembly's expansion of the role of the courts in property valuation followed a major change in the state's constitution. In 1874, the Commonwealth's constitution was revised to include a "uniformity clause." Article IX of the 1874 Constitution of the Commonwealth provided:

All taxes shall be uniform, upon the same class of subjects, within the territorial limits of the authority levying the tax, and shall be levied and collected under general laws.

**Expanded Role for Counties.** For much of its history, property valuation in Pennsylvania was the responsibility of locally selected municipal assessors. Then, as today, the job was a challenging one. Local selection of individuals willing to carry out the duties of the assessor was not always assured; and in 1897, the General Assembly authorized county commissioners to appoint local assessors in cases where municipal assessors refused or neglected to complete their duties.<sup>9</sup>

<sup>&</sup>lt;sup>5</sup> April 22, 1846, P.L. 490.

<sup>&</sup>lt;sup>6</sup> April 20, 1876, P.L. 44

<sup>&</sup>lt;sup>7</sup> April 19, 1889, P.L.37.

<sup>&</sup>lt;sup>8</sup> June 26, 1901, P.L. 601.

<sup>&</sup>lt;sup>9</sup> May 5, 1897, P.L. 39.

With the counties taking on a greater role in real property assessment, the General Assembly specifically authorized all those affected by such valuations to appeal. In 1921, the General Assembly authorized boroughs, townships, and school districts that felt aggrieved by "an assessment of any property" to appeal to the county commissioners or board of revision, court of common pleas, or to the Supreme or Superior Court in the same manner as would a taxpayer with respect to his/her property.<sup>10</sup>

By the 1930s, Pennsylvania had over 2,500 locally selected assessors responsible for real property valuation for purposes of taxation. In 1931, the General Assembly abolished the office of ward, borough, town, and township assessor insofar as such offices are involved in valuation of property for tax purposes, but not in cities. It did, however, provide the option for a city to "accept" the assessment board created under the Third Class County Assessment Board Law.<sup>11</sup> Subsequent legislation for other class counties provided for the elimination of certain elected assessors where they had been in place.<sup>12</sup> Current state statutes, however, continue to permit third class cities to retain their own assessors.<sup>13</sup>

Initial drafts of the Third Class County Assessment Board law provided for the Board to be chosen by the electorate, and thus directly accountable to the local electorate. This provision, however, was modified before final passage to authorize county commissioners to appoint the Board.<sup>14</sup>

**Efforts at Increased State Oversight.** In the 1930s, the General Assembly attempted to provide a more centralized system of assessments within counties in an effort to bring about greater uniformity by replacing most locally elected municipal assessors.<sup>15</sup> In 1937, the General Assembly went a step further when it passed legislation providing for greater state level involvement in the selection of local assessment boards responsible for property valuation—an arrangement somewhat similar to the one in place in the neighboring state of New Jersey (see Finding IV A).

Act 1937-256 provided for the state's Auditor General to appoint members to the Board for Assessment and Revision of Taxes in third class counties. Such members were to be residents of the county and appointed to serve four-year terms. The statute also provided for replacement of members currently serving on the boards,

<sup>14</sup> House Legislative Journal, May 5, 1931, pp. 3092-3094.

<sup>&</sup>lt;sup>10</sup> May 10, 1921, P.L. 441.

 $<sup>^{\</sup>rm 11}$  Act 1931-348, as amended.

<sup>&</sup>lt;sup>12</sup> Following enactment of the Third Class County Assessment Board Law, the General Assembly enacted the General County Assessment Law in 1933 (Act 1933-155 as amended), the Second Class County Assessment Law in 1939 (Act 1939-294, as amended), Board of Revision of Taxes (for first class counties—Act 1939-404, as amended), and Fourth to Eight Class and Selective County Assessment Law (Act 1943-254, as amended).
<sup>13</sup> Such city assessors must meet state assessor certification requirements (discussed in Finding III B if they value real property). The cities of Chester and Wilkes-Barre continue to have city assessors.

<sup>&</sup>lt;sup>15</sup> See House Legislative Journal, May 26, 1937, pp. 6036-6038.

and several counties challenged its constitutionality. Initially, the lower court entered judgment in favor of the state. On appeal, however, the Supreme Court of Pennsylvania found in favor of the counties.<sup>16</sup>

The Supreme Court specifically held that the state legislature did not appoint the incumbent members of the county boards of taxation and revision, and therefore, it could not remove them. Much of the Court's written opinion is devoted to outlining its reasoning for not ruling in favor of the constitutionality of an act of the legislature based on principles of local self-government. According to the Court:

In analyzing this act preparatory to determining whether or not it trenches upon the Constitution, one is impressed with the fact that it violates the principle of 'home rule,' i.e., local self-government, which, like the tripartite separation of government powers, is a vital part of both the foundations, and the general framework of our State and Federal governments. In many states, notably New York, the principle of 'home rule' as operative in the selection by the local electorate or by such electorate's chosen officials of public servants to administer matters of local concern, is expressly safeguarded by constitutional provisions. In other states, notably Michigan, the principle of 'home rule' is declared by the highest courts of these states to be implicit in the constitution....

The act [Act 1937-256] now challenged places in the hands of a state officer the authority to appoint, in each of the third class counties of Pennsylvania, officials clothed with the power of 'making all assessments of persons, property, and occupations now or hereafter made subject to assessment for taxation for county, borough, town, township, school and poor purposes' and 'making and revising the triennial assessments and valuations, increasing or decreasing the same as in their judgment may seem proper.' If, as Cooley says, 'the American system is one of complete decentralization, the primary and vital idea of which is that local affairs shall be managed by local authorities,' this act giving control to a state official, through the power of appointment by him of county assessors of 'persons, property, and occupations,' is an application of an alien ideology of government which has not hitherto found legislative favor in this Commonwealth.

After the Supreme Court's decision in 1937, there were other legislative efforts to provide for state officials to appoint the members of local boards responsible for property assessments. In 1939, when the General Assembly was considering proposed legislation for first class counties, the proposed legislation authorized the

<sup>&</sup>lt;sup>16</sup> Smillie v. McElwee, 327 Pa. 148, 193 A. 628 (1937).

Governor to appoint members of Philadelphia's local Board of Taxation and Revision.<sup>17</sup> Before final passage, however, the proposal was removed from the bill. The legislation that was finally enacted provided for the local Court of Common Pleas to appoint the members.<sup>18</sup>

**1976** Pennsylvania Senate Finance Committee Review and Investigation of Assessment Activities: In the mid-1970s, the Senate adopted a resolution calling on the Senate Finance Committee to investigate property tax assessments and the work of mass appraisal or assessment firms. The period was one of housing price volatility (see Findings II G and II H) both nationally and in Pennsylvania;<sup>19</sup> and property taxes were rising.

There were also concerns that court cases on the local, state, or national levels might overturn Pennsylvania assessments as unfair and inequitable. At the time, some major counties did not use a common level of assessment in valuing real property. This despite a major 1965 Supreme Court of Pennsylvania opinion in which the Court held that in determining the correctness of assessment, the court on appeal must first decide, based on the evidence, the fair market value of the property in question, then determine the appropriate ratio of assessed value to market value in the county, and finally, apply that ratio to the property in question. Where evidence indicated that there was no fixed ratio applied in the county, and that ratios varied widely within the county, the average of such ratios could be considered the common level of assessment, and used to reduce the assessment of the complaining taxpayer.<sup>20</sup>

The Committee went about its work by holding statewide hearings at which it heard from citizens, municipalities, assessment offices, county commissioners, state agencies, other states, and mass appraisal firms. It also reviewed studies that were completed by the Pennsylvania State University (see Finding II F), a 1975 study of mass appraisal techniques and county contracting practices by the staff from Pennsylvania Department of Justice and Carnegie-Mellon University, a report on the real estate tax for the city of Philadelphia, and the report of Allegheny County's Committee to Study and Report on Assessment Practices, Procedures, and Policies in Allegheny County.

<sup>&</sup>lt;sup>17</sup> House Legislative Journal, April 18, 1939, pp. 1523-1529.

<sup>&</sup>lt;sup>18</sup> House Legislative Journal, 1939, p. 3509.

<sup>&</sup>lt;sup>19</sup> The Committee noted the then present housing market inflated the average cost of housing 55 percent during the previous five years; however, such inflation was not uniform in all areas. The Committee in its 1976 published report indicated that it anticipated such growth would continue indefinitely. As noted in Finding II H, however, such rapid appreciation nationally only continued until 1980, when the nation's first "housing bubble" of the 20<sup>th</sup> century burst.

<sup>&</sup>lt;sup>20</sup> The Deitch Company v. Board of Property Assessment, Appeals and Review of Allegheny County Pennsylvania, 417 Pa. 213, 209 A.2d 397 (1965).

In its 1976 report, the Senate Finance Committee emphasized that it had:

...decided against changing the local nature of the property tax....The reasoning behind this decision was if the property tax became a state tax or a state-run tax, it would lose its sole redeeming feature. It is a local tax, levied locally, by local people to support local services that can be related to the size or type of property.<sup>21</sup>

The Committee did, however, make several specific recommendations all of which can be found in Exhibit 15. Several of the Committee's recommendations were considered, and some eventually implemented.

The State Tax Equalization Board endorsed the first five short-term recommendations found in Exhibit 15.<sup>22</sup> Eventually, the General Assembly passed legislation implementing two of the five short-term recommendations endorsed by STEB. It required certification of county assessors in all counties with the exception of Philadelphia and Allegheny Counties (Recommendation 3), and provided for STEB to publish a common level ratio that differed from its STEB market ratio. The legislature further provided for the use of STEB's common level ratio in real property appeals (Recommendation 4). Despite significant efforts, legislative, local government, and broad public consensus could not be reached on the Committee's other recommendations.

<sup>&</sup>lt;sup>21</sup> Senate of Pennsylvania, Report and Recommendations of the Senate Finance Committee Investigating Proper-

ty Tax Assessment and the Work of Mass Appraisal Firms, September 1976, Introduction p. 2.

<sup>&</sup>lt;sup>22</sup> See STEB Meeting Minutes, January 26, 1977.

#### Exhibit 15

#### **1976 Senate Finance Committee Report Recommendations**

#### Short-Term Recommendations:

1. The State Tax Equalization Board (STEB) be given supervisory control over property tax assessments in Pennsylvania including the power to order a county to reassess.

2. The State Tax Equalization Board be empowered to develop policies, programs, and hire personnel for the use of the counties in obtaining and maintaining fair and equitable property assessments. The accomplishment of this objective would also require access to a computer network for the counties to transmit data to STEB.

3. The State Tax Equalization Board institute training courses for assessors and establish formal certification procedures for assessors.

4. The present prohibition on STEB figures being used in court be repealed. For assessment purposes, the STEB figures should be a one-year, straight assessment-to-sales ratio which should be published and made available to the public. This would eliminate the present five-year, 15 percent discount ratio now used in a non-useful manner for assessors. [This refers to the STEB market ratio discussed in Finding III C, which, at the time, was introduced in assessment appeals.] The present method could still be used for educational subsidy purposes.

5. The State Tax Equalization Board regulate the activities of mass appraisal firms in Pennsylvania by: (a) establishing and making available to the counties detailed specifications for bidding by mass appraisal firms; (b) drawing up a standard mass appraisal contract for counties to use; and (c) investigating and certifying mass appraisal firms in Pennsylvania.

6. The legislature require all counties to assess at 100 percent of market value.

7. The legislature require full disclosure of corporate/commercial earnings—necessary for a simplified way of determining value under the capitalization of income approach.

8. The state mandate a universal building permit system.

#### Long-Term Recommendations:

1. The legislature recodify the property tax laws. The recodification should give the various classes of counties separate treatment only to the extent that it reflects consideration of the size of the county.

2. Thought and study be given to the abolishment of the property tax to finance education.

3. The Finance Committee conduct an evaluation of the total local tax structure in Pennsylvania looking specifically at this [the property] tax to meet the revenue needs of municipalities and school districts without placing undue burden on certain types or classes of taxpayers.

Source: Senate of Pennsylvania, Report and Recommendations of the Senate Finance Committee Investigating Property Tax Assessments and the Work of Mass Assessment Firms, September 1976, pp. 27-28.

Senate Bills 494 and 505 of 1977, for example, were among the many legislative proposals<sup>23</sup> introduced to implement the Committee's recommendations. Senate Bill 494 would have required all counties to value property at 100 percent of market value, and imposed fines and possible imprisonment of commercial property owners who did not provide certain income information to the county assessor. Senate Bill 505 of 1977, as amended on third consideration, would have authorized the State Tax Equalization Board to:

- issue uniform guidelines on methods and techniques for property valuation, appraisal, and assessment;
- provide advice and technical assistance to county assessors in valuation, appraisal, and assessment practices, procedures, and administration;
- assist assessors by preparing manuals, handbooks of rules and regulations, appraisal manuals, special manuals and studies, news and reference bulletins, and digests of property tax laws;
- institute training courses for assessors and establish formal certification procedures for assessors;
- develop standards for contracting and tests for certifying revaluation companies and their employees; and
- certify all revaluation companies every five years in order for the company to do business in the Commonwealth.<sup>24</sup>

Senate Bill 505 also proposed establishing an "Assessment Review Board." The board would consist of the chairman of the State Tax Equalization Board, the Secretary of Community Affairs, and the Secretary of Revenue. The board, using standards promulgated by STEB, would determine if counties were in compliance with the standards concerning reassessment. If a county was not in compliance, the board was authorized to order a county to reassess within a specified period of time. Counties so ordered would have the opportunity to appeal the board's decision in court.

The General Assembly never adopted Senate Bills 494 or 505. During the debates,<sup>25</sup> senators from different areas of the state raised concern about the proposed authority to be invested in STEB and the state Assessment Review Board. They viewed the bill as authorizing STEB to serve as a "judge and jury," with no real oversight for STEB. Some noted that the statute did not prevent a county from continuously being ordered to reassess, and county taxpayers having to absorb costs

 $<sup>^{23}</sup>$  See for example, Regular Session 1977-1978 Senate Bills 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 505, 506, 507, 508, 509, 510, and 883 and House Bill 750.

 $<sup>^{24}</sup>$  Finding IV A provides information on such activities as they are carried out in Pennsylvania's surrounding states.

<sup>&</sup>lt;sup>25</sup> See, for example, Senate Legislative Journal, July 12, 1977, pp. 609—617; and the Senate Legislative Journal, March 13, 1978, pp. 221-232.

that represent a significant portion of the county's budget. Some senators raised the concern that a state agency to achieve uniformity might establish a single statewide standard, despite differences in the composition of real property across counties and differences in property values across counties. Others noted the bill, in effect, replaced the judgment of local elected officials regarding local matters with the judgment of non-elected officials in Harrisburg.

In their discussion of provisions that required all counties to assess all property at 100 percent of current market value, senators noted that counties were already free to assess at that level if locally elected officials chose to do so. A mandate from the state for such a level of assessment could well have had the effect of imposing a state mandated local tax increase. Others noted such a provision would impose tremendous costs on counties, and the primary beneficiaries would be the parties counties would be forced to contract with to conduct their reappraisals. Senators also noted that some of the provisions that would have STEB providing information to assist counties, STEB was free to do without legislation.<sup>26</sup>

Over time, the General Assembly also addressed the 1976 report's longer term recommendations for major changes to local taxes. In 1988, it passed the Local Tax Reform Act (Act 1988-145), which provided for local tax reform, additional powers and duties for the State Tax Equalization Board, and quality assessment loans and grants for counties to improve their reassessment systems. Final adoption of the act, however, was contingent on the electorate agreeing to a constitutional amendment providing for such reforms. In 1989, the General Assembly adopted Joint Resolution No. 1 proposing to amend Article VIII of the Pennsylvania Constitution, thus placing local tax reform before the voters.

In May 1989, Pennsylvania voters considered a referendum to amend the Pennsylvania Constitution to allow for legislation which would require or permit local government units to reduce residential real estate tax rates and replace such revenues with revenues from personal income taxes, while keeping all other changes in real estate tax rates uniform. The voters defeated the referendum by a 3 to 1 vote, and the legislation enacted to implement the proposed constitutional change (i.e., Act 1988-145) was repealed.

In subsequent legislative sessions, bills were proposed to provide grants and loans to counties to offer incentives for county reassessments, and create advisory groups to establish standards and incentives for counties. Such proposals, however, were never enacted.<sup>27</sup>

<sup>&</sup>lt;sup>26</sup> Subsequently, STEB elected to make available to the public certain data that it developed for counties such as its established predetermined ratios, assessment to sales ratios, coefficients of dispersion, and price related differential. Issues related to the STEB data are discussed in Finding III D.

<sup>&</sup>lt;sup>27</sup> See for example, Senate Bill 1990-1448 ; and House Bill 1989-1598.

**Recent State Level Initiatives:** The General Assembly enacted and the Governor signed Act 2006-1 of the Special Session #1—also known as the Taxpayer Relief Act. In part, the act provided local communities new options to choose the mix of local taxes to fund their schools. The act required all school districts, except Philadelphia, Pittsburgh, and Scranton, to give voters the opportunity to raise the local Earned Income and Net Profits Tax or switch to a Personal Income Tax at the May 2007 primary election in order to raise revenue to fund local property tax relief. The act authorized local school boards to decide on the kind of income tax and the rate for the voter to choose.<sup>28</sup>

The Pennsylvania General Assembly's Local Government Commission, moreover, has continuously worked with the Assessors' Association of Pennsylvania (AAP) and the County Commissioners Association of Pennsylvania (CCAP), and studied issues related to real property taxes. In the past three sessions, including the 2009-10 session, for example, it worked with the AAP and CCAP to draft and introduce legislation to consolidate and provide greater uniformity to existing assessment statutes in counties other than Allegheny and Philadelphia.<sup>29</sup>

<sup>&</sup>lt;sup>28</sup> According to the Pennsylvania Department of Education, voters in eight school districts (Bald Eagle Area in Centre County, Bedford Area in Bedford County, Chambersburg Areas in Franklin County, Everett Area in Bedford County, Huntingdon Area in Huntingdon County, Juniata Area in Huntingdon County, Kane Area in McKean County, and Reading in Berks County) approved the referenda.
<sup>29</sup> Senate Bill 2009-918.

# B. Since 1987, Pennsylvania Has Required Certification for Pennsylvania Real Property Evaluators

The certification of property assessors (technically referred to as Certified Pennsylvania Evaluators, or CPEs) is a key way in which the Commonwealth provides oversight and uniformity of the real property assessment system at the local level. The General Assembly initially passed legislation signed by the Governor requiring certification of assessors who value real property in 1986.

Act 1986-192 provided for the State Tax Equalization Board to certify and recertify assessors who valued property in the Commonwealth, including those employed by mass appraisal companies. It further established minimum standards for all assessors applying for certification. The act, which became effective in 1987, provided time frames for assessors to achieve certification, and specifically exempted Philadelphia and Allegheny Counties from its requirements.

Act 1992-28, as amended, is construed as a continuation of Act 1986-192, and assigned responsibility for certification of assessors from the State Tax Equalization Board to the State Board of Certified Real Estate Appraisers within Pennsylvania's Department of State. In 2004, it was amended to apply the certification requirements to those valuing property in Allegheny County starting in 2005. House Bill 2302, which was approved by the House and referred to the Senate in mid-2010, would extend the certification requirement to newly hired assessors in Philadelphia.

The State Board of Certified Real Estate Appraisers is not required to have an assessor on the Board. There are seven board members including the Secretary of the Commonwealth or designee, four state certified real estate appraisers, and two public members appointed by the Governor.

#### Certified Pennsylvania Evaluators (CPEs) Requirements

The State Board of Certified Real Estate Appraisers currently regulates the certification of real estate appraisers and assessors in Pennsylvania. The Board examines for, denies, approves, issues, revokes, suspends, and renews certificates of appraisers and assessors. The Board also establishes standards of professional appraisal practice and conducts hearings when complaints are filed.

State Board of Certified Real Estate Appraisers' regulations require Certified Pennsylvania Evaluators to perform their duties in accordance with Pennsylvania assessment statutes and generally accepted assessment standards. The regulations also require that assessments be performed in general accordance with the Uniform Standards of Professional Appraisal Practice (USPAP) established by the Appraisal Foundation,<sup>1</sup> but do not require certified assessors to meet the Foundation's qualifying criteria for certification. The Board's statutes and regulations contain no specific requirements that address the impact of Pennsylvania court decisions on permissible assessment practices. This despite the important role of court decisions related to valuation and assessment practices, and national standard setting organization standards providing for valuation and assessment practices (e.g., partial reassessments) that Pennsylvania courts have determined are in violation of the state constitution's uniformity clause. (See Finding III E.)

To become a Certified Pennsylvania Evaluator in Pennsylvania an applicant must:

- possess a high school diploma, or its equivalent, or two years of assessing experience;
- be at least eighteen years of age;
- be a resident of this Commonwealth for at least six months;
- file with the State Board of Real Estate Appraisers a Declaration of Intent to obtain a CPE designation;
- complete a minimum of 90 classroom hours of courses of study in subjects covering the appraisal assessing profession, including topics listed in the Regulations of the State Board of Certified Real Estate Appraisers for Certified Pennsylvania Evaluators;<sup>2</sup> and
- pass a comprehensive examination covering all phases of the appraisal process and the assessment function.

The Pennsylvania State Board of Certified Real Estate Appraisers has contracted with PSI licensure:certification (PSI) to conduct the examination program.<sup>3</sup> PSI works closely with the state to be certain that examinations meet local as well as national requirements. The exam is designed to confirm that applicants have attained at least a minimum level of knowledge regarding the principles, practices, statutes, and regulations relating to real estate appraisal in Pennsylvania.

The certified assessor must be re-certified every two years. To become recertified, the assessor must accumulate 28 hours of continuing professional education credits. Seven hours must be on the Uniform Standards of Professional Appraisal Practice and two hours on the Assessors' Certification Act, Act 1992-28, as

<sup>&</sup>lt;sup>1</sup> The Appraisal Foundation is a not-for-profit organization dedicated to the advancement of professional valuation. The Foundation works to foster professionalism in appraising by establishing, improving, and promoting the Uniform Standards which contains the recognized standards of practice for real estate, personal property, and business appraisal. The Foundation also establishes examination qualification criteria for the licensing, certification, and recertification of real property appraisers and other valuation disciplines.

<sup>&</sup>lt;sup>2</sup> 49 Pa. Code §36.222.

<sup>&</sup>lt;sup>3</sup> PSI provides examinations through a network of computer examination centers throughout Pennsylvania. Testing sites are available in Allentown, Bristol, Cranberry Township, Erie, Greensburg, Harrisburg, King of Prussia, Philadelphia, Pittsburgh, and Scranton.

amended. The State Board of Certified Real Estate Appraisers approves the courses or activities which comply with the re-certification requirements.

Classroom credit may be obtained from accredited colleges, universities, or community or junior colleges. Classroom credit may also be obtained from real estate appraisal or assessment related organizations, state or federal agencies or commissions, proprietary schools, and other providers with approval of the State Board. Distance education courses may be approved by the board to meet the classroom hour requirements. The Assessors' Association of Pennsylvania (AAP), an affiliate of the County Commissioners Association of Pennsylvania, offers a wide variety of basic, intermediate, and advanced classes on assessment issues. AAP offers classes each year to help members prepare to take the CPE exam and to earn recertification credits.

### **Disciplinary Measures**

Act 1992-28, as amended, authorizes the State Board of Certified Real Estate Appraisers to deny, suspend, or revoke certificates. Such disciplinary measures can be taken by the Board, for example, when an applicant:

- knowingly makes a false statement,
- fails to meet the minimum qualifications established by the act,
- pays or offers to pay to procure a certificate or renewal of a certificate,
- violates standards of professional conduct adopted by the Board,
- fails or refuses, without good cause, to exercise reasonable diligence in developing an assessment or preparing an assessment report, or
- negligently or incompetently develops an assessment or prepares an assessment.

The Department of State advised the LB&FC staff that it has been asked to investigate and take disciplinary action on relatively few occasions. They provided us with information on the four cases heard by the board since 1999. These cases resulted in the following actions by the Board:

- in April of 2000 the Board revoked the CPE license of an assessor who had falsified information on his application regarding his denial of a license by another board or commission;
- in 2002 the Board revoked the CPE license of a chief assessor for a county in Pennsylvania after he lowered the assessed value of his residence in the county records to reduce his tax bill;

- in 2006 the Board denied permission for an applicant to sit for the CPE examination based on the felony criminal record of the applicant; and
- over a four-year period, beginning in July 2001, the Board conducted a disciplinary proceeding against a county chief assessor based on allegations that the assessor used improper methodology in assessing some properties, violated standards of professional conduct, and acted negligently or incompetently in developing or preparing assessments. Prior to the individual becoming chief assessor in 1988, the county in 1970 had begun using a new manual for determining the value of property in the county anticipating a reassessment (i.e., introduced a different method of valuing property—see Finding III E for court opinions related to such practices) in anticipation of completion of a countywide reassessment. Such a reassessment, however, was never completed. Then, in the 1980s when the county developed its CAMA [computer-assisted mass appraisal] manual, it incorporated the county's 1970s' method of valuing property into its new property valuation automated system. At the time, all county assessors believed that the procedures they were using were equalized to reflect the 1958 base year market values from the last countywide reassessment. The chief assessor against whom the complaint was filed had continued using the county's "new" 1970 procedures when he became chief assessor in 1988. In 1997, he discovered that the county's valuation procedures differed from those adopted in the county's 1958 base year, and he moved to correct the problem. In March 2005, after a review of the evidence, the Board finally concluded that the problem with the assessments was not attributable to any negligence, incompetence, or lack of due diligence by the newly appointed chief assessor. The charges were dismissed, and no disciplinary action was taken by the Board.

Early in 2010, the Department of State responded to a professional licensure complaint by property owners against a certified appraiser responsible for a mass appraisal in the property owners' county. The Department of State has indicated that it would select an expert in mass appraisal techniques to assist with its investigation.

Currently, there are no members of the State Board of Certified Real Estate Appraisers who are Certified Pennsylvania Evaluators. In the past, one Board member was certified as both a Real Estate Appraiser and Pennsylvania Evaluator. The former Board chair (who is not eligible for reappointment) advised LB&FC staff that because of issues that come before the Board, it should be required to include Certified Pennsylvania Evaluators on the Board.

## C. The Pennsylvania State Tax Equalization Board Gathers and Provides Data to State Agencies for Use in Formula Allocation of State Funds and to Establish Certain Tax Rates

The State Tax Equalization Board (STEB) was established by Act 1947-477<sup>1</sup> to provide a method to convert aggregate taxable assessments in school districts into equalized market values for use in a formula that determines the allocation of state subsidies to school districts. Thus, STEB was established to help compensate for differences in property values across counties and to help the Department of Education ensure that poorer districts with a smaller property tax base receive more state aid.

In 1943, Pennsylvania's General Assembly established a Special School Commission to review the procedures used in distributing the state's school subsidy and recommend necessary changes. Among other findings, the Commission determined that the amount of the state subsidy was largely determined by the local school boards through their pupil-to-teacher ratios and the local school board's certification of the assessed-to-market value ratio of property. One recommendation of the Special School Commission was the creation of a state board of assessment equalization to identify the assessed-to-market value ratios of property throughout the state, rather than rely on the ratios certified by the local school board.

The General Assembly did not create STEB to be part of the county assessment process or to become involved in real property assessment for state taxing purposes. The law specifically states that:

Nothing in this act shall be construed to change or affect the validity of the assessed valuation of any real property for the purpose of levying taxes by any political subdivision.<sup>2</sup>

## State Tax Equalization Board Composition, Staffing, and Budget

STEB is an independent administrative board consisting of three members who are appointed by the Governor. The board members serve four-year terms and receive a salary for their services. The board has the authority to hire staff to carry out the clerical, administrative, investigatory, and technical tasks connected with its work. STEB's FY 2009-10 appropriation is \$1.16 million, a decrease of 4 percent from the previous year.

<sup>&</sup>lt;sup>1</sup> 72 P.S. §4656.1 <u>et seq</u>.

<sup>&</sup>lt;sup>2</sup> 72 P.S. §4656.17.
In early 2009, STEB had an authorized complement of 19 full-time employees, with 18 of these positions filled.<sup>3</sup> Staff in the Harrisburg office includes the three board members, the director of operations, the director of certification, four additional staff, and one vacant position. Field offices in Philadelphia and Pittsburgh employ another six field staff.

#### How STEB Develops the STEB "Market Ratio"

Each county assessment office is required to report all sales of taxable real property to STEB on a monthly basis.<sup>4</sup> Each county is also required to provide an annual report showing the assessed valuation of all real property, by school district, on which current year taxes are levied.

STEB converts the aggregate taxable assessments from each school district into its certified aggregate market values based on a procedure that relies on the aggregate valid sales data<sup>5</sup> for each property class.<sup>6</sup> Based on legislative requirements, STEB's procedure used to provide the certified market value is different in even and odd certification years. STEB uses the data from five years of valid sales to derive an aggregate value for all property in the county.<sup>7</sup> This process results in indirect equalization of property values across counties. STEB reports its certified market values to the Pennsylvania Department of Education for use in PDE's subsidy distribution formulas each year. (Appendix H provides information on the calculations STEB uses to determine the certified market value in both even and odd numbered years.)

#### **Pennsylvania Department of Education**

The Commonwealth's Basic Education Subsidy to school districts is intended to cover the difference between the cost of a basic education program and the amount which a school district may reasonably expect to contribute toward that basic education program. The school district's ability to contribute is generally determined by the market value of the district's taxable property.

The Department of Education uses STEB's equalized market values in determining a school district's real property value for distribution of state funding. This value provides a measure of relative wealth between the school districts and is used by PDE for computing the basic account standard reimbursement fraction, the subsidiary account reimbursement fraction, the aid ratio, the market value/income

<sup>&</sup>lt;sup>3</sup> Per STEB's FY 2009-10 Budget Request.

<sup>&</sup>lt;sup>4</sup> STEB pays the county \$0.20 for each valid sale on their monthly report.

 $<sup>^5</sup>$  See Finding II D for STEB's listing of the types of sales that are not valid sales.

<sup>&</sup>lt;sup>6</sup> STEB property classes include: residential, lots, industrial, commercial, agricultural, land, oil/gas/minerals, trailers, seasonal, woodland, and miscellaneous.

<sup>&</sup>lt;sup>7</sup> In the year in which a countywide reassessment and/or a change in the county's predetermined ratio takes effect, STEB uses only one year of sales data to derive the aggregate market value.

aid ratio, and the equalized millage. It is also used in determining pupil transportation subsidies and some one-time grants to school districts.

In addition to the education subsidy formula, the Department of Education uses STEB data in distributing state financial aid to libraries and in determining tax limitations in financing for community colleges.

STEB certified market values (derived from the STEB market ratio) can also be used in other ways by certain school districts. In some states, the state agency involved in developing equalized market values is also responsible for developing equalized tax rates for school districts that cross municipal or county boundaries (see Finding IV A). This, however, does not occur in Pennsylvania, and STEB is not directly involved in such direct equalization. Rather, Pennsylvania's school code allows school districts that are located in more than one county to choose one of three options, some of which involve use of STEB market values to equalize tax rates by using the market values to apportion the tax burden in such districts. The Department of Education provides budgeting software to the school districts that include these options for use by the multi-county school districts.

#### Pennsylvania Department of Revenue

The Department of Revenue converts the STEB common level ratio (or CLR discussed in detail in Finding III D), which is significantly different than STEB's "market ratio," into a common level ratio factor in order to assign value to properties for state transfer tax purposes. The Real Property Transfer Act of 1986 (Act 1986-77, as amended) defines the value of a property transferred as a gift or with consideration less than the actual worth of the property as the monetary worth of the real estate as determined by adjusting the assessed value of the property using STEB's common level ratio.

The common level ratio factor is calculated by the Department of Revenue based on the CLR provided by STEB. The factors are the mathematical reciprocals<sup>8</sup> of the STEB common level ratio for each county.<sup>9</sup> The Department publishes these factors for each county annually.

<sup>&</sup>lt;sup>8</sup> The CLR factor calculated by the Department of Revenue is one divided by the CLR. For example, Adams County had a CLR of .220 for 2007 sales; the CLR factor from July 1, 2008, through June 30, 2009, was one divided by .220 or 4.55.

<sup>&</sup>lt;sup>9</sup> The Pennsylvania Department of Revenue is able to develop a common level ratio factor using STEB's CLR for each county as the CLR is a mean and can, therefore, be manipulated algebraically. Medians do not lend themselves to algebraic manipulations to arrive at mathematical reciprocals. If the STEB's CLR was a median, DOR would not be able to use the CLR to develop a common level ratio factor.

#### **Other State Uses**

In 1999, the Public Utility Reality Tax Act<sup>10</sup> included the STEB Common Level Ratio in the formula used to calculate the current market value of utility realty for taxation purposes. The Common Level Ratio factor developed by the Department of Revenue is used for this calculation.

The common level ratio factor is also used in valuing Project 70<sup>11</sup> land for inlieu-of-tax payments by the state. STEB shall "determine and certify" the prior market value of the acquired Project 70 property for this purpose.

STEB's certified market values are also used to allocate Foreign Fire Insurance Tax funding. Money collected from the Foreign Fire Insurance Tax is allocated to municipalities and volunteer fire associations in Pennsylvania.<sup>12</sup> This allocation is based on a formula that uses the municipality's population and the market value of taxable real estate in the municipality as established by STEB when developing the STEB "market ratio."

Although STEB's initial enabling legislation specifically excluded the use of the STEB ratio (i.e., the STEB "market ratio") in determining the validity of locally assessed values, property owners at times sought to introduce STEB data in property assessment appeals to show discrimination in their property assessments compared with others in the taxing district. As recommended in the Senate Finance Committee's 1976 Report (see Finding III A) and endorsed by the STEB Board, the General Assembly provided for STEB to develop and issue a ratio to be used by taxpayers in real property tax appeals. Finding III D provides additional information on STEB's Common Level Ratio.

<sup>&</sup>lt;sup>10</sup> 72 P.S. §8101-A et seq.

<sup>&</sup>lt;sup>11</sup> The Project 70 Land Acquisition and Borrowing Act (72 P.S. §3946.1 <u>et seq</u>.), authorized by a 1963 amendment to Pennsylvania's Constitution, permits the state to issue bonds for the purchase of lands for public parks, reservoirs, and other conservation, recreation, and historical preservation purposes, and to coordinate those purchases with local governments.

<sup>&</sup>lt;sup>12</sup> 53 P.S. §895.701 <u>et seq</u>.

## D. The Pennsylvania State Tax Equalization Board Develops and Publishes a Common Level Ratio, Which Is Used in Certain Types of Real Property Appeals

The State Tax Equalization Board (STEB) annually calculates and publishes a level of assessment performance indicator known as the common level ratio (CLR) for each county. STEB came to calculate and publish this statistical measure in response to a need recognized by the courts and the legislature for a "simple" way for taxpayers to consider if their property assessments were in proportion to others.

The level of assessment, or common level ratio, and its related statistical measures, such as the coefficient of dispersion, or COD, published by STEB, however, are not designed to evaluate a county's assessment and valuation system or to conclude if a countywide reassessment is needed. As discussed in detail below, STEB performance measures are not necessarily representative of all property in a county, and have other associated technical problems.

### **Reasons for STEB's Common Level Ratio**

In Pennsylvania, both property owners and taxing districts have the right to appeal an assessment. The first level of appeal is to the county board of appeals, and subsequently an appeal may proceed to the court of common pleas and eventually to the Pennsylvania Supreme Court.

Pennsylvania courts (and those in other states) have a long history of recognizing that one of the ways property owners can appeal their property assessment is by showing that their property valuation and assessment was not in proportion to the value and assessment of other real properties. This type of appeal is sometimes referred to as an "appeal based on ratio," which includes all property in the county and not just similar properties (e.g., shopping centers). Since the early 1900s, the courts have considered ratios, predetermined or "actual" average, in such appeals.

In 1965, the Pennsylvania Supreme Court ruled that, in order to assure that a property owner pays no more or less than his proportionate share of the tax burden, each property assessment should conform to the common level of assessment in the taxing district (i.e., the county).<sup>1</sup> The court also provided guidelines for determining such common levels of assessment in assessment appeal cases. It noted that when there is no fixed ratio of assessed value to market value established in the county and ratios of individual assessment to market value varied widely, then the average of such ratios may be acceptable as the common level of assessment for real

<sup>&</sup>lt;sup>1</sup> The Deitch Company v. Board of Property Assessment, Appeals and Review of Allegheny County, 417 Pa. 213, 209 A.2d 397, 1965.

property appeals if evidence shows the "bulk of individual assessments tend to cluster" around such a common average.

Following the Pennsylvania Supreme Court's 1965 decision, property owners at times sought to introduce the ratio of STEB certified market values to county assessed values calculated for the education subsidy distribution formula<sup>2</sup> in property assessment appeals based on ratio. Such ratios were not always accepted as evidence of unequal treatment of a property. Some courts, moreover, noted in their opinions the problems taxpayers encountered when instituting assessment appeals based on ratio without a "practical way" to demonstrate that their assessed to market value ratios differed from those of typical properties in the county. The courts also noted the availability of STEB data and that if STEB data was allowed to be admitted into evidence many problems which arise out of numerous assessment appeals would vanish.<sup>3</sup>

With Act 1982-267, the Pennsylvania General Assembly responded to such concerns. It authorized the State Tax Equalization Board to calculate a common level ratio for each county that differed from the STEB "market ratio," and allowed the use of such a ratio in real property assessment appeals with the enactment of Acts 1982-268, 1982-269, 1982-270, 1982-271, 1982-272, and 1982-273. This "new ratio," therefore, was intended to provide property taxpayers with a way of determining and demonstrating that their property was assessed inequitably.

Based on such legislation, in an assessment appeal the board of assessments must determine the fair market value of a property and then apply the county's predetermined ratio to determine a property's assessed value. The 1982 legislation, however, provides that when the STEB common level ratio varies by more than 15 percent from the predetermined ratio, STEB's common level ratio is to be used instead of the predetermined ratio to calculate the assessed value of the property.<sup>4</sup> In 2006, the Pennsylvania Supreme Court clarified that the method of appeal specified in the 1982 statute is not the only method available to the taxpayer appealing an assessment under the Pennsylvania Constitution's uniformity provision as it has been interpreted by the courts.<sup>5</sup>

<sup>&</sup>lt;sup>2</sup> This ratio, sometimes referred to as the "STEB market ratio" or "STEB ratio," is substantially different from, and should not be confused with, the STEB common level ratio. Finding III C and Appendix H provide additional information on the STEB's "market ratio."

<sup>&</sup>lt;sup>3</sup> Schenley Land Company re Allegheny County Board of Property Assessment. 205 Pa. Super. 577 (1965).

<sup>&</sup>lt;sup>4</sup> The method of calculating the 15 percent variance was established in the Commonwealth Court case, In Re: *Appeal of Armco, Inc.*, 515 A.2d 326 (1986). The Court specified that the correct method of calculation is that 15 percent of the established predetermined ratio rather than 15 points should be added to and subtracted from the established PDR to ascertain when the common level ratio should be applied.

<sup>&</sup>lt;sup>5</sup> Downingtown Area School District v. Chester County Board of Assessment Appeals and Lionville Station S.C. Associates, 590 Pa. 459, 913 A.2d 194 (2006).

The 1982 legislation did not specify how STEB was to develop the common level ratio, and the STEB Board was not involved in developing the legislation.<sup>6</sup> In 1977, however, the STEB Board had endorsed the Senate Finance Committee's recommendations that the prohibition on STEB figures being used in court be repealed, and that for assessment purposes, the STEB figure should be a one-year, straight assessment-to-sales ratio, which should be published and made available to the public. (See Finding III A.)

#### The STEB Common Level Ratio

Based on the 1982 legislation, STEB uses information on real estate sales and assessment values from each county to compile a Common Level Ratio (CLR) for each county each year. Then, acting primarily as a clearinghouse, it publishes the ratio it certifies for the counties for use by parties in real property appeals. STEB, however, has no direct role in the assessment appeals process.

Prior to publishing the CLR for each county, the State Tax Equalization Board certifies a countywide CLR to the chief assessor of each county each year. Counties have the right to appeal STEB's common level ratio. When the CLR was first introduced as admissible in assessment appeals, several counties appealed STEB's calculation. As a result of concerns expressed by the counties during these appeals, STEB revised its procedures related to the identification of valid and invalid sales.

The STEB Board has not published regulations or a policy statement outlining specific criteria for valid sales.<sup>7</sup> Due to resource constraints, moreover, STEB does not routinely perform audits to assure the sales data it receives are valid sales (i.e., include only the price of the property and not furniture, or other financial considerations, etc.), or to supplement when insufficient sales are available to derive the ratio. In order to understand the extent to which STEB published data are useful in evaluating a county's system of property valuation and assessment and issues related to such uses, it is important to understand how STEB develops and derives its common level ratio and other associated statistics.

#### How STEB Develops and Derives the Common Level Ratio

The Common Level Ratio developed by STEB is calculated based on sales data. The assumption underlying use of sales data is that current sale prices represent the current fair market values and that the sales are representative of the overall property in a county. Each county submits sales data for the previous

<sup>&</sup>lt;sup>6</sup> State Tax Equalization Board Meeting Minutes, June 29, 1982.

<sup>&</sup>lt;sup>7</sup> STEB has developed a one page list of invalid sales for counties to use in classifying sales as valid or invalid. As noted in Finding IV A, some states have more detailed regulations and/or guidance for identifying valid and invalid sales and for use of such sales in sales-to-assessment ratio studies.

year to STEB, including information on the sale price and assessed value of each sold property. The county, moreover, must identify all invalid sales in the data it submits, and invalid sales are excluded from STEB's calculations. (Finding II D provides STEB's list and guidance for invalid sales.)

The assessed value of each remaining valid sale is divided by the sales price to obtain the assessment-to-sales ratio for each property. The ratios are added together and then divided by the number of sales to obtain the average assessment-tosales ratio for all valid sales. The list of sold properties is then trimmed<sup>8</sup> to eliminate high and low outliers.<sup>9</sup> Appendix I outlines in detail the steps in STEB's calculation to arrive at each county's common level ratio.

As all real property in Pennsylvania is one class, according to Pennsylvania's courts, <sup>10</sup> STEB does not calculate ratios separately for different types or classes of property. STEB's method of calculating the common level ratio, moreover, does not take into account a property's value—a property valued at \$1,000 is the same as one valued at a \$1 million. There are also other issues concerning Pennsylvania's CLR, in particular if the CLR and its associated statistic—the Coefficient of Dispersion (COD)—are to be used to evaluate the quality of a county's assessments.

#### **Concerns Related to STEB's Common Level Ratio**

The Common Level Ratio (CLR) shows the relationship of sale price to assessed value for property sold in a county each year and is intended to reflect the current relationship between assessed values and the current fair market values of "the bulk" of properties in the county. This process assumes that the common level ratio accurately reflects the change in market values for all properties over time. This, however, may not always be the case if the sales used to develop the ratio are not representative of all properties in the county. Some of the concerns related to the representativeness of the properties used in the STEB calculation(s) are discussed below.

Sales Data Is Not Necessarily Representative of All Types of County Prop-

*erty.* The distribution of the types of property sold may not necessarily be representative of the property in the county. As noted in Finding II C, the composition of

<sup>&</sup>lt;sup>8</sup>For purposes of STEB's trimming, the average assessment-to-sales ratio is multiplied by 4 to identify the high limit and divided by 4 to identify the low limit. All sales with ratios outside of these limits are eliminated. A new assessment to sales ratio is then calculated using the trimmed list of sales. While a complete discussion of STEB's method of trimming is beyond the scope of this study, we note that it differs from that recommended by the IAAO, and differs from the methods used in some other states discussed in Finding IV A.

<sup>&</sup>lt;sup>9</sup>The identification of high outliers differs depending on the county's predetermined ratio. In counties where the predetermined ratio is less than 100 percent, all valid sales ratios up to 100 percent are included in the calculation. In counties where the predetermined ratio is 100 percent, however, all valid sales ratios up to 200 percent are included in the calculation of the CLR. There were 37 counties with predetermined ratios of 100 percent in the 2008 calculation.

<sup>&</sup>lt;sup>10</sup> Delaware, Lackawanna & Western Railroad Company's Tax Assessment (No. 1), 224 Pa. 240; 73 A.429 (1909).

property varies considerably across the counties. Since the counties do not provide STEB with information on the overall composition of the county's property inventory by property parcels and type, STEB has no way of determining if the sales data it uses to develop the CLR is representative of all of the property types in a county.

In a representative sample, the types of properties included in STEB's calculations for the ratio studies would be in the same proportion as those property types occur in the total county property inventory. However, because some types of property are easier to sell in certain real estate markets, the sold properties are not necessarily representative of all of the actual property types in a county.

In Table 20, we show a comparison of the property types and the types of property sold in one Pennsylvania county in 2008 using actual STEB data and information gathered by the LB&FC in our survey of the counties.<sup>11</sup> As shown in the exhibit, residential property represents almost 41 percent of the parcels in the county and 43 percent of the valid sales, while seasonal property represents about 33 percent of the parcels in the county but only 16 percent of the sales.

When comparing the assessed value of the property, residential property comprises 55 percent of the assessed value of the property in the county but 65 percent of the assessed value of valid property sales. This may indicate that higher value residential properties are selling at a higher rate than lower valued residential properties. Seasonal property assessed value represents almost 19 percent of the property in the county but only 9 percent of the valid sales, indicating that lower valued seasonal properties are selling at a higher rate than higher valued seasonal properties. In this example, the types of sold properties do not appear to be representative of the property in the county as a whole. IAAO standards for acceptable ratio studies state that "in general, a ratio study is valid to the extent that the sample is sufficiently representative of the population."

Only a limited number of properties may sell in a given year. The available number of valid sales in a county in a single year can also be problematic. In statistics, a larger sample size generally provides a more reliable statistic. STEB uses the number of actual sales reported by the county for the previous year in its calculations. In some cases, there have been only a small number of valid sales in a county, raising concerns about the reliability of the STEB calculation.

<sup>&</sup>lt;sup>11</sup> LB&FC staff did not select this county at random. Rather, we selected a small county to illustrate the analytic issues discussed as it provided a manageable data base and detailed parcel information had been provided by the county that permitted our analysis. All but 15 of Pennsylvania's 67 counties, moreover, are less populous fourth to eighth class counties.

Tat	ble	20
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#### Distribution of Sales by Property Type in a Sample County

Property Type <sup>a</sup>	Total Parcels	% of Total Parcels	Total Number of Sales	% All Sales	Number of Valid Sales	% Valid Sales
Aariculture	10	0.19%	0	0.00%	0	0.00%
Commercial	153	2.91	4	3.13	3	6.12
Industrial	20	0.38	0	0.00	0	0.00
Residential	2,150	40.96	61	47.66	21	42.86
Seasonal	1,759	33.51	26	20.31	8	16.33
Land	1,074	20.46	31	24.22	14	28.57
Misc	<u>83</u>	1.58	6	4.69	<u>_3</u>	6.12
Total	5,249	100.00%	128	100.00%	49	100.00%
		By Assess	ed Value of Pro	perty		
Property Type <sup>a</sup>	All Property	% of Total	All Sales	% All Sales	Valid Sales	% Valid Sales
Agriculture	\$ 217,505	0.30%		0.00%		0.00%
Commercial	7,127,472	9.94	\$ 304,275	15.78	\$ 92,275	13.14
Industrial	4,490,815	6.26	0	0.00	0	0.00
Residential	39,489,511	55.05	1,218,285	63.18	459,100	65.38
Seasonal	13,396,630	18.67	240,375	12.47	67,750	9.65
Land	6,602,539	9.20	104,314	5.41	75,167	10.70
Misc	412,170	0.57	60,900	3.16	7,950	1.13
Total	\$71,736,642	100.00%	\$1,928,149	100.00%	\$702,242	100.00%

#### By Number of Parcels

<sup>a</sup> We used the property types reported by the county which differ slightly from the STEB property types. The small differences do not affect this analysis.

Source: Developed by LB&FC staff using sales information provided by STEB and parcel information provided by the county.

In Table 21, we show the number of valid sales as a percentage of the total parcels in our sample county. Just over two percent of the 5,249 parcels in the county were sold in this year, but less than one percent of the total parcels in the county were considered valid sales. There were more invalid sales (79 parcels) in the county than valid sales (49 parcels) for the year. The assessed value of these valid sales represented less than one percent of the total assessed value of all county property. In this "real life" example, STEB's calculation of the CLR is based on data representing less than one percent of the actual property in the county.

#### Comparison of Valid Sales to All Parcels by Property Type in a Sample County

Property Type <sup>a</sup>	Total Parcels	Total Number of Sales	% Total Parcels	Number of Valid Sales	% Total Parcels			
Agriculture	10	0	0.00%	0	0.00%			
Commercial	153	4	2.61	3	1.96			
Industrial	20	0	0.00	0	0.00			
Residential	2,150	61	2.84	21	0.98			
Seasonal	1,759	26	1.48	8	0.45			
Land	1,074	31	2.89	14	1.30			
Misc	<u>83</u>	6	7.23	_3	3.61			
All	5,249	128	2.44%	49	0.93%			

#### **Number of Parcels**

#### Assessed Value

Property	All	All		Valid	
Type <sup>a</sup>	Property	Sales	% Total	Sales	% Total
Agriculture	\$ 217,505		0.00%		0.00%
Commercial	7,127,472	\$ 304,275	4.27	\$ 92,275	1.29
Industrial	4,490,815	0	0.00	0	0.00
Residential	39,489,511	1,218,285	3.09	459,100	1.16
Seasonal	13,396,630	240,375	1.79	67,750	0.51
Land	6,602,539	104,314	1.58	75,167	1.14
Misc	412,170	60,900	14.78	7,950	1.93
All	\$71,736,642	\$1,928,149	2.69%	\$702,242	0.98%

<sup>a</sup> We used the property types reported by the county which differ slightly from the STEB property types. The small differences do not affect this analysis.

Source: Developed by LB&FC staff using sales information provided by STEB and parcel information provided by the county.

Although the current IAAO standards do not directly address sample size, its *Standard on Ratio Studies* states that the larger the sample size the greater the reliability of the calculated statistics. The IAAO suggests evaluating the adequacy of a given sample size by using statistical methods such as confidence intervals.<sup>12</sup> The New York State Office of Real Property Services, in its guidance to local assessors, suggests that there should be at least 15 samples in each property type stratum for meaningful analysis, while 30 would be best for high reliability. As shown in Table 21, three of the property types have less than 15 valid sales.

<sup>&</sup>lt;sup>12</sup> According to the IAAO the purpose of confidence intervals in ratio studies is to determine if the appraisal level differs from the established standards in a particular case; a conclusion of noncompliance requires a high degree of confidence.

The value of sold properties may differ from the value of unsold properties. Properties that sold during a year may be different than the properties that did not sell in a county. The STEB common level ratio is based on the ratio for properties in a county that have been determined to be valid sales in a single year. Therefore, the CLR does not consider the assessed value to market value for all properties in the county, only for those properties that have sold in the past year. Unsold properties may have increased or decreased in value at a different rate than properties that sold. Other considerations affecting fair market value might be the age, construction method, or geographic location of the property—considerations that are not reflected in the sales data available to STEB.

The geographic location of sold properties may not represent the county's overall property inventory. The sales data used by STEB to develop a county CLR is not necessarily reflective of a county's overall property inventory, and the location of such property. As a result, the CLR may not represent the current average of assessment to fair market value for all property in the county. To see if this was occurring, we looked at the types of property that were selling in each of the seven municipalities in our sample county. Residential property made up 41 percent of the 5,249 parcels in this county and 55 percent of the \$71.7 million in assessed value in this county. The second largest property group was seasonal property with 33 percent of all parcels and 19 percent of assessed value. Vacant land represented 20 percent of all parcels but only 9 percent of assessed values.

As shown in Table 22, Township 7 had the most parcels (37 percent) and the highest total assessed value (43 percent) of any of the municipalities in the county. While not shown in Table 22, the average assessed value for residential properties in Township 7 was higher than the average assessed value of residential property in the county as a whole or in the other municipalities. Township 7 also had the largest percentage of valid sales both by parcel count and assessed value in the year we reviewed. In fact, its percentage of total valid sales was greater than would be expected based on its share of the county's total parcels (51 percent valid sales compared to 36 percent of the total parcels) and assessed value (57 percent for valid sales compared to 43 percent total assessed value).

The table shows that in Township 2, the percentage of all valid sales was consistent with the township's share of the county's total parcels (19 percent) and assessed values (31 percent). Valid sales represented 18 percent of the parcels and almost 30 percent of the assessed value of all valid sales in the county for this year.

The picture which emerges for this township, however, is different if all residential sales, both valid and invalid, are considered. Township 2's percentage of all (i.e., valid and invalid) county residential sales is greater than would be expected given its share of county residential property. Although not shown in the table, over 43 percent of all (i.e., valid and invalid) residential parcels sold in the county were located in Township 2, while the township accounted for only 36 percent of the

Table	22
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for Municipalities in a Sample County (Overall)							
	County	<u>Totals</u>	<u>All Sa</u>	All Sales		ales	
	Assessed <u>Value</u>	Parcels	Assessed <u>Value</u>	Parcels	Assessed <u>Value</u>	Parcels	
Township 1	1.5%	2.4%	0.4%	0.8%	0.0%	0.0%	
Township 2	30.9	19.0	36.1	25.8	29.5	18.4	
Township 3	8.3	14.1	3.2	7.8	2.9	12.2	
Township 4	6.5	14.8	3.3	8.6	6.3	12.2	
Township 5	7.0	9.9	5.5	10.9	0.7	2.1	
Township 6	2.7	3.2	4.2	3.9	3.2	4.1	
Township 7	43.1	36.6	47.3	42.2	57.4	<u>51.0</u>	
County Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Source: Developed by LB&FC staff information provided by the county.							

# **Distribution of Property Inventory and Sales**

residential parcels in the county.<sup>13</sup> This imbalance occurs as a result of the high proportion of invalid residential sales occurring in this township. Almost one half of all the invalid residential sales<sup>14</sup> in the county occurred in Township 2. Residential sales overall accounted for 3.5 percent of all residential parcels in Township 2, with valid sales accounting for less than 1 percent of the township's residential parcels and invalid sales 2.5 percent.

In four of the other five municipalities, the percentage of valid sales was lower than the percentage of all properties in those municipalities. One township (Township 5) had relatively fewer valid sales than the other municipalities. Although there were 14 sales in Township 5 only one of those was considered a valid sale. Township 5, moreover, differed substantially from the county as a whole in its property inventory. Seasonal property made up the largest portion (55 percent compared to 33 percent for the county as a whole) of the property in Township 5, closely followed by vacant land.

From this data, we can see that one of the seven municipalities (Township 7) appears to have a more active property market than some of the other townships in the county, and several of the townships appear to have a much less active market. The data also show that the property inventories in the municipalities differ, both

<sup>&</sup>lt;sup>13</sup> The assessed value of all (valid and invalid) residential property sold in Township 2 was over 47 percent of the assessed value of all residential property in the county even though the township contained only 34 percent of the total assessed value for all residential property in the county.

<sup>&</sup>lt;sup>14</sup> Invalid residential sales accounted for 52 percent of the county's total invalid sales.

in terms of property type, average value, and possibly other indicators of marketability. In this "real life" example, the county's average level of assessment or common level ratio is driven primarily by sales for Township 7. As Township 7 is different than the other municipalities in the counties, its municipal sale data may not be a reliable indicator of the current assessment-to-fair market value of property in municipalities elsewhere in the county. Additional data would be needed to more fully analyze the county's property market and inventory, and consider the implications of the data for what it tells about the possible need for a countywide reassessment.

In 1981, the Pennsylvania Supreme Court stated that when sales data are used to develop a common level ratio, they should be representative of all property.<sup>15</sup> In this case, the Supreme Court approved a county's use of sales stratified by property type to develop an overall common level ratio—an approach somewhat similar to the one used by STEB to arrive at market value for education funding purposes, but different than the CLR.

More recently, a Commonwealth Court Justice in a dissenting opinion also expressed concern regarding the representativeness of STEB's common level ratio. In the dissenting opinion in a case where the Pennsylvania Supreme Court ultimately overturned the Commonwealth Court's decision,<sup>16</sup> the Justice noted concern with the STEB common level ratio used in appeals. The Justice noted STEB's CLR is based only on the ratio of assessed value to market value for sold properties, and that the STEB ratio compares the higher current market selling prices with the lower, more conservative appraised values for properties, resulting in an inflated ratio. Furthermore, since the CLR is an average, it does not necessarily represent the taxation ratio for every, or most, property in a county.

#### Use of the CLR to Calculate the Coefficient of Dispersion (COD)

Although there is no legislative requirement to do so, STEB annually calculates other statistics based on its Common Level Ratio and makes those statistics available to the public. All of the issues related to the CLR become more problematic when STEB's CLR is used to calculate such related statistical indicators.

One of these statistics is the Coefficient of Dispersion (COD). Appendix J shows the steps followed by STEB when calculating the COD and provides an illustration of the calculation.

<sup>&</sup>lt;sup>15</sup> Keebler Company v. the Board of Revision of Taxes of Philadelphia, and the City of Philadelphia, and the School District of Philadelphia, 496 Pa 140; 436 A.2d 583 (1981).

<sup>&</sup>lt;sup>16</sup> In 2006, the Pennsylvania Supreme Court in *Downingtown Areas School District v. Chester County Board of Assessment Appeals and Lionville Station S.C.* (590 Pa. 459, 913 A.2d 194) reversed the Commonwealth Court decision (Commonwealth Court, No. 183, C.D. 2002). In doing so, the Pennsylvania Supreme Court in part restated the reasoning of the Commonwealth Court Justice's dissenting opinion.

The IAAO defines the Coefficient of Dispersion as the average deviation of a group of numbers from the median.<sup>17</sup> This deviation is expressed as a percentage of the median and shows the average percentage deviation from the median ratio. In other words, the COD measures variability in assessment to sales ratios from the "average" or "typical" ratio. When assessments to sales ratios in a sample are similar, the distribution will cluster close to the countywide median and have a COD near zero. The COD is the most used measure of statistical uniformity in ratio studies. Low CODs are associated with good mass appraisal uniformity.

For example, Maryland annually conducts ratio studies to test the quality of their assessment for both assessment level and assessment uniformity. In the ratio study results published for 2008, the COD for all residential assessments across the state was 10.58, meeting IAAO standards for the state's mix of property. Exhibit 16 shows how the assessed value to sale price ratios are dispersed for these uniformly assessed properties.

<sup>&</sup>lt;sup>17</sup> IAAO standards state that although the median is the preferred measure, the mean can be appropriate in some situations, such as for indirect equalization where the weighted mean is preferred because it gives equal weight to each dollar of value. STEB's primary responsibility, the calculation of the market value for the school subsidy formula, is a form of indirect equalization.

Exhibit 16



#### Proposals to Use STEB's Coefficient of Dispersion to Evaluate County Performance

While authorizing the use of the STEB common level ratio in assessment appeals, Pennsylvania state law is silent on the use of other measures STEB calculates. As discussed in detail in Finding III E, the courts on occasion have considered STEB's COD as one of many factors that can be used when considering the need for a countywide reassessment.

In a 2005 opinion concerning the constitutionality of Pennsylvania's "base year" valuation and assessment system, an Allegheny County Court of Common Pleas Justice identified the Coefficient of Dispersion as an accepted statistical indicator of inequality in tax assessments, and analyzed STEB's COD performance measures to determine when counties last reassessed.<sup>18</sup> In that same case on appeal to the state's Supreme Court, one Justice suggested in his 2009 concurring opinion that the Supreme Court should "adopt one of the well-established, judicially addressed, state verified and generally accepted measures of equality and inequality..."<sup>19</sup> He also concluded that a county with a COD of 20 or above would be

<sup>&</sup>lt;sup>18</sup> See Finding II A for information on county reassessments that have been completed as provided in statute. <sup>19</sup> STEB does not verify the information provided by the counties that is used in STEB's calculation of the CLR or COD.

considered to have constitutionally non-uniform assessments and should conduct a reassessment or to expect a lawsuit challenging its system.<sup>20</sup> In that same case, however, the Pennsylvania Supreme Court noted there are many factors that must be considered to determine if a county that values property on a "base year" system should be required to reassess. If one of the many factors to be considered is a COD calculated by STEB, the technical and other issues discussed below would need to be addressed.

#### **Concerns Related to STEB's COD**

**STEB calculations are not consistent with IAAO Standards.** As noted in Finding III E, the courts have approached the use of such a statistical measure with caution, in part, since the IAAO has no COD standard that applies to all classes of property taken together.

*Differential standards:* The IAAO standards indicate that acceptable mass appraisal statistical uniformity standards are different depending on property type, and provide thresholds and procedures for assuring homogeneous (i.e., similar) property types are used to calculate assessments to sales ratios and their dispersion. <sup>21</sup> IAAO standards suggest different maximum acceptable CODs for residential properties, income-producing properties, residential vacant land, and other non-agricultural vacant land. <sup>22</sup> The IAAO, however, has no standards for CODs for certain of the properties included in the STEB data. (See Appendix B for the IAAO's most recent standards for different types of property in different geographic locations and different property markets.) Problems may occur in evaluating county assessment performance based on a COD, when, as is in Pennsylvania, the common level ratio and the COD are calculated by combining all property types.

Two counties, for example, may each have a STEB COD of 20—suggesting that they value and assess property at the same level of uniformity. One of the

<sup>&</sup>lt;sup>20</sup> Specifically, the Justice opined that the courts should "fix a point" where "a presumption should arise that a base year valuation system's deviation from actual market values runs afoul of the Pennsylvania Constitution's Uniformity Clause." The Justice suggested that the COD should be the criteria adopted, and noted "according to the COD standards established by the IAAO...for counties where the current market value is the legal basis for assessment, a COD of twenty is the maximum COD envisioned by the IAAO before a county becomes generally non-uniform and should conduct a reassessment. Because a COD of twenty is the highest COD acceptable, once a county's COD, as demonstrated by STEB, reaches this threshold it seems appropriate that a presumption should arise that the county's assessment scheme has become non-uniform and therefore unconstitutional in accord with the Uniformity Clause. Once this presumption arises, the county would have the choice to reassess, or await a lawsuit challenging its system. If such lawsuit was filed, the county would have the opportunity to rebut the arising presumption by demonstrating that its assessment system has not, in fact, become constitutionally infirm."

<sup>&</sup>lt;sup>21</sup> For example, valid residential sales can occur in areas where zoning changes have occurred. Such sales should be excluded from assessment-to-sales ratio studies and calculations of A/S ratios and CODs as they are not representative of residential property.

<sup>&</sup>lt;sup>22</sup> For example, the IAAO standard for residential property in a densely populated very large jurisdiction in an active market is a COD less than 10; but for commercial properties in a rural or small jurisdiction with older properties and a depressed market, it is less than 25.

counties, however, might be a densely populated suburban county where most parcels are residential, and where the majority of such partials are in relatively newer housing developments in an active housing market. For such properties, the IAAO standard is a maximum COD of 10—not 20. The second county might be a rural county with small communities, mostly older properties and a depressed housing market, and a high proportion of parcels consisting of residential vacant land. IAAO standards for such rural areas are CODs of 20 for residential improved properties, and 25 for residential vacant land. In this illustration, the rural county with a COD of 20 may have better statistical uniformity than the suburban county, despite having the exact same STEB COD.

*Measure of Central Tendency:* The State Tax Equalization Board uses its common level ratio as the central tendency factor in calculating the COD. Therefore, STEB calculates the COD using the mean rather than the median recommended by the IAAO.

Sample Size and Reliability: The IAAO standards point out that the COD, as a point estimate and especially for small sample sizes, should not be accepted as proof of problems with assessment consistency. STEB uses the number of actual sales reported by the county for the previous year in its calculations. In some cases, there have been only a small number of valid sales in a county,<sup>23</sup> which call into question the validity of the COD for these counties.

Another concern related to sample size is STEB's lack of consideration of confidence intervals in the calculation of the COD. Confidence intervals measure the precision of the sampling process and determine whether the appraisal level differs from the established standard. The glossary in Appendix F further explains confidence intervals. Confidence intervals are not considered in the STEB process.

**CODs May Differ by Property Type.** Since different types of property appreciate at different rates, the average levels of assessment, or common level ratios, for the county as a whole might not be consistent with the ratio for specific property types. In Table 23, using actual STEB data from 2008 for one small county, we show the overall county CLR was 34.05. As expected given the issues of the data's representativeness and sales sample size, the CLR, or level of assessment, varied substantially by property type—ranging from 22.53 for miscellaneous property to 37.89 for residential property.

<sup>&</sup>lt;sup>23</sup> In at least one case STEB performed the calculation for a county using only one valid sale.

Table 23					
CLR and COD Calculated	by Property	Type for a Sample County			
Property Type	<u>CLR</u>	COD			
Residential	37.89	37.1			
Commercial	33.28	7.7			
Seasonal	30.26	29.7			
Land	28.12	40.1			
Misc	22.53	81.3			
All	34.05	32.2			
Source: Developed by LB&FC staff from information provided by STEB.					

Table 23 also shows how the COD for property sales in the county varied from the county's COD when calculated by property type. The COD for the county as a whole was 32.2, but the COD for residential properties was 37.1 and the COD for commercial properties was 7.7.

As shown in Table 23, when the COD is calculated by property type, the CODs are substantially different. The county's overall COD is 32—well outside of IAAO standards. The CODs by property type, however, range from 8 (for commercial property) to 81 (for miscellaneous property). The IAAO has no standard for "miscellaneous" property; however, a COD of 8 for commercial property substantially complies with the IAAO maximum COD standards (i.e., a COD not in excess of 15 to 25) for such property.

We should note that this county's overall COD in 2008 was not very different from what it was one year after the county conducted a countywide reassessment. Additional information would be needed to interpret the appraisal performance data for this county and consider if the county needs to consider a countywide reassessment.

In any event, if the Commonwealth were to consider ordering this county to perform a countywide reassessment based on its 2008 STEB COD, as some have suggested, such an order would be based on data that represents:

- less than 1 percent of the county's total parcels,
- less than 1 percent of the county's total assessed values,
- valid sales that are not representative of the county's total parcels by count or assessed value, or geographic location, and
- valid sales that typically have higher values than the county's average property for major property classes.

Such a reassessment, moreover, would be imposed on a county where the available data clearly indicate there are twice as many non-market transfers of property than market based transfers—not necessarily an indicator of an active property market or underlying property value appreciation.

"Actual Value" Versus Statistical Uniformity. There are other problems with using a COD to evaluate county performance in a system such as Pennsylvania's where the accuracy of the "actual value" of an individual property is of paramount importance. Following a countywide reappraisal one would expect COD to be within acceptable standards. This, however, is not always the case. One reason is that if the mass appraisal (i.e., neighborhood appraisal) resulted in inaccurate property assessed value estimates for individual properties, property owners and local governments can appeal such assessments, and the resulting adjustments to the assessed values can cause the COD to be outside of IAAO acceptable range(s).

In other cases, a property may have significant changes in physical characteristics, use, or condition since the last assessment resulting in a change to the property's actual value. It does not take a large change in actual and assessed values to significantly change a county's COD. Table 24 shows a sample COD calculation illustrating how the COD can change as a result of small changes to the data used in the calculation.

COD Calculation With a Change in the Appraised Value of One Property				
	Appraised		A/S	Abcoluto
Property	Value	Sale Price	Ratio	Difference
<u> </u>	\$ 8.500	\$ 25.000	0.340	0.160
2	\$ 19,000	\$ 50,000	0.380	0.120
3	\$ 13,000	\$ 30,000	0.433	0.067
4	\$ 30,000	\$ 60,000	0.500	0.000
5	\$ 17,000	\$ 30,000	0.567	-0.067
6	\$ 31,000	\$ 50,000	0.620	-0.120
7	\$ 16,500	\$ 25,000	0.660	-0.160
Average A	Absolute Deviation	on		0.099
Median	0.50			
COD	(AAD/M)100	19.8		
One Appr	aisal Plus \$2,0	00		
	Appraised	0 1 5	A/S	Absolute
Property	Value	Sale Price	Ratio	Difference
1	\$ 8,500	\$ 25,000	0.340	0.160
2	\$ 19,000	\$ 50,000	0.380	0.120
3	\$ 13,000	\$ 30,000	0.433	0.067
4	\$ 30,000	\$ 60,000	0.500	0.000
5	\$ 17,000	\$ 30,000	0.567	-0.067
6	\$ 31,000	\$ 50,000	0.620	-0.120
7	\$ 18,500	\$ 25,000	0.740	-0.240
Average A	Absolute Deviation	on		0.112
Median	0.50			
COD	(AAD/M)100	22.4		
One Appr	aisal Less \$20	00		
Property	Appraised	Sale Price	A/S Ratio	Absolute
<u>1 roporty</u> 1	\$ 8 500	\$ 25,000	0 340	0.160
2	\$ 19,000	\$ 50,000	0.340	0.120
3	\$ 13,000	\$ 30,000	0.433	0.067
4	\$ 30,000	\$ 60,000	0.500	0.000
5	\$ 17 000	\$ 30,000	0.567	-0.067
6	\$ 31,000	\$ 50,000	0.620	-0.120
7	\$ 14.500	\$ 25.000	0.580	-0.080
Average A	Absolute Deviation	on		0.089
Median	0.50			
COD	(AAD/M)100	17.9		

Table 24

Source: Developed by LB&FC staff.

In the example when the appraised value of property number 7 is increased from the initial assessment by \$2,000 (\$16,500 to \$18,500) the COD increases from the original 19.8 to 22.4 using the IAAO calculation method (21.9 using the STEB calculation method). This would move the COD outside of the IAAO's maximum acceptable standard of 20 for residential property. When the appraised value of the same property is decreased from the initial assessment by \$2,000 (\$16,500 to \$14,500), the COD decreased from 19.8 to 17.9 (18.3 using STEB's calculation method). In other words, the county's COD goes from meeting a recent COD standard endorsed in some courts, to not meeting such a standard.

#### Using Appraisal Performance Measures With Base Year Valuation and Assessment Systems

If the Commonwealth wishes to consider use of assessment and sales data to evaluate the performance of counties, the CLR and COD issues we have identified and discussed would need to be addressed. Statistical measures of level of assessment and uniformity that are available, moreover, have been devised for use in "current market" valuation systems rather than "base year" systems. In Pennsylvania, properties are to be valued based on "actual value," which the General Assembly and the state's high courts have never interpreted to mean "current" fair market value, or fair market value expressed in present or current dollars. As noted by Judge Wettick of Allegheny County in November 2009, the Pennsylvania Supreme Court in its April 2009 opinion:

...Rejected my ruling that legislation permitting property to be assessed through a base year system that never provides for a reassessment is facially unconstitutional because it is not designed to achieve current fair market value.

In its April 2009 opinion, the Supreme Court also encouraged the Commonwealth to identify possible ways to assure that real property is valued uniformly (i.e., proportionately) so that taxpayers equitably share the tax burden, and that in counties with base year systems, their base year values continue to be uniform over time.

In order for statistical measures such as levels of assessment or coefficients of dispersion to be used to consider assessment and valuation performance in counties with base year systems, they would need to be analyzed in ways that allow for comparison of such measures in subsequent years with the base year for many different property types. The comparison would also need to remove the effect of inflation, i.e., the "mechanical increase in values" that is not reflective of increase in "actual value,"<sup>24</sup> and consider measures that are reflective of underlying and substantial changes in real property inventory and market within a county.

<sup>&</sup>lt;sup>24</sup> See Finding II H for a discussion of house price appreciation data and how it can differ from "actual value."

To provide for such analysis, the county would need to make available information on its property inventory characteristics and valuation models for its property inventory in the year in which it conducted its countywide reassessment. It would also need to provide its base year levels of assessment and dispersion for all properties at the time of a reassessment, including the overall county or "general ratio" and its variability for the county as a whole, for each municipality, each identified neighborhood, each property class, and other relevant property groupings or characteristics that could influence property value appreciation (e.g., age of property, etc.).

In subsequent years, county property markets would need to be monitored, and representative and sufficient valid sales data would need to be analyzed for each of the relevant property groups. Appraisals of unsold properties might be required. In addition to reliable data, input from field staff and those who understand the local real estate market, would be essential to assure the data was reflecting actual property market changes (other than just market price change or an atypical situation) that are occurring. Information concerning the accuracy of the original reassessment and appeals data would further assist with such analysis.

Such information, if publicly available and reported, would provide necessary information for public officials and the public-at-large to monitor if the county was consistently applying its valuation methods to all properties following a base year reassessment. It would also provide information over time to identify if underlying market changes (other than price changes) were occurring in the county that would indicate need for a countywide reassessment.

Currently, Pennsylvania has no guidelines or requirements that counties or their mass appraisal contractors publicly disclose the cost tables and sales data used in a countywide reassessment to arrive at "actual value." There is also no requirement that studies (such as done in Maryland) be conducted to determine if the reassessment met its appraisal performance measure targets when new reassessment values are introduced. As noted in Finding II F, at least one county has taken legal action against a mass appraisal contractor for failure to meet contract standards for appraisal performance. Moreover, some surrounding states (e.g., Ohio and New Jersey) have standards and requirements for contractors performing countywide reassessments (see Finding IV A).

Pennsylvania also does not have guidelines for systematic analysis of appeal data following a countywide reassessment. Such analysis would allow consideration of the accuracy of the reassessment values to better understand subsequent performance appraisal measures. It could also serve as an incentive for the county to promptly reassess to correct for problems in the mass appraisal models that resulted in incorrect property values.

#### **Other Concerns With STEB Data**

In addition to the analytic and statistical concerns with STEB's data discussed above, during this study we became aware of problems with the current automated system used by STEB to collect and process the county appraisal performance data. While attempting to use STEB data in our analysis we found several inconsistencies that may indicate additional problems with STEB's automated system for processing data.<sup>25</sup>

We found that the CLR calculated by STEB for 2008 was inconsistent for some counties with the CLR from previous years. When we discussed our concerns with STEB, they became aware of a problem with one of the formulas used in the calculation of the CLR, and worked with their contractor to address that particular problem. We found another problem when we used a set of sales and assessment data from a sample county and we were unable to replicate the CLR or COD calculated by STEB for that county.

The computer programs used by STEB to process and analyze the data from the counties was developed by a contractor using an Access database and was based on an older IBM system. STEB has no documentation for the program and no evidence that the system was thoroughly tested before it was implemented. This, coupled with our identification of problems with some calculations for one county, raises concerns that there may be additional unidentified problems with the system that need to be addressed.

The Executive Director of STEB advised the LB&FC that he planned to bring such concerns to the attention of the STEB Board. He had also contacted the Governor's Office of Technology for technical assistance in addressing the automated system problems.

 $<sup>^{25}</sup>$  Certain municipalities also made the Auditor General's Office aware of certain problems with the STEB 2008 data used in the calculation of the municipal distribution from the Fire Fund.

## E. Pennsylvania Courts Have Required Counties to Initiate Countywide Reassessments Based on the Cumulative Effect of a Variety of Factors.

Pennsylvania courts play an important role in the state's real property valuation and assessment system, and on several occasions, the courts have ordered counties to conduct countywide reassessments. LB&FC staff reviewed opinions issued by the courts<sup>1</sup> to identify the assessment practices, procedures, and results that courts have cited in their opinions as the factual base when ordering a countywide reassessment.<sup>2</sup> Such court opinions provide insight into criteria to be considered when deciding if there is a need for a countywide reassessment.

The courts, as discussed below, have not generally relied on a single factor, but rather the cumulative effect of a variety of relevant factors when deciding to order a countywide reassessment. They, moreover, have been reluctant to rely on a single statistical standard of mass appraisal uniformity, such as a coefficient of dispersion (COD), as evidence of a presumption of unconstitutional non-uniformity in property valuations within a county.

#### Factors Indicating the Need for a Countywide Reassessment

We reviewed court opinions involving orders for countywide reassessment in five counties that utilized a base year, rather than current market, system for property valuation. The five counties include: Lancaster (1991),<sup>3</sup> Chester (1993),<sup>4</sup> Dauphin (1985 and 1996),<sup>5</sup> Carbon (1997),<sup>6</sup> and Erie (1998).<sup>7</sup>

We also reviewed the Supreme Court of Pennsylvania's 2009 opinion affirming an Allegheny Court of Common Pleas countywide reassessment order.<sup>8</sup>

<sup>2</sup> LB&FC staff reviewed the published opinions to identify assessment valuation practices, procedures, and re-

<sup>&</sup>lt;sup>1</sup> LB&FC staff conferred with the Assessors' Association of Pennsylvania and the General Assembly Local Government Commission staff to identify the cases in which the court ordered a reassessment and issued an opinion setting forth the basis for its decision. In addition to the cases discussed in this finding, we are aware of other countywide reassessments that resulted from the court's involvement. Such cases, however, did not result in a reported court opinion, or they were the result of settlement agreements.

sults. We did not attempt to consider the statutory or constitutional basis for the decisions issued by the courts. <sup>3</sup> *City of Lancaster v. County of Lancaster*, 599 A.2d 289 (Pa. Cmwlth. 1991), appeal denied, 530 Pa. 634, 606 A.2d 903 (1992).

<sup>&</sup>lt;sup>4</sup> Behe, et al, v. Chester County Board of Assessment Appeals, 41 Ches. Co. Rep. 90 (1993).

<sup>&</sup>lt;sup>5</sup> Croasdale v. Dauphin County Board of Assessment Appeals, 492 A.2d 793 (Pa. Cmwlth. 1985) and City of Harrisburg, Joan Croasdale et al. v. Dauphin County Board of Assessment Appeals et al. 677 A.2d 350 (Pa.Cmwlth. 1996), appeal denied, 548 Pa. 620; 693 A.2d 590 (1997).

<sup>&</sup>lt;sup>6</sup> Ackerman et al. v. Carbon County, 703 A.2d 82 (Pa. Cmwlth. 1997), petition for allowance of appeal denied, 551 Pa. 705, 712 A.2d 287 (1998).

<sup>&</sup>lt;sup>7</sup> Millcreek Township School District v. County of Erie and Erie County Board of Assessment Appeals, 714 A.2d 1095 (Pa.Cmwlth. 1998).

<sup>&</sup>lt;sup>8</sup> James C. Clifton et al. v Allegheny County, 600 Pa. 662, 969 A.2d 1197 (2009).

Allegheny County differs from the five other counties we reviewed in that the county implemented a current market system for property valuation, and several years later retrospectively changed to a base year system.<sup>9</sup> The county, moreover, chose to adopt IAAO statistical performance measures for its property valuation system.

Significant Demographic and Economic Changes: As shown in Exhibit 17, the six counties in which the courts ordered reassessments all experienced significant demographic and/or economic changes. In Lancaster, for example, the number of parcels had almost doubled from the last reassessment, there were significant zoning changes, and a shift from downtown shopping to suburban shopping centers had occurred. In addition, new types of properties, such as condominiums, were being added to the tax rolls.

In Carbon County, the construction of Interstate Route 80 across the county had resulted in certain areas experiencing significant increases in property market values. In some areas, moreover, large subdivisions with newly constructed property types were coming onto the tax rolls. In Dauphin County, major parts of the City of Harrisburg had been restored following a devastating flood. In Erie, population shifts, widespread development and deterioration of properties, major shifts in land development, and changed use of significant numbers of commercial and industrial properties had occurred.

In Allegheny County, the court relied on county prepared data showing uneven changes in market values in different areas of the county. It also relied on the work of experts showing rapid, but non-uniform, single family residential house price appreciation for properties sold in 1998-1999 and resold in 2002-2005, and non-uniform changes in median sale prices for residential properties from 1996-2006 in Allegheny and selected surrounding counties. In Chester County, the court relied on increased volumes of appeals as indicators of major market changes.

<sup>&</sup>lt;sup>9</sup> Allegheny County completed a countywide reassessment in 2001 (relying on data from 1998 property inspections). In 2002, it modified its 2001 property valuation computer models to arrive at "updated" current market values for 2002. Subsequently, in 2005, the County elected to retrospectively move from a current market value system to a base year system, and selected 2002 as its base year.

#### Factors Influencing Need for a Countywide Reassessment in Selected Counties

County	Major Demographic/ Economic Changes	Inconsistent Valuation Methods	Selective Reassessments	County Acknowledges Assessments Are Non-Uniform	Time Since Last Reassessment
Allegheny	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
Carbon	$\checkmark$	$\checkmark$			$\checkmark$
Chester	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Dauphin	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Erie	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Lancaster	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

Source: Developed by LB&FC staff.

**Inconsistent Valuation Methods:** In order for a county to accomplish equalization of property values, similar property types must be valued in substantially the same manner.<sup>10</sup> In all six counties, however, there was evidence that different methods of establishing value were being used for similar properties. In Dauphin County, for example, the courts found one method of property assessment was used for properties that were assessed in the county's base year and a different method, which introduced current market values, for properties that were remodeled and reassessed in 1987-88.

In Carbon County, the county used the cost approach to arrive at the value of property and consistently used base year construction costs to derive values for newly constructed property. The depreciation credits the county applied, however, differed for properties that were in existence in the base year and properties constructed after that time. The depreciation credit gap in favor of the older properties, moreover, was never equalized by the county.

In Chester County, newer properties and properties that were subject to revaluation (e.g., due to improvements) were assessed based on current market values

<sup>&</sup>lt;sup>10</sup> The courts, however, recognize that the methods of valuing residential, commercial and other types of property may differ (see, for example, *McKnight Shopping Center, Inc. v. Board of Property Assessment, Appeals and Review of the County of Allegheny*, 417 Pa 234, 209 A.2d 389 (1965).

when they were revalued. Properties that were in place in the base year and had not been sold or revalued, however, were assessed at values arrived at in the base year.<sup>11</sup>

In Erie County, county assessors relied on the manual for establishing values developed for use in the county's last countywide reassessment (i.e., base year). Board employees, however, had insufficient and outdated instructions and guidelines to use when establishing values in subsequent years. They lacked written documentation and procedural guidelines concerning subjective determinations (e.g., grade, cost and design adjustments), and they differed in their interpretation as to how the guidelines were to be applied. Different considerations and procedures were employed at different points in time.

In Lancaster County, unsubstantiated wholesale changes to grade and depreciation factors were made to properties that were selected for reassessment without regard to whether the properties actually changed. Such grade changes and depreciation factors differed from those used when valuing properties that were not selected for reassessment.

The court did not specifically point to the use of different methods for property valuation in Allegheny County. Effectively, this occurred, however, with the county using a "current market" approach from 2002 to 2005, and a "base year" valuation system after 2005.

**Selective Reassessments:** Five counties also appear to have had selective or partial reassessment practices in place. In Lancaster County, the county identified several municipalities for selected property reviews based on a newly introduced "maintenance" program. The triggers for such reviews, moreover, were not uniformly applied throughout the county, in what the court referred to as a "partial reassessment." In Chester County, selected properties were also subject to reassessment. In Erie, the county engaged in selective reassessment by increasing the land valuation in the City of Erie and along the bayfront.

<sup>&</sup>lt;sup>11</sup> We should note that base year values are not always the values that were established in the base year. Some counties that rely on base year values in subsequent years applied a derived current market factor to such base year values to arrive at "updated values" for use in assessments. In the 1980s, for example, Montgomery County used the common level ratio to derive a uniform market adjustment factor to base year values. In 1986, Commonwealth Court determinate that such "use of back trending by county board of assessment appeals in determining uniform assessment ratio to be applied in arriving at assessed real property value was invalid, absent showing that all property appreciated at a uniform rate, where only one factor was applied to all properties in each tax year." See *Dana Corporation et al v. Montgomery County Board of Assessment Appeals*, 505 A.2d 639 (Pa. Cmwlth., 1986). In a 1993 Commonwealth Court opinion (*Althouse et al v. County of Monroe*, 633 A.2d 1267 (Pa. Cmwlth., 1993), Justice Friedman noted that in *Althouse*, where the county reassessed selected parcels based on recent sale price of neighboring properties, "...the taxing authorities wished to adjust the assessed value to make it reflect its current market value more accurately; this is impermissible without a county-wide reassessment."

In Dauphin County, various partial reassessment programs were introduced from the mid-1980s until 1994, when the trial court ordered a countywide reassessment. In 1983, the county introduced a "ratio reassessment program," which resulted in property assessments being revised in only one area of the county; and Commonwealth Court overturned the program. In 1985, however, the county performed a subsequent statistical reassessment throughout the county by changing the county's predetermined ratio and simply doubling all base year values to arrive at 1986 market values. Subsequently, the county then began to reassess remodeled or rehabilitated properties, but only in the City of Harrisburg.

In Allegheny County, the county itself did not engage in selective reassessment. The court decision, however, noted that some of the plaintiffs had their property values increased over the county's 2002 assessed values following appeals taken by the taxing bodies to increase the property's assessed value to the recent purchase price of the home.

**Acknowledged Need for Reassessment:** With the exception of Carbon County, in all of the decisions we reviewed, the court noted that local authorities saw a need for reassessment. In the Lancaster and Dauphin counties, the courts viewed the actions taken by the counties as a "substitute" for a countywide reassessment. In Allegheny County, the Supreme Court in part relied on data developed by the county showing uneven rates of property appreciation and market changes throughout the county. In Erie, the court noted in an opinion footnote that "on the second day of the trial, the Board of Assessment Appeals, which was originally named as a defendant in this case, filed an amended answer in which it *admitted* [emphasis in the original] that the assessments in Erie county are 'outdated, inequitable, inaccurate, and non-uniform.'"

*Time Since Last Countywide Reassessment:* With the exception of Allegheny County, considerable time had passed since the county had conducted its last countywide reassessment. In Carbon, Erie, and Lancaster almost 30 years had passed since the last countywide reassessment.

#### **Use of IAAO Statistical Performance Standards**

The courts have considered statistical information in cases where they ordered a countywide reassessment, but they have not relied on such information as the basis for their decisions that unconstitutional non-uniformity in property valuation existed within a county. In the April 2009 Allegheny opinion, the Supreme Court of Pennsylvania's Chief Justice noted that, while objective data are not irrelevant and can be indicators of problems of uniformity, "there is no suggestion by . . . this Court, that deviation from one or more of these standards [i.e., Common Level Ratio, Coefficient of Dispersion, or Price Related Differential] proves a lack of uniformity." In the Lancaster County case, the county noted, and the Commonwealth Court agreed, that there is no acceptable coefficient of dispersion (COD) for all types of property within a county, and infrequently sold property. Commonwealth Court, therefore, determined:

We are in agreement with appellants [i.e., the county] that there is not substantial competent evidence of record to support Common Pleas' finding regarding the acceptable COD and that such finding was in error.

Commonwealth Court acknowledged, however, that such information is not irrelevant.

The Commonwealth Court in the Carbon County case, referring back to its decision in the Lancaster, noted that CODs, while not substantial competent evidence, are relevant and admissible. Commonwealth Court, moreover, noted that the Carbon County COD of 40 was clearly unacceptable, and that in the Dauphin County case, the Court of Common Pleas had considered COD evidence to support its finding of a "lack of uniformity."

The countywide reassessment which the courts ordered for Carbon County in 1997 was completed and implemented in 2001. Upon completion of the courtmandated reassessment, the county's COD had been reduced from 40 to 29.88. In other words, the county's COD substantially failed to meet IAAO standards the year the court ordered reassessment went into effect, according to STEB data. Such a finding supports the cautious approach taken by the state's high courts about reliance on statistical data to determine if a county reassessment should be undertaken.<sup>12</sup>

In the Erie County case, the court also considered the county's COD, and referred back to the conclusion of Commonwealth Court in the Lancaster case. The Court noted that the County's COD in 1995 was 30, well above IAAO standards, though it indicated that the IAAO standards are "not necessarily dispositive on this issue," and stressed the other relevant factors it had relied on in arriving at its decision.

The countywide reassessment which the courts ordered for Erie County in 1998 was completed and implemented in 2003. When the court-ordered reassessment was implemented, the county's COD was 19.66. One year later, the County's COD was above 20—once again outside the IAAO standard.

<sup>&</sup>lt;sup>12</sup> As noted in Finding II F, completion of a countywide reassessment does not assure statistical uniformity measures are met. Some reasons for this are discussed in Findings II F and III D.

## Appropriate Application of the Base Year

In addition to identifying factors that demonstrate a need for a countywide reassessment, the courts have effectively provided guidance about the appropriate application of the base year for counties that elect to value property using a base year system. In Pennsylvania:

- A taxpayer cannot be assessed more than the "actual value" of the property.
- A taxpayer should pay no more or no less that his proportionate share of the cost of government.
- All real estate must be treated as a single class (i.e., residential, commercial, industrial, mobile homes, minerals, land, other, etc.).
- Counties must equalize all values before applying their intended ratio of assessed value to market value in any given tax year.
- The ratio of assessed value to market value adopted by the county must be applied equally and uniformly to all real estate within the county (though different approaches to valuation [i.e., cost, income, and market] may be more relevant for arriving at fair market value for one type of real estate versus another type).
- When changing values associated with a particular piece of property (e.g., property with an addition), counties on a base year system must designate the new values in terms of base year dollars rather than present market values.
- Where evidence in an assessment case indicates no fixed ratio has been applied, and that ratios vary widely, the average of such ratios may be considered the common level to which a complaining taxpayer's assessment may be reduced, and if evidence shows some percentage of assessed to market value about which the bulk of individual assessments tend to cluster, such percentage might be acceptable as the common level.

Currently, Pennsylvania has no constitutional or statutory requirement that all counties must assess real property at 100 percent of market value, and there is no requirement that assessed values track overall inflation or house price appreciation data (see Findings II G and II H for information on such indices). Such local tax matters are at the discretion of county officials. As a result, counties that choose to adopt and implement a base year system need not constantly reassess to arrive at "current market value," and thus track property market inflation (or deflation);<sup>13</sup> and Pennsylvania does not have a state prescribed cycle for countywide reassessment.

Nonetheless, Pennsylvania counties are responsible for assuring that their property valuation methods are constitutionally uniform and provide for relative proportionality in sharing the tax burden within the county. A county base year system can continue to provide for relative proportionality in sharing the tax burden to the extent that:

- A system of accurate and complete property records and market data are maintained.
- All properties are valued based on the same criteria and methods.
- The criteria and methods used to value properties at various points in time remain unchanged.
- Property values in a particular county remain relatively unchanged.
- If property values change, they change at relatively the same rate.

As the Pennsylvania Supreme Court noted in its 2009 opinion in the Allegheny case, under a base year system:

Presumably, inequity will arise in such a system at different rates in different taxing authorities depending upon the stability of property values in the municipality, the variety of real estate extant, and from other market factors. The point at which an unadjusted base year system becomes constitutionally problematic thus may vary from county to county. We recognized the desirability of the base year system from the county perspective, and it may be that such a system might operate fairly for more tax cycles than the base year in certain counties. Thus, it may be that a county could ensure a constitutional base year method of assessment by requiring periodic reassessment through an ordinance or as a matter of practice. The difficulty—and the risk to an authority employing an unadjusted base year system—is in determining the point at which a base year deviates to an extent where reassessment would be required.

The significant variation across the 67 counties in the composition of their real property, residential property values, proportion of market based property

<sup>&</sup>lt;sup>13</sup> In Pennsylvania, counties are allowed to establish their own predetermined ratio of assessed value to market value, and can elect to establish a ratio that is below 100 percent of fair market value. A county can also increase its predetermined ratio in subsequent years, thus raising assessed values to reflect general inflation trends. Such changes in predetermined ratios are reassessments and require notice to all property owners and opportunity for taxpayers to appeal their new assessments.

transactions, and economic status (see Findings II C, II D, II G, and II H) underscore the conclusion reached by the majority of the Pennsylvania Supreme Court. Such variations preclude the identification of a simple, single mandatory standard that could be fairly applied to all counties. Concerns with the available state performance data (see Finding III D), moreover, preclude reliance on such data alone to determine if property values within a county meet Pennsylvania constitutional requirements for uniformity.

## F. The Pennsylvania Constitution's Uniformity Clause Has Been Strictly Interpreted by the Courts and Differs From Those in Many Other States

The Pennsylvania Constitution's Uniformity Clause has been part of the state constitution since 1874. It requires that:

All taxes shall be uniform, upon the same class of subjects, within the territorial limits of the authority levying the tax, and shall be levied and collected under general laws.<sup>1</sup>

In many states, the uniformity clause applies only to real property taxes. In Pennsylvania, however, the uniformity clause applies to all taxes. Pennsylvania courts have "rigidly"<sup>2</sup> interpreted this constitutional provision, according to legal scholars. Act 1967-2, moreover, which provided for Pennsylvania's most recent constitutional convention, specifically prohibited the convention from considering or including in its recommendations any proposal which would modify, alter, or change in any respect the 1874 Constitution's uniformity clause.

Prior to the adoption of the 1968 State Constitution, the interpretation of the uniformity clause effectively prohibited state and local taxing authorities from providing tax exemptions for the elderly, disabled, and those in poverty. Among the proposals adopted by the 1967 convention was one permitting the General Assembly to enact laws to:

Establish as a class or classes of subjects of taxation the property or privileges of persons who, because of age, disability, infirmity or poverty are determined to be in need of tax exemption or of special tax provisions, and for any such class or classes, uniform standards and qualifications. The Commonwealth, or any other taxing authority, may adopt or employ such class or classes and standards and qualifications, and except as herein provided may impose taxes, grant exemptions, or make special tax provisions in accordance therewith. No exemption or special provision shall be made under this clause with respect to taxes upon the sale or use of personal property, and no exemption from any tax upon real property shall be granted by the General Assembly under this clause unless the General Assembly shall provide for reimbursement of local taxing authorities by or through the Commonwealth for revenue losses occasioned by such exemption.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Article IX Section I of Pennsylvania's 1874 Constitution and Article VIII Section 1 of the 1968 Constitution. <sup>2</sup> Fordham, J. *Pennsylvania Bar Association Quarterly*, Volume XXXI, p. 384.

<sup>&</sup>lt;sup>3</sup> The Pennsylvania Constitutional Convention 1967-68, Constitutional Proposals Adopted by the Convention, p.

<sup>17.</sup> This proposal became Article VIII, Section 2(b)(ii) of the 1968 Pennsylvania constitution.

As a result of the 1968 constitutional change adding this special provision qualifying the uniformity clause, the Pennsylvania General Assembly was permitted to authorize property tax rebates and assistance for low-income senior citizens and the disabled in  $1971.^{4, 5}$ 

In 2009, the Pennsylvania Department of Revenue reported disbursement of over \$247 million in property tax and rent rebates to almost 600,000 elderly and disabled claimants. Table 25 provides the reported disbursements by county.

The 1968 Constitution has been amended to add two other special provisions directly related to real property valuation and taxes. In 1984, Pennsylvanians voted to approve a special provision permitting the General Assembly to:

Establish standards and qualifications by which local taxing authorities in counties of the first and second class [Philadelphia and Allegheny] make uniform special real property tax provisions applicable to taxpayers who are long-time-owner occupants as shall be defined by the General Assembly of residences in areas where real property values have risen markedly as a consequence of the refurbishing or renovating of other deteriorating residences or the construction of new residences.<sup>6, 7</sup>

Later in 1997, Pennsylvania voters by 2 to 1 approved a special provision permitting the General Assembly to:

Authorize local taxing authorities to exclude from taxation an amount based on the assessed value of homestead property. The exclusion authorized by this clause shall not exceed one-half of the median assessed value of all homestead property within a local taxing jurisdiction.

<sup>&</sup>lt;sup>4</sup>Act 1971-3 created the Senior Citizens Rebate and Assistance Act. It was repealed and replaced by Act 2006-1 of the Special Session, which includes provision for property tax relief for the elderly and disabled and home-owners.

<sup>&</sup>lt;sup>5</sup> Act 1996-91 permitted Philadelphia to construe this constitutional provision to create a "separate class of subjects of taxation" for those meeting the standards and qualifications set for the in the Act [i.e., low income seniors eligible for the state's pharmaceutical assistance programs—PACE and PACNET]." Such low income seniors are entitled to receive "refunds or forgiveness of that part of their real estate tax liability attributable to any real estate tax rate increase or an increase in the assessed value of the taxpayer's homestead occurring after the effective date of any ordinance implementing the act." Philadelphia exercised the authority granted by the act and adopted an ordinance applicable to the school district and city which protect qualifying seniors from either increased assessments or increased taxes.

<sup>&</sup>lt;sup>6</sup>Article VIII Section 2(b)(v) of the Pennsylvania Constitution.

<sup>&</sup>lt;sup>7</sup>Act 1988-146 provided for such standards and authorization. The standards differ in substantive ways for first and second class counties. The statute prohibits a first class county from using financial need and age to determine longtime owner-occupant eligibility. School districts and municipalities within a second class county, however, have the option of using financial need, age, or both in determining eligibility under the special provision. "Gentrification relief" has been considered but never adopted in Philadelphia.

Tab	le	25
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## 2009 Property Tax and Rent Rebates Disbursements

	Number of		Number of	Total
	<u>Claimants</u>	Total Rebates	Supplements	Supplements
Statewide	586,508	\$247,205,875	118,444	\$26,564,741
Adams	3,493	1,388,752	664	171,540
Allegheny	60,524	25,585,538	15,256	3,362,168
Armstrong	5,371	2,239,109	627	164,728
Beaver	11,171	4,622,873	1,674	436,955
Bedford	3,296	1,299,803	212	55,081
Berks	17,647	7,483,626	4,268	966,005
Blair	9,428	3,841,543	439	116,404
Bradford	3,872	1,684,475	347	93,927
Bucks	15,571	6,158,080	5,987	1,246,669
Butler	7,962	3,226,447	879	227,946
Cambria	11,947	4,666,365	641	168,181
Cameron	542	213,690	38	8,804
Carbon	4,231	1,766,421	828	217,402
Centre	3,841	1,551,805	393	102,860
Chester	7,940	3,214,584	2,643	575,403
Clarion	2,483	952,766	100	26,061
Clearfield	5,814	2,345,219	332	87,884
Clinton	2,778	1,158,692	186	49,511
Columbia	4,137	1,718,430	410	112,335
Crawford	6,603	2,772,876	801	192,557
Cumberland	7,413	2,871,710	918	245,123
Dauphin	10,491	4,346,363	1,477	374,207
Delaware	16,131	6,700,648	6,527	1,394,101
Elk	2,422	936,150	169	46,363
Erie	15,288	6,663,858	2,177	575,682
Fayette	11,261	4,669,690	544	140,593
Forest	444	157,824	а	4,600
Franklin	6,276	2,407,725	540	143,016
Fulton	664	255,149	78	19,539
Greene	2,576	1,095,754	191	49,747
Huntingdon	2,667	1,048,129	140	37,190
Indiana	5,029	1,979,691	376	96,057
Jefferson	3,140	1,247,314	134	36,594
Juniata	1,229	501,384	97	25,468
Lackawanna	13,005	5,928,755	3,329	757,112
Lancaster	17.487	7.371.133	3.367	827.705
Lawrence	6.390	2,700.845	652	177.988
Lebanon	6.397	2.584.849	618	156.488
Lehigh	14,708	6,257,402	3,217	763,480

## Table 25 (Continued)

	Number of		Number of	Total
	<u>Claimants</u>	Total Rebates	Supplements	Supplements
Lycoming	7,134	\$ 3,087,502	812	\$ 222,966
McKean	3,028	1,217,561	128	33,760
Mercer	8,114	3,298,390	639	165,903
Mifflin	3,781	1,630,746	355	98,927
Monroe	5,084	2,056,333	1,790	412,693
Montgomery	17,257	6,958,988	6,002	1,294,494
Montour	973	386,964	55	14,971
Northampton	12,873	5,333,829	3,762	863,300
Northumberland	6,927	2,747,193	335	85,870
Perry	1,961	794,957	297	72,554
Philadelphia	72,815	34,714,594	27,703	5,191,393
Pike	1,510	578,463	446	106,160
Potter	1,181	474,842	122	33,287
Schuylkill	10,961	4,609,316	1,243	328,757
Snyder	1,883	749,692	164	44,922
Somerset	5,853	2,336,065	303	79,034
Sullivan	546	222,589	61	12,975
Susquehanna	2,121	863,474	280	75,720
Tioga	2,604	1,086,408	316	82,045
Union	2,093	827,992	228	57,643
Venango	3,782	1,508,144	203	50,466
Warren	2,547	996,365	155	40,937
Washington	11,685	4,811,356	910	238,106
Wayne	2,480	1,035,653	488	127,836
Westmoreland	23,586	9,597,044	2,977	778,350
Wyoming	1,305	557,073	231	61,939
York	17,446	7,141,537	4,561	1,075,212
Out of State	1,697	755,894	301	68,617

<sup>&</sup>lt;sup>a</sup>Data have been deleted to prevent disclosure of individual claimant information. However, data are included in the appropriate totals.

Source: Report to the Pennsylvania General Assembly on the Property Tax Rent Rebate (PTRR) Program, 2009, PA Department of Revenue.
The special provision that was approved also specified:

A local taxing authority may not increase the millage rate of its tax on real property to pay for these exclusions.<sup>8, 9</sup>

In 2006, the Pennsylvania General Assembly created the Property Tax Relief Fund to use state revenues for homeowner school district tax relief. In 2009, the Commonwealth provided \$527.2 million for school district property tax relief for enrolled homeowners regardless of their age or income.<sup>10</sup> Statewide, approximately 2 million residential parcels (i.e., over 60 percent of such parcels) were approved for such school district tax relief in 2009.<sup>11</sup>

## **Requirement for Common Level of Assessment**

In Pennsylvania, real property valuation and taxation are influenced in significant ways by the state Constitution's uniformity clause as interpreted by the courts. In particular, requirements for a common level of assessment and those related to assessment and taxation limitations set Pennsylvania and its property valuation and assessment system apart from other states.

Pennsylvania courts have consistently held that the tax uniformity clause requires a common level of assessment for real property. Such a common level of assessment must be applied to the "same class of subjects." Further, Pennsylvania courts for 100 years have consistently ruled that real property is one constitutionally designated class entitled to uniform treatment and a common level of assessment, even though this is not explicitly stated in the Constitution.

The result of the court's interpretation is that Pennsylvania cannot have one common level of assessment or tax rate for residential property and a different one for commercial and/or industrial real property. At least 21 states and the District of Columbia<sup>12</sup> (including neighboring New York and West Virginia) permit different types of real property to have different levels of assessments or different property tax rates. Such states include 18 states with uniformity clauses that have not been

<sup>&</sup>lt;sup>8</sup>Article VIII, Section 2(b)(vi).

<sup>&</sup>lt;sup>9</sup>Act 1998-50 provided for such authorization.

<sup>&</sup>lt;sup>10</sup> Under this program enrolled property owners can receive a reduction in their property tax bill. The Department of Education allocates available funding to school districts based on a complex formula that considers tax capacity, tax effort, and tax burden. Once a school district receives its allocation, it divides its share among the approved properties to identify the amount of property relief. The amount of tax relief is the same for each approved property, and does not take into account the assessed value of the property. As a consequence, the proportion of tax relief will be greater for properties with lower assessed values than those with higher assessed values within the school district.

<sup>&</sup>lt;sup>11</sup> Pennsylvania Department of the Auditor General, Bureau of Special Performance Audits, *Property Tax Relief in Pennsylvania: Homeowners Need More Help, Less Hype*, February 2010.

<sup>&</sup>lt;sup>12</sup> Alabama, Arizona, Colorado, District of Columbia, Illinois, Iowa, Kansas, Louisiana, Massachusetts, Minnesota, Mississippi, Missouri, Montana, New York, North Dakota, Ohio, South Carolina, South Dakota, Tennessee, Utah, West Virginia, and Wyoming.

amended, such as Alabama, Colorado, Illinois, Iowa, Kansas, Louisiana, Massachusetts, Minnesota, Mississippi, Missouri, Montana, North Dakota, Ohio, South Carolina, South Dakota, Tennessee, West Virginia, and Wyoming.<sup>13</sup>

### Assessment Limits Following Reassessment

Property values typically rise faster than household income (see Finding II H), thus real property taxes as a fraction of household income tends to increase when property valuation and assessment is linked to current market value. According to researchers from the University of California:

Housing prices increased over 55 percent nationwide between 2000 and 2005 and local property tax collections grew by 36 percent. Over the same period, the ability to pay higher taxes as measured by personal income increased only 22 percent and median household income increased less than 14 percent.<sup>14</sup>

Property valuation systems based on current market value by design permit the amount of property tax to be levied against individual property to change as the proportional share of market value represented by each property changes. According to experts in the field of property assessment:

If current market value is used, there is a risk of permitting potentially large annual swings in the distribution of the property tax burden in times of high demand. Shifts become intensified on certain properties when market effects are not uniform throughout a jurisdiction and assessed value adjustments vary from place to place . . . . Throughout the United States, there is increasing political sensitivity to value shifts which lead ultimately to property tax shifts and lessen year to year predictability for taxpayers. A solution that appears to be increasingly politically popular is to impose caps on the amount that taxable values can increase in any given year.<sup>15</sup>

<sup>&</sup>lt;sup>13</sup>In a 2007 Allegheny County Court of Common Pleas of opinion, the Court identified 38 states with uniformity clauses that have not been amended. They include: Alabama, Colorado, Connecticut, Delaware, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, North Carolina, North Dakota, Ohio, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. Three states (New York, Alaska, and Hawaii) do not have uniformity requirements in their constitution, according to the Court.

<sup>&</sup>lt;sup>14</sup>Sexton, T., *The Increasing Importance of Assessment Limitations as a Means of Limiting Property Taxes on Homeowners*, Center for State and Local Taxation, Institute of Governmental Affairs, University of California, Davis, August 20, 2007.

<sup>&</sup>lt;sup>15</sup>Dornfest, A., "Effects of Taxable Value Increase Limits Fables and Fallacies," *Journal of Property Tax Assessment and Administration*, 2005, Volume 2, Issue 4, p. 5.

Many states that value and assess real property based on current market and replacement values, therefore, have adopted various approaches to limit the increase in property assessed values in an effort to protect homeowners. Maryland, for example, where the state is responsible for property valuation and reassesses all properties on a three year cycle (see Finding IV A), has several programs in place, including the Maryland Homestead Tax Credit program. Under this tax relief program, every county<sup>16</sup> and municipality is required to limit taxable assessment increases on an individual homestead residence to 10 percent or less each year, and provide a credit calculated on any assessment increase exceeding the 10 percent. While technically this program does not limit increases in the market value of a property, it has the effect of reducing the tax impact of increased market value on homestead properties whose value is appreciating rapidly. (Approaches to limit property taxes for individual property owners following reassessment in other surrounding states and in California are discussed in detail in Findings IV A and IV B.)

Several states have implemented direct assessment limit increases. For example:

- In Florida, annual increases in the assessment of homestead property are limited to three percent of the prior year's assessed value or, if lower, the percentage change in the Consumer Price Index for the prior year, as long as there is no change in ownership during the prior year.
- In Michigan, the annual increase in assessed value is limited to the General Price Level in the immediately preceding year, or five percent, whichever is less, until ownership of a parcel of property is transferred.
- In Arkansas, the assessed value of homestead properties cannot increase by more than 5 percent of the assessed value of the property for the prior year, and 5 percent in each year thereafter until the total increase is applied. For persons who are disabled or 65 years of age or older, the assessed value of their principal place of residence is the lower of the assessed value on January 1, 2001, the date of purchase or construction, or a later assessed value.
- In Oklahoma, the assessed value of real property cannot increase by more than 5 percent in any taxable year, except when the property is transferred, changed, conveyed, or improvements are made, according to the state constitution.
- In New Mexico, the assessed value of residential property generally cannot be increased by more than three percent of the prior year's valuation, or if higher, by more than 6.1 percent of the valuation from two years prior in certain counties.

<sup>&</sup>lt;sup>16</sup> In Maryland, counties are responsible for public schools.

Assessed value caps, however, can have negative effects, even on property owners they may be intended to protect, according to experts in the field of property assessment. Typically, such caps create "winners" and "losers."

The "winners" . . . are properties with rapidly increasing market value that are sheltered and have part of their tax burden redistributed onto properties with less rapid value growth. The "losers" . . . are those properties that pay higher taxes as a result of such a value constraint.<sup>17</sup>

Table 26 provides a simple illustration of how such an unintended consequence can result. In the illustration, tax revenue requirements for 2005 have been held constant, requiring a tax rate decrease from 1.5 percent in 2004 to 1.25 percent in 2005. If no cap were in effect in 2005, parcel A in Table 26 would have its 2005 property tax reduced by \$250 dollars (i.e., from \$1,500 in 2004 to \$1,250 in 2005) and parcel C would have its 2005 property tax increased by \$250 (from \$1,500 in 2004 to \$1,750 in 2005). As shown in Table 26, however, with a three percent cap on increases in assessed values, Parcel A, whose property has not appreciated, pays \$221 more in 2005 than it would have without the cap, whereas Parcel C, whose property has appreciated, pays \$235 less than it would have if there was no cap. Such approaches, moreover, can create non-uniformity in the property tax system.

Table 26

Parcel	2004 Assessed <u>Value</u>	2005 Assessed <u>(Without Cap)</u>	2005 Capped Assessed Value (3% Increase Cap)	2005 Property Tax \$ Without <u>Cap</u>	2005 Property Tax 4 With Capped <u>Value</u>	Change In Property Tax \$ Caused <u>By Caps</u>
A	\$100,000	\$100,000	\$100,000	\$1,250	\$1,471	+221
B	100,000	120,000	103,000	1,500	1,515	+15
C	<u>100,000</u>	<u>140,000</u>	<u>103,000</u>	<u>1,750</u>	<u>1,515</u>	<u>-235</u>
Totals	300,000	360,000	306,000	4,500	4,500	0

### The Effect of Assessed Value Change Caps on Property Tax Given a Budget-Driven System

Source: Dornfest, A., Journal of Property Tax Assessment and Administration, Volume 2, Issue 4, p. 7.

In the past, Pennsylvania courts have prohibited assessment caps such as freezes on property assessments.<sup>18</sup> In the early 1980s, after Philadelphia's Council instituted a three year assessment freeze over its Mayor's veto, litigation followed that was eventually resolved through a court-approved settlement agreement. As

<sup>&</sup>lt;sup>17</sup>Dornfest, A., p.7

<sup>&</sup>lt;sup>18</sup>For example, in Allegheny County in the 1990s (Wentworth, Miller v. The Board of Property Assessment, Appeals and Review of Allegheny County, 703 A.2d 733 (Pa. Cmwlth.1997), and in the early 1980s in Philadelphia (Coleman v. Green, 1983 WL 265484 (Pa. Com. Pl.), 16 Phila. Co. Rptr. 26, 1983).

part of the settlement agreement to address the significant economic hardships that would be caused by the immediate implementation of the assessment increases that would result from the lifting of the freeze, the court strongly suggested that current and uniform assessments were necessary to ensure constitutional uniformity. It, however, permitted a settlement agreement that allowed for a limited period of time (six years) to phase in assessment increases to achieve common levels of assessment across Philadelphia.

In Pennsylvania, moreover, the Constitution's special provision permitting a limited homestead property exemption explicitly prohibits local millage increases to pay for such exemptions. Thus, constitutional and legislative provisions to limit increases in assessed values for individual homeowners that are in place in many states that base assessments on current market value are largely precluded in Pennsylvania, absent amendment of the state Constitution, or the state replacing lost local property tax revenue associated with increased market value.

# Local Programs for Property Tax Relief in Pennsylvania

The LB&FC survey of county chief assessors asked them to identify "any programs in place in your county to address the effects of countywide property reassessment on those with fixed incomes." Only 17 percent (11 of 66) of the respondents identified one or more local programs. The limited homestead provision is the most frequently mentioned local program, with 7 of the 11 counties identifying such programs. Two counties identified programs specifically designed for senior citizens, and two counties identified programs to assist veterans. Two counties indicated that while the county itself does not have a program, some local school districts operate a local rebate program for the elderly, similar to the state's program. A twelfth respondent also indicated that the county offers extended tax payment options to the elderly and those in financial distress.

None of the counties reported the availability of real estate tax deferral programs which are permitted in statute to assist low income elderly and disabled persons to remain in their homes.<sup>19</sup> LB&FC staff were advised that a limited number of school districts in southeastern Pennsylvania had adopted resolutions to implement such a program. We contacted several school districts reported to have tax deferral programs and learned that the programs are technically in place, but are without participants.<sup>20</sup> The program's income limitation and the responsibility of the taxpayer for securing the lien against the property were some of the reasons offered for non-participation in the tax deferral programs authorized by school districts in southeastern Pennsylvania.

<sup>&</sup>lt;sup>19</sup> Act 1998-50.

<sup>&</sup>lt;sup>20</sup> We identified one school district with two participants, and another that had received two applications where the applicants elected not to participate in the tax deferral program.

# IV. Real Property Valuation and Assessment Systems in Other States

Real property valuation and assessment systems differ across the states. The below review of the valuation and assessment systems and the role of the state in such systems in Pennsylvania's surrounding states and a few selected states, highlight some of the differences. For example:

- Some surrounding states (Ohio, West Virginia, and Maryland) have a single statewide level of assessment or predetermined ratio—Pennsylvania does not.
- Some surrounding states (Ohio, West Virginia) and their courts have understood theoretic terms such as "true value" or "actual value" to mean value expressed in current or present day dollars—Pennsylvania's Supreme Court has never adopted such an interpretation.
- Some surrounding states (Ohio, West Virginia, Maryland, and parts of New York) have limits (including constitutional limits) on the amount of tax increases that an individual property can incur as a result of revised assessed values—Pennsylvania does not.
- Some surrounding states (Ohio, West Virginia) effectively require all taxing districts that receive revenue from real property taxes to share in the cost of reassessment—Pennsylvania does not.
- Some surrounding states (Ohio, West Virginia, New Jersey, New York, and Maryland) include within their approaches to "reassessment" various forms of "partial" reassessments, where only selected classes of property, or specific neighborhoods, or specific municipalities have their property values modified—Pennsylvania appellate courts have never permitted such forms of "reassessment" when they have been brought to their attention.

These and other differences in Pennsylvania's real property valuation systems and those of surrounding states and California are discussed below and summarized in Exhibit 18. What follows is detailed information for each of Pennsylvania's surrounding states and California as to their:

- administrative framework for property valuation and assessment;
- equalization of property values;
- levels of assessment;

Exhibit 18

# Valuation and Assessment System Characteristics for Selected States

	Current	t Market Valu	e State	Base	Year or Curr	ent Market Va	alue State	Acquisition Value State
	Maryland	Ohio	West Vir- ginia	New Jersey	New York	Delaware	Pennsylvania	California
One Level of Assessment	>	~	~					
Prescribed Valuation Cycle	>	>	>					
One Value Per Property	>	>	>	>			>	>
Central Valuation Unit	>	>	>	>	>			>
State Taxes Certain Property	~	~	~	~				
Local Assessors Not Accountable to Local Government	NA	~	>	>				>
State Directly Equalizes Values or Taxes	NA	~	>	>	>			AN
State (or its agent) Can Order Se- lected Property Value Changes, and/or Comprehensive Reassess- ment	AN	~	>	>				
Requires Certification of Assessors				~	>		~	~
Cap on Individual Property's Tax Value or Overall Tax Increase	>	>	>					>

Source: Developed by LB&FC staff.

- valuation methods;
- limitations on property tax increases following reassessment; and
- assistance for taxpayers, including property tax relief programs.

# A. Real Property Valuation and Assessment Systems in Surrounding States

**Maryland:** Maryland, which has a uniformity clause in its state constitution, differs from Pennsylvania and most other states in that state agency personnel conduct real property valuations for local taxing districts.<sup>1</sup> Maryland also differs from Pennsylvania in that it has assessed and received some state revenues from a state property tax since 1959,<sup>2</sup> when the Department of Assessment and Taxation was created as an independent agency whose director is appointed by the governor. In the 1970s, the Maryland legislature transferred local property valuation responsibilities to the state agency. Prior to that time, the Department had assessed certain real property and was responsible for providing general oversight for local assessments.

*Real Property Valuation Administration:* Maryland's Department of Assessment and Taxation employs 200 assessors who are responsible for assessing 2.2 million properties (an assessor to parcel ratio of 11,000—similar to the average for Pennsylvania, and about one-third of Pennsylvania's total parcels). <sup>3</sup> Maryland does not require its state assessors be licensed or certified; however, they must complete five IAAO courses to perform such duties.

*Equalization of Property Values:* In Maryland, counties and local governments establish (within certain state requirements), their own tax rates.<sup>4</sup> In Maryland, property values are directly equalized across counties and municipalities as a result of the state itself completing property valuation, employing the same methods to value real property across the state, basing valuations on state regulations and the

<sup>&</sup>lt;sup>1</sup> LB&FC staff identified two other states where state employees are responsible for property valuations— Kentucky and Montana. Both states have state real property taxes. Kentucky imposes state taxes on property. In Kentucky, the state Department of Revenue has supervisory authority over local fiscal officers, including elected property valuation administrators. As such the Department through its Office of Property Valuation employs and oversees as state employees county valuation staff involved in property valuation, including the elected county assessor. The State Office of Property Valuation also values certain real property in the state. The Office of Property Valuation in Kentucky has a total personnel budget of about \$38 million annually. Montana's 1972 constitution imposed a duty on the state to appraise and assess real property, and in 1993, the state legislature reassigned all such duties from the counties to the Montana Department of Revenue. The Property Assessment Division within the Department is responsible for valuation and assessment of real and personal property throughout the state. The Property Assessment Division in 2010 had 315 full-time positions, and a \$21 million budget. In 2008, the state of Montana received \$220 million of the \$1.2 billion total revenues generated through property taxes.

<sup>&</sup>lt;sup>2</sup> Annually, Maryland's imposes a state real property tax on over \$700 billion in property, which provides about \$600 million for the state's general fund.

<sup>&</sup>lt;sup>3</sup> The Department's annual operating budget is approximately \$40 million, though the Department carries out other duties in addition to local property valuation.

<sup>&</sup>lt;sup>4</sup> Local governments generate between \$6 and \$7 billion in property tax revenues each year.

state's real property assessment procedures manual, and using the state's single automated valuation system.

*Level of Assessment:* In Maryland, property is valued at 100 percent of its full cash value based on estimates of fair market value, with new fair market values phased in over a three-year period. Maryland's state constitution includes a uniformity clause; however, the constitution also authorizes the state legislature to establish uniform rules that treat different classes of property in different ways.

Valuation Methods: Each year, one-third of the property in each Maryland county is valued and assessed (i.e., prior market value and assessed value revised); and over a three-year period, all properties within all counties are revalued and reassessed. Such valuation requires an external inspection<sup>5</sup> of each property by assessor staff and review of neighborhoods.<sup>6</sup> Property values for residential property are determined by a combination of the cost and market approaches. Commercial properties are valued using the income approach, or for some properties using direct capitalization, a gross income multiplier or discounted cash flow.<sup>7</sup>

Each year, Maryland's Department of Assessment and Taxation evaluates the assessed values that it has developed. Annually, it is required to submit an Assessment Ratio Report for residential and condominium and commercial<sup>8</sup> property. The report provides for individual counties and the state as a whole the ratio of assessed value to sales price and the dispersion for such ratios based on sales price data for six months prior to and six months after the implementation of the new assessed values. In this way, the state and public can determine if the newly established assessment values are reasonable and if the state's mass appraisal reassessment met its goals for level of assessment<sup>9</sup> and assessment variability.<sup>10</sup>

*Limitation on Property Tax Increases Following Reassessment:* Maryland effectively limits real property tax increases following reassessment in several ways. First, it phases in the increase in the assessed value of a property following reassessment over a three-year period, though reductions are fully implemented when the new assessed value is established.

<sup>&</sup>lt;sup>5</sup> According to Maryland officials, they are having difficulty meeting this goal because of recent staff reductions.

<sup>&</sup>lt;sup>6</sup> Properties are also reassessed if there is a change in zoning or major improvements (over \$100,000) are done to the property.

<sup>&</sup>lt;sup>7</sup> See Appendix F for more information on these three approaches to determining a property's the fair market value.

<sup>&</sup>lt;sup>8</sup> The Maryland ratio study notes that small numbers of sales can provide statistical results that are not representative. In jurisdictions with fewer than 10 commercial sales, therefore, the Maryland ratio studies report the statewide ratio of sales for the jurisdiction rather than the ratio derived from the inadequate sales number. <sup>9</sup> An average assessment-to-sales ratio for taxable properties between 90 to 110 percent of market value.

<sup>&</sup>lt;sup>10</sup> An average coefficient of dispersion for residential properties of 15 or less, and a price related differential for higher and lower valued properties within a range of .98 to 1.03.

Second, it requires local governments to establish caps on the percentage increase an individual property owner would pay as a result of an increase in the assessed value of an existing owner occupied principal residence. The costs associated with such caps are locally absorbed. Specifically, Maryland requires that a credit be applied to the tax bill of a qualified property<sup>11</sup> when the property assessment increases more than 10 percent over the prior year as a result of reassessment. This Maryland Homestead Tax Credit Program has no income, age, or property value limits associated with it. Counties (which operate public school systems in Maryland) and municipalities have the option to set a lower limit than the 10 percent for local taxes.

Third, Maryland requires the Department of Assessments and Taxation to calculate a Constant Yield Tax Rate for each local government. The concept behind the constant yield tax rate is that as assessments rise, the tax rate should drop so that the revenue from the property tax stays at a constant level from one year to the next. The local taxing jurisdiction must give advance notice and hold public meetings before setting the tax rate if they are considering a tax rate higher than the constant yield tax rate identified by the state. The Department, moreover, oversees and monitors the advertising and meeting requirements related to public notice of the constant yield tax rate.

Assistance to Taxpayers: Maryland provides assistance to taxpayers in several ways, including through need-based state funded property tax credits, deferral programs, and a taxpayer bill of rights.

<u>State Property Tax Credit</u>: Maryland's Homeowners' Property Tax Credit Program provides state-funded assistance to certain homeowners<sup>12</sup> without regard to age to help pay their property tax. The tax credit is determined based on a sliding scale that compares a homeowner's income and the amount of property tax that is levied against their principal residence. The tax credit diminishes as household income increases. In 2008, Maryland expended \$47 million for this program and

<sup>&</sup>lt;sup>11</sup> The homeowner must submit a one-time application to establish eligibility for the credit. The property must be the principal residence of the owner for at least six months of the year for which the credit is applicable. An owner can receive a credit on only one property. The credit is granted for following years as long as the property is not transferred to a new owner, there was no change in zoning classification, there is no substantial change in the use of the property, and the previous assessment was not clearly erroneous.

<sup>&</sup>lt;sup>12</sup> In order to take advantage of the Homeowners' Property Tax Credit the applicant must own or have a legal interest in the property; the property must be the applicant's principal residence for at least six months of the year; the applicant's net worth, not including the value of the property or qualified retirement savings, must be less than \$200,000; and combined gross household income cannot exceed \$60,000. The amount of the tax credit is based on the amount by which the property taxes exceed a percentage of income according to a legislatively mandated formula: 0 percent of the first \$8,000 of the household income; 4 percent of the next \$4,000; 6.5 percent of the next \$4,000; and 9 percent of all income above \$16,000. The credit is the difference between the actual taxes and the limit from this formula. For example, a household with a combined income of \$16,000 would pay the first \$420 in property tax with a credit applied to any property tax amount above the \$420 limit. The limit increases by \$90 for each additional \$1,000 of household income up to the program maximum allowable income of \$60,000. A property owner with income of \$30,000 would be responsible for up to \$1,680 in property tax while someone with income of \$60,000 would pay the first \$4,380 in property taxes.

assisted more than 46,000 households. The state calculates the eligible household's tax credit after the 10 percent cap under the Homestead Tax Credit Program (discussed above) has been applied. On average, eligible low and moderate income households, regardless of age, qualify for an average state tax credit of \$1,000 under Maryland's Homeowner's Property Tax Credit Program.

Maryland also provides a property tax credit for renters based on the assumption that 15 percent of the rent paid in a year goes toward the payment of property taxes. This program is available to renters age 60 or older and some disabled renters under the age of 60 who have a dependent child. Like the Homeowners' Property Tax Credit, a graduated formula is used to set a tax limit for each income level and a credit is available for the amount that the property taxes exceed the tax limit amount. Eligible renters receive a monthly check payment. In 2008, credits were issued to 9,474 renters totaling almost \$2.6 million.

<u>Property Tax Deferral</u>: Maryland also has a Property Deferral Program that allows property owners age 65 or older to elect to defer an increase in their property tax bill. The local government must adopt the program and can then impose income restrictions for participation and payment of interest requirements on the amount of the property tax payment that is deferred. The deferred taxes become a lien on the property which must be repaid when the property is transferred. Ten of Maryland's 23 counties offer this program.<sup>13</sup> One of these counties, Montgomery County, offers the program to homeowners of all ages who meet residency and income requirements. Only a small number of taxpayers have used the property tax deferral programs.

<u>Property Owner's Bill of Rights</u>: Maryland's Department of Assessments and Taxation has taken steps to develop a highly transparent assessment valuation system. It provides the taxpayer notice of the relationship between old and new market values for both land and buildings, and provides highly detailed information on how property is assessed at its website.

The Department of Assessments and Taxation publishes a Property Owner's Bill of Rights which identifies the rights property owners have throughout the assessment and appeals process. In Maryland, there is a three-stage administrative appeal process, and there is no fee charged to the property owner at any step in the administrative appeal process.<sup>14</sup> The initial stage provides for a supervisory level of review to discuss the property owner's appraised value.<sup>15</sup> The second appeal stage is heard by the Property Tax Assessment Appeal Board, an independent board of local residents appointed by the Governor. The third appeal stage involves the

<sup>&</sup>lt;sup>13</sup> In addition to these counties, several municipalities also offer property tax deferral programs.

 $<sup>^{14}</sup>$  In addition to property owners, municipalities have the ability to appeal an appraisal value.

 $<sup>^{15}</sup>$  About four percent of new assessments are appealed at this level and about 40 percent of such appeals have the assessment adjusted based on the appeal.

Maryland Tax Court—an administrative court appointed by the Governor. While very few appeals go to the Tax Court, property owners who are in disagreement with the Tax Court's decisions can further appeal through the state's judiciary system.

**Delaware:** Delaware, like Pennsylvania, does not rely on a state property tax to generate state revenues and does not value any real property. Its system of real property valuation, moreover, has other features similar to Pennsylvania.

*Real Property Valuation Administration:* In Delaware, which has a uniformity clause in its state constitution, county Boards of Assessment, which are made up of members who are appointed by the county government, oversee property assessment under general state statutes and rules. In addition to counties, Delaware municipalities have the option to administer and perform their own property valuation for municipal purposes, or to elect to rely on the county.

Delaware has standards for licensure of real estate appraisers. Such standards, however, do not apply to real estate tax assessments or reassessments performed by full-time municipal or county government employees acting in the regular course of business.

*Equalization of Property Values:* The state of Delaware is not required and is not involved in equalization of property taxes within a county. The state or the county does not need to equalize property values for tax purposes as Delaware permits municipalities within counties to value property, perform reassessments, establish their own level of assessment, or elect to rely on the assessments and level of assessment of the county.<sup>16</sup>

The State of Delaware's Office of Management and Budget is charged with conducting an assessment-to-sales price ratio study for use by the state in distributing part of the state aid provided to school districts. The study provides equalized market values for all school districts that are used in the formula distribution of certain state aid. The state's most recent sales price ratio study was completed by the University of Delaware's Center for Applied Demography & Survey Research on behalf of the state agency.

*Level of Assessment:* Delaware values all real property at its "true value in money." It, however, does not require a county (or municipality) to assess real

<sup>&</sup>lt;sup>16</sup> While the state has no role in direct equalization of assessments within or among counties, if a complaint is made by a taxpayer to a board of assessment that a property in any district, as compared with other districts, is not assessed in a fair and equitable manner, the board, or one of its members, is required to personally visit the district and inspect the properties for the purpose of equalizing the assessments.

property at 100 percent of "true value."<sup>17</sup> As in Pennsylvania, the level of assessment is at the discretion of the county (or municipality), and all property within a taxing district must be assessed at the same level. In other words, the assessment level that is applied to residential property must be the same as that applied to commercial property within the county (or municipality).

One of Delaware's three counties assesses at 100 percent of the county's base year values, the second at 60 percent, and the third at 50 percent. In one of Delaware's three counties, four municipalities have different levels of assessment than the county. In a second, eight municipalities have different levels of assessment than the county.

Valuation Methods: Local governments are responsible for real property valuation in Delaware, and with certain exceptions (e.g., for agricultural property), the state does not prescribe how property is to be valued. State statute requires that real property be assessed annually, but it does not require that properties be physically inspected and revalued or reassessed on an annual basis, or that "true value" be based in current dollars.

In Delaware, real property assessments are based on base year values rather than current market values. One of Delaware's three counties has a 1974 base year. Eleven of the county's municipalities, however, have different base years than the county, including one with a base year prior to 1974.

A second county assesses using 1983 base year values. Two municipalities in the county utilize totally different valuation methods than the county, including one that assesses based on land square footage and not the value of the improvements on the property.

The third county assesses using 1987 base year values. Four municipalities in the county have different base years than the county, and others use different valuation methods than the county.

<sup>&</sup>lt;sup>17</sup> Such a proposal was included in 1995 and 2008 reports prepared for the Delaware legislature. The proposals outlined in the report, however, have not been adopted by the state's legislature, according to officials in the Delaware Department of Finance involved in the preparation of the 2008 report. The 2008 report also recommended the state adopt uniform standards of assessment and the state take on a role in implementing a comprehensive statewide reassessment of all property, with a proposed State Assessment Board responsible for managing and overseeing such implementation. The proposed statewide reassessment would be accomplished by the state issuing an RFP for a single vendor to develop one property assessment system that would be used statewide. All properties under the proposed system would be physically inspected once every nine years. The aggregate caps on revenue increases following reassessment would be reduced and a homestead provision would be implemented limiting the annual property tax increase for a primary residence to 10 percent in the year following the statewide reassessment. Under the 2008 report proposals, all county and municipal assessors would be required to become licensed in five years. To finance the statewide reassessment, each county would be responsible to pay for its share and would be allowed to levy an explicitly indentified state-mandated supplemental property tax rate to raise revenue needed to offset the reassessment's cost.

Limitations on Property Tax Increases Following Reassessment: Like Pennsylvania, Delaware does not have provisions for limiting the increase in a property's assessed value following a reassessment by the county or municipality, or a cap on an individual's property taxes following a reassessment. It does, however, have in place provisions that limit the aggregate amount of the additional revenue increase (i.e., 15 percent for counties and 10 percent for school districts); and such limits can be exceeded based on public notice (in counties) and through an election (for the school district). Municipalities that conduct assessments are only required to provide notice when adopting an ordinance that will provide for a tax rate greater than the "rolled-back rate."

Assistance for Taxpayers: Delaware has authorized two programs to assist the elderly with property tax relief—the Senior School Property Tax Credit and a local homestead exemption program.

<u>Senior School Property Tax Credit</u>: This school district tax relief program is funded by the state and is available to eligible residents age 65 and older. Eligible seniors regardless of income can qualify for a credit on the school district property taxes for their primary residence. The credit can amount to 50 percent of the residence's school property taxes up to a maximum of \$500. The amount of the authorized credit is deducted from the property tax bill that is mailed to the taxpayer. In 2009, the state of Delaware reimbursed school districts \$16.2 million under this tax credit program.

Local Senior Homestead Exemptions: Delaware also authorizes counties to provide an exemption for senior citizens over age 65, who have resided in their home for three years or more and have annual incomes of \$3,000 or less.<sup>18</sup> The exemption equals the taxes due on the assessed value of the homestead up to \$5,000. Local governments must adopt ordinances to implement local homestead exemption programs, and they may adopt criteria for program participation that are less restrictive than those specified in state rules.

For example, New Castle County's senior homestead exemption for county taxes is available to those with income up to \$15,000 per year (\$19,000 for a married couple). Those who qualify receive an exemption on the county property taxes due on the senior's principal residence up to an assessed value of \$50,000. A similar program is available for school taxes with the same income and age requirements; however, the local exemption from school property taxes is limited to an assessed value of \$32,000.

<sup>&</sup>lt;sup>18</sup> School districts may provide credit against school taxes on the principal residence of a person 65 and over. The amount of the credit is 50 percent of the taxes up to a maximum of \$500. Municipalities may exempt residents 65 years and over from municipal property taxes to the extent they elect.

Property taxpayers in Delaware can also appeal their assessed values to the local board and through the courts. Local governments, however, cannot appeal county-assessed values.

**West Virginia:** West Virginia differs from Pennsylvania in that it performs real property valuation for certain commercial properties, natural resources, and public utilities. In FY 2008, the state collected \$5.3 million in property taxes for the state's General Revenue Fund.<sup>19</sup>

West Virginia, which has a uniformity clause in its state constitution, also differs from Pennsylvania in that its state constitution contains highly detailed provisions concerning property valuation, includes specific limits on the amount of real property taxes that can be levied on a property, establishes a statewide predetermined ratio of assessment, and sets forth tax classifications that allow differing property tax rates for residential and other property types. Further, state law specifies the maximum property tax levies that the state, county, cities, and schools can impose, thus effectively distributing all property tax revenues among all taxing authorities. It also includes provisions limiting annual real property revenue growth.

Currently, several state agencies are involved in West Virginia's system for real property taxation. They include the State Tax Department and the Board of Public Works.

*Real Property Valuation Administration:* Prior to the early 1990s, the West Virginia State Tax Department was responsible for statewide property reassessment, with county assessors responsible for certain appraisals. In the 1980s, a constitutional amendment provided for a statewide reassessment, which was performed by a contractor on behalf of the state. The newly derived property values, however, were not approved by the state tax commissioner, and therefore were not implemented, according to West Virginia property tax officials with whom we spoke. Subsequently, the state legislature provided for statewide reassessment through the state's elected county assessors.

In West Virginia, 55 locally elected county assessors, who serve four year terms, are primarily responsible for assessing residential and commercial and industrial real property.<sup>20</sup> Two state agencies, however, are also involved in real property valuation.

The West Virginia State Tax Department's Property Tax Division provides annual appraisals of industrial, natural resource, and public utility properties. The Board of Public Works is responsible for property valuation of public services

<sup>&</sup>lt;sup>19</sup> It also collected \$11.69 million in property transfer taxes.

 $<sup>^{\</sup>rm 20}$  West Virginia taxes not only real property but certain personal property.

businesses (e.g., railroads, pipelines, telegraph and telephone lines, water companies, etc.).

The West Virginia State Tax Department provides a statewide data processing network for all property tax administrators, including county assessors. It also monitors assessment administration activities in the counties, and provides certain training classes for county assessors and their staff. West Virginia's FY 2010 Executive Budget provides for 74 employees in the Property Tax Division at an annual program cost of \$7.7 million.

West Virginia does not require licensure/certification of county assessors. County assessors, their staff, and county commissioners (who serve as the local board of equalization and review and local appeal board), however, are required to participate in certain training approved by the Property Valuation and Training Procedures Commission<sup>21</sup> and provided by the State Tax Department.

In West Virginia, the county is responsible for paying the salary of the locally elected assessor. In the early 1990s, when counties became involved in the statewide reappraisal, West Virginia created a "revolving valuation fund" in each county. The "county valuation fund" initially contained funds loaned to the counties by the state<sup>22</sup> to cover county start-up costs to complete the constitutional and legislatively required statewide reassessment. In order to gain access to the "county valuation fund," the county and county assessor must prepare and submit a county valuation plan and budget that have been approved at the state level.

State legislation also required that two percent of the additional revenues resulting from the statewide reassessments prorated to each levying body (i.e., the county, school districts, municipalities, and state) be deposited into the "county valuation fund." Legislation further directed that the revolving valuation fund revenues be used by the assessor's office to repay the state loan with accrued interest, provide for maintenance funding, and provide periodic valuations and inspection of every parcel of real property on a three-year cycle.<sup>23</sup> The legislation also required

<sup>&</sup>lt;sup>21</sup> The Property Valuation Training and Procedures Commission consists of the state tax commissioner, three county assessors, five citizens of the state (one of which is a certified appraiser), and two county commissioners. Except for the state tax commissioner, members of the Property Valuation Training and Procedures Commission are appointed by the Governor with the advice and consent of the senate, and serve four year terms. The commission establishes guidelines that are used by the West Virginia State Tax Department to monitor county assessment offices. It also reviews annual budgets submitted by county assessment offices for planned expenditures from the county's "revolving valuation fund."

<sup>&</sup>lt;sup>22</sup> Up to \$5 million statewide.

<sup>&</sup>lt;sup>23</sup> West Virginia is not the only state with "state funds" consisting of local tax revenues that are designated to support local assessment functions. LB&FC staff analyzed how local assessment activities were funded in 30 of the 50 states, with particular attention to states that were reported to provide state financial support for local assessing activities. We identified six states (West Virginia, Ohio, California, Minnesota, Utah, and Oregon) with "state funds" consisting of local revenues that are designated to assist local assessment. As discussed later in this section, we also identified four states (New York, Tennessee, Rhode Island, and Vermont) that provide grants to local assessment activities.

the county commissioners to continue funding the county assessor's office at levels in place prior to the creation of the county valuation fund.

*Equalization of Property Values:* County commissioners are required annually to sit as a board of equalization and review and to review the valuations provided by the county assessor. They are responsible for assuring that assessments are equal to sixty percent of the most current appraised valued for all real (and personal) property within the county.

In West Virginia, the tax commissioner is also responsible for assuring that all property is assessed at 60 percent of current market value. In any year when the assessed value of a property or different class of properties is less than or exceeds the sixty percent of current market value (by plus or minus 10 percent of the predetermined ratio), moreover, the tax commissioner can direct the assessor to make the necessary adjustments. If the assessor does not make such adjustments, the tax commissioner may conduct a reassessment at the county commissioners' expense.<sup>24</sup> In the past, the West Virginia tax commissioner has ordered county assessors to change assessed values that had been modified by the County Commission sitting as a Board of Equalization and Review. This occurred after the county commissioners failed to supply the State Tax Department with adequate supporting information or evidence to justify the County Equalization Board's changes to the assessor's values.<sup>25</sup>

To carry out the direct equalization responsibilities of the state tax commissioners, the West Virginia Tax Department's Property Tax Division conducts various studies. It regularly completes ratio studies utilizing data submitted by the counties and other information from the state computer assessment and mass appraisal automated system. The ratio studies report assessment-to-sales ratios and the dispersion of such ratios separately for different real property types<sup>26</sup> based on guidelines established by the Property Valuation Training and Procedures Commission. Such studies indicate if various property types in a county are assessed at 60 percent of market value (plus or minus 10 percent).

In 2009, the West Virginia Tax Department initiated a multi-year Statewide Property Tax Equalization Study to evaluate the quality of property assessments in all 55 of the state's counties. The study, which is being conducted by independent appraisers contracted by the state, will review the real property values established by the county. In order to evaluate the quality of property assessments in each county, the state's contracted appraisers will have field personnel review each county's land values, designated neighborhood boundaries, data collection, and sold

<sup>&</sup>lt;sup>24</sup> This has never occurred, according to state officials with whom we spoke.

 $<sup>^{25}</sup>$  In 2008, for example, the West Virginia Tax Commissioner changed Morgan County Property Assessment values for that tax year.

<sup>&</sup>lt;sup>26</sup> Residential improved, residential vacant, apartment, commercial, and industrial property.

versus unsold properties. In addition, the contracted appraisers will validate sales through direct contacts with buyers and sellers, and complete an assessment-tosales ratio study based on the validated sales. The state anticipates releasing results of some of the study in late 2010, according to Tax Department officials with whom we spoke.

Level of Assessment: The state's constitution and statutes specify 60 percent of current market value as the level of assessment throughout the state. Such a level applies to all types of properties. The state's constitution, however, specifies different maximum tax rates for different types of real property. The maximum tax or levy for owner-occupied residences and farm real estate is \$1 for each \$100 valuation, \$1.50 for all other property outside a municipality, and \$2 for all other property inside a municipality. Increases in such maximum rates can only occur for all classes of property through voter referendum where at least 60 percent of the voters must favor increases, according to the state constitution.

*Valuation Methods:* In West Virginia, real property is valued at its current "true and actual value." Typically, such value is estimated annually using one or more of the three approaches to value—the cost, market, and/or income approach.<sup>27</sup> (See Appendix F for information on such approaches.)

In West Virginia real property is to be physically inspected and valued on a three year cycle. While property is inspected and valued on a three-year cycle, all property in a county need not be inspected at the same time and need not have new market and assessed values imposed at the same time.

As West Virginia's level of assessment is based on "current" market value, state law permits local assessors to annually adjust assessed values for properties whose value the assessor discovers to have changed each year during the three-year cycle.<sup>28</sup> Such neighborhood<sup>29</sup> "market" adjustments to assessed values<sup>30</sup> are based on sales data, and can be either upward or downward.

While West Virginia permits neighborhood changes in assessed value during the three-year assessment cycle based on changes in current market value, it does not permit county assessors to change individual property assessments based on recent sale of the property. Such a practice is "sales chasing," and creates nonuniformity, according to the West Virginia Department of Taxation.

*Limitations on Property Tax Increases Following Reassessments:* West Virginia has several ways in which it limits property tax increases following reassessments.

<sup>&</sup>lt;sup>27</sup> Active farm land and managed timberland are not valued based on estimated market value.

<sup>&</sup>lt;sup>28</sup> West Virginia Code, Chapter 11, Article 1C, §11-1C-1(b).

 $<sup>^{29}</sup>$  Neighborhoods are identified for mass appraisals by county assessors.

<sup>&</sup>lt;sup>30</sup> West Virginia's constitution provides specific guidance to the state on determination of value. Such guidance includes reference to "trends in market values over a fixed period of years."

As discussed above, it limits the maximum tax rate on the assessed value of a specific property. Moreover, within that maximum tax rate, it specifies the maximum real property tax rate for the different taxing authorities, including the state, county, school, and municipal taxing authorities, for each different class of real property. This limits the property taxes paid on an individual property, and effectively provides for the distribution of real property tax dollars across all state taxing authorities.<sup>31</sup>

West Virginia also limits aggregate revenue increasing as a result of reassessments and market changes in assessed values for existing properties. When reassessments or reappraisals would cause an increase of more than 1 percent in a taxing entity's tax revenues (with exception for increases due to new construction or improvements), the county and municipality must proportionately reduce their tax rates so that no more than an additional 1 percent revenue is generated over the prior year. The county and municipality, however, are permitted to generate more than 1 percent additional revenue after a public hearing is held and the governing body votes to permit additional revenue. Such additional revenue cannot exceed prior year revenue by more than 10 percent.

For school districts, no more than 2 percent in additional revenue can be realized as a result of a reassessment or reappraisal. A school district wishing to generate revenue above that amount can advertise and hold a public meeting to discuss the need for such additional revenue. After the school district conducts a public hearing, the state legislature may then act to increase the tax rate above the rate required to generate additional revenue over and above the 2 percent limit.

Assistance for Taxpayers: West Virginia has several programs to assist taxpayers with their property taxes. They include the Homestead Property Tax Exemption, the Senior Citizens' Tax Credit, the Tax Relief for the Elderly Homeowners and Renters, the Senior Citizens Property Tax Payment Deferment Act, and Homestead Excess Property Tax Credit Program.

In West Virginia, all seniors and disabled persons qualify for the Homestead Property Tax Exemption. Seniors who qualify for the homestead exemption can choose to participate in one of several other available state property tax relief programs. They cannot, however, choose to participate in more than one of the other state property tax relief programs.

<u>Homestead Property Tax Exemption</u>: West Virginia's constitution provides a homestead exemption without regard to income for those 65 and older and persons

<sup>&</sup>lt;sup>31</sup> Within West Virginia's tax limitations, taxing authorities can elect to have tax rates that are below the maximum rate. This provides a buffer should real property assessed values decline as a result of market/house price changes. Also, West Virginia's tax limitations system permits levies for specific purposes based on voter referendum.

who are disabled (without regard to age). Individuals who qualify for this exemption do not pay taxes on the first \$20,000 of the total assessed value of their home. If the total assessed value of the home is less than \$20,000, no property taxes are levied against the property.

Approximately 30 percent of all households in the state participate in this program, according to state officials with whom we spoke. Approximately, onequarter of the 210,000 households that participated in the program last year paid no property taxes. When participation in the Senior Citizens' Tax Credit program (discussed below) is taken into account, about 80,000 to 90,000 homestead program participants pay no real property taxes.

<u>Senior Citizens' Tax Credit</u>: The Senior Citizen's Tax Credit is one of several other state property tax relief programs available to senior participants in the Homestead Property Tax Exemption program. Qualified low income senior citizens<sup>32</sup> who receive the homestead exemption can qualify for an additional tax credit by filing a personal income tax return. Those who qualify for the credit can receive a benefit up to the amount of taxes paid on the "next" \$20,000 of taxable assessed value of their homestead. In other words, along with the Homestead Property Tax Exemption, seniors receiving the Senior Citizens' Tax Credit qualify to receive a benefit up to the amount of taxes paid on \$40,000 of the taxable assessed value of their homestead. In 2008, about 42,000 seniors qualified for this program and received \$7.7 million in reimbursement.

<u>Tax Relief for the Elderly Homeowners and Renters</u>: Since the 1980s, this program has not had participants due to its very low income eligibility threshold. The initial income thresholds for the program were established in the 1970s, and have never been revised, according to state officials with whom we spoke.

Senior Citizens Property Tax Payment Deferment: Low income<sup>33</sup> homeowners 65 years or older can apply to defer payment of the tax increase on their homestead property tax if the tax increase is greater than \$300 or greater than 10 percent. In addition to such requirements, the applicant must own their home and the home must be used solely for residential purposes. Under this program, the tax deferral continues until the property changes ownership, the property owner for whom the deferment was approved dies, the property has insufficient fire or flood insurance, or the deferral and other charges are paid in full. In West Virginia, the deferred taxes are not subject to interest payments.

According to state officials with whom we spoke, fewer than 600 households theoretically qualified for the program last year. In 2010, the program had no participants.

<sup>&</sup>lt;sup>32</sup> Federally adjusted gross income at or below 150 percent of federal poverty guidelines.

 $<sup>^{\</sup>rm 33}$  Gross household income cannot exceed \$25,000.

<u>Homestead Excess Property Tax Credit</u>: Under this program, the state provides a refundable personal income tax credit of up to \$1,000 for any homeowner whose owner-occupied residential property tax liability exceeds four percent of their gross household income. This program currently has no age or income restrictions. In the program's first year, West Virginia expended \$2.4 million for such tax credits, according to West Virginia officials.

West Virginia has in place a system of appeals. Taxpayers can appeal to the county commissioners acting as a board of appeal the property value established by the county assessor. The decision of the county board of appeal can be further appealed (by the taxpayer or the elected county assessor) in state court.

In West Virginia, appeals related to property class (e.g., residential versus other property) and appeals related to exemptions (e.g., church property) are not heard by the county commissioners acting as the board of appeal. Rather, they are heard and determined by the state tax commissioner. The decision of the state tax commissioner can be appealed by the taxpayer or the local elected county assessor in state court.

**Ohio:** Ohio's state constitution includes a uniformity clause. Ohio's system for property valuation, however, differs from Pennsylvania's in several ways. Ohio generates state tax revenues from property taxes; a state agency appraises public utility property; and a single level of assessment applies to all property statewide. The state's constitution, moreover, limits the amount an individual property can be assessed by all taxing authorities without voter referendum approving an additional tax levy, and recognizes two classes of property (i.e., residential and agricultural land and improvements and all other land and improvements) for purposes of certain tax limitations.

*Real Property Valuation Administration:* In Ohio, the Department of Taxation administers the tax on public utility property and supervises the administration of locally levied real property taxes. The Department of Taxation is headed by a tax commissioner appointed by the Governor.

Primary responsibility for property appraisal and assessment rests with 88 county auditors, who are elected to four-year terms. Elected county auditors, who

are also the county's chief fiscal officer, are required to complete certain state training.<sup>34</sup> Ohio does not require licensure or certification of assessors employed by the county auditor.

Ohio statute provides for county auditors to be compensated for real estate assessment services based on a percent of the property tax revenues generated, with such cost apportioned based on the share of revenue generated for the state, county, townships, municipal corporations, and school districts. Such funds are deposited by the county treasurer into a "real estate assessment fund," to be used by the county auditor. State law prohibits the county commissioners from transferring moneys required to be deposited in the real estate assessment fund to other funds.

The amount of tax revenues to be deposited into the real estate assessment fund for use by the county auditor for real estate assessment cannot exceed four percent on the first \$500,000 of revenues; two percent on the next \$5 million; 1 percent on the next \$5 million; three-quarters of 1 percent on all further sums not exceeding \$150 million; and five-hundred-eighty-five thousandths of 1 percent on amounts exceeding \$150 million. Expenditures from the real estate assessment fund must also comply with rules adopted by the state tax commissioner, including requirements for appraisal plans, progress reports, contracts, and other documents.

In addition to the real estate assessment fund, Ohio statute provides for a property tax administration fund. This fund was established by legislation to cover the costs the Department of Taxation incurs in administering local property tax programs, including the costs of divisions involved in overseeing real property taxation and administration. The state charges fees against all local taxing units to provide revenues for this fund. Such fees are deducted from the semiannual payments made by the state General Fund to school districts, counties, and other local jurisdictions to reimburse them for the cost of certain state taxpayer relief programs. In FY 2008, the Ohio Department of Taxation expended \$14 million for property tax administration, and an additional \$2 million for the Board of Tax Appeals.<sup>35</sup>

<sup>&</sup>lt;sup>34</sup> In Ohio, elected county auditors perform a variety of diverse duties. In addition to establishing property values, they serve as the county's chief fiscal officer responsible for the bookkeeping and fund disbursement for all county elected officials, many county agencies (e.g., Children's Services), and other public agencies such as park districts, regional planning commissions, etc. The county auditor calculates the property tax for every parcel of real estate within the county. After the county treasurer collects the taxes, the county auditor calculates how much of the money collected goes to each taxing district. The county auditor provides assistance to local governments related to borrowing and tax levy ballots; seals gas pumps, scales and other measuring devices; and licenses dogs, vendors, and others.

<sup>&</sup>lt;sup>35</sup> In Ohio property taxes are not limited to real property. The Board of Tax Appeals determines questions of law and fact in the administration of the tax laws of the state and its municipalities. It hears and determines appeals from four areas, including final determinations by the tax commissioner of any preliminary, amended or final tax assessment, reassessment, valuation, determination, finding, computation, or order; decisions of the 88 county boards of revision relating to real property taxes; actions of the 88 county budget commissions; and decisions of municipal boards of appeal.

Equalization of Property Values: In Ohio, both the state and the county have a role in equalizing property values to assure that they are valued and assessed at the required statewide level of assessment (i.e., 35 percent of current true value--see the discussion below). Each county has a county board of revision, consisting of the county treasurer, county auditor, and one member of the county board of commissioners selected by the commissioners. This board is responsible for assuring that all properties in the county have been correctly listed and correctly valued, and that they are valued and assessed at the required statewide level of assessment.

The Ohio Department of Taxation's tax commissioner has broad authority to issue regulations to oversee the work of county auditors and county boards of revision, and is responsible for assuring that the required statewide level of assessment is occurring in each county and statewide. The tax commissioner, therefore, annually determines if real property has been valued and assessed by the county auditor and county board of revision as required in statute and regulation; and has the authority to direct the county auditor to increase or decrease the aggregate value of any class of real property in any taxing district by a percent or amount that will cause such property to be correctly valued and assessed at the required statewide level of assessment.

For purposes of such equalization, the tax commissioner is required to conduct sales assessment ratio studies to determine the common level of assessment within the county.<sup>36</sup> Ohio statute requires such studies be based on representative samples of arms' length sales over a three year period.<sup>37</sup> The sales samples must be representative of each of the different classes of real estate. When sufficient sales are not available for a specific class of property, actual appraisals must be conducted for real properties within that class. The state's sales ratio study results can only be used to order a county to change (i.e., equalize) its property values if the tax commissioner finds that the study's sample is representative of all parcels and representative of each class of property.

If the sales ratio study sample is representative and the Ohio tax commissioner determines that real properties in a county are not at the required statewide level of assessment, the state tax commissioner may order an aggregate increase or decrease in the value of real property within a county. The county auditor is then required to increase, or decrease, the value of parcels in the county.

<sup>&</sup>lt;sup>36</sup> Such common level ratios can also be used in taxpayer complaints about property values and assessments.

<sup>&</sup>lt;sup>37</sup> The Ohio assessment-to-sales ratio studies report provides information on the assessment-to-sales ratios for arms length transactions by class of property for each county and statewide for a single year. It also provides the county's median assessment ratio-to-market value based on sales for a three year period for counties undergoing reappraisal or triennial update.

Failure of a county auditor to comply with final orders of the tax commissioners<sup>38</sup> can result in serious penalties for local taxing units. Such penalties include withholding from the county or a taxing district 50 percent of its share of certain state revenues to local governments and 50 percent of its share of state revenues to school districts.

*Level of Assessment:* Ohio statute provides for the tax commissioner to establish by regulation a single statewide level of assessment. Such a level, however, cannot exceed 35 percent of the current "true value in money." The tax commissioner has set 35 percent of current true value as Ohio's required level of assessment statewide.

Ohio's constitution further provides that that no property taxed according to value can be taxed in excess of 1 percent of its true value in money for all state and local purposes, although it authorizes the legislature to enact legislation providing for additional tax levies based on referenda approved by a majority of the electors of a taxing district.<sup>39</sup> For purposes of such tax levies, <sup>40</sup> the constitution divides real estate into two classes: residential and agricultural land and improvements, and all other land and improvements.

*Valuation Methods:* Ohio has detailed state regulations concerning how property valuation is to be performed.<sup>41</sup> In addition to setting forth the statewide level of assessment or predetermined ratio (i.e., 35 percent of current true value), such regulations require that real property be inspected and valued every six years, and such values updated every three years. They also provide detailed guidance on how real property is to be valued and require public disclosure of how real property has been valued in a county.

The regulations provide that all three approaches to estimate property value be used (i.e., cost, market, and income approaches); however, they note that the cost

<sup>&</sup>lt;sup>38</sup>Prior to implementing the tax commissioner's determination, the county auditor can appeal the commissioner's determination to the Ohio Board of Tax Appeals.

<sup>&</sup>lt;sup>39</sup> In other words, the aggregate amount of taxes that may be levied on any taxable property annually cannot exceed ten mills on each tax dollar of tax value. In Ohio, this property tax limit is known as the "ten-mill limitation."

<sup>&</sup>lt;sup>40</sup> Ohio has several different types of additional levies, including some that are time limited. Ohio's system of additional levies is highly complex, and a full discussion of its system is not within the scope of this study.
<sup>41</sup> OAC Chapter 5703-25 Equalization-Appraisals.

approach as set forth in the rule<sup>42</sup> is generally the first step in valuation for tax purposes. Other possible approaches are to be used secondarily to check the values estimated using the cost approach. When a method other than the cost approach is used, state regulations require the county auditor to set forth on the individual property record the reasons for using another method and all related calculations.

Ohio county auditors are not prohibited from using computer assisted appraisal systems to value property.<sup>43</sup> Before using such systems, however, they must submit them to the state tax commissioner for the commissioner's review and approval.

When a county conducts a reassessment, the prices used in determining the replacement cost of buildings, structures, fixtures and improvements to land must be the prices prevailing during the year immediately prior to the year in which the reassessment becomes effective for tax purposes. State regulations also require that the value established for each parcel be reviewed by a competent appraiser before such values are submitted to the county board of revision.

Ohio regulations require that counties maintain certain documents and that such documents be open for public inspection during regular working hours. Such documents include one set of building schedules for every class, type and grade of property used in the reassessment; all tax maps showing land unit prices; one set of depth and other land price schedules; and property record cards for each parcel. If the county has received approval to use computer-assisted appraisal systems to value property, documents describing the automated system's methods and applications must also be available and open for public inspection.

As part of the county's reassessment, county auditors are required to prepare an analysis of recent real estate transactions comparing the new values with recent

<sup>&</sup>lt;sup>42</sup> The cost approach is a method in which the value of a property is derived by estimating the replacement or reproduction cost of the improvements and then deducting from that the estimated physical depreciation (i.e., due to age, wear, tear, disintegration, and action of the elements) and all forms of obsolescence (i.e., functional resulting from poor planning, over or under capacity, age, size, style, technology improvements or other causes; and economic due to external economic forces such as changes in the use of land, location, zoning, or legislative enactments that restrict or change property rights and values and other similar factors); and then adding the market value of the land. This approach is based on the assumption that the reproduction cost new normally sets the upper limit of the building value provided that the improvement represents the highest and best use of the land. Ohio regulations note that due to the difficulties in estimating accrued depreciation, older or obsolete buildings value estimates often vary from the market indications.

<sup>&</sup>lt;sup>43</sup> These are methods in which the value of a property is derived by any or all of the following: multiple regression analysis using sales to form the database for valuation models to be applied to similar properties within the county; computerized cost approach using building costs and other factors to value properties by the cost approach as defined in state regulations; computerized market data approach where a subject property is valued by adjusting comparable sales to subject by adjustments based on regression or other analyses; computerized income approach using economic and income factors to estimate value of properties; and computerized market analysis to provide trend factors used by appraisers as the basis of market valuation.

prices paid for real property. Such an analysis must consider whether all real property in different subdivisions, neighborhoods, and classes have been appraised uniformly at 100 percent of true value.

County auditors, moreover, are required to submit a tentative abstract of appraised values based on the reassessment to the Department of Taxation. The Department staff review the county's values in light of information the Department has gathered in recent years concerning real property sales to determine if all real property has been assessed uniformly, and then recommend to the tax commissioner to accept or reject the county's tentative values based on its reassessment. If the tax commissioner rejects the county's new values as not reasonable as of the date they are to become effective, the tax commissioner can order the county auditor to change the aggregate property values. Final orders of the tax commissioner to revise property values based on the county's reassessment can be appealed by the county auditor.

In Ohio, the county auditor is responsible for updating real property values in the third year following a reassessment. Such updates are based on analysis of sales from the three preceding years and other information pertaining to real property values in the county. Such studies must be designed to consider changes in value of real property in different subdivisions, neighborhoods, or among classes of real property in the county.

In addition to the studies completed by the county auditor for the "triennial update," the Department of Taxation notifies the county auditor of its own preliminary estimates of changes in real property values. The state's estimate of changes in property values in the county is based on state analysis of real property sales during the preceding calendar years, studies of the local real estate market, and other related factors. If the county auditor is not satisfied with the preliminary estimates of value changes provided by the Department of Taxation, the county auditor can request to confer with the tax commissioner. If the county auditor agrees that the state's preliminary estimate of value changes are consistent with the county's own estimates, the county auditor then changes property values within the county.

When implementing any increase or decrease in valuation of real property as part of the "triennial update," the county auditor is required, where practical, to make changes in accordance with actual changes in value which occur in different subdivisions, neighborhoods, or among classes of real property in the county. Alternatively, the county auditor may change the value of specific properties in specific areas or classes of property in order for the area or class to be taxed at the required predetermined ratio; or the county auditor may increase the value of all real property, or any class of real property, in an area by a percent or amount that will cause all property to be valued and assessed at no more than 35 percent of its true value, or current agricultural use value.

*Limitation on Property Tax Increases Following Reassessment:* As noted above, Ohio's constitution caps a property's taxes for all state and local purposes at 1 percent of its true value (a.k.a., "non-voted taxes"), unless the voters agree to additional tax levies (a.k.a., "voted taxes"). Ohio's constitution and statute also provide for tax rate reductions in "voted taxes" whenever the value of existing property increases as a result of reassessment or updates.

Ohio's formula for distributing funding to school districts assumes a certain amount of local tax effort related to property value. As a consequence, when a district's property values increase as a result of reassessments or updates and depending upon the district's structure of tax levies, it may be necessary for the district to seek voter approval to make up for lost state revenue as a result of increased property values and limits on tax rates.

Assistance to Taxpayers: Ohio annually provides taxpayers almost \$1.5 billion in property tax relief. It provides such relief by reimbursing local governments and school districts for two property tax "rollbacks," and also by providing a homestead exemption or credit for certain eligible property owners.

<u>10 Percent Property Tax "Rollback"</u>: Since 1971, Ohio has provided a 10 percent reduction, or "rollback," on each taxpayer's real property tax bill, and reimbursed local governments and school districts for the lost revenue resulting from such reductions. In 2005, the state legislature limited such rollbacks to property not intended primarily for use in business activity. In 2007, the state provided over \$990 million to local taxing units to replace their lost local property tax revenues under this state taxpayer relief program.

<u>Homestead Exemption</u>: In addition to the 10 percent reduction, homesteads occupied by the homeowner can qualify for an additional 2.5 percent rollback. In 2007, the state reimbursed taxing units over \$190 million under this program.

<u>Senior and Disabled Homestead Exemption</u>: Ohio also provides a homestead exemption for homeowners who are at least 65 years of age or permanently and totally disabled. Each qualified homeowner receives a credit equal to the taxes that would otherwise be charged on up to \$25,000 of true value (\$8,750 taxable value) of the homestead. In 2008, approximately 800,000 homeowners enrolled in the program for total tax savings of more than \$315 million.

Property owners and taxing units may appeal property valuations to the County Board of Revision. Appeals from the decisions of the county board may be taken to Board of Tax Appeals. Alternatively, decisions of the county board can be appealed through the judicial system.

The Board of Tax Appeal, a quasi-judicial body comprised of three members appointed by the Governor for six year terms, has in place procedures that include provision of mediation services. Final decisions of the Board of Tax Appeal can be appealed in state court.

**New Jersey:** New Jersey is similar to Pennsylvania in that its constitution includes a uniformity clause. New Jersey's uniformity clause provides that all real property be assessed according to the same standard of value and taxed at the same rate within a tax district. In other words, real property cannot be divided into different classes (e.g., residential vs. commercial) for purposes of valuation, the percent of taxable value (i.e., predetermined ratio or level of assessment), or tax rates. New Jersey is also similar to Pennsylvania in that its constitution does not provide for real property tax limitations on individual properties as in some other surrounding states.

New Jersey's constitution explicitly states that property shall be assessed under uniform rules.<sup>44</sup> As such, New Jersey regulations provide for great specificity in how real property valuation is to occur at the local level.

*Real Property Valuation Administration:* In New Jersey, over 550 local municipal assessors are responsible for property valuation.<sup>45</sup> Municipal assessors are selected and appointed by the governing body or chief executive of the municipality, and must hold a current tax assessor certificate issued by the New Jersey Department of the Treasury, Director of the Division of Taxation. The salary and operating expenses of the municipal assessor's office are determined and provided for in the municipal budget. When assessing property for taxation, however, municipal assessors are not subject to the control of municipalities.<sup>46</sup> Rather, they are subject to certain local requirements and supervision at both the county and state level.

Currently, New Jersey has 21 county boards of taxation. Members of such boards are appointed by the Governor with the advice and consent of the state senate. The Board consists of three to five members who serve three to five year terms, depending on the county's population; and its members' salaries are fixed in state law and paid by the state.<sup>47, 48</sup> The salaries of all other board personnel,

 $<sup>^{44}</sup>$  Pennsylvania's constitution provides for property assessment under general law, but does not include reference to uniform rules.

<sup>&</sup>lt;sup>45</sup> In the past, New Jersey municipal assessors were elected by the voters.

<sup>&</sup>lt;sup>46</sup> The New Jersey legislature recently passed legislation providing for a multi-year pilot project to assess the feasibility of county assessors, with one county selected as the test site.

<sup>&</sup>lt;sup>47</sup> The county boards of taxation are state agencies and are required to comply with various state statutes, including the state's laws governing conflict of interest.

<sup>&</sup>lt;sup>48</sup> County boards of taxation received \$2.3 million in state funds in FY 2008.

including the county tax administrator appointed by the county board of taxation, are set and paid by the governing body of the county and paid from county funds.

County board of taxation members, other than those with a Tax Assessor Certificate, must complete state-designated training courses in property tax administration, the basics of real property appraisal, and the income approach to value. Failure to meet such training requirements results in the Department of the Treasury's Director of the Division of Taxation declaring the board member's position vacant.

In New Jersey, county boards of taxation have several important duties. First, they are responsible for supervision of the county tax administrator and the municipal assessors in the county when performing property assessment duties. Second, they establish the percentage of true value at which all real property in the county must be assessed, i.e., the county's predetermined ratio or level of assessment. Third, they may upon their own initiative inspect properties and revise assessments. Fourth, they may determine that a taxing district needs a revaluation or reassessment, and with the approval of the Department of Treasury's Director of the Division of Taxation, they may order a municipality to undertake a revaluation or reassessment (discussed below).

In addition, the board must calculate the county tax rate for each municipality in the county. It accomplishes this based on its review of the equalized values of property across municipalities in the county developed by the county tax administrator; or, if it elects, the values developed by the Department of Treasury's Division of Taxation. Such equalized values are developed to distribute the cost of county government equitably across all municipalities within the county.

The board is also regularly required to provide certain information to the Director of the Division of Taxation, and must file an annual report with the Director. Finally, it typically is the first level of appeal for most taxpayers and taxing districts. Decisions of the county board can be appealed to the state's Tax Court.<sup>49</sup>

The New Jersey Department of Treasury's Division of Taxation has considerable authority with respect to property valuation and assessment. It is responsible for certifying tax assessors, supervising the work of the county boards of taxation and municipal assessors, and promulgating regulations governing assessor and county board responsibilities with respect to property valuation and assessment. The oversight role of the Division, which is set forth in statute and regulations,

<sup>&</sup>lt;sup>49</sup>The Tax Court of New Jersey hears appeals of tax decisions made by county boards of taxation and the Director of the Division of Taxation in the Department of Treasury. Appeals from the Tax Court decisions proceed to the Appellate Division of Superior Court. An original assessment appeal may be filed directly with the Tax Court when a property's assessed value exceeds \$1 million. Other types of appeals, such as those involving assessments related to property improvements, may be filed directly with the Tax Court when the property's value exceeds \$750,000.

includes review and approval of revaluation, reassessment, and maintenance plans; approval of outside contracts and contractors for revaluations; issuance of manuals and highly detailed procedures for the conduct of property valuation and assessment;<sup>50</sup> authority to order a municipality to change property values; and authority to order a municipality to complete a revaluation or reassessment.

The Division is also responsible for equalizing property values within and across counties for distribution of state school aid, and to develop tax rates for school districts covering more than one taxing district. As noted above, the Division's equalized values may also be used by county boards, and often are, to apportion the costs of county government across municipalities.

In New Jersey, certain property is assessed at the state level. The Division of Taxation is responsible for the valuation and assessment of railroad property used for railroad purposes.

*Equalization of Property Values:* As noted above, in New Jersey, the county board of taxation and county tax administrator, and the Department of Treasury, Division of Taxation are responsible for equalization of property values to establish municipal tax rates for county government. The Department also develops equalized market values for the state education agency to use in its distribution of state education funds.<sup>51</sup>

To accomplish its equalization function across counties, the Division conducts assessment to sales ratio and other studies. To accomplish such studies, the state has developed detailed regulations and instructions for municipalities and counties to use when identifying usable sales for inclusion in such studies.

Routinely, the Division of Taxation publishes its ratio study results. Its published statistics include the average assessment-to-sales ratio for each municipality in each county and the lower and upper limit for such ratios. Such ratios and their upper and lower limits can be used in tax appeals.<sup>52</sup>

<sup>&</sup>lt;sup>50</sup> For example, the Department regularly issues building replacement cost conversion factors for each county and type of structure for inclusion in its *Real Property Appraisal Manual for New Jersey Assessors*; and has over 60 pages of guidelines that must be used by municipal assessors and county boards to identify arms-length sales for use in assessment sales ratio studies.

<sup>&</sup>lt;sup>51</sup> New Jersey has approximately 600 school districts.

<sup>&</sup>lt;sup>52</sup> Prior to 1979, New Jersey used a non-weighted average ratio and lower and upper limits for such a ratio in appeals. Since 1979, the average ratio has been a weighted ratio used for state school aid.

The Division also publishes average residential sale prices by county and municipality, and general,<sup>53</sup> stratified,<sup>54</sup> and segmented<sup>55</sup> coefficients of deviation for each of three classes of property (i.e., vacant land, residential, and commercial) as well as the number of sales associated with such calculations. As discussed below, such studies by the Division are also used in its review of local assessor's plans for revaluation, reassessment, and assessment maintenance; concurrence with county board of taxation orders for reassessment within a municipality; and determinations by the Division to order a municipality to reassess.

*Level of Assessment:* In New Jersey, the county board of taxation establishes the level of assessment. Such levels must be expressed as a multiple of 10 percent, and cannot be lower than 20 percent or higher than 100 percent of the standard of value. Currently, all counties in New Jersey have chosen 100 percent as the level at which property is to be assessed for taxation in support of county and local government and schools. Such assessments, however, need not be based on current market values.

*Valuation Methods:* New Jersey uses a base year system for determining the market value of property. In New Jersey, when new property is added to the tax rolls following a "revaluation," the value of each new structure and improvement is appraised at its current value and that value is then converted to the equivalent value at the time of the base year (when the "revaluation" occurred) through use of cost conversion factors.

New Jersey does not have a prescribed cycle for revaluation or reassessment of real property. Since 1933, however, state statute has required the Director of the Division of Taxation to every five years investigate each county's assessments against any property for the purpose of achieving uniform taxable valuation of all properties within each county. Such investigation can result in the state ordering municipal assessors to reassess. County boards of taxation (with the concurrence

<sup>&</sup>lt;sup>53</sup> A measure of variation in assessment-sales ratios of all properties sampled without regard to property class, property size, or any other property characteristic.

<sup>&</sup>lt;sup>54</sup> This reflects the average variation of assessment-sales ratios for all usable sales for each property in a class from the average assessment ratio for the class. It provides a measure of uniformity for properties within each class.

<sup>&</sup>lt;sup>55</sup> This is an average deviation of assessment-sales ratios for all usable sales of each property class from the average assessment ratio for all properties of all classes expressed as a percentage average assessment ratio for all properties of all classes. It provides a measure of uniformity of one property class compared to other property classes.

of the Director of the Division of Taxation) and the Director of the Division of Taxation, moreover, are authorized to order municipal assessors to complete reassessments, based on rules prescribed by the Director.<sup>56</sup>

New Jersey's state regulations and *Assessor's Handbook* provide guidance for local assessors, and county boards, in determining the need for municipal revaluation. To consider if there is a need, the state's regulations and guidelines suggest assessors and boards consider, for example, the:

- assessment to sales ratios published by the state for each county and municipality and classes of property, including the Director's ratios,<sup>57</sup> individual assessment sales ratios, class weighted ratios, and district weighted ratios;
- three coefficients of deviation (see p. 142) published by the state,<sup>58</sup>
- adequacy of property records;
- process for follow-up on building permits;
- process for review of sales data to determine its validity;
- process for analysis of valid sales data;
- changes in neighborhoods and zoning, including changes in characteristics in areas or neighborhoods within the municipality and in individual properties; and documentation of the impact zoning changes have had on property values;
- amount of revenue lost due to appeals;
- overall economic changes in the municipality;
- number of years since the last revaluation or reassessment; and
- changes in taste that influence property markets.

New Jersey regulations and standards provide for different approaches to change property values in a municipality, and provide different standards for each approach. The three approaches include: "revaluations," "reassessments," and "maintenance" plans.

<sup>&</sup>lt;sup>56</sup> While the county board, the division, and the courts can order municipalities to reassess, funding and enforcement of such orders can be problematic. In 1972, the county board ordered the City of Newark to revise its tax maps and complete a revaluation. Despite court orders, including enforcement orders that resulted in the arrest of municipal officials, the ordered reassessment did not occur until 2003—30 years later. Following the reassessment, over 10 percent of the values were appealed; and city officials claimed that the reassessment contractors (selected by the county board) had not properly valued property in 2003.

<sup>&</sup>lt;sup>57</sup> The Director's ratio is the average ratio of assessed-to-true value for each taxing district determined by the Director of the Division of Taxation for the distribution of state school aid.

<sup>&</sup>lt;sup>58</sup> The *New Jersey Assessor's Handbook* notes "properly and cautiously used, these coefficients can be useful tools for measuring assessment uniformity, but they are not to be used as the sole and final judgment of assessment practice in a taxing district." (p. VIII-5)

In New Jersey, revaluations typically are conducted by reappraisal firms that must meet state established minimum standards and have contracts with municipalities that have been approved by the county and state. A municipality planning to conduct a revaluation must submit a tax map to the Division of Taxation to determine its suitability for use in a revaluation. Such a map must be accompanied by a letter from a licensed land surveyor certifying that the map is up-to-date.

The municipality proposing to conduct a revaluation must also prepare a detailed revaluation plan and receive county and state approval for the plan. In New Jersey, revaluations require exterior and interior inspection of all properties, based on the schedule set forth in the approved valuation plan. New Jersey cautions assessors that value changes resulting from revaluations cannot be implemented on a piecemeal basis. Typically, the Division of Taxation will only approve revaluations where 100 percent of the properties in the municipality are expected to have changed values.<sup>59</sup>

In addition to revaluations, New Jersey regulations and guidelines provide for reassessments. New Jersey reassessments require submission of standard plans<sup>60</sup> to the county and the state for review and approval, and a determination that the municipality's tax map had been approved by the Division of Taxation within the past several years. Typically, reassessments are conducted by municipal staff, rather than contractors. As part of reassessments, the exterior of all properties must be inspected, and the interiors may have been inspected in the past four years. New Jersey cautions assessors that reassessments cannot be partial assessments. Typically, the Division of Taxation will not approve reassessments where less than 50 percent of the properties in the municipality are expected to have changed values.

New Jersey regulations and guidelines also provides for assessment maintenance. Under a program of assessment maintenance, a municipal assessor submits a plan to revise and update assessments in part of the municipality based on the assessor's belief that some property has been assessed at a value higher or lower than required to assure uniformity in level of assessment within a municipality. Before conducting an assessment maintenance program, the assessor must notify local and county government officials and the Division of Taxation, and complete a standard compliance plan with necessary supporting documents to justify the assessment maintenance program. State law requires that the assessor's plan must be approved by the county board of taxation prior to implementation, and until recently, by the Division of Taxation.

<sup>&</sup>lt;sup>59</sup> According to New Jersey officials with whom we spoke, the statewide average cost per parcel for a revaluation is \$78 per parcel.

<sup>&</sup>lt;sup>60</sup> The state has established standard forms for completion of applications for reassessment and compliance maintenance plans.

State regulations outline the criteria for county boards to consider when determining whether to approve (or disapprove) a municipal assessor's assessment maintenance compliance plan. The criteria include:

- The municipality's Director's Ratio must be greater than 75 percent.
- The municipality's general coefficient of deviation should be 15 percent or less, thus demonstrating that there is some uniformity in assessments within the municipality.
- Neighborhoods with average weighted ratios within 15 percent of the Director's Ratio should not be reassessed unless the neighborhood's general coefficient of deviation is over 15 percent.
- The standard for selecting areas to be included in the compliance plan must be applied uniformly.
- No part of a municipality can be arbitrarily selected for assessment maintenance adjustment.
- No more than 25 percent of the total parcels in the municipality can be changed based on the assessment maintenance compliance plan (except in extraordinary circumstances such as a natural disaster).
- All areas of the municipality must be reviewed, including neighborhoods without sales.<sup>61</sup>
- Exterior inspections of all properties must be completed in the areas where values are changing; and interior inspections may be required by the county or state.

When municipal assessors adjust values in neighborhoods based on assessment maintenance compliance plans, they must both increase and decrease values in a particular neighborhood to mirror the municipality's Director's Ratio. If the municipality's Director's Ratio is 85 percent of true value (even though the predetermined ratio is 100 percent), new values must be increased or decreased to 85 percent of true value. Furthermore, neighborhoods with average ratios above 100 percent must have all such ratios reduced. In New Jersey, properties cannot be assessed at more than 100 percent of true value.

Following the reassessment of a portion of a taxing district under an approved assessment maintenance plan, the municipal assessor is required by law to certify the uniformity of all assessments in the municipality. Specifically, the municipal assessor is required:

<sup>&</sup>lt;sup>61</sup> If there are no sales in a neighborhood, the assessor must submit other documentation and analysis to support why that neighborhood or part is being selected, or not, for assessment maintenance adjustments.

...to certify to the county board of taxation, through such sampling as the county board of taxation deems adequate, that the reassessment is in substantial compliance with the portions of the taxing district that were not reassessed.<sup>62</sup>

Assessment maintenance plans must be completed by the municipal assessor. As they involve a "lot of work for the assessor," the state receives requests for less than 10 a year, according to state officials with whom we spoke.

In New Jersey, all real property must be valued using the approach to value set forth in the *Real Property Appraisal Manual for New Jersey Assessors* issued by the Director of the Division of Taxation. The state's manual contains detailed appraisal procedures. The use of any other appraisal manual to value property must be approved by the Director of the Division of Taxation. The state's manual notes that assessors are to use the cost approach as a starting point for valuing all structures; and along with the sales and income approaches, the cost approach is to be used in valuing property.

*Limitations on Property Tax Increases Following Reassessments:* Prior to July 2010, New Jersey had in place statutes that limit counties, municipalities, and school districts to a four percent increase in prior base year expenditures. There are, however, many exceptions to the expenditures that are included within the base, and several provisions for exceptions to the 4 percent cap—including provisions for voter referendum for spending above the cap.

As part of the state's 2011 budget, New Jersey's Governor proposed amending the state's constitution to limit annual property tax increases to 2.5 percent at all levels of government. Under the proposal, there would be no exceptions to the cap, except for voter approval through referendums.

Assistance to Taxpayers: In 2007, New Jersey expended approximately \$1.3 billion for direct property tax relief. New Jersey has in place several taxpayer relief programs. They include: the Homestead Rebate Program; a New Jersey Income Tax Property Tax Deduction/Credit Program; Annual Property Tax Deduction for Senior Citizens, Disabled Persons, and Veterans; and a Property Tax Reimbursement Program (a.k.a., Senior Freeze Program).<sup>63</sup> Currently, several of these programs are undergoing changes in their eligibility requirements and benefit levels.

<u>Homestead Rebate Program</u>: This program provides a credit to homeowners on their principal residence. Eligibility is based on income and benefits vary

<sup>62</sup> N.J. R.S. 54:4-23.

<sup>&</sup>lt;sup>63</sup> Beginning in 2008, the total amount of property tax relief benefits received through the homestead rebate, property tax reimbursement, and annual property tax deduction for senior citizens/disabled persons, and veterans) cannot exceed the amount of property taxes (or rent constituting property taxes) paid on the applicant's principal residence for the same year.

depending on the amount of property taxes paid and the age and/or disability status of the homeowner.

In 2008, a homeowner who is age 65 or older or who is disabled could qualify for a Homestead Rebate Program benefit if their gross income is \$150,000 or less. If their income is less than \$70,000, they could qualify for up to 20 percent of the first \$10,000 of 2006 paid property taxes (i.e., up to \$2,000). Those with income ranging from \$125,001 to \$150,000 could qualify for 10 percent of the first \$10,000 in taxes paid (i.e., \$1,000).

Homeowners under age 65 and not disabled are eligible to receive a rebate if their gross income is \$75,000 or less. Such homeowners with income less than \$50,000 qualified for a benefit equivalent to 20 percent of the first \$10,000 of 2006 paid property taxes (i.e., \$2,000). Those with income between \$50,001 and \$75,000 qualified for a benefit equivalent to 13.34 percent of such paid taxes (i.e., \$1,334).

In 2008, the Homestead Rebate Program also provided benefits to tenants age 65 or older and disabled tenants regardless of age and if their gross income was less than \$100,000.<sup>64</sup> This program's benefit varied by filing status and gross income. For tenants with gross income of \$70,000 or less (\$35,000 or less if single), the rebate amount is equal to the property taxes<sup>65</sup> paid minus gross income plus \$50, up to \$860 but not less than \$160. For those with gross income between \$70,001 and \$100,000, the benefit amount is \$160.

The New Jersey Governor's FY 2011 budget contains modifications to the Homestead Program. Such proposals would eliminate payment of rebates and provide for quarterly installment credits on the homeowner's property tax bill. Rebates, moreover, would be eliminated for all tenants, including seniors and disabled tenants.

<u>New Jersey Income Tax Property Tax Deduction/Credit</u>: Homeowners and renters may qualify for a deduction or refundable credit on their state income tax even if they are not eligible for a homestead rebate. Benefits are based on income, and the amount of property taxes paid.<sup>66</sup> Homeowners under 65 years of age and not blind or disabled whose incomes are less than \$150,000 are eligible for a property tax deduction on their state income tax equal to 100 percent of their property taxes up to \$10,000. Those with gross income between \$150,000 and \$250,000 are eligible for such a benefit up to \$5,000.

 $<sup>^{64}</sup>$  Prior to 2008, tenants under age 65 who were not disabled could qualify for a rebate. Under terms of the 2008 state budget, however, rebates were not issued for this group.

<sup>&</sup>lt;sup>65</sup> The amount of property taxes paid is estimated at 18 percent of rent paid.

<sup>&</sup>lt;sup>66</sup> For tenants, 18 percent of rent paid during the year is considered property taxes paid.
<u>Annual Property Tax Deduction for Senior Citizens, Disabled Persons and</u> <u>Veterans</u>: Such homeowners with annual incomes less than \$10,000 after certain permitted exclusions (e.g., Social Security benefits) can receive a property tax deduction of up to \$250. Similar benefits are available to honorably discharged veterans and their surviving spouses who have not remarried.

<u>Property Tax Reimbursement Program (Senior Freeze</u>): This program reimburses eligible seniors and disabled persons for property tax increases. Those meeting all eligibility requirements and enrolled in the program are reimbursed for the difference between the amount of property taxes that were due and paid for the prior year and the current tax, if the current year taxes are greater than those of the prior year. To qualify the taxpayer must:

- be age 65 or older or receive federal disability benefits; and
- have lived in New Jersey continuously for at least 10 years, as either a homeowner or renter; and
- owned and lived in their home for at least the last three years; and
- have paid the full amount of property taxes due on the home for the base year and for each succeeding year, up to and including the year for which reimbursement is claimed; and
- meet the income limits in the base year and each succeeding year, up to and including the year for which reimbursement is claimed.

In 2008, the income<sup>67</sup> limit for a single or married/civil union couple was \$70,000.

The Governor's FY 2011 budget also proposes changes to this program. Such proposals would limit income eligibility to those with income of \$70,000 or less (rather than \$80,000 as originally planned). Moreover, those who were not in the program for tax year 2008 because they did not meet the age, income or other eligibility requirements but meet all eligibility requirements for tax year 2009 cannot receive reimbursement for 2009, based on the state budget's proposed changes.

In FY 2007, the Homestead Rebate Program provided 498,683 senior participant homeowners with average benefits of \$1,147, and 1,117,029 non-senior participants with average benefits of \$286. The Homestead Rebate Program also provided 97,821 senior participant tenants with average benefits of \$688, and 687,320 nonsenior participant tenants with average benefits of \$73.

Almost 85,000 seniors and disabled persons participated in the property tax reduction program. About 300,000 veterans also participated.

<sup>&</sup>lt;sup>67</sup> Income includes all taxable and nontaxable income, including, for example, Social Security benefits, wages, fees, dividends, taxable and nontaxable interest, capital gains, inheritances, etc.

In FY 2007, over 160,000 participated in New Jersey's Senior Freeze Program. The average benefit for repeat participants was \$899, and \$263 for new program participants.

As noted earlier, property owners and taxing units can appeal property valuation and other decisions to county boards and to the tax court, and the state's judicial system.

**New York:** New York is similar to Pennsylvania in that it does not obtain state revenues from property taxes, does not require that real property be assessed at current market value, and allows local governments that are responsible for property valuation to determine their level of assessment or predetermined ratio. It is also similar in that the state's constitution and statutes do not require or prescribe that property be revalued based on defined cycles.

New York differs from Pennsylvania in that its state constitution does not include a uniformity clause. Nonetheless, New York statutes (like Pennsylvania) require that all properties be assessed at a uniform percentage of value. They, however, require certain local governments to have different levels of assessment for different types of real property (though within such types the same level of assessment must apply);<sup>68</sup> and they permit all other local jurisdictions to divide property into two classes (homestead or non-homestead property), and tax the two classes differently (see the discussion below).

*Real Property Valuation Administration:* In New York, over 1,000 local towns, cities, counties and villages<sup>69</sup> are responsible for real property valuation, and an assessor's jurisdiction can overlap with those of other assessors. As a consequence, an individual property can have multiple, and differing, assessed values.

New York assessors are both elected and appointed. For the most part, however, they are appointed by local governments.

New York's State Board of Real Property Services, comprised of five members appointed by the Governor and confirmed by the Senate, is responsible for general supervision of local property tax administration. An Executive Director appointed by the Board is responsible for the daily operation of the Board and its staff. The Governor's FY 2011-12 budget calls for the elimination of the Board and transfer of its responsibilities to the state Department of Taxation and Finance. In recent

<sup>&</sup>lt;sup>68</sup> New York City and Nassau County must classify property into four classes: Class 1-one, two, and threefamily residential property, condominiums, mobile trailers and adjacent vacant land; Class 2—other residential, except hotels and motels and other commercial property; Class 3—utility real property; Class 4—other real property.

<sup>&</sup>lt;sup>69</sup> 920 towns, 61 cities, 2 counties, and 133 villages.

years, the agency's budget and staff have been reduced, and the Governor's FY 2011-12 budget provides for further reductions.<sup>70</sup>

The New York Office of Real Property Services has a range of responsibilities. These include, for example, annually equalizing assessments for each assessing unit; establishing class rates and assessment ratios for certain assessing units that are not required to have uniform rates of assessment for all property; valuing certain types of property (e.g., utility property in the public right-of-way); training and certifying assessors and county directors of real property tax services; developing policies related to valuation of certain property (e.g., agricultural); providing guidance to local assessing units; certifying homestead relief payments to school districts; aiding local assessing units with highly specialized valuations; and administering a program of aid for local assessment units.

*Equalization of Property Values:* In New York, the state is involved in equalization of market values for purposes of establishing uniform tax rates within taxing district boundaries (e.g., counties, school districts). State equalization values are also used for other purposes, including the distribution of state aid.

New York has in place an elaborate state equalization processes. Such processes involve the Office of Real Property Services in analyzing locally identified levels of assessment. If the locally identified level of assessment has been developed following state procedures and is within certain limits, the "locally stated rate" of total assessed value to total market value then becomes the state's equalized rate for a local municipality. In municipalities where the Office of Real Property Services cannot accept or confirm the locally stated level of assessment,<sup>71</sup> the state office develops its own independent estimates of total market value to total assessed value for the municipality. Such efforts involve state agency staff in the analysis and appraisal of individual properties.

*Level of Assessment:* New York does not have a single statewide level of assessment, and does not require that real property be assessed at current market value. As noted above, some areas of the state have different levels of assessment for different types of property (e.g., residential and commercial) within the municipality.

*Valuation Methods:* In New York, the state does not prescribe how local assessors are to value property, but it does provide guidance for local assessors. Such guidance is provided through state issuance of various assessors' manuals and other

<sup>&</sup>lt;sup>70</sup> In FY 2005-06, the agency had a total budget of \$66 million and 400 staff positions. The Governor of New York's proposed FY 2011-12 proposed budget provides for 268 positions and \$26 million in funding.

<sup>&</sup>lt;sup>71</sup> Frequently, locally stated levels of assessment cannot be confirmed by the state due to an insufficient number of valid sales in the local assessing area.

reference materials to assist local assessors in their work. It is also provided by way of state agency consultation in appraisal of complex properties.

New York does not have a defined cycle for adjusting property values or performing reassessments, and does not require that the assessed "market value" reflect "current market value." It does, however, offer certain financial incentives to encourage local governments to value property at 100 percent of current market value and conduct frequent revaluations.

Since 1999, New York has had an "Annual Aid" program. Under this program an eligible municipality can receive an annual payment of up to \$5 per parcel. To qualify for such aid, the assessing unit must:

- develop a plan for inspection and appraisal that meets state guidelines,<sup>72</sup>
- implement a program to physically inspect and appraise each property at least once every six years,
- annually maintain assessment at 100 percent of market value,
- annually conduct a systematic analysis of all locally assessed properties,
- annually revise assessments where necessary to maintain the assessment level at 100 percent of market value, and
- comply with applicable statutes and rules.

Since 1999, New York has also had a "Triennial Aid" program. Municipalities may qualify for the program every three years—hence the program's name. The Triennial Aid program provides payment of up to \$5 per parcel to aid an assessing unit that conducts a reassessment which includes inspection and reappraisal of all parcels. This program, which is scheduled to sunset in 2011, does not require that assessments be annually updated or that values be maintained at 100 percent of current market value.

In 2008, 214 assessing units received \$4.7 million in Annual Aid, and 81 other units received \$1.8 million in Triennial Aid. From 1999 through 2008, New York awarded more than \$38.5 million in Annual Aid and \$8.9 million in Triennial Aid.<sup>73, 74</sup> The Office of Real Property Tax Services reports that from 1999 through 2010, 776 of the assessing units have received aid for revaluation at least once through its aid programs. Nonetheless, it also reports that 130 of its municipalities have not reassessed in more than 30 years, including one municipality that last

 $<sup>^{72}</sup>$  The plan must provide for inspection and appraisal of each parcel in the municipality at least once every six years, and annual maintenance of all assessments at 100 percent of current market value.

<sup>&</sup>lt;sup>73</sup> As of 2010, New York City and Nassau County—the state's two largest assessing units and to which special rules apply—received \$6.9 million and \$3.4 million respectively under the state aid programs.

<sup>&</sup>lt;sup>74</sup> New York also provides one-time aid to assist municipalities to consolidate their assessment units.

reassessed prior to the American Civil War and another that has not reassessed since its establishment in the mid-1600s.

New York's incentive grants for local assessing units are among the highest in the nation. LB&FC staff identified three other states (Tennessee, Rhode Island, and Vermont) that provide grants or stipends to local assessing offices. Tennessee, which like New York receives no state revenues from real property taxes, provides approximately \$2 million to 95 county assessment units. Rhode Island, which receives state revenue from property taxes, expends about \$1 million annually to assist local assessing units that complete reassessments. Vermont, which has a state property tax in support of education, expends \$3.2 million annually in support of local assessing units. It provides \$8.50 per parcel to aid with the cost of reassessment, \$1.00 per parcel for data provided for state equalization studies, and under \$100,000 to assist local assessors with training costs.

Limitation on Property Tax Increases Following Reassessments: In New York City and Nassau County, the assessment of any individual Class I property (i.e., one-, two-, and three-family residential property, certain cooperatives and condominiums, mobile homes, vacant land zoned residential or adjacent to residential) cannot increase more than 6 percent in any one year or more than 20 percent in any five-year period. The assessment of a Class 2 property (i.e., other residential, except hotels and motels, and other commercial properties) with fewer than 11 units may not increase by more than 8 percent in any one year or more than 30 percent in any five-year period. Increases in other Class 2 properties and Class 4 (i.e., all other real property except utility real property) properties are phased in over a five-year period.

New York also has in place other statutes that can limit the rate of increase in real property taxes following property revaluation. In 1981, it enacted legislation that permits certain municipalities that have completed reassessments that comply with state requirements to classify property as homestead and non-homestead property and establish different tax rates for each of the two groups.

Under New York's homestead option, if the property value of homestead property appreciates more rapidly than non-homestead property, a larger share of the tax burden is not immediately shifted onto homestead property as a result of the reassessment. Subsequently, the municipality can adjust the share of the homestead tax burden upward, and must make annual adjustments (up to 5 percent) for different rates of appreciation for the two classes of property based on changes in current market values. New York law also permits school districts to adopt this taxing option. As of early 2010, 12 cities, 17 towns, 4 villages, and 43 school districts were using this homestead option. In addition to adopting the homestead tax option, local municipalities that have conducted state approved reassessments can phase in the new reassessment values. As of 2010, however, none of New York's assessing units were using the state's "transition-assessment option."

*Assistance to Taxpayers:* New York provides taxpayer relief through one major state program. It also permits local governments to provide partial exemptions for the elderly, disabled, and veterans.

STAR (School Property Tax Exemption): STAR provides a partial property tax exemption from school taxes to homeowners. The state anticipates expending \$2.6 billion for this program in 2010-2011. This state-funded program consists of two parts—the Basic STAR exemption and the Enhanced STAR exemption.<sup>75</sup>

The Basic STAR exemption is available for owner occupied, primary residences regardless of the owner's age or income. Basic STAR exempts the first \$30,000 of the full value of the home from school taxes.<sup>76</sup> In 2010-11, the Basic STAR exemption will provide average benefits of \$641 to nearly 2.9 million homeowners. The Governor's FY 2010-11 proposed budget provides for the elimination of benefits for homes valued at \$1.5 million and above.

The Enhanced STAR exemption is available for the primary residence of senior citizens (65 and older) with yearly household incomes not exceeding the statewide standard.<sup>77</sup> Those qualifying for the Enhanced STAR exemption have the first \$60,100 of the full value of their home exempt from school property tax. In 2010-11, approximately 642,000 senior homeowners will receive the Enhanced STAR exemption. The statewide average benefit under this program is approximately \$1,205.

New York statutes also permit local governments to provide partial exemptions for seniors and disabled persons with low incomes and also veterans. Typically, local governments are permitted to adopt less stringent eligibility and benefit requirements than are set forth in state statute.

New York property taxpayers (including a renter responsible for payment of the property tax) can appeal a property's assessment. There are two levels of formal review: administrative and judicial. Administrative reviews are conducted by local Boards of Assessment Review, which consist of five members appointed by the

<sup>&</sup>lt;sup>75</sup> Prior to 2009, New York also provided a STAR rebate program which provided expanded property tax relief for homeowners earning less than \$250,000 with benefit amounts declining as income exceeded \$90,000. This reported \$1.6 billion program was eliminated from the state budget in 2009.

<sup>&</sup>lt;sup>76</sup> The actual amount varies across the state, and can change from year to year. Such variation is due to several factors, including whether the municipality has reassessed its property, the level of assessment of the individual municipality, and other factors set forth in statute. The amount of property tax relief provided to the taxpayer may also vary from year to year based on the amount of taxes collected by the school district in a given year. <sup>77</sup> \$74,700 for 2010-11.

legislative body of the assessing unit. If dissatisfied with the decision of the local Board of Assessment Review, a property taxpayer can seek a judicial review.

New York's judicial review process includes opportunity for certain taxpayers to elect to commence a proceeding for a Small Claims Assessment Review (SCAR). Such reviews are conducted by specially trained hearing officers and can be less time consuming and less costly for the taxpayer.

Small Claims Assessment Review, however, is only available to certain properties and for certain appeals. Small claims review is available for owner-occupied one, two, or three family dwellings used exclusively for residential purposes, and for vacant land that is not of sufficient size to contain a one-, two-, or three-family dwelling. Such properties may have an equalized value<sup>78</sup> of \$450,000. If the property's equalized value is greater than \$450,000, the total assessment reduction request cannot exceed 25 percent of the property's assessed value.

New York's appeal process provides several options for appeal, including "appeals based on ratio." In "appeals based on ratio," a taxpayer appeals an assessment because the assessment is at a higher percent of full (market) value than the average of all other properties on the local assessment role. In such appeals, residential property owners have two options to appeal "unequal assessments." They can appeal based on the average assessment percentage of all residential properties in the assessment unit, or they can appeal based on the average assessment percentage for all properties in the assessment unit.

In New York, some assessment units overlap, and have different assessed values for the same property. Taxpayers who question the appeals of the different jurisdictions must file separate appeals.

### **B.** California's Real Property Valuation and Assessment System

California's property valuation system is substantially different than most states. As discussed below, it is a highly complex system with complex rules that apply to property valuation.

California's constitution contains highly detailed provisions as to property valuation and tax limitation. Some of the most important provisions in California's constitution relate to "Proposition 13." In 1978, California voters overwhelmingly approved this constitutional amendment in response to dramatic increases in property taxes.

 $<sup>^{78}</sup>$  In general, the equalized value is calculated by dividing the assessed value of a property by the latest state equalization rate for the assessment unit.

Prior to the amendment, real property in California was appraised cyclically with no more than five-year intervals between reassessment, and property was appraised at current market value. In 1978, Proposition 13 rolled back most local real property assessments to 1975 market value levels, limited the property tax rate to 1 percent of the "full cash value" of the property (discussed below) plus the rate necessary to fund local voter-approved bond indebtedness, and limited future property tax rate increases. As a result of Proposition 13's specific provisions for valuing real property, property assessments in California are not uniform, and similar properties can have very different assessed values.<sup>79</sup>

After Proposition 13 was adopted, property tax revenues were cut in half, and many local governments were in fiscal crisis. To keep local governments operating, the California legislature provided two "bailouts" to offset property tax revenue losses. Such "bailouts" cost the state approximately \$10 billion in state funds in the late 1970s.

*Real Property Valuation Administration:* Primary responsibility for property valuation in California is assigned to locally-elected county assessors. California has 58 locally-elected county assessors who are governed by the California Constitution and state law. Such assessors are not accountable to individual county governments.

The county assessor is responsible for preparation and maintenance of the local property tax rolls and preparing property tax bills with the appropriate tax rates for each property.<sup>80, 81</sup>

California's State Board of Equalization also has an important role in property valuation administration. The five-member board is provided for in the state's constitution, and its members are elected.<sup>82</sup>

California's State Board of Equalization is responsible for assuring assessment uniformity across the counties, as the state's share of funding for public

<sup>&</sup>lt;sup>79</sup> In 1992, the United States Supreme Court ruled, in *Nordlinger v. Hahn*, that Proposition 13 did not violate the equal protection clause of the U.S. Constitution.

<sup>&</sup>lt;sup>80</sup> The tax rate is 1 percent. Based on voter referenda, additional rates can be approved by local voters for specific activities as provided for in the state's constitution.

<sup>&</sup>lt;sup>81</sup> The collection of property taxes and their allocation to the appropriate taxing jurisdictions are the responsibility of the county tax collector and the county auditor, who are also governed by state law.

<sup>&</sup>lt;sup>82</sup> Four of the members are elected from legislatively defined districts. The fifth member, the State Controller, is elected at-large, and serves in an *ex officio* capacity.

schools is directly related to property tax proceeds.<sup>83</sup> It prescribes rules and regulations to govern assessors and local boards of equalization, and has established policies and standards for assessment practices.<sup>84</sup>

The Board is also responsible for measuring statewide compliance and uniformity in county assessment procedures and practices. To accomplish this, it surveys each county assessor's office at least once every five years to determine the adequacy of the procedures and practices used by the county in valuing property, the volume of assessing work by property type, and to evaluate the assessor's performance of mandated duties. The survey is a type of compliance audit, and its results are published along with the Board's findings and recommendations for improvements.

In addition, each year the Board performs appraisals for a sample of the county office assessment tax rolls in five (of the 58) counties. Each year, the counties sampled include two of the ten largest counties; and three smaller counties selected due to serious problems noted in the surveys conducted by the Board. In each of the sampled counties, a statistically representative sample is drawn from the county's assessment role. Board staff audit and appraise each property in the sample and compare Board staff results with those of the county assessor's. Based on such results, the Board determines whether the county's total assessment roll complies with statutes; in particular, whether the assessor is identifying properties that are subject to revaluation and how well the assessor is valuing property.<sup>85</sup>

The primary use of the results of the appraisal sampling is to determine if the county assessor's office is eligible for the cost reimbursement authorized in statute for "supplemental assessments."<sup>86</sup> In California, the county board of supervisors must adopt a method of identifying the actual administrative costs of the

<sup>&</sup>lt;sup>83</sup> With the adoption of Proposition 13, local agencies no longer determined their property tax rate and the distribution of such revenues. The state became responsible for prorating property tax revenues among local agencies. In 1979, it reduced the share of such revenues going to school districts and "backfilled" the reduced tax revenues with state general fund revenue. Various shifts in the distribution of property tax revenues away from education agencies to other local governments have occurred through the years, with state revenues making up for some of the revenue shift. Prior to Proposition 13, California schools received over 50 percent of the property tax allocations. In 1979-80, the schools share had been reduced to 39 percent.

<sup>&</sup>lt;sup>84</sup> The State Board has issued regulations and has issued an *Assessors' Handbook*. The *Handbook* consists of more than 25 instructional manuals on various assessment and appraisal topics, including annually revised building cost estimate guidelines.

<sup>&</sup>lt;sup>85</sup> The sample audit is stratified based on dollar value and categories of property. For "base year properties," (i.e., those that were not sold), for example, the Board staff would determine for each property in the sample if the allowed inflation adjustments had been made; if a change in ownership had actually occurred; if there was new construction that was not assessed; or if there was a decline in value that should have resulted in a revised assessed value. For transferred properties (i.e., those where a change in ownership had recently occurred), the Board staff would determine if they concurred with the county assessor about the need (or absence of need) for a reappraisal to establish the new assessed value for the transferred property; if the base year value trended forward (for the allowed inflation adjustment) was performed correctly; if subsequent changes in ownership had occurred; if new construction had occurred; if there was a decline in value that should have been reflected in a revised assessed value.

<sup>&</sup>lt;sup>86</sup> Supplemental assessments refer to properties that have changed ownership or had new construction.

assessor's office for such assessments. Prior to allocating the property tax revenues among the various taxing districts, the county board of supervisors is responsible for allocating an amount equal to the assessor's office's actual administrative costs for supplemental assessments, but not more than 5 percent of the property tax revenue collected for distribution to the various taxing districts. Such allocation of funding, however, is only available when the State Board of Equalization based on results of its appraisal sampling certifies that the average assessment level in the county is at least 95 percent of the required assessment level, and such assessments do not vary by more than 7.5 percent.

In California, the State Equalization Board provides training for county assessors, the property appraisers they employ, and local appeal board members and their staff. County assessors and the property appraisers they employ must meet certain minimum qualifications and hold an appraiser certificate issued by the Board. In addition to offering training and providing for certification, the Board monitors assessor and appraiser completion of yearly training requirements.

The Board is also responsible for the assessment of certain property. In California, the state annually assesses certain property owned or used by regulated railway, telegraph or telephone companies, car companies operating on railways in the state, and companies transmitting or selling gas or electricity. The state also assesses pipelines, flumes, canals, ditches, and aqueducts lying within two or more counties. With the exception of the state tax on certain railway cars, the state itself does not collect property tax revenues based on such assessments. Rather, the state assessed values are allocated to the counties and used by the county and other local taxing districts for local property taxes.

*Equalization of Property Values:* California does not perform studies to equalize property values. As a result of Proposition 13, the state is responsible for allocating all property tax revenues across counties, cities, schools, and other agencies within local taxing districts. As a result, the state and local governments do not need to equalize property values or tax rates across local taxing jurisdictions. As discussed below, moreover, California's property valuation methods are specifically designed to permit similar properties to have different assessed values.

*Level of Assessment:* In California, real property is assessed at 100 percent of its "full cash value" (a.k.a., market value) with the maximum amount of any real property tax capped at 1 percent of the full cash value of the property (with certain exceptions based on voter approval). In 1978, Proposition 13 established 1975 market values as the "full cash value" for all existing properties; and 1975 values became the "base year" values for such properties.

Proposition 13 further provided that a property's "full cash value base" may annually change (either increased or decreased) based on the local Consumer Price Index, but the inflationary assessed value increase cannot exceed 2 percent of the property's prior year value. In California, such revised values are known as "adjusted base year values."

Valuation Methods: California's county assessors must annually assess all taxable property in the county, except for state-assessed property. Currently, as a result of Proposition 13, typically properties are reassessed to current market value or have "full values" equivalent to current market values only when they change owners or when they are newly constructed and such construction is complete.<sup>87</sup> Such "full cash values" when a property changes ownership or new construction is completed then become the property's "base year value." California's system for property valuation is often referred to as an "acquisition value-based system."

California's property valuation system includes provision for the transfer of "base year" values. Persons over age 55 or those who are severely and permanently disabled may transfer the taxable value of their principal residence to a replacement property of equal or lesser value or purchase of newly constructed property within two years of the sale of the original property. Typically, such a transfer can occur only once. However, if after such a transfer, the person becomes disabled, the base year value may be able to be transferred a second time to another property if the move is related to the disability.

Such transfers of base year values can occur when the properties are within the same county. Some counties, however, have adopted ordinances to allow for such transfers from one county to a property in another county. Seven counties, including Los Angeles and San Diego, have adopted such ordinances.

In addition, the transfer of a principal residence and the first \$1 million of other real property between parents and children are not subject to reassessment. Such transfers from grandparents to grandchildren can also occur when the parents are deceased.

California's Proposition 13 also provides for a temporary reduction in assessed values when a property experiences a decline in value. It provides that properties must be assessed at the lesser of the property's adjusted base year value or its current full cash value. If a property's full cash value falls below its adjusted base year value, the assessor must use the lower full cash value in the annual assessment of the property. In California, assessors, therefore, have programs for discovery, valuation and processing of "decline-in-value assessments."<sup>88</sup> They analyze the economics of real estate markets, shifts in such markets, and recent home sales

<sup>&</sup>lt;sup>87</sup> Proposition 13 did not affect the assessment of all real property. Utilities, railroads and other properties assessed centrally by California's Board of Equalization are not covered by Proposition 13. The state has in place highly detailed rules and procedures for the valuation and assessment of such properties.

<sup>&</sup>lt;sup>88</sup> Such declines in a property's assessed value may be due to damage due to destruction, depreciation, obsolescence, removal of property, or other factors. Such other factors include changes in the property market.

to identify declining values. They do not rely on taxpayer appeals to address declines in values, or subsequent upward adjustments when markets change. If subsequently the property's full cash value rises above the value resulting from the "decline-in-value" assessment, then the assessor must revise the assessment upward, but not beyond the property's previous base year value adjusted for inflation.

The results of "decline-in-value" reassessments can be substantial in markets such as the present housing market. In Los Angeles County, for example, where property decline has not been as great as in other parts of the state, the county assessor in 2009 lowered assessments on 333,000 single-family residences and condos. The average reduction in assessed value was about \$120,000, equivalent to an average property tax reduction of \$1,300.

*Limits on Property Tax Increases:* In California, as noted above, the maximum amount an individual real property can be taxed is capped at no more than 1 percent of its established value.<sup>89</sup> Annual increases in value are permitted based on the Consumer Price Index; however, they too are capped at no more than 2 percent.

Assistance to Taxpayers: California assists taxpayers in a variety of ways. These include taxpayer rights advocacy and a homeowner's exemption program.

<u>Taxpayers Rights Advocate</u>: California's Board of Equalization appoints the Taxpayers Rights Advocate, who is responsible for implementing the state's Property Taxpayers' Bill of Rights. The Advocate Office works to help taxpayers that have not been able to resolve their concerns through normal channels; identifies laws, policies, and procedures that present barriers or undue burdens to taxpayers attempting to comply with tax laws; brings such problems to the attention of state and local officials; and meets with taxpayers to promote communications and provide education. Recently, for example, with the help of local assessors, the Advocate Office developed a video designed to help taxpayers prepare for an appeal.

The Advocate Office's technical advisors are professional appraisers who have worked in a county assessor's office or at the Board of Equalization. In FY 2008-09, the Office handled 361 property tax cases, most of which were resolved in conjunction with local assessor offices. Issues related to the decline in market value generated over 50 percent of the cases brought to the Advocate Office.

<u>Homeowner's Property Tax Relief</u>: California's constitution exempts homeowners from paying property taxes on the first \$7,000 of assessed value on their

<sup>&</sup>lt;sup>89</sup>The tax rate can only be increased to provide the amount necessary to make annual payments due on general obligation bonds or other indebtedness incurred prior to the adopting of Proposition 13; or for any bond indebtedness for the acquisition or improvement of real property approved by a two-thirds majority of voters on or after the adoption of Proposition 13; or certain bond indebtedness for school facilities approved by 55 percent of the voters.

principal residence. The state constitution further requires that the state reimburse local governments for lost revenues as a result of such exemptions. Typically, the exemption reduces a homeowner's property taxes by \$70. California's FY 2009-10 budget provided for \$438 million for such reimbursement to local governments.<sup>90</sup>

Prior to 2008, California also provided senior homeowners and renters with additional property tax relief, with the state expending over \$145 million annually for such relief. These programs, however, have had all state funding eliminated since 2008.

California also operated a property tax deferral program for senior citizens. The program allowed eligible seniors to defer payment of residential property taxes, and the state paid such deferred taxes to local governments on behalf of the program participant. In FY 2008-09, the state appropriated \$19 million for this program. In 2009, the program was eliminated.

Property owners can also appeal their property assessments as provided for in the state constitution, statute, and rules and procedures of the Board of Equalization. Under such laws and regulations, county boards of supervisors establish assessment appeal boards. The local board conducts administrative hearings. Generally, the property owner must prove that the assessor improperly valued the property; however, when the property is an owner-occupied, single family dwelling the burden of proof shifts to the assessor who must prove that the property was valued correctly.

Property owners must exhaust all administrative remedies before appealing the county board's decision in state court. Under certain circumstances,<sup>91</sup> the court will take the appeal. In California, the superior courts do not receive new evidence of value, but only review the record of the hearing before the county appeal board. If the court finds the local board's decision is supported by credible evidence, it will uphold the local board's decision.

<sup>&</sup>lt;sup>90</sup> In California, disabled veterans can qualify for a property tax exemption on \$114,634 of the assessed value of their home if their total household income from all sources is over \$49,979 per year. If their total household income is under \$49,979, they can qualify for a property tax exemption on up to \$171,952 of the assessed value of their home. The state does not pay for the costs of such exemptions.

<sup>&</sup>lt;sup>91</sup> The court will hear cases for: arbitrariness, lack of due process, abuse of discretion, failure to follow standards prescribed by law (such as using an erroneous method of valuation), or other questions of law.

### V. Appendices

### APPENDIX A

PRIOR PRINTER'S NO. 2007

PRINTER'S NO. 2292

### THE GENERAL ASSEMBLY OF PENNSYLVANIA

### HOUSE RESOLUTION No. 334 Session of 2009

INTRODUCED BY LEVDANSKY, YUDICHAK, SCAVELLO, WHITE, D. COSTA, P. COSTA, FRANKEL, FREEMAN, GINGRICH, GRUCELA, HALUSKA, KORTZ, MANDERINO, MARKOSEK, MILLARD, MILNE, MUNDY, MURPHY, MURT, READSHAW, SIPTROTH, K. SMITH, SOLOBAY, STABACK, STURLA, SWANGER, WAGNER, WATERS, YOUNGBLOOD, MOUL, WALKO, QUINN, GIBBONS, MENSCH AND DERMODY, JUNE 5, 2009

### AS AMENDED, HOUSE OF REPRESENTATIVES, JUNE 24, 2009

### A RESOLUTION

Directing the Legislative Budget and Finance Committee, in conjunction with the Local Government Commission and the State Tax Equalization Board, to request the assistance of the Assessors and County Commissioners Associations of Pennsylvania to conduct a study of the Commonwealth's fragmented system of property tax assessment, compare it to real property tax systems of other states, including specifically the real property tax reassessment systems of Maryland and California, and identify measures to make the Pennsylvania system more uniform, transparent, cost effective and acceptable to the taxpayer, as well as determining the impact of adopting the Maryland system; and directing the Legislative Budget and Finance Committee to request the assistance of the Assessors and County Commissioners Associations of Pennsylvania to conduct an additional study regarding the Pennsylvania Farmland and Forest Land Assessment Act of 1974 in order to determine its Statewide impact.

WHEREAS, Property taxes imposed in whole or in part for the purpose of funding local government and public education place a financial burden on all property-owning Pennsylvanians, especially Pennsylvania's fixed-income senior citizens; and

WHEREAS, This financial burden may be shared disproportionately between property owners of newly acquired real property and property owners of long-held real property to the extent that the property's assessed value is affected by the time of acquisition; and

### **Appendix A (Continued)**

WHEREAS, Pennsylvania operates under at least five major assessment statutes, none of which are wholly consistent with the others; and

WHEREAS, Each county operates under at least two statutes concurrently, and there are assessment provisions sprinkled among other statutes (County Code, e.g.) as well; and

WHEREAS, At least two home rule counties provide for different administrative procedures in their home charters than exist in State statute that previously applied to them; and

WHEREAS, There are no uniform revenue restraints for all classes of political subdivisions following the implementation of a countywide reassessment; and

WHEREAS, The current system provides little protection for taxpayers who experience sudden and dramatic increases in their property assessment as a result of a countywide reassessment; and

WHEREAS, The current system results in a lack of uniformity from county to county and property to property resulting in vast inequities among taxpayers and taxing jurisdictions; and

WHEREAS, There is no funding base for reassessment, and the significant expense of reassessment is the single greatest reason they are not done regularly; therefore be it and

WHEREAS, The Constitution of Pennsylvania and the Pennsylvania Farmland and Forest Land Assessment Act of 1974, commonly referred to as the Clean and Green Act, authorize the preferential assessment of certain land based on its use rather than its prevailing market value; and

WHEREAS, Participation in the Clean and Green program is voluntary and variable from county to county; and

WHEREAS, There is significant participation in many counties which causes a tax shift to landowners not qualified for or not enrolled in the program; therefore be it

RESOLVED, That the Legislative Budget and Finance Committee, in conjunction with the Local Government Commission and the State Tax Equalization Board, request the assistance of the Assessors and County Commissioners Associations of Pennsylvania to conduct a study of the current property tax assessment systems operating in this Commonwealth; and be it further

RESOLVED, That the study shall include an analysis of the following:

### Appendix A (Continued)

(1) The current systems of property tax reassessment in Pennsylvania.

(2) The current systems and property tax reassessment in effect in Maryland and California.

(3) The systems of property tax reassessment in effect in other states with demographics similar to Pennsylvania;

### and be it further.

 (4) The effect that property tax reassessment has had with respect to taxes paid by Pennsylvania's fixed-income senior citizens;
 and be it further

RESOLVED, That the study of each state's property tax reassessment system shall include at least the following:

(1) what levels of government levy the property tax,

(2) who conducts the real property tax reassessment, is it a state or a local function and are government employees used or is it contracted out,

(3) how are the property reassessments financed,

(4) how often are the property reassessments conducted,

(5) are there uniform procedures throughout the state,

(6) are there taxpayer protections as to the amount of additional revenue which may be generated by the taxing district and limitations on how much individual taxpayers can have their taxes increased immediately following a reassessment,

(7) are there any special considerations or exceptions in place providing relief or other accommodations for fixed-income seniors or others who may be disproportionately affected by property reassessments,

(7) (8) how does the system for appeals operate, and

(8) (9) are there constitutional provisions that impact the property tax reassessment;

### and be it further

RESOLVED, That the Legislative Budget and Finance Committee request the assistance of the Assessors and County Commissioners Associations of Pennsylvania to conduct an additional study regarding the Pennsylvania Farmland and Forest Land Assessment Act of 1974 in order to determine its Statewide impact; and be it further

RESOLVED, That the study shall include an analysis of the following:

### Appendix A (Continued)

(1) The number of properties enrolled in the Clean and Green program on a county-by-county basis at the end of calendar year 2008.

(2) The fiscal impact of the Clean and Green Act on all local municipalities across this Commonwealth on a yearly basis.

(3) The fiscal impact the tax shift that is provided for in the Clean and Green Act has had on local school taxes; and be it further

RESOLVED, That the Legislative Budget and Finance Committee provide recommendations necessary or desirable to improve and update the system of property tax assessment in Pennsylvania; and be it further

RESOLVED, That the Legislative Budget and Finance Committee provide recommendations necessary or desirable to improve the manner in which the Clean and Green Act is administered in Pennsylvania; and be it further

RESOLVED, That the Legislative Budget and Finance Committee report to the House of Representatives the result of its studies and recommendations regarding the property tax assessment process and the Statewide impact of the Clean and Green Act and file the report reports with the Chief Clerk of the House of Representatives no later than June 30, 2010.

### APPENDIX B LB&FC Survey of Pennsylvania County Chief Assessors



### Legislative Budget and Finance Committee

A JOINT COMMITTEE OF THE PENNSYLVANIA GENERAL ASSEMBLY Offices: Room 400 Finance Building, 613 North Street, Harrisburg Mailing Address: P.O. Box 8737, Harrisburg, PA 17105-8737 Tel: (717) 783-1600 • Fax: (717) 787-5487 • Web: http://lbfc.legis.state.pa.us

### July 31, 2009

TO:	County Chief Assessors
FROM:	Philip R. Durgin, Executive Director
SUBJECT:	Study of Property Assessment Systems in Pennsylvania and Other States
study the sy	House Resolution 334 of 2009 (enclosed) directs our Committee to estems for real property assessment and valuation in place in Penn-

study the systems for real property assessment and valuation in place in Pennsylvania and other states. HR 334 specifically directs us to consider systems for reassessment, including the systems in place in Maryland, California, and other states. The study is being conducted in conjunction with the Local Government Commission, the State Tax Equalization Board, and the Assessors and County Commissioners Association of Pennsylvania.

To do this study, we are requesting that each county chief assessor complete the enclosed questionnaire. The questionnaire allows us to identify important characteristics of real property assessment systems and reassessment processes that are in place in Pennsylvania and the costs associated with such activities. If necessary, please attach additional sheets to the questionnaire when providing your responses. The information you specifically provide will be kept confidential and is essential to answer questions posed by House Resolution 334.

Please complete the questionnaire and return it in the enclosed envelope by August 31, 2009. If you have any questions about the study or the questionnaire, please contact me or Dr. Maryann Nardone, the project manager for the study.

Thank you in advance for your assistance.

Enclosures

SENATORS JOHN R. PIPPY *Chairman* JAY COSTA, JR. WAYNE D. FONTANA DOMINIC PILEGGI JOHN N. WOZNIAK

### REPRESENTATIVES

ROBERT W. GODSHALL Secretary DAVID K. LEVDANSKY Treasurer STEPHEN E. BARRAR JIM CHRISTIANA H. SCOTT CONKLIN ANTHONY M. DELUCA

**EXECUTIVE DIRECTOR** PHILIP R. DURGIN

### Appendix B (Continued)

Legislative Budget and Finance Committee PO Box 8737 Harrisburg PA 17105-8737 Phone (717) 783-1600 Fax (717) 787-5487 info@lbfc.legis.state.pa.us

### Study of Real Property Assessment Systems (House Resolution 334) Questionnaire for County Chief Assessors

A	ssessment Offi	ce Operations	
1. How many parcels of each type	e are located in	your county?	Total
Residential Agriculture	Industrial Land	Commercial Minerals	Exempt Mobile Homes
2. How do you routinely update the	ne property asse	essment rolls for your co	Ounty? (Check all that apply)
Deed transfers	Planni	ng Commission	
Building permits	Aerial	photography	
Zoning changes	Other		

3. How many staff work in the assessment office, including contract staff? \_\_\_\_\_ County Full-time \_\_\_\_\_ Contract Full-time \_\_\_\_\_ Contract Part-time \_\_\_\_\_\_ Contract Part-time \_\_\_\_\_ Contract Part-time \_\_\_\_\_\_ Contract Part-time \_\_\_\_\_ Contract Part-t

	County As Emplo	sessment oyees	Other Co Employ	ounty rees	Contrac Employe	ted ees			
	County Assessment           Employees           Full-time   Part-time		Full-time	Part-time	Full-time Part-t				
Certified PA Evaluators									

4. Which type system do you use for property valuation activities?

\_\_\_\_\_ Vendor-supplied Computer-Assisted Mass Appraisal System (CAMA)

\_\_\_\_\_ In-house developed CAMA

\_\_\_\_\_ Computerized property record data base system (no automated valuation)

- \_\_\_\_\_ Manual property record data base system
- \_\_\_\_ Other (please describe) \_\_\_\_\_

5. Does your county have contracts related to assessment for any of the following? Please indicate the annual associated cost for each. *Exclude contract costs for countywide reassessments*.

Software	Yes	No	\$
Hardware	Yes	No	\$
GIS	Yes	No	\$
Aerial Photography	Yes	No	\$
Other	Yes	No	\$

6 Do a	ssessments in	your county use base year valu	ues? Yes	Base Year
N	o (please expl	ain what is used as the basis)		

### Countywide Reassessment

7.	Is your county currently in the process of conducting a countywide reassessment? Yes No If yes, is it court orderedYes No. <i>If no, proceed to question 8.</i>
	7a. When did the current countywide reassessment begin and when will it be completed?         Start Date: Month Year         End Date: Month Year
	7b. Who is responsible for conducting the countywide reassessment?        County Staff      Vendor (Specify)
	County & Vendor (Specify)
	7c. What is the county's estimated cost to complete the countywide reassessment? Vendor Cost Other county costs (excluding costs for appeals to the board)
8.	In what year was your last reassessment completed?
	8a. Who conducted the last reassessment? County Staff Vendor County & Vendor
	<ul> <li>8b. What type of reassessment was last conducted?</li> <li>Physical on-site review of each property by a certified PA evaluator</li> <li>Physical on-site review of each property by other than a certified PA evaluator</li> <li>Change in the county's pre-determined ratio</li> <li>Revision based on property or market data</li> <li>Other (please explain)</li> </ul>
	8c. How long did it take to complete the last reassessment process from property data preparation until final reassessment notices were sent to property owners?
	8d. How many appeals were filed with the board following the last reassessment?
	8e. How long did it take for the board to resolve the appeals? Most were resolved within months from the date the appeal was initially filed.
	8f. What was the total cost to the County for the last reassessment (excluding costs for appeals to the board)? \$
	8g. How was the reassessment funded?
	8h. What are some of the reasons why you would not initiate a countywide reassessment?

### **Property Valuation Standards**

9 Did you use/are you using IAAO standards for your most recent reassessment? \_\_\_\_ Yes \_\_\_\_ No

10. If Yes, which performance measures are/were used?

\_\_\_\_\_ Assessment to Sales Price Ratio

\_\_\_\_\_ Price-related Differential

\_\_\_\_ Coefficient of Dispersion (COD)

\_\_\_\_ Other (please describe) \_\_\_\_\_

11. As part of the reassessment, do/did you have a process in place for the property owner to check the accuracy of the county's record for their property prior to the receipt of their new assessment? \_\_\_\_ Yes \_\_\_\_ No If Yes, please explain. \_\_\_\_\_

12. Do you conduct/contract for ratio studies on an ongoing basis for purposes of county monitoring? \_\_\_\_\_ Yes \_\_\_\_\_ No

12a. If Yes, when was the most recent study completed?

12b. When you conducted/contracted for a ratio study, were IAAO performance standards incorporated into your study or contract? \_\_\_\_ Yes \_\_\_\_ No

12c. If Yes, which of the following standards were used?

\_\_\_\_ Assessment to Sales Price Ratio between 0.90 and 1.10.

\_\_\_\_ Price-related Differential between 0.98 and 1.03.

\_\_\_\_ Coefficient of Dispersion (COD) (See table below)

		Max COD	Check if Used
Residential improved (single family dwellings, condomi-	Very large jurisdictions/ densely popu- lated/newer properties/active markets	10.0	Yes
niums, manuf. Housing, 2-4 family units)	Large to mid-sized jurisdictions/older & newer properties/less active markets	15.0	Yes
	Rural or small jurisdictions/older proper- ties/depressed market areas	20.0	Yes
Income-producing properties (commercial, industrial,	Very large jurisdictions/ densely popu- lated/newer properties/active markets.	15.0	Yes
apartments)	Large to mid-sized jurisdictions/older & newer properties/less active markets	20.0	Yes
	Rural or small jurisdictions/older proper- ties/depressed market areas	25.0	Yes
Residential vacant Land	Very large jurisdictions/ densely popu- lated/newer properties/active markets.	15.0	Yes
	Large to mid-sized jurisdictions/older & newer properties/less active markets	20.0	Yes
	Rural or small jurisdictions/older proper- ties/depressed market areas	25.0	Yes
Other non-agricultural va- cant land	Very large jurisdictions/ densely popu- lated/newer properties/active markets.	20.0	Yes
	Large to mid-sized jurisdictions/older & newer properties/less active markets	25.0	Yes
	Rural or small jurisdictions/older proper- ties/depressed market areas	30.0	Yes

\_\_\_\_ Other (Please explain) \_\_\_\_\_

### **Property Valuation Appeals**

13. How many appeals were filed with the board of appeals by each of the following in 2008?

	Countywide Reassessment	Annual and Interim
Residential property owners		
Commercial property owners		
Industrial property owners		
School District		
Municipality		

13a. How many appeals related to exemptions were filed in 2008?

13b. How many appeals from the board went to Common Pleas Court?

Other

14. Please identify any programs in place in your county to address the effects of countywide property reassessment on those with fixed incomes?\_\_\_\_\_

15. Please identify any property valuation practices you are aware of that are being used in other states that you believe Pennsylvania should consider?

State:	Practice:	
State:	Practice:	
State:	Practice:	
16. Please p tion system i	ovide any additional suggestions you may have for improving the property valua- Pennsylvania.	
	(You may attach additional sheets if necessary.)	
Name:	County:	
Email:	Telephone:	
The identity	findividuals regranding to this questionnaire will remain confidential. The	-1

The identity of individuals responding to this questionnaire will remain confidential. Thank you for your assistance and cooperation with this study.

### APPENDIX C

## Common Level Ratio, by County (1988 Through 2008)

46.6 8.2 9.2 11.0		21.5 21.7 23.1 23.6	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6	21.5         21.7         23.1         23.6           21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           16.4         16.7         16.9         18.4	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           15.1         16.9         16.4         18.4           13.1         13.8         15.5         16.3	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           16.4         16.7         16.9         18.4           13.1         13.8         15.5         16.3           5.2         5.1         5.2         5.6	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           13.1         13.8         15.5         16.3           5.2         5.1         56.2         57.5           6.9         7.0         7.6         7.6           7.1         6.9         7.0         7.6           7.1         15.7         16.9         18.4           13.1         13.8         15.5         16.3           5.2         5.1         5.2         5.6           5.2         5.1         15.7         5.6           75.7         17.4         18.8         19.7	21.5     21.7     23.1     23.6       22.0     21.8     20.7     21.2       22.0     21.8     20.7     21.2       49.3     50.1     55.2     57.5       9.5     9.4     9.3     9.4       7.1     6.9     7.0     7.6       7.1     6.9     7.0     7.6       7.1     13.8     15.5     16.3       13.1     13.8     15.5     16.3       5.2     5.1     5.2     5.6       6.3     17.4     18.8     19.7       7.1     5.2     5.1     5.6       13.1     13.8     15.5     16.3       15.7     17.4     18.8     19.7       7.13     22.9     24.7     24.2	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           16.4         16.7         16.9         18.4           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           5.2         5.1         5.2         5.6           13.1         13.8         15.5         16.3           5.2         5.1         5.2         5.6           5.2         5.1         18.8         19.7           21.3         22.9         23.9         24.7         24.2           55.9         55.3         53.9         57.8         57.8	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           16.4         16.7         16.9         18.4           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           5.2         5.1         5.2         5.6           5.2         5.1         15.2         5.6           7.1         17.4         18.8         19.7           7.13         22.9         23.3         57.8           5.2         53.9         57.8         57.8           5.2         53.9         57.8         57.8           5.7         8.5         57.8         57.8	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           5.2         5.1         5.2         5.6           13.1         13.8         15.5         16.3           5.2         5.1         5.2         5.6           7.13         22.9         24.7         24.2           55.9         52.2         53.9         57.8           55.3         55.3         55.3         57.8           55.3         55.3         57.8         57.8           55.3         55.3         57.8         57.8           55.3         55.3         57.8         57.8           55.3	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         5.6           13.1         13.8         15.5         5.6           13.1         13.8         15.5         5.6           13.1         13.8         15.5         5.6           55.2         5.1         5.2         5.6           15.7         17.4         18.8         19.7           55.9         52.2         53.9         57.8           7.7         8.3         8.5         10.1           6.1         6.4         6.2         6.7	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           15.7         17.4         18.8         19.7           15.7         17.4         18.8         19.7           21.3         22.9         24.7         24.2           21.3         22.9         24.7         24.2           55.3         55.2         53.9         57.8           7.7         8.3         8.5         10.1           6.1         6.2         6.4         6.9           6.1         6.2         6.4         6.9           6.1         6.2         6.4         6.9           6.1	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           15.2         5.1         5.2         5.6           15.2         5.1         17.4         18.8           15.7         8.5         54.7         24.2           55.9         52.9         53.9         57.8           55.6         6.4         6.3         6.7           6.1         6.2         6.4         6.9           6.6	21.5         21.7         23.1         23.6           21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           16.4         16.7         16.9         18.4           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           15.7         17.4         18.8         19.7           15.7         17.4         18.8         19.7           15.7         17.4         18.8         19.7           15.7         8.3         8.5         10.1           15.7         8.3         8.5         10.1           15.7         8.3         8.5         10.1           16.1         6.2         6.4         6.3           6.1         6.2         5.4         5.1           16.5	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           15.7         17.4         18.8         19.7           15.1         13.8         15.5         16.3           15.1         13.8         15.5         16.3           15.7         13.8         15.5         16.3           15.7         8.3         8.5         10.1           15.7         8.3         8.5         10.1           16.6         6.4         6.3         6.3           6.1         6.2         6.4         6.3           6.5         7.7         28.1         25.1           16.5         16.3         16.3         10.0           16.5	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           49.3         50.1         55.2         57.5           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         5.6           13.1         13.8         15.5         5.6           15.2         5.1         17.4         18.8         19.7           55.9         52.2         53.9         57.8         57.8           6.1         6.2         6.4         6.9         6.7           6.1         6.2         53.9         57.8         57.8           6.1         6.2         53.9         57.8         57.8           6.1	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           15.7         17.4         18.8         19.7           15.7         17.4         18.8         19.7           15.7         17.4         18.8         19.7           21.3         22.9         24.7         24.2           55.9         52.2         53.9         57.8           55.9         52.2         53.9         57.8           6.1         6.2         6.4         6.9           6.1         6.2         54.7         24.2           55.9         54.7         24.2         57.4           6.1	21.5         21.7         23.1         23.6           22.0         21.8         20.7         21.2           22.0         21.8         20.7         21.2           49.3         50.1         55.2         57.5           9.5         9.4         9.3         9.4           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           7.1         6.9         7.0         7.6           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           13.1         13.8         15.5         16.3           15.2         5.1         5.2         54.6           15.1         17.4         18.8         19.7           55.9         52.1         53.9         57.8           55.9         55.3         54.7         24.2           55.9         52.3         53.9         57.8           55.9         55.3         54.7         24.2           55.3         55.3         57.8         50.7           55.3
2.0 43.9		2.0 21.7	2.0 21.7 8.9 20.1	2.0 21.7 8.9 20.1 4.0 46.3	2.0 21.7 8.9 20.1 4.0 46.3 0.4 11.6	2.0 21.7 8.9 20.1 4.0 46.3 0.4 11.6 3.8 6.9	2.0 21.7 8.9 20.1 4.0 46.3 0.4 11.6 5.8 6.9 4.8 15.8	2.0 21.7 8.9 20.1 4.0 46.3 0.4 11.6 5.8 6.9 8.8 6.9 8.6 50.6	2.0 21.7 8.9 20.1 4.0 46.3 0.4 11.6 5.8 6.9 8.6 50.6 8.6 50.6	2.0     21.7       8.9     20.1       4.0     46.3       0.4     11.6       5.8     6.9       4.8     15.8       8.6     50.6       5.0     5.0       3.3     14.5	2.0     21.7       8.9     20.1       4.0     46.3       0.4     11.6       0.8     6.9       8.6     50.6       8.6     50.6       5.0     5.0       5.0     5.0       9.7     22.1	2.0     21.7       8.9     20.1       4.0     46.3       0.4     11.6       5.8     6.9       8.6     50.6       8.6     50.6       5.0     5.0       3.9     14.5       9.7     22.1       1.3     53.7	2.0     21.7       8.9     20.1       4.0     46.3       0.4     11.6       0.4     11.6       5.0     50.6       8.6     50.6       9.7     22.1       1.3     53.7       8.5     8.4	2.0     21.7       3.9     20.1       4.0     46.3       0.4     11.6       0.4     11.6       1.8     6.9       4.8     15.8       8.6     50.6       8.6     50.6       3.9     14.5       3.9     22.1       9.7     22.1       1.3     53.7       1.3     53.7       5.9     6.0	2.0     21.7       3.9     20.1       4.0     46.3       0.4     11.6       0.4     11.6       1.8     6.9       4.8     15.8       8.6     50.6       5.0     5.0       3.9     14.5       9.7     22.1       1.3     53.7       1.3     53.7       5.9     6.0       5.9     6.0	2.0     21.7       3.9     20.1       4.0     46.3       0.4     11.6       0.4     11.6       1.8     6.9       8.6     50.6       8.7     22.1       3.9     14.5       3.9     14.5       8.6     50.6       9.7     22.1       1.3     53.7       8.5     8.4       8.5     6.0       5.9     6.0       5.5     6.5       4.1     16.1	2.0     21.7       3.9     20.1       4.0     46.3       0.4     11.6       0.4     11.6       1.8     6.9       4.8     15.8       8.6     50.6       8.6     50.6       3.9     14.5       3.9     22.1       1.3     53.7       1.3     53.7       8.5     8.4       9.7     22.1       1.3     53.7       1.3     53.7       5.9     6.0       5.9     6.5       5.1     16.1       5.2     6.5       5.2     5.5       5.2     5.5	2.0     21.7       3.9     20.1       4.0     46.3       0.4     11.6       0.4     11.6       0.4     11.6       0.4     11.6       0.4     11.6       0.4     11.6       0.4     11.6       0.4     11.6       0.4     14.5       9.7     22.1       3.9     14.5       9.7     22.1       1.3     53.7       1.3     53.7       5.9     6.0       5.9     6.0       5.1     16.1       4.1     16.1       4.1     16.1       7.6     40.4	2.0     21.7       3.9     20.1       4.0     46.3       0.4     11.6       0.4     11.6       0.4     11.6       1.8     6.9       8.6     50.6       8.6     50.6       9.7     22.1       3.9     14.5       3.9     14.5       8.5     8.4       9.7     22.1       1.3     53.7       8.5     8.4       8.5     6.0       5.9     6.0       5.1     16.1       7.6     40.4       7.6     40.4       3.5     44.4	2.0     21.7       3.9     20.1       4.0     46.3       0.4     11.6       0.4     11.6       0.4     11.6       1.8     6.9       8.6     50.6       8.6     50.6       9.7     22.1       1.3     53.7       1.3     53.7       1.3     53.7       1.3     53.7       5.9     6.0       5.9     6.0       5.1     16.1       5.2     25.7       7.6     40.4       7.6     40.4       3.5     54.3       0.9     54.3	2.0     21.7       3.9     20.1       4.0     46.3       0.4     11.6       0.4     11.6       0.4     11.6       1.8     6.9       8.6     50.6       8.6     50.6       9.7     22.1       3.9     14.5       9.7     22.1       1.3     53.7       1.3     53.7       1.3     53.7       5.9     6.0       5.1     14.5       1.3     53.7       1.4     14.5       5.1     22.1       1.3     53.7       5.2     8.4       5.3     40.4       5.4     40.4       3.5     44.4       0.9     54.3       0.9     54.3	2.0     21.7       3.9     20.1       4.0     46.3       4.0     46.3       0.4     11.6       0.4     11.6       4.8     15.8       6.9     50.6       8.6     50.6       9.7     22.1       1.3     53.7       1.3     53.7       8.5     8.4       1.3     53.7       8.5     8.4       1.3     53.7       8.5     8.4       1.3     53.7       8.5     8.4       1.3     53.7       1.3     53.7       1.3     53.7       5.5     6.0       5.5     25.7       7.6     40.4       3.5     44.4       0.9     54.3       0.9     54.3       6.1     65.1       6.1     65.1       6.1     65.1       6.1     65.1       6.1     65.1
41.2 42		21.3 22	21.3 22	21.3         22           21.3         22           18.2         18           43.2         44	21.3 22 18.2 18 43.2 44 43.2 44 10.7 10	21.3 22 18.2 18 43.2 44 10.7 10 5 106.7 6	21.3         22           18.2         18           18.2         11           43.2         44           10.7         10           5         106.7         6           13.8         1	21.3         22           18.2         18           18.2         44           43.2         44           10.7         16           110.7         6           113.8         14           43.9         44	21.3     21.3       18.2     18.2       18.2     44       43.2     44       10.7     10       106.7     6       113.8     14       43.9     48       5.0     5	21.3     21.3       18.2     18       18.2     41       43.2     42       10.7     10       10.7     10       113.8     14       43.9     48       5.0     5       5.0     5       14.5     15	21.3         22           18.2         18           18.2         18.2           18.2         44           10.7         10           10.7         10           10.7         10           110.7         6           110.7         6           110.8         14           13.8         14           13.8         14           13.8         14           13.8         14           14.5         17           20.0         5           20.0         14	21.3     21.3       18.2     18       18.2     12       43.2     42       10.7     10       10.7     10       10.7     10       110.7     6       5     106.7       6     43.9       44.9     12	21.3     21.3     22       18.2     18.2     18       18.2     43.2     44       10.7     10.7     10       110.7     10     10       110.7     10     10       110.7     10     10       110.7     10     10       110.7     10     10       110.7     10     10       110.8     14       110.9     11       110.6     11       110.7     10       110.7     10       110.7     10       110.7     10       110.7     10       110.7     10       110.7     10       110.7     10       110.8     10       110.9     10       110.8     10       110.8     10       110.8     10       110.8     10       110.8     5       110.8     5       110.8     8	21.3     22       18.2     18.2       18.2     43.2       43.2     43.2       10.7     10       10.7     10       110.7     10       110.7     10       110.7     10       110.7     10       110.7     10       110.7     10       110.7     10       110.8     12       110.9     12       110.9     15       111.0     15       111.0     16       111.0     17       111.0     16       111.0     17       111.0     16       111.0     17       111.0     16       111.0     16       111.0     16       111.0     16       111.0     16       111.0     16       111.0     17       111.0     16       111.0     16       111.0     17       111.0     16       111.0     17       111.0     16       111.0     17       111.0     16       111.0     17       111.0     16       111.0     17	21.3     21.3     22       18.2     18.2     18       18.2     43.2     41       10.7     10.7     10       10.7     10.7     6       5.0     5     1       14.5     1     1       5.0     1     1       8.6     8     8       8.6     5     5       6.3     6.3     6	21.3     21.3     22       18.2     18.2     18.2       18.2     43.2     44.5       10.7     10.7     10       110.7     10     10       110.8     12.8     12       110.9     13.8     12       110.7     16.7     6       110.8     14.5     15       110.9     14.5     15       110.8     6.3     6       6.3     6.3     6       113.4     13.4     1	21.3     21.3     22       18.2     18.2     48       18.2     43.2     44       10.7     10.7     10       10.7     10.7     10       11.0.7     10     1       11.0.7     10     1       11.0.7     10     1       11.0.7     10     1       11.0.7     10     1       11.0     14.5     1       11.1     14.5     1       11.2     10     1       11.4     1       11.4     1       11.4     1       11.4     1       11.4     1       11.4     1       11.4     1       11.4     1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	21.3     21.3     22       18.2     18.2     18.2       18.2     43.2     44       10.7     10.7     10       110.7     10     10       110.8     12       110.7     10       110.7     10       110.8     12       110.9     12       110.1     10       110.1     10       111.3     12       111.3     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     12       113.4     13       113.4     14       113.4     14       113.4     14       113.4     14       113.4     14       113.4     14       113.4     14       113.4     14       113.4     14       114.1     14	21.3     21.3     22       18.2     18.2     18       18.2     18.2     43       10.7     10.7     10       10.7     10.7     10       10.7     10.7     10       11.0     13.8     14       11.0     13.8     14       11.0     13.8     14       11.1     14.5     17       11.4.5     17     17       11.4.5     17     17       11.4.5     17     17       11.4.5     17     14       11.4.5     17     14       11.4.4.5     17     17       11.4.4.5     17     17       11.4.4.5     17     17       11.4.4.3     47     37       11.4.4.3     47     37       11.4.3     47     51	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
40.9 41.9		20.5 21.2	20.5         21.2           13.7         15.1	20.5     21.2       13.7     15.1       40.9     41.7	20.5         21.2           13.7         15.1           40.9         41.7           9.8         10.2	20.5         21.2           13.7         15.1           40.9         41.7           9.8         10.2           100.2         102.5	20.5         21.2           13.7         15.1           40.9         41.7           9.8         10.2           100.2         102.5           12.5         13.4	20.5         21.2           13.7         15.1           13.7         15.1           40.9         41.7           9.8         10.2           100.2         102.5           12.5         13.4           45.2         43.9	20.5     21.2       13.7     15.1       40.9     41.7       9.8     10.2       100.2     102.5       12.5     13.4       45.2     43.9       4.9     4.9	20.5     21.2       13.7     15.1       40.9     41.7       9.8     10.2       9.8     10.2       100.2     102.5       12.5     13.4       45.2     43.9       4.9     4.9       13.8     14.2	20.5     21.2       13.7     15.1       40.9     41.7       9.8     10.2       100.2     102.5       12.5     13.4       45.2     43.9       45.3     4.9       13.8     14.2       13.8     14.2       13.8     14.2       18.2     18.9	20.5     21.2       13.7     15.1       40.9     41.7       9.8     10.2       100.2     102.5       100.2     102.5       12.5     13.4       45.2     43.9       45.2     43.9       13.8     14.2       13.8     14.2       18.2     18.9       42.0     43.5	20.5     21.2       13.7     15.1       40.9     41.7       9.8     10.2       9.8     10.2       100.2     102.5       12.5     13.4       45.2     43.9       45.2     43.9       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     18.5       8.7     8.5	20.5     21.2       13.7     15.1       40.9     41.7       9.8     10.2       9.8     10.2       12.5     13.4       12.5     13.4       45.2     43.9       45.2     43.9       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       18.2     18.9       47.0     43.5       8.7     8.5       47.8     49.9	20.5     21.2       13.7     15.1       40.9     41.7       9.8     10.2       100.2     102.5       100.2     102.5       100.2     102.5       12.5     13.4       45.2     43.9       45.2     43.9       45.2     43.5       18.2     18.9       42.0     43.5       8.7     8.5       8.7     8.5       6.2     6.3	20.5     21.2       13.7     15.1       40.9     41.7       9.8     10.2       9.8     10.2       100.2     102.5       12.5     13.4       45.2     43.9       45.2     13.4       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     14.2       13.8     49.9       6.2     6.3       6.2     6.3       11.0     13.8	20.5     21.2       13.7     15.1       40.9     41.7       9.8     10.2       9.8     10.2       12.5     13.4       12.5     13.4       45.2     43.9       45.2     43.9       45.2     13.4       12.5     13.4       12.5     13.4       45.2     43.9       45.2     43.9       47.0     43.5       8.7     8.5       47.8     49.9       6.2     6.3       11.0     13.8       22.8     23.2	20.5     21.2       13.7     15.1       40.9     41.7       9.8     10.2       9.8     10.2       100.2     102.5       12.5     13.4       12.5     13.4       12.5     13.4       12.5     13.4       12.5     13.4       12.5     13.4       12.5     13.4       12.5     13.4       12.5     13.4       4.9     4.9       42.0     43.5       8.7     8.5       8.7     8.5       11.0     13.8       11.0     13.8       22.8     23.2       23.5     36.0	20.5       21.2         13.7       15.1         13.7       15.1         40.9       41.7         9.8       10.2         9.8       10.2         100.2       102.5         12.5       13.4         12.5       13.4         45.2       43.9         45.2       43.9         42.0       43.5         8.7       8.5         8.7       8.5         8.7       8.5         11.0       13.8         11.0       13.8         33.5       36.0         38.9       40.1	20.5       21.2         13.7       15.1         40.9       41.7         9.8       10.2         9.8       10.2         100.2       102.5         100.2       102.5         12.5       13.4         12.5       13.4         12.5       13.4         12.5       13.4         12.5       13.4         12.5       13.4         12.5       13.4         12.5       13.4         12.5       13.4         13.8       14.2         13.8       14.2         13.8       14.2         13.8       14.2         13.8       14.2         13.8       14.2         13.8       14.2         8.7       8.5         8.7       8.5         11.0       13.8         23.5       36.0         33.5       36.0         38.9       40.1         46.2       48.5	20.5       21.2         13.7       15.1         40.9       41.7         9.8       10.2         9.8       10.2         100.2       102.5         100.2       102.5         12.5       13.4         12.5       13.4         12.5       13.4         12.5       13.4         12.5       13.4         45.2       43.9         42.0       43.5         42.0       43.5         42.0       43.5         8.7       8.5         8.7       8.5         8.7       8.5         11.0       13.8         11.0       13.8         33.5       36.0         38.9       40.1         46.2       48.5         7.0       7.0	20.5       21.2         13.7       15.1         13.7       15.1         40.9       41.7         9.8       41.7         9.8       10.2         9.8       10.2         10.2       102.5         12.5       13.4         45.2       43.9         45.2       43.9         45.2       13.4         13.8       14.2         13.8       14.2         13.8       14.2         13.8       14.2         13.8       14.2         13.8       49.9         47.8       8.5         8.7       8.5         8.7       8.5         11.0       13.8         22.8       23.2         33.5       36.0         38.9       40.1         46.2       48.5         7.0       7.0         57.7       60.0
9.5 41.1		9.8 20.3	9.8 20.3 9.0 50.7 <sup>1</sup>	3.8         20.3           9.0         50.7'           8.9         38.7	3.8         20.3           9.0         50.7'           8.9         38.7           9.2         10.1	3.8 20.3 9.0 50.7 <sup>1</sup> 8.9 38.7 9.2 10.1 6.3 97.7	9.8         20.3           9.0         50.7           8.9         38.7           9.2         10.1           9.3         97.7           1.1         11.8	9.8         20.3           9.0         50.7 <sup>1</sup> 8.9         38.7           9.2         10.1           9.3         97.7           6.3         97.7           2.2         43.4	3.8     20.3       9.0     50.7       8.9     38.7       1.2     10.1       1.2     10.1       6.3     97.7       6.1     11.8       1.1     11.8       1.2     43.4       1.6     4.8	3.8     20.3       3.0     50.7'       8.9     38.7       1.2     10.1       1.2     10.1       1.1     11.8       1.1     11.8       2.2     43.4       1.6     4.8       1.6     13.3	3.8     20.3       9.0     50.7'       8.9     38.7       9.2     10.1       1.2     10.1       1.1     11.8       1.1     11.8       2.2     43.4       4.6     4.8       3.1     13.3       7.8     17.5	3.8     20.3       9.0     50.7'       8.9     38.7       1.2     10.1       1.2     10.1       6.3     97.7       6.3     97.7       1.1     11.8       1.1     11.8       1.1     11.8       3.1     13.3       3.1     13.3       7.8     17.5       0.2     38.3	3.8     20.3       9.0     50.7       8.9     38.7       8.9     38.7       8.3     97.7       6.3     97.7       1.1     11.8       1.1     11.8       1.1     11.8       3.1     13.3       3.1     13.3       7.8     17.5       7.8     17.5       8.4     9.2	3.8     20.3       9.0     50.7'       8.9     38.7       8.9     38.7       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       3.1     13.3       3.1     13.3       7.8     17.5       8.4     9.2       8.4     9.2	3.8     20.3       9.0     50.7'       8.9     38.7       8.9     38.7       1.2     10.1       1.2     10.1       6.3     97.7       6.3     97.7       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       5.0     46.6       5.0     46.6       3.4     6.2	3.8     20.3       3.0     50.7'       8.9     38.7       8.9     38.7       8.1     10.1       8.2     10.1       8.3     97.7       8.4     11.8       1.1     11.8       1.1     11.8       3.1     13.3       3.1     13.3       8.4     9.2       8.4     9.2       8.4     9.2       8.4     6.2       8.4     6.2       3.4     6.2       3.7     10.8	3.8     20.3       9.0     50.7'       8.9     38.7       8.9     38.7       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     10.8       3.3     10.8       3.4     6.2       3.7     10.8       3.7     10.8       2.0     22.3	3.8     20.3       3.0     50.7'       3.9     38.7       3.9     38.7       3.9     38.7       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       2.2     43.4       2.2     43.4       3.1     13.3       3.1     13.3       3.1     13.3       5.0     46.6       5.0     46.6       5.0     22.3       3.7     10.8       3.7     10.8       2.0     22.3       2.0     22.3       2.0     22.3       2.0     22.3	3.8     20.3       3.0     50.7'       3.9     38.7       3.9     38.7       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     10.8       5.0     46.6       5.0     46.6       5.1     10.8       3.4     6.2       3.7     10.8       2.0     22.3       3.1     39.1       7.1     39.1	3.8     20.3       9.0     50.7'       3.9     38.7       3.9     38.7       1.2     10.1       1.2     10.1       6.3     97.7       6.3     97.7       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       3.1     13.3       3.1     13.3       3.1     13.3       5.0     46.6       5.0     46.6       5.1     9.2       3.7     10.8       3.7     10.8       2.5     35.7       7.1     39.1       7.1     39.1	3.8     20.3       3.0     50.7'       3.9     38.7       3.9     38.7       3.1     10.1       6.3     97.7       6.3     97.7       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.3     10.8       3.4     6.2       5.0     25.3       2.5     35.7       3.7     10.8       7.1     39.1       7.3     5.6       6.6     6.8	3.8     20.3       3.0     50.7'       3.9     38.7       3.9     38.7       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       1.1     11.8       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.1     13.3       3.4     6.2       3.4     6.2       3.4     6.2       3.4     6.2       3.5.7     10.8       7.1     39.1       7.1     39.1       7.1     39.1       7.1     39.1       7.1     45.2       5.6     6.8       6.6     6.8
38.4 39		19.1 19	19.1 19 44.7 49	19.1     19       44.7     49       35.4     38	19.1         19           44.7         49           35.4         38           9.1         9.	19.1     19       44.7     49       35.4     38       9.1     9       96.1     96	19.1         19.4         19           44.7         49         38           35.4         38         38           9.1         9.1         9.           96.1         96         1.9           10.7         11         11	19.1         19           44.7         49           44.7         49           35.4         38           35.4         38           9.1         9           96.1         96           10.7         11           47.0         42	19.1         19           44.7         49           44.7         49           35.4         38           96.1         96           96.1         96           10.7         11           10.7         44           4.4         4.4	19.1         19.4         19           44.7         49         38           35.4         38         38           9.1         9.1         9           96.1         96         10           110.7         11         11           47.0         42         4           4.4         4.4         4	19.1         19           44.7         49           44.7         49           35.4         38           35.4         38           96.1         96           96.1         96           10.7         11           17.0         42           4.4         4.4           12.4         13           12.4         13           17.3         17	19.1     19.1     19       44.7     49     44.7     49       35.4     38     36.1     96       91.1     96     96.1     96       96.1     96     42     4       10.7     11     10     11       10.7     11     11     11       11.2.4     4.4     4.     4.       12.4     13     17     11       17.3     17     17     37.2     40	19.1     19.1     19       44.7     49     44.7     49       35.4     38     38.9     96.1     96       96.1     96.1     96     91     9.1       10.7     111     10.7     111       10.7     111     11.7     111       11.2.4     13     12.4     13       17.3     17.3     17     37.2       8.9     8.9     8.8	19.1     19.1     19       44.7     49     35.4     38       35.4     38     9.1     9       9.1     9.1     9     9       9.1     9     10.7     11       10.7     11     10.7     11       11.7     11.7     11     11.4       4.4     4.4     4.4     4.4       12.4     13     17     17       37.2     40     8.8     8.8     8.8	19.1     19.1     19       44.7     49     44.7     49       35.4     38     96.1     96       91.1     96     96     11       96.1     96     11     96       10.7     11     10.7     11       11.2.4     4.4     4.     4.       12.4     13     17     17       37.2     40     8.     8.       8.9     8.     8.     93	19.1     19.1     19       44.7     49     44.7     49       35.4     38     9.1     9.       9.1     9.1     9.     9.       9.1     9.1     9.     9.       9.1     9.1     9.     9.       9.1     10.7     11     10.7       11     10.7     11     11.       12.4     4.4     4.     4.       37.2     40     8.     8.       8.9.8     8.     8.     8.       89.9     8.     93     233       23.8     23.8     233     233	19.1         19.1         19           44.7         49         44.7         49           35.4         38         35.4         38           9.1         9.         9.1         96         96           96.1         96         1         96         1           10.7         11         10.7         11         1           47.0         42.4         4.         4.         4.           4.4         4.         4.         4.         4.           17.3         17         17         37.2         40           8.9         8.         8.         8.         8.         83.         83.         83.         337.2         23.8         23.8         23.8         23.8         23.8         23.8         23.8         23.8         23.8         23.8         23.8         23.8         23.8         23.8         23.4         22.4         22.1<	19.1     19.1     19       44.7     49     35.4     38       35.4     38     9.1     9       9.1     9.1     9     9       96.1     96.1     96     9       96.1     96.1     96     9       97.0     42     4.     4.       17.3     17     11     13       17.3     17     17.3     17       37.2     40     8.     8.       8.9     8.9     8.     93       89.8     93     83     23       21.4     22     23.8     23       29.5     32     23     32	19.1     19.1     19       44.7     49     44.7     49       35.4     38     9.1     9.       9.1     9.1     9.     9.       9.1     9.1     9.     9.       9.1     10.7     11     10.7       110.7     111     10.7     11       17.3     17     11     17.3       17.3     17.3     17     17       37.2     40     8.     8.       8.9     8.9     8.     93       89.8     93     23.3     23.3       20.5     23.5     33       36.5     33	19.1     19.1     19       44.7     49     44.7     49       35.4     38     96.1     96       91.1     96     10.7     11       96.1     96.1     96     42       97.0     42     4     4       10.7     11     10.7     11       11.0.7     11     10.7     11       11.1     10.7     11     11       12.4     4.4     4     4       12.4     13     17     17       17.3     17     11     13       37.2     40     8     8       8.9     8     8     93       89.8     93     33     23       23.6.5     32     29     37       36.5     37     29     37	19.1     19.1     19       44.7     49     44.7     49       35.4     38     36.1     96       9.1     9.1     9     9       9.1     9.1     9     9       9.1     9.1     9     9       9.1     9.1     9     9       9.1     9.1     9     9       9.1     10.7     11     10.7       11     10.7     11     11.1       10.7     11.2     17     11       11.2     1.2     4.4     4.       11.2     17.3     17     11       11.7.3     17     117     3       37.2     40     8     8       8.9     8.9     8     3       8.9     8.9     8     3       38.0     23.8     23     32       38.0     41     8     6       6.4     6.4     6     6	19.1     19.1     19.1       44.7     49       35.4     38       35.4     38       96.1     96       96.1     96       96.1     96       10.7     11       17.3     17       17.3     17       17.3     17       17.3     17       17.3     17       17.3     17       17.3     17       17.4     44       4.4     4.4       4.4     4.4       4.5     4.0       8.9     8.       8.9     8.       89.8     93       89.8     93       38.0     23       23.4     23       38.0     41       23.4     23       38.0     41       53.6     54       6.4     6.       6.4     6.       6.4     6.       6.4     6.       6.4     6.       6.4     6.
38.4		18.8	18.8 43.5	18.8 43.5 35.1	18.8 43.5 35.1 8.2	18.8 43.5 35.1 8.2 94.7	18.8 43.5 35.1 8.2 94.7 10.1	18.8 43.5 35.1 8.2 8.2 94.7 10.1 46.0	18.8 43.5 35.1 8.2 94.7 10.1 10.1 46.0	18.8 43.5 35.1 8.2 94.7 94.7 10.1 46.0 46.0 11.8	18.8 43.5 35.1 8.2 8.2 94.7 46.0 46.0 46.0 11.8 11.8	18.8           43.5           43.5           35.1           35.1           94.7           10.1           46.0           44.0           11.8           17.4           40.2	18.8           43.5           43.5           35.1           35.1           94.7           10.1           46.0           4.1           11.8           11.8           11.4           8.9	18.8           43.5           43.5           35.1           35.1           94.7           94.7           10.1           11.8           11.4           46.0           46.0           8.2           8.2           94.7           10.1           11.8           11.4           40.2           8.9           8.9           8.9	18.8           43.5           43.5           35.1           35.1           94.7           94.7           10.1           11.8           46.0           8.9           8.9           8.2           8.2           94.7           10.1           11.8           11.8           11.4           11.4           11.4           11.4           11.4           11.4           11.8           8.9           8.9           8.9           8.9           8.9	18.8           43.5           43.5           35.1           35.1           94.7           10.1           10.1           11.8           11.4           11.8           11.8           11.4           11.8           11.4           11.8           11.8           11.8           11.8           11.8           11.4           11.8           11.8           11.8           11.8           11.8           11.8           11.8           11.8           11.8           11.8           11.8           11.8           11.8           11.8           11.8           8.9           85.2           20.9	18.8           43.5           43.5           35.1           35.1           94.7           94.7           10.1           11.8           46.0           46.0           8.9           8.9           8.9           8.9           8.9           8.9           8.9           8.9           8.9           8.9           8.9           8.9           20.9           22.4           22.4	18.8       43.5       43.5       35.1       35.1       94.7       94.7       94.7       10.1       10.1       11.8       11.8       11.8       11.8       11.8       11.8       11.8       11.8       11.8       11.8       11.8       11.8       11.8       11.8       11.8       11.8       11.8       8.9       8.9       8.9       20.9       22.4       23.7	18.8       43.5       43.5       43.5       35.1       94.7       94.7       94.7       94.7       10.1       11.8       11.4       4.1       11.8       11.4       4.1       11.4       11.4       11.4       11.8       8.9       8.9       8.9       8.9       20.9       22.24       22.4       235.6	18.8       43.5       43.5       35.1       35.1       94.7       94.7       94.7       94.7       10.1       11.8       94.7       94.7       94.7       94.7       94.7       94.7       94.7       94.7       94.1       10.1       11.8       8.9       8.9       8.9       8.9       8.9       20.9       220.4       20.9       35.6       35.5	18.8       43.5       43.5       43.5       35.1       94.7       94.7       94.7       94.7       10.1       11.8       94.7       94.7       94.7       94.7       94.7       94.7       94.7       94.1       10.1       11.8       94.7       94.7       94.7       94.1       11.8       94.1       11.8       8.9       8.9       8.9       8.9       8.9       20.9       22.4       22.4       22.4       22.4       23.5.6       35.5       6.3	18.8       43.5       43.5       43.5       35.1       35.1       94.7       94.7       94.7       10.1       11.8       94.7       94.7       94.7       10.1       11.8       94.7       94.7       94.7       94.7       94.7       94.7       94.7       94.7       94.1       11.8       11.8       11.8       11.4       40.2       20.9       22.4       22.4       22.4       22.4       22.4       235.6       35.5       6.3       35.5       54.2
37.7 37.7		97.5 94.0	37.5 94.0 42.4 42.0	37.5         94.0           42.4         42.0           34.8         34.6	37.5     94.0       42.4     42.0       34.8     34.6       22.3     21.5	37.5     94.0       42.4     42.0       34.8     34.6       34.8     34.6       22.3     21.5       90.4     93.5	37.5     94.0       42.4     42.0       42.8     34.6       34.8     34.6       22.3     21.5       90.4     93.5       8.4     9.4	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     21.5       90.4     93.5       90.4     93.5       45.4     46.1	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       90.4     93.5       90.4     93.5       45.4     46.1       3.5     3.8	37.5     94.0       42.4     42.0       42.8     34.6       34.8     34.6       34.8     34.6       90.4     93.5       90.4     9.4       45.4     46.1       3.5     3.8       3.5     3.8	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       22.3     21.5       90.4     93.5       90.4     93.5       93.5     33.8       35     3.8       3.5     3.8       11.2     11.1       15.9     16.1	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       90.4     93.5       90.4     93.5       91.4     9.4       45.4     46.1       3.5     3.8       3.5     3.8       35.4     46.1       11.2     11.1       15.9     16.1       35.4     40.7	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       90.4     93.5       90.4     93.5       91.4     9.4       45.4     46.1       3.5     3.8       3.5     3.8       3.5     3.8       35.4     40.7       35.4     40.7       45.0     48.7	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       22.3     21.5       90.4     93.5       90.4     93.5       90.4     93.5       91.4     46.1       45.4     46.1       15.9     16.1       15.9     16.1       35.4     40.7       35.4     40.7       35.4     40.7       35.4     41.1	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       22.3     21.5       90.4     93.5       90.4     93.5       90.4     93.5       11.2     11.1       11.2     11.1       15.9     16.1       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.6     41.1       74.0     80.5	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       22.3     21.5       90.4     93.5       8.4     9.4       45.4     46.1       45.4     46.1       11.2     11.1       11.2     11.1       15.9     16.1       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.6     41.1       39.6     41.1       39.6     41.1       20.1     21.7	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       22.3     21.5       90.4     93.5       90.4     93.5       90.4     93.5       91.4     9.4       45.4     46.1       11.2     11.1       15.9     16.1       15.9     16.1       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       20.1     20.5       20.5     20.2	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       90.4     93.5       90.4     93.5       90.4     93.5       91.4     9.4       45.4     46.1       11.2     11.1       11.2     11.1       15.9     16.1       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     20.1       20.5     20.2       20.5     20.2	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       34.9     93.5       90.4     93.5       90.4     93.5       90.4     93.5       90.4     93.5       91.1     11.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     16.1       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     20.1       20.5     20.2       28.2     29.1       34.3     35.7	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       22.3     21.5       90.4     93.5       90.4     93.5       90.4     93.5       91.1     11.1       11.2     11.1       11.2     11.1       15.9     16.1       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     20.1       20.5     20.1       20.5     20.1       21.7     20.5       22.5     29.1       34.3     35.7       35.3     35.3	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       22.3     21.5       90.4     93.5       90.4     93.5       91.4     9.4       45.4     46.1       11.2     11.1       11.2     11.1       15.9     16.1       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     40.7       35.4     20.1       20.5     20.2       20.5     20.1       21.7     20.5       22.5     20.1       35.3     35.3       35.3     35.3       35.3     35.3       35.4     98.6	37.5     94.0       42.4     42.0       42.4     42.0       34.8     34.6       34.8     34.6       22.3     21.5       90.4     93.5       90.4     93.5       91.4     9.4       45.4     46.1       11.2     11.1       11.2     11.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     16.1       15.9     20.1       20.5     20.2       20.5     20.2       28.2     29.1       35.3     35.3       35.3     35.3       35.4     98.6       93.5     53.0
34.6 3		93.9 9	93.9 9 39.7 4	93.9 9 39.7 4 32.2 3	93.9 9 39.7 4 32.2 3 19.5 2	93.9 93.9 93.9 93.0 93.0 93.0 93.0 93.0	93.9 9 39.7 4 32.2 3 19.5 2 86.3 9 7.9	93.9     93.9       39.7     4       32.2     3       32.2     3       86.3     5       7.9     5       43.3     4	93.9         9           39.7         4           32.2         3           32.2         3           19.5         2           86.3         9           7.9         43.3           3.1         3.1	93.9     9       39.7     4       39.7     4       32.2     3       32.2     3       19.5     2       86.3     9       86.3     9       86.3     9       86.3     9       43.3     4       3.1     10.4	93.9     93.9       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.1     2       10.4     1       16.3     1	93.9     9       39.7     4       32.2     3       32.2     3       32.2     3       96.3     9       86.3     9       86.3     9       86.3     9       86.3     9       19.5     2       7.9     4       7.9     4       10.4     1       16.3     1       16.3     1       37.3     5	93.9     9       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       7.9     7       7.9     4       3.1     1       10.4     1       110.4     1       110.4     1       110.4     1       110.4     1       110.4     1	93.9     93.9       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.3     3       31     1       10.4     1       110.4     1       110.4     1       37.3     3       37.3     3	93.9     9       39.7     4       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.3     3       33.3     3       33.3     3       33.3     3       68.0     7	93.9     9       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       33.1     1       10.4     1       110.4     1       110.4     1       110.4     1       110.4     1       110.4     1       110.4     1       110.0     1       110.0     1	93.9     9       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       96.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     4       10.4     1       110.4     1       110.4     1       110.4     1       110.0     2       119.1     2	93.9     9       93.9     9       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       96.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       3.1     1       10.4     1       110.4     1       16.3     1       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.4     4       19.0     2       19.1     2       28.3     2	93.9     93.9       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.3     3       37.3     3       38.0     1       19.0     2       28.3     2       28.3     2       28.4     2       32.8     2	93.9     9       39.7     4       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       96.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       3.1     1       10.4     1       110.4     1       110.3     1       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       32.8     2       33.9     3       33.9     3	93.9     9       93.7     4       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       96.3     9       86.3     9       86.3     9       86.3     9       86.3     9       86.3     9       3.1     1       10.4     1       110.4     1       16.3     1       16.3     1       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       33.9     5       33.9     5       30.4     5	93.9     93.9       39.7     4       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       32.2     3       33.1     1       10.4     1       11.5     1       33.7     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       37.3     3       33.1     2       19.0     2       19.1     2       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3     3       33.3
25.1 30.5		91.1 91.3	91.1 91.3 37.0 39.0	91.1 91.3 37.0 39.0 30.2 31.0	91.1 91.3 37.0 39.0 30.2 31.0 18.3 20.0	91.1         91.3           37.0         39.0           30.2         31.0           18.3         20.0           75.0         80.0	91.1         91.3           37.0         39.0           30.2         31.0           18.3         20.0           75.0         80.0           8.2         8.4	91.1         91.3           37.0         39.0           30.2         31.0           18.3         20.0           75.0         80.0           8.2         8.4           38.0         41.1	91.1         91.3           37.0         39.0           37.1         39.0           30.2         31.0           18.3         20.0           75.0         80.0           75.0         80.0           38.0         41.1           9.9         2.8           9.9         2.8	91.1     91.3       37.0     39.0       30.2     31.0       18.3     20.0       75.0     80.0       75.1     8.4       8.2     8.4       38.0     41.1       9.9     2.8       9.9     2.8       9.9     10.1	91.1     91.3       37.0     39.0       30.2     31.0       18.3     20.0       75.0     80.0       75.0     80.0       38.0     41.1       38.0     41.1       9.9     2.8       9.8     10.1       27.8     14.0	91.1     91.3       37.0     39.0       37.1     39.0       30.2     31.0       18.3     20.0       75.0     80.0       75.0     80.0       8.2     8.4       38.0     41.1       9.9     2.8       9.9     2.8       9.3     2.8       32.5     35.6	91.1     91.3       37.0     39.0       30.2     31.0       18.3     20.0       75.0     80.0       75.0     80.0       38.2     8.4       38.0     41.1       9.9     2.8       9.9     2.8       9.9     2.8       38.0     41.1       38.1     10.1       27.8     10.1       36.5     35.6       36.5     39.7	91.1         91.3           37.0         39.0           30.2         31.0           18.3         20.0           75.0         80.0           8.2         8.4           38.0         41.1           9.9         2.8           9.9         2.8           9.9         2.8           38.0         41.4           38.0         41.4           38.0         41.4           38.0         31.0           38.0         32.6           30.9         32.5           30.9         32.9	91.1         91.3           37.0         39.0           37.1         39.0           30.2         31.0           18.3         20.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           8.2         8.4           38.0         41.1           9.9         2.8           9.9         2.8           32.5         35.6           36.5         39.7           30.9         32.9           30.9         32.9           30.9         32.9	91.1     91.3       37.0     39.0       37.0     39.0       30.2     31.0       18.3     20.0       75.0     80.0       8.2     8.4       38.0     41.1       9.9     2.8       9.9     2.8       9.9     2.8       38.0     41.1       38.0     41.1       38.0     41.1       38.0     31.1       38.0     32.5       30.9     32.9       30.9     32.9       30.9     32.9       19.6     19.6	91.1         91.3           37.0         39.0           37.0         39.0           30.2         31.0           18.3         20.0           75.0         80.0           8.2         8.4           38.0         41.1           38.0         41.1           38.0         41.1           38.0         10.1           27.8         10.1           27.8         10.1           37.5         35.6           36.5         39.7           30.9         32.9           18.6         19.6           18.3         19.5	91.1         91.3           37.0         39.0           37.0         39.0           37.1         39.0           30.2         31.0           18.3         20.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           8.2         8.4           38.0         41.1           9.9         2.8           9.9         2.8           9.9         2.8           38.0         41.1           38.0         41.1           38.0         41.1           39.3         39.7           36.5         39.7           36.5         39.7           36.5         39.7           36.9         60.8           18.6         19.6           18.3         19.5           23.6         26.8	91.1         91.3           37.0         39.0           37.0         39.0           30.2         31.0           18.3         20.0           75.0         80.0           8.2         8.4           38.0         41.1           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         3.2.6           30.9         32.9           30.9         32.9           18.6         19.6           18.3         19.5           28.8         30.7	91.1         91.3           37.0         39.0           37.0         39.0           30.2         31.0           18.3         20.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           8.2         8.4           38.0         41.1           9.9         2.8           9.9         2.8           9.9         2.8           30.1         32.5           30.2         33.7.           30.9         32.9           36.5         39.7           30.9         32.9           36.5         39.7           30.9         32.9           54.9         60.8           18.6         19.5           23.6         26.8           23.6         26.8           33.1         34.8	91.1         91.3           37.0         39.0           37.0         39.0           37.0         39.0           30.2         31.0           18.3         20.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           75.0         80.0           8.2         8.4           38.0         41.1           38.0         41.1           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         3.0.7           36.5         39.7           36.5         39.7           37.6         19.6           18.6         19.6           18.6         19.6           18.3         30.7           33.1         34.8           33.1         34.8           37.1         34.8	91.1         91.3           37.0         39.0           37.0         39.0           30.2         31.0           18.3         20.0           75.0         80.0           8.2         8.4           38.0         41.1           38.0         41.4           38.0         41.4           38.0         22.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.9         2.8           9.8         10.1           27.8         10.1           30.9         32.9           30.9         32.9           30.9         32.9           30.1         19.5           18.3         19.5           23.4         30.7           33.1         34.8           87.8         85.2           30.4         30.7
0 22.1		5 87.3	5 87.3 9 35.8	5 87.3 9 35.8 2 29.3	5 87.3 9 35.8 2 29.3 5 17.2	5 87.3 9 35.8 2 29.3 5 17.2 7 68.1	5 87.3 35.8 2 29.3 5 17.2 68.1 8.2 8.2	5 87.3 35.8 2 29.3 5 17.2 68.1 8.2 8 37.3	5 87.3 35.8 35.8 5 17.2 5 17.2 68.1 8 37.3 8 37.3 1 9.1	5 87.3 35.8 2 29.3 5 17.2 68.1 8 37.3 8 37.3 8 37.3 8 37.3	5     87.3       35.8     35.8       2     35.8       2     17.2       5     17.2       5     17.2       68.1     8.2       8     37.3       9.6     9.6       31.1     9.6	5     87.3       35.8     35.8       2     29.3       5     17.2       5     17.2       68.1     9.6       8     9.6       33.8     31.1       33.8     33.8	5     87.3       35.8     35.8       35.8     35.8       37.3     35.8       37.3     9.1       37.3     9.6       37.3     31.1       33.3     31.1       33.3     32.1	5     87.3       35.8     35.8       7     87.3       7     68.1       7     68.1       8     9.6       9.1     33.8       33.8     37.3       8     37.3       8     29.3       8     37.3       8     29.1       9.6     31.1       33.8     32.1       33.23     32.1	5     87.3       35.8     35.8       2     29.3       5     17.2       5     17.2       68.1     8.2       8.2     8.2       33.3     37.3       9.6     9.1       33.3     32.1       5     29.3       7     51.8	5     87.3       35.8     35.8       35.8     35.8       7     68.1       7     68.1       8.2     8.2       8.37.3     9.1       9.1     33.8       33.3     31.1       33.3     31.1       33.3     32.1       33.3     32.1       33.3     32.1       4     17.7	5     87.3       2     35.8       2     35.8       2     17.2       5     17.4       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       5     31.1       3     32.1       5     31.1       7     51.8       6     29.3       7     51.8       6     17.4	5     87.3       35.8     35.8       2     29.3       5     17.2       5     17.2       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       5     31.1       3     37.3       5     31.1       3     32.1       5     31.1       33.8     32.1       6     29.3       7     51.8       6     17.4       6     17.4       6     17.4	5     87.3       35.8     35.8       2     35.8       2     29.3       5     17.2       35.8     9.6       37.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     32.1       4     17.7       5     51.8       6     17.4       6     17.4       7     28.2       28.2     28.2	5     87.3       35.8     35.8       2     35.8       2     29.3       5     17.2       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       5     31.1       3     32.1       5     31.1       3     32.1       6     29.3       6     29.3       7     51.8       6     28.2       6     28.2       8     22.24       6     32.9	5     87.3       35.8     35.8       7     7       68.1     17.2       5     17.2       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.3       3     37.4       9.6     9.6       11     33.8       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3     32.1       3	5     87.3       7     87.3       7     35.8       7     7       87.3     35.8       7     7       87.3     9.1       9.1     33.8       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     37.3       33.3     32.1       33.3     32.1       4     17.4       5     51.8       5     22.4       5     22.4       5     32.9       5     32.9       5     32.9
22.2 22.(	07 5 05 5	21.00 C.10	36.3 34.5	36.3 34.5 36.3 34.5 29.8 29.5	87.3 001. 36.3 34.5 29.8 29.2 17.9 15.4	87.3 000. 36.3 34.5 29.8 29.2 17.9 15.5 67.7 65.7	67.2 00.5 36.3 34.5 29.8 29.5 67.7 65.5 7.8 8.3	67.3         00.5           36.3         34.5           36.3         34.5           17.9         15.6           67.7         65.1           7.8         8.3           36.1         35.4	67.3         00.5           36.3         34.5           36.3         34.5           29.8         29.2           67.7         65.7           7.8         8.3           36.1         35.8           9.6         9.4	67.3         00.5           36.3         34.5           36.3         34.5           29.8         29.2           17.9         15.5           67.7         65.7           7.8         8.3           36.1         35.8           36.1         35.8           9.6         9.4           12.0         9.3	67.3         00.5           36.3         34.5           36.3         34.5           17.9         15.6           67.7         65.7           67.7         65.7           36.1         35.8           36.1         35.8           9.6         9.4           12.0         9.3           33.0         33.3	67         00           36.3         34.5           36.3         34.5           29.8         29.2           17.9         15.5           67.7         65.7           67.7         65.7           36.1         35.8           36.1         35.8           36.1         35.8           37.0         9.3           33.0         33.3           33.4         35.1	or         ou         ou           36.3         34.5           36.3         34.5           29.8         29.2           17.9         15.5           67.7         65.7           7.8         8.3           36.1         35.8           36.1         35.8           36.1         35.8           37.0         9.4           33.0         33.3           33.4         35.3           33.2         31.3	67.5         005.3         34.5           36.3         34.5         29.2           29.8         29.2         15.4           17.9         15.7         65.7           7.8         8.3         35.8           36.1         35.8         9.4           9.6         9.4         9.3           33.2         33.3         33.5           33.2         33.3         33.5           28.8         33.2         31.5           28.8         33.2         33.5           28.8         27.4         27.4 <td>67.3         60.5         00.5           36.3         34.5           36.3         34.5           17.9         15.6           67.7         65.7           67.7         65.7           7.8         8.3           36.1         35.6           9.6         9.4           12.0         9.3           33.1         35.8           33.2         33.3           33.4         35.7           33.2         33.3           33.2         31.5           28.8         27.6           53.0         51.5</td> <td>or         ou         ou           36.3         34.5           36.3         34.5           77.9         15.8           77.8         8.3           36.1         35.8           36.1         35.8           36.1         35.8           36.1         35.8           33.0         9.4           9.6         9.4           33.2         33.3           33.2         33.3           33.2         33.3           33.2         31.5           28.8         27.6           28.8         27.6           20.3         19.4</td> <td>67.3         60.3         60.3           36.3         34.5           36.3         34.5           17.9         15.6           67.7         65.7           67.7         65.7           7.8         8.3           36.1         35.8           36.1         35.8           33.0         33.4           33.1         35.8           33.2         33.3           33.3         33.4           33.2         33.3           33.2         33.3           33.2         33.5           28.8         27.6           53.0         51.1           53.0         51.1           20.3         19.4           21.2         17.4</td> <td>67.3         60.3         60.3           36.3         34.5           36.3         34.5           17.9         15.5           17.9         15.5           7.8         8.3           36.1         35.5           36.1         35.6           9.6         9.4           33.0         33.4           33.1         35.8           33.2         33.3           33.3         33.4           33.2         33.4           33.2         33.3           33.2         33.4           33.2         33.4           33.2         33.4           33.2         33.4           33.5         33.4           33.5         31.4           28.8         27.6           28.8         27.6           20.3         19.7           20.3         19.7           21.2         17.4</td> <td>67.3         00.5         00.5           36.3         34.5         34.5           77.9         15.5         15.5           77.8         8.3         34.5           78.1         35.8         35.8           36.1         35.8         35.8           36.1         35.8         33.3           33.0         9.4         9.4           33.2         33.3         33.3           33.2         31.5         57.4           20.3         33.2         31.5           23.2         31.5         51.1           20.3         19.4         20.3           21.2         17.4         21.1           21.2         21.1         21.1           21.2         21.1         22.1           21.2         21.1         26.4</td> <td>67.3         60.5         7         65.3         34.5           36.3         34.5         29.8         29.2           77.9         15.6         15.7         65.7           77.9         15.7         65.7         65.7           7.8         8.3         35.8         35.4           36.1         35.8         35.4         35.4           33.0         9.4         9.4         9.4           33.1         35.1         35.3         33.2           33.2         33.3         33.2         33.2         33.2           33.2         33.3         33.2         33.2         33.2           28.8         27.6         51.7         56.1         17.6           29.9         22.1         26.9         22.5         29.9         22.5           35.1         33.5         33.5         33.5         33.5</td> <td>67.3         00.5         00.5           36.3         34.5           36.3         34.5           77.9         15.5           67.7         65.7           7.8         8.3           36.1         35.5           36.1         35.5           36.1         35.7           36.1         35.8           37.0         9.3           33.2         33.3           33.4         35.1           33.2         33.3           33.2         33.3           33.2         33.2           33.2         31.5           28.8         27.4           28.8         27.4           28.8         27.4           28.9         27.4           28.8         27.4           29.0         51.1           20.3         19.4           27.1         26.4           27.1         26.4           27.1         26.4           29.1         79.4</td> <td>67.3         00.5         00.5           36.3         34.5           36.3         34.5           77.9         15.5           77.9         15.6           77.9         15.6           78.1         35.8           36.1         35.8           36.1         35.6           9.6         9.4           33.2         33.2           33.2         33.3           33.2         33.3           33.2         33.3           33.2         33.2           33.2         31.5           53.0         51.1           20.3         19.4           20.3         19.4           21.2         17.4           21.2         21.1           21.2         21.1           21.2         21.1           21.1         22.4           21.1         26.4           33.4         33.6           33.5         19.4           21.1         26.4           21.1         79.5           70.5         68.4</td>	67.3         60.5         00.5           36.3         34.5           36.3         34.5           17.9         15.6           67.7         65.7           67.7         65.7           7.8         8.3           36.1         35.6           9.6         9.4           12.0         9.3           33.1         35.8           33.2         33.3           33.4         35.7           33.2         33.3           33.2         31.5           28.8         27.6           53.0         51.5	or         ou         ou           36.3         34.5           36.3         34.5           77.9         15.8           77.8         8.3           36.1         35.8           36.1         35.8           36.1         35.8           36.1         35.8           33.0         9.4           9.6         9.4           33.2         33.3           33.2         33.3           33.2         33.3           33.2         31.5           28.8         27.6           28.8         27.6           20.3         19.4	67.3         60.3         60.3           36.3         34.5           36.3         34.5           17.9         15.6           67.7         65.7           67.7         65.7           7.8         8.3           36.1         35.8           36.1         35.8           33.0         33.4           33.1         35.8           33.2         33.3           33.3         33.4           33.2         33.3           33.2         33.3           33.2         33.5           28.8         27.6           53.0         51.1           53.0         51.1           20.3         19.4           21.2         17.4	67.3         60.3         60.3           36.3         34.5           36.3         34.5           17.9         15.5           17.9         15.5           7.8         8.3           36.1         35.5           36.1         35.6           9.6         9.4           33.0         33.4           33.1         35.8           33.2         33.3           33.3         33.4           33.2         33.4           33.2         33.3           33.2         33.4           33.2         33.4           33.2         33.4           33.2         33.4           33.5         33.4           33.5         31.4           28.8         27.6           28.8         27.6           20.3         19.7           20.3         19.7           21.2         17.4	67.3         00.5         00.5           36.3         34.5         34.5           77.9         15.5         15.5           77.8         8.3         34.5           78.1         35.8         35.8           36.1         35.8         35.8           36.1         35.8         33.3           33.0         9.4         9.4           33.2         33.3         33.3           33.2         31.5         57.4           20.3         33.2         31.5           23.2         31.5         51.1           20.3         19.4         20.3           21.2         17.4         21.1           21.2         21.1         21.1           21.2         21.1         22.1           21.2         21.1         26.4	67.3         60.5         7         65.3         34.5           36.3         34.5         29.8         29.2           77.9         15.6         15.7         65.7           77.9         15.7         65.7         65.7           7.8         8.3         35.8         35.4           36.1         35.8         35.4         35.4           33.0         9.4         9.4         9.4           33.1         35.1         35.3         33.2           33.2         33.3         33.2         33.2         33.2           33.2         33.3         33.2         33.2         33.2           28.8         27.6         51.7         56.1         17.6           29.9         22.1         26.9         22.5         29.9         22.5           35.1         33.5         33.5         33.5         33.5	67.3         00.5         00.5           36.3         34.5           36.3         34.5           77.9         15.5           67.7         65.7           7.8         8.3           36.1         35.5           36.1         35.5           36.1         35.7           36.1         35.8           37.0         9.3           33.2         33.3           33.4         35.1           33.2         33.3           33.2         33.3           33.2         33.2           33.2         31.5           28.8         27.4           28.8         27.4           28.8         27.4           28.9         27.4           28.8         27.4           29.0         51.1           20.3         19.4           27.1         26.4           27.1         26.4           27.1         26.4           29.1         79.4	67.3         00.5         00.5           36.3         34.5           36.3         34.5           77.9         15.5           77.9         15.6           77.9         15.6           78.1         35.8           36.1         35.8           36.1         35.6           9.6         9.4           33.2         33.2           33.2         33.3           33.2         33.3           33.2         33.3           33.2         33.2           33.2         31.5           53.0         51.1           20.3         19.4           20.3         19.4           21.2         17.4           21.2         21.1           21.2         21.1           21.2         21.1           21.1         22.4           21.1         26.4           33.4         33.6           33.5         19.4           21.1         26.4           21.1         79.5           70.5         68.4
Adams 2		Allegheny 8	Allegheny 8 Armstrong 3	Allegheny 8 Armstrong 3 Beaver 2	Allegheny 8 Armstrong 3 Beaver 2 Bedford 1	Allegheny 8 Armstrong 3 Beaver 2 Bedford 1 Berks 6	Allegheny 8 Armstrong 3 Beaver 2 Bedford 1 Berks 6 Blair	Allegheny 8 Armstrong 3 Beaver 2 Bedford 1 Berks 6 Blair 6 Bradford 3	Allegheny 8 Armstrong 3 Beaver 2 Berks 6 Balair 3 Bradford 3 Bucks 3	Allegheny 8 Armstrong 3 Beaver 2 Bedford 1 Blair 6 Bucks 6 Bucks 3 Bucks 1 Butler 1	Allegheny 8 Armstrong 3 Beaver 2 Bedford 1 Blair 6 Blair 3 Bucks 6 Bucks 6 Cambria 3	Allegheny     8       Armstrong     3       Armstrong     3       Beaver     2       Bedford     1       Balair     3       Bucks     6       Bucks     5       Bucks     5       Cambria     3	Allegheny     8       Armstrong     8       Armstrong     3       Beaver     2       Beaver     2       Beaver     2       Batic     1       Bradford     1       Bucks     5       Butler     1       Cambria     3       Carbon     3	Allegheny     8       Armstrong     8       Armstrong     3       Beater     2       Beatord     1       Batic     1       Blair     3       Bucks     6       Bucks     3       Bucks     3       Cambria     3       Cambria     3       Cambria     3       Carbon     3       Centre     2	Allegheny     8       Armstrong     8       Armstrong     8       Beaver     2       Bedford     1       Bair     6       Blair     3       Bucks     6       Bucks     6       Cambria     3       Carbon     3       Carbon     3       Carbon     3       Centre     2       Chester     2	Allegheny     8       Armstrong     3       Armstrong     3       Bedford     1       Bedford     1       Barks     6       Barks     6       Barks     6       Bradford     3       Bucks     3       Bucks     3       Cambria     3       Carbon     3       Carbon     3       Carbon     3       Carbon     3       Carbon     3       Carbon     3       Clarion     3	Allegheny     8       Armstrong     3       Armstrong     3       Bedford     1       Bedford     1       Barks     6       Barks     6       Bair     3       Bucks     3       Bucks     3       Bucks     3       Cambrid     3       Cambrid     3       Cambrid     3       Carbon     3       Cleartield     2       Cleartield     2	Allegheny     8       Armstrong     3       Armstrong     3       Beaver     2       Beaver     2       Beaver     2       Beaver     2       Batic     1       Blair     3       Bucks     6       Bucks     6       Bucks     3       Cameron     3       Carbon     3       Carbon     3       Carbon     3       Carbon     3       Clarion     2       Clarion     2       Clarion     2       Clarion     2	Allegheny     B       Armstrong     Armstrong       Armstrong     Beaver       Bedford     1       Barks     6       Barks     6       Barks     6       Barks     6       Barks     6       Bradford     1       Bucks     6       Butler     1       Cambria     3       Carbon     3       Columbia     2       Columbia     2	Allegheny     B       Armstrong     Armstrong       Armstrong     Beaver       Bedford     1       Bedford     1       Barks     6       Barks     6       Barks     6       Barks     6       Barks     6       Barks     6       Bucks     3       Bucks     3       Cambria     3       Cambria     3       Carbon     3       Carbon     3       Carbon     3       Carbon     3       Carbon     3       Carbon     3       Clarion     2       Clarion     2       Clinton     2       Clinton     2       Columbia     2       Crawford     3	Allegheny     B       Armstrong     Armstrong       Armstrong     Beaver       Bedford     1       Backs     6       Barks     6       Barks     6       Barks     6       Barks     6       Bradford     1       Bucks     5       Butler     1       Cambria     3       Carbon     3       Clarion     2       Clarion     2       Columbia     2       Cumberland     3	Allegheny     8       Armstrong     8       Armstrong     3       Beaver     2       Bedford     1       Barks     6       Buter     1       Buter     1       Buter     3       Cambria     3       Cambria     3       Carbon     3       Carbon     3       Carbon     3       Carton     3       Carbon     3       Carbon     3       Carbon     3       Carton     3       Carton     3       Carton     3       Clarton     2       Clarton     2       Clarton     2       Clarton     2       Columbia     2       Cumberland     7       Dauphin     7

# Appendix C (Continued)

1988	26.4	12.2	14.4	41.9	9.8	16.0	21.4	29.8	14.6	26.5	16.3	29.9	20.9	27.2	12.1	12.7	10.3	29.6	22.4	18.7	17.5	11.6	5.8	9.4	8.4	10.4	12.2
1989	27.9	11.5	14.1	39.5	0.6	15.1	21.3	29.2	14.1	26.3	15.5	26.6	18.3	24.7	11.2	11.6	9.5	67.7	20.6	16.6	16.8	20.5	5.3	8.9	8.1	9.3	12.1
1990	28.4	11.1	13.9	42.4	8.3	26.4	18.4	29.1	13.1	27.2	14.0	24.9	18.2	23.9	10.7	11.9	8.7	60.1	19.4	16.4	16.5	20.3	5.3	7.8	8.5	8.6	11.7
1991	27.5	10.6	13.8	41.5	7.8	24.6	19.2	27.9	14.1	25.3	12.8	23.5	18.2	23.4	10.0	47.4	8.2	62.5	19.3	16.1	16.4	20.3	5.3	8.3	51.7	8.5	11.6
1992	25.4	10.4	13.4	42.1	7.5	21.6	19.4	26.6	13.2	25.5	12.0	22.5	18.0	21.5	6.6	48.1	8.0	60.7	19.5	15.0	14.0	21.5	5.3	7.9	52.4	8.0	11.1
1993	21.8	9.9	13.6	37.7	7.3	20.2	36.9	26.3	13.1	23.0	18.1	22.2	17.3	20.9	9.6	50.3	7.7	57.9	17.3	14.4	12.9	21.3	5.4	8.0	53.3	7.6	9.8
1994	21.7	9.7	13.7	38.9	7.0	20.0	31.9	22.8	13.0	25.0	17.4	22.8	16.9	18.8	9.6	50.1	7.8	55.7	16.0	13.4	12.4	21.9	5.3	10.5	55.6	7.6	10.5
1995	21.4	9.4	12.5	32.4	7.2	19.8	31.9	22.8	11.8	22.2	16.5	22.4	16.6	17.7	9.6	53.0 <sup>a</sup>	7.5	55.0	16.4	12.8	12.9	22.3	5.4	10.6	53.8	7.4	9.4
1996	19.0	8.7	11.8	32.1	7.4	20.8	32.1	22.1	11.1	21.2	15.2	20.7	16.2	16.0	9.4	52.9	7.4	53.8	15.8	12.0	13.9	23.3	5.3	10.2	55.9	6.9	9.9
1997	19.0	8.9	11.0	30.7	7.4	18.2	29.5	21.8	10.9	20.5	15.8	20.0	97.6	15.7	9.5	50.6	7.5	53.6	14.8	11.4	12.0	23.9	5.4	10.9	53.5	7.0	10.0
1998	17.2	8.5	10.6	29.7	7.3	17.6	27.7	20.5	16.7	20.4	14.1	21.2	92.6	15.8	9.2	49.3	7.5	6.69	25.5	10.7	11.1	23.7	96.4	10.1	50.0	7.1	13.1
1999	19.1	8.4	10.3	28.0	7.0	15.5	28.1	19.5	15.2	20.1	14.3	20.3	93.3	18.1	9.2	48.6	7.6	67.7	23.8	10.1	53.4	23.4	93.6	9.6	48.5	6.9	13.6
2000	18.4	8.2	10.5	24.5	6.9	14.7	26.1	17.5	15.0	19.4	13.2	20.9	91.8	16.6	9.1	47.2	7.7	69.7	23.8	9.2	53.0	22.7	89.3	9.4	47.4	6.8	12.5
2001	19.1	7.9	26.0	21.8	16.9	13.7	26.3	18.3	15.1	17.9	13.3	21.1	91.0	15.8	8.7	46.2	7.9	67.3	24.0	9.0	52.4	21.3	84.6	9.3	46.0	13.6	95.7
2002	20.0	7.8	25.8	21.2	15.5	50.7	23.8	16.7	14.1	19.7	13.2	21.3	85.9	15.5	8.4	44.7	7.2	62.9	22.7	27.5	51.0	20.2	76.7	9.7	42.6	13.9	93.4
2003	19.8	91.8	97.5	21.1	14.5	50.4	88.7	15.9	13.7	18.8	17.7	19.2	81.7	93.0	8.2	40.8	6.8	62.4	22.5	28.6	49.3	17.9	68.7	8.8	39.2	13.4	91.0
2004	19.0	88.5	91.0	22.9	13.0	45.4	82.4	14.7	13.0	17.2	15.6	18.6	75.9	91.2	8.0	36.6	6.5	60.4	23.5	28.1	47.8	16.3	60.4	8.5	36.4	12.3	86.2
2005	18.3	84.8	87.5	20.7	10.7	38.3	82.6	13.4	11.9	54.0	16.1	16.8	82.1	87.7	14.7	31.7	5.8	91.2	91.5	27.2	45.8	14.1	53.4	10.1	31.5	27.5	75.0
2006	37.7	83.3	85.4	19.2	9.8	33.4	86.4	12.7	16.2	53.5	16.0	14.1	76.6	87.8	13.6	27.9	5.0	86.2	89.8	27.3	45.4	12.8	50.7	87.5	29.1	22.1	73.3
2007	40.1	82.8	85.4	23.8	10.4	33.5	80.4	11.6	16.8	48.9	15.8	15.0	73.6	89.2	13.5	27.0	4.8	80.0	88.7	28.4	43.7	12.8	50.8	85.1	27.7	21.7	67.2
2008	38.3	79.5	82.2	19.6	11.6	33.3	71.5	12.1	16.7	50.7	14.5	16.2	73.9	72.5	13.4	28.6	7.3	83.8	81.2	30.7	46.5	13.5	54.0	72.9	29.7	22.6	67.1
County	EIK	Erie	Fayette	Forest	Franklin	Fulton	Greene	Huntingdon	Indiana	Jefferson	Juniata	Lackawanna	Lancaster	Lawrence	Lebanon	Lehigh	Luzerne	Lycoming	McKean	Mercer	Mifflin	Monroe	Montgomery	Montour	Northampton	Northumberland	Perry

# Appendix C (Continued)

1988	28.2	11.7	20.5	21.0	9.7	15.7	41.2	14.2	15.7	15.2	25.0	44.1	26.8	11.7	39.2	17.8	4.9
1989	27.6	9.8	18.5	18.0	8.6	14.9	36.1	12.4	14.1	15.2	24.8	47.6	25.5	10.8	38.0	15.8	84.5
1990	27.8	28.1	17.1	17.7	7.9	15.1	30.9	11.4	41.1	13.3	25.0	48.0	25.8	10.7	36.4	15.2	81.0
1991	28.4	28.0	17.2	16.1	7.9	14.0	35.3	10.4	40.4	13.2	24.1	46.6	26.6	10.5	34.9	13.8	77.8
1992	28.8	27.5	16.9	17.1	7.8	12.5	31.9	10.6	38.4	12.4	25.5	45.3	22.4	10.7	32.9	14.0	76.6
1993	28.6	34.7	13.7	15.5	6.9	11.4	33.4	10.5	39.8	22.9	23.5	47.3	22.6	10.7	30.4	12.2	75.0
1994	28.7	34.2	14.1	15.4	6.8	11.9	37.0	51.7	37.4	22.1	22.9	45.6	22.1	10.1	31.0	13.0	72.4
1995	29.6	36.5	14.5	14.9	6.4	11.8	34.7	50.3	38.7	21.6	22.7	45.4	21.8	9.6	30.8	12.4	72.5
1996	30.3	30.3	13.5	14.2	6.2	10.9	35.6	52.3	36.9	20.5	22.1	45.1	22.1	9.6	28.5	12.2	69.6
1997	28.9	31.4	13.3	46.3	19.6	12.3	31.7	50.9	37.2	20.8	20.3	43.3	19.3	9.5	26.7	29.8	70.0
1998	30.0	32.8	12.8	45.5	19.1	46.8	28.5	49.2	34.8	18.5	19.7	41.6	19.4	8.8	26.0	28.3	94.6
1999	29.2	30.7	11.1	45.7	18.8	45.3	27.5	47.8	33.2	18.2	18.2	39.0	18.6	8.6	23.7	29.5	94.0
2000	28.7	28.9	10.8	46.1	18.1	44.8	24.2	47.3	31.5	17.9	19.9	37.2	17.7	8.8	23.1	28.2	91.6
2001	31.4	27.8	10.8	46.6	17.7	43.2	23.2	45.7	30.2	17.5	96.9 <sup>i</sup>	36.5	16.5	0.6	22.7	29.3	90.9
2002	29.5	24.4	42.0	45.0	17.5	42.7	24.4	45.3	94.8	16.2	94.3	37.0	16.2	9.1	22.2	25.2	85.8
2003	27.3	22.7	42.2	43.2	16.4	40.5	23.4	41.4	90.4	16.2	92.1	36.8	15.4	8.2	21.1	23.7	80.9
2004	29.7	21.0	39.5	41.4	15.9	38.1	84.2	39.0	84.6	14.6	6.06	35.6	14.3	7.6	20.5	22.8	75.0
2005	28.6	18.3	36.8	40.4	15.2	36.9	65.9	35.2	79.9	14.6	95.7	34.1	13.7	81.3	19.6	21.8	72.2
2006	28.4	16.2	35.7	38.2	14.1	34.4	71.5	33.8	75.0	88.8	88.7	34.1	13.3	75.7	19.8	20.2	76.1
2007	28.2	16.2	35.0	37.3	19.8	33.6	64.7	33.7	73.0	86.4	94.5	33.8	13.2	72.9	20.4	19.9	76.0
2008	32.7	17.1	34.4	39.9	17.6	33.5	60.09	32.7	70.7	74.5	91.0	34.6	13.8	64.4	21.9	21.0	78.5
County	Philadelphia	Pike	Potter	Schuylkill	Snyder	Somerset	Sullivan	Susquehanna	Tioga	Union	Venango	Warren	Washington	Wayne	Westmoreland	Wyoming	York

APPENDIX D

# Coefficient of Dispersion. by County

	1988	53.8	24.2	48.2	32.9	50.0	32.9	32.5	36.3	26.6	37.0	42.2	35.9	44.4	22.0	29.4	48.8	46.4	34.3	32.8	37.2	26.8	27.2	33.9
	1989	52.7	23.1	50.5	34.7	49.1	32.3	31.3	38.1	22.9	37.8	43.2	33.3	43.9	21.3	27.9	45.5	37.8	34.6	36.0	37.3	27.3	27.5	32.1
	1990	45.8	23.6	51.8	33.9	47.2	31.4	31.7	38.8	22.	37.1	43.7	40.4	41.7	21.3	26.8	50.1	37.0	32.2	33.0	38.8	25.8	28.8	35.1
	1991	œ	20	48	34	50	32	32	37	21	33	43	42	39	21	25	44	36	32	32	40	25	28	31
	1992	7	24	50	34	47	30	32	37	18	34	47	34	42	21	25	46	37	33	24	39	25	26	30
	1993	20	24	50	35	44	29	32	33	17	36	43	36	41	24	25	43	39	33	26	39	25	29	30
	1994	21	27	51	35	42	24	35	28	17	33	46	40	40	24	24	38	40	35	30	38	24	26	32
5	1995	21	28	48	37	47	19	33	28	18	32	46	35	39	19	24	44	38	37	28	38	25	27	36
200	1996	23	29	43	36	43	17	33	31	17	31	47	39	41	19	23	34	39	34	27	38	23	26	33
<b>7</b> (8)	1997	20	29	31	34	47	19	30	28	17	30	45	34	42	18	23	36	39	34	27	40	25	27	36
gh 200	1998	21.7	27.7	34.5	38.3	44.7	15.0	31.0	28.9	16.1	29.5	46.7	37.8	43.1	16.6	13.2	38.2	40.3	36.8	27.6	39.0	25.5	27.3	35.0
Throu	1999	21.32	28.27	30.67	30.48	47.25	16.07	31.58	23.14	17.27	28.54	48.38	32.58	41.12	15.27	10.85	37.89	40.84	32.84	28.54	36.19	25.00	27.03	36.56
(1988	2000	20.49	29.62	30.16	35.18	46.46	15.77	32.57	22.23	19.02	26.94	48.33	37.88	44.60	16.91	12.27	37.84	42.67	36.56	27.27	36.37	24.44	29.02	18.54
	2001	21.06	19.05	29.97	36.82	46.00	16.87	31.17	25.31	19.47	26.03	46.64	39.43	29.88	14.52	13.35	40.92	35.64	33.33	28.26	36.91	11.30	29.84	19.15
	2002	19.36	19.76	31.76	38.36	46.09	18.21	27.26	25.66	20.00	30.53	48.17	36.20	27.9	14.72	15.06	37.36	37.56	33.65	27.81	37.53	11.00	19.62	21.53
)	2003	21.50	20.22	33.52	38.69	42.66	20.35	28.10	25.42	18.70	27.59	50.12	43.24	29.16	14.28	17.02	38.26	36.12	34.80	28.35	36.16	12.72	19.68	23.77
	2004	24.09	20.14	30.69	39.06	43.35	19.41	32.16	28.27	24.48	37.07	57.32	44.91	35.21	18.41	17.97	47.12	43.53	40.85	28.72	38.79	13.79	18.61	25.72
	2005	28.8	22.3	34.7	40.5	43.5	21.6	30.0	29.1	20.4	31.8	49.0	41.0	39.8	18.8	18.3	39.3	49.1	38.6	30.9	37.6	12.1	19.8	26.3
	2006	27.9	30.2	33.3	40.8	46.3	24.3	31.0	30.3	23.4	32.1	51.5	49.4	39.8	21.2	17.6	49.7	49.4	39.3	31.8	36.4	13.1	21.0	27.8
	2007	NA																						
	2008	25.9	26.9	34.9	41.1	51.6	25.1	28.0	34.3	19.0	36.7	61.9	33.5	36.2	21.7	18.7	46.4	52.2	61.2	34.2	39.7	13.5	22.6	28.1
	County	Adams	Allegheny	Armstrong	Beaver	Bedford	Berks	Blair	Bradford	Bucks	Butler	Cambria	Cameron	Carbon	Centre	Chester	Clarion	Clearfield	Clinton	Columbia	Crawford	Cumberland	Dauphin	Delaware

# Appendix D (Continued)

1988	40.7	27.7	44.6	47.2	27.5	49.6	46.6	35.4	39.7	42.1	43.7	45.9	20.1	45.6	28.2	23.8	40.8	30.6	43.6	42.4	37.0	51.4	21.7	33.9	34.4	41.9	37.5
1989	44.5	26.9	44.9	46.6	27.3	46.6	44.5	38.1	36.2	41.2	45.5	48.8	19.3	45.6	30.2	23.8	38.8	23.7	32.8	39.8	39.0	39.4	20.3	30.8	33.1	41.9	38.6
1990	45.6	27.4	46.5	47.4	28.2	18.1	42.4	41.7	35.4	43.6	46.3	47.7	19.3	44.7	31.3	23.4	39.1	19.3	43.1	41.2	37.1	38.3	19.6	29.7	32.9	41.3	38.6
1991	47	27	45	47	28	18	42	38	42	45	40	45	19	45	27	15	39	24	44	43	35	29	17	32	27	43	39
1992	44	27	44	44	29	29	46	41	38	43	68	44	19	45	27	20	37	25	44	41	31	29	18	30	26	42	39
1993	43	27	49	46	31	29	44	40	40	43	42	43	21	45	27	22	38	24	40	44	30	28	18	32	28	41	38
1994	45	30	51	49	30	24	40	40	42	41	38	46	20	44	27	21	38	26	40	42	33	26	18	32	25	46	40
1995	45	30	51	47	29	24	38	39	39	40	40	46	21	43	27	25	39	25	43	44	34	26	18	35	23	45	40
1996	44	28	49	48	26	38	44	39	38	43	42	44	19	43	25	24	38	27	44	42	39	29	18	35	25	42	38
1997	44	29	48	51	25	32	43	40	40	40	42	43	11	43	26	22	39	27	42	43	32	29	19	30	23	44	32
1998	43.1	27.5	48.5	50.8	26.0	27.8	39.3	37.7	40.4	44.8	40.4	45.5	11.4	45.9	28.3	21.8	41.6	16.4	20.5	44.7	32.4	29.0	13.6	31.5	21.1	46.1	31.8
1999	46.91	29.04	48.83	47.53	27.28	27.22	45.05	41.48	38.28	43.53	39.65	43.94	11.72	45.08	26.73	22.67	40.78	17.56	9.95	41.58	19.88	30.42	13.70	31.66	20.39	45.07	29.70
2000	43.96	28.90	52.76	47.67	26.81	25.37	44.32	38.17	39.13	39.02	43.03	47.55	11.50	43.49	27.80	21.71	42.20	13.70	15.71	39.78	21.28	31.76	14.99	35.10	20.23	43.52	37.44
2001	47.22	27.84	47.34	47.52	26.56	23.86	43.72	43.16	37.01	39.27	40.52	51.70	11.61	41.77	25.51	21.59	45.44	14.33	16.33	40.77	20.47	30.28	15.36	36.23	20.52	45.29	14.28
2002	45.55	29.10	49.20	48.63	27.09	27.39	41.68	41.19	35.88	45.93	40.45	50.18	14.59	42.51	25.59	21.58	41.94	16.26	13.61	40.94	20.94	32.37	16.85	31.13	22.5	47.62	14.93
2003	49.29	19.66	28.67	47.67	26.89	24.24	23.29	38.80	37.37	43.35	37.85	48.07	14.70	24.52	27.19	22.81	41.47	18.06	18.8	42.41	22.73	31.06	16.85	32.04	17.24	46.94	22.53
2004	55.78	20.89	31.41	54.49	32.38	24.11	31.51	46.30	45.22	54.11	53.35	65.09	17.02	26.75	35.47	21.93	57.06	16.22	19.52	43.52	24.22	35.39	17.58	47.35	20.85	54.65	25.41
2005	44.2	20.3	30.7	49.9	29.7	28.5	53.8	51.3	38.3	47.2	42.9	50.0	14.5	26.5	29.0	21.7	40.7	17.0	19.7	42.5	24.2	30.1	16.8	33.4	20.4	48.4	26.4
2006	37.9	21.3	31.8	49.1	29.9	36.1	24.2	51.8	38.2	46.7	39.6	46.6	14.2	28.9	35.4	20.3	41.2	17.6	19.3	45.3	25.2	37.6	18.0	25.5	20.6	46.4	29.2
2007	AN																										
2008	37.7	13.4	30.5	46.7	28.7	20.5	25.8	38.9	42.7	41.2	38.2	61.0	15.1	20.2	29.6	21.8	49.4	21.2	19.1	56.2	29.9	33.1	16.5	17.1	22.3	46.7	28.1
County	EIK	Erie	Fayette	Forest	Franklin	Fulton	Greene	Huntingdon	Indiana	Jefferson	Juniata	Lackawanna	Lancaster	Lawrence	Lebanon	Lehigh	Luzerne	Lycoming	McKean	Mercer	Mifflin	Monroe	Montgomery	Montour	Northampton	Northumberland	Perry

# Appendix D (Continued)

															1		
1988	35.4	52.4	46.1	47.2	34.3	41.0	34.7	22.1	46.3	36.4	45.4	35.4	ΝA	50.9	34.9	38.9	33.6
1989	32.2	51.3	40.5	47.4	33.4	42.2	34.3	28.0	47.0	44.3	43.6	16.4	23.9	54.6	34.4	32.0	20.7
1990	35.3	47.6	45.6	49.7	32.1	44.0	33.3	29.2	31.0	37.6	43.2	19.8	24.2	53.5	35.0	40.6	17.6
1991	34	44	45	47	32	41	35	26	32	41	43	20	28	52	36	37	22
1992	34	45	45	46	31	36	32	29	29	36	44	13	29	51	35	34	20
1993	36	42	41	46	30	32	37	35	34	38	42	18	14	48	35	32	17
1994	36	40	41	46	31	41	34	25	32	39	44	31	32	43	37	33	16
1995	35	41	45	44	31	41	32	24	34	35	46	29	21	42	38	31	18
1996	36	34	44	44	29	43	29	31	36	34	44	32	22	41	34	31	19
1997	34	36	41	26	32	49	31	27	35	35	45	33	38	40	36	29	20
1998	34.0	38.7	42.1	33.5	31.4	27.4	27.1	27.3	36.6	26.0	46.2	31.0	35.4	38.2	35.4	29.1	12.4
1999	32.75	36.25	42.52	27.68	31.48	29.31	22.90	25.41	34.81	27.08	46.42	29.64	35.05	39.18	34.64	33.05	18.41
2000	35.33	37.12	45.74	29.41	32.20	28.88	30.28	26.13	34.06	25.75	50.75	28.97	36.89	39.31	34.97	33.68	13.97
2001	41.14	36.54	47.22	28.26	31.46	28.93	28.49	24.55	35.43	28.68	7.63	27.75	35.27	43.11	35.94	35.01	14.52
2002	34.50	33.81	43.73	29.80	33.25	29.74	29.26	26.73	18.23	31.29	13.83	30.45	37.16	45.38	35.99	29.24	15.36
2003	35.70	40.44	43.86	30.76	33.41	31.11	37.86	26.98	22.38	31.11	13.96	30.86	37.07	46.09	36.16	24.00	15.92
2004	37.97	50.78	48.86	33.57	40.88	34.06	29.60	30.33	24.75	33.28	23.76	31.34	42.80	74.83	53.70	31.05	18.89
2005	40.6	44.7	43.5	34.1	35.8	34.9	23.5	30.6	28.9	29.5	17.9	30.0	38.6	29.2	37.8	29.8	20.6
2006	39.5	49.9	50.9	34.6	37.4	35.6	33.4	32.5	32.7	19.3	21.2	31.9	42.8	31.0	40.7	27.5	17.8
2007	NA																
2008	43.3	38.8	38.1	37.6	36.6	39.7	23.6	36.7	31.7	18.9	28.3	38.2	41.9	21.6	47.5	38.9	18.8
County	Philadelphia	Pike	Potter	Schuylkill	Snyder	Somerset	Sullivan	Susquehanna	Tioga	Union	Venango	Warren	Washington	Wayne	Westmoreland	Wyoming	York

Source: Developed by LB&FC staff using information obtained from the Pennsylvania State Tax Equalization Board.

### **APPENDIX E**

# Price Related Differential, by County (1988 Through 2008)

1988	ΝA																						
1989	NA																						
1990	NA																						
1991	NA																						
1992	1.01	1.08	1.39	1.21	1.08	1.06	1.06	1.17	1.01	1.04	1.29	1.24	1.11	1.03	1.02	1.31	1.12	1.13	1.05	1.11	0.96	1.02	1.11
1993	1.01	1.06	1.40	1.20	1.19	1.06	1.05	1.17	1.02	1.06	1.13	1.16	1.13	1.03	1.01	0.99	1.16	1.13	1.05	1.07	0.97	1.04	1.11
1994	1.04	1.09	1.30	1.21	1.24	1.09	1.03	1.10	1.07	1.08	1.27	1.21	1.15	1.03	1.02	1.10	1.22	1.17	1.06	1.09	0.98	1.01	1.14
1995	1.05	1.12	1.32	1.23	1.24	1.05	1.04	1.04	1.03	1.14	1.27	1.19	1.11	1.12	1.06	1.24	1.17	1.15	1.07	1.12	0.97	1.02	1.16
1996	1.04	1.07	1.26	1.22	1.11	1.05	1.05	1.11	1.06	1.11	1.23	1.15	1.13	1.05	1.03	1.12	1.19	1.11	1.04	1.12	0.97	1.03	1.16
1997	1.03	1.10	1.14	1.19	1.32	1.07	1.02	1.07	1.04	1.07	1.21	1.08	1.15	1.09	1.03	1.13	1.13	1.11	1.03	1.15	0.98	1.01	1.20
1998	NA																						
1999	20.49	29.62	30.16	35.18	46.46	15.77	32.57	22.23	19.02	26.94	48.33	37.88	44.60	16.91	12.27	37.84	42.67	36.56	27.27	36.37	24.44	29.02	18.54
2000	NA																						
2001	NA																						
2002	1.02	1.07	1.14	1.25	1.20	1.06	0.99	1.06	1.02	1.09	1.29	1.15	1.03	1.03	1.03	1.10	1.18	1.14	1.08	1.11	1.00	1.08	1.11
2003	1.04	1.08	1.16	1.24	1.13	1.09	0.98	1.08	1.03	1.08	1.29	1.26	1.10	1.02	1.02	1.14	1.12	1.16	1.04	1.07	1.00	1.08	1.12
2004	1.03	1.08	1.15	1.24	1.22	1.08	1.03	1.08	1.01	1.08	1.23	1.28	1.13	1.02	1.02	1.14	1.26	1.19	1.07	1.14	1.00	1.04	1.11
2005	1.03	1.10	1.20	1.27	1.17	1.06	1.00	1.09	1.03	1.10	1.26	1.22	1.15	1.02	1.01	1.15	1.12	1.19	1.08	1.13	1.00	1.06	1.10
2006	1.02	1.12	1.18	1.26	1.09	1.11	1.04	1.09	1.02	1.14	1.30	1.27	1.07	1.05	1.00	1.15	1.26	1.24	1.16	1.15	1.00	1.04	1.11
2007	NA																						
2008	0.98	0.94	0.94	0.98	0.91	1.02	0.98	0.95	1.27	1.12	8.58	0.75	0.92	0.98	0.97	1.05	1.11	1.31	0.97	0.94	1.00	1.00	1.19
County	Adams	Allegheny	Armstrong	Beaver	Bedford	Berks	Blair	Bradford	Bucks	Butler	Cambria	Cameron	Carbon	Centre	Chester	Clarion	Clearfield	Clinton	Columbia	Crawford	Cumberland	Dauphin	Delaware

1988	NA																										
1989	NA																										
1990	NA																										
1991	NA																										
1992	1.25	1.09	1.26	1.31	0.97	1.09	1.29	1.26	1.17	1.24	1.03	1.18	1.01	1.23	1.00	1.01	1.10	1.07	1.22	1.28	1.08	1.05	1.04	1.06	1.08	1.25	1.02
1993	1.25	1.07	1.32	1.41	0.97	1.09	1.29	1.23	1.19	1.14	1.04	1.15	1.01	1.27	1.00	1.01	1.09	1.06	1.23	1.26	1.07	1.06	1.04	0.99	1.11	1.15	0.95
1994	1.41	1.08	1.30	1.41	0.97	1.10	1.22	1.18	1.22	1.16	1.10	1.18	0.99	1.19	1.02	1.02	1.05	1.06	1.22	1.29	1.12	1.05	1.04	1.02	1.10	1.20	1.05
1995	1.19	1.11	1.36	1.29	1.00	1.12	1.22	1.23	1.14	1.15	1.08	1.19	66.0	1.17	1.01	1.04	1.12	1.04	1.24	1.33	1.10	1.06	1.04	0.95	1.08	1.21	1.01
1996	1.25	1.08	1.36	1.35	1.01	1.19	1.35	1.20	1.15	1.17	1.03	1.15	1.00	1.14	1.00	1.06	1.08	1.07	1.22	1.29	1.14	1.06	1.06	1.04	1.11	1.21	1.05
1997	1.24	1.11	1.21	1.49	1.02	1.10	1.31	1.20	1.19	1.13	1.04	1.08	1.01	1.22	1.00	1.05	1.09	1.05	1.24	1.25	1.05	1.09	1.08	0.87	1.09	1.19	1.06
1998	NA																										
1999	43.96	28.90	52.76	49.67	26.81	25.37	44.32	38.17	39.13	39.02	43.03	47.55	11.50	43.49	27.80	21.71	42.20	13.70	15.71	39.78	21.28	31.76	14.99	35.10	20.23	43.52	37.44
2000	NA																										
2001	AN																										
2002	1.43	1.06	1.31	1.31	1.01	0.99	1.25	1.10	1.10	1.19	1.03	1.23	1.03	1.19	1.03	1.06	1.16	1.03	1.00	1.21	1.05	1.12	1.08	1.02	1.12	1.25	1.00
2003	1.36	1.06	1.15	1.23	1.00	1.01	1.08	1.15	1.09	1.25	1.06	1.31	1.03	1.07	1.03	1.07	1.12	1.03	1.08	1.32	1.10	1.11	1.08	66.0	1.06	1.22	1.04
2004	1.27	1.05	1.12	1.35	1.07	1.04	1.16	1.21	1.15	1.20	0.97	1.32	1.06	1.10	1.11	1.08	1.17	1.03	1.07	1.38	1.11	1.13	1.07	1.04	1.09	1.25	1.07
2005	1.27	1.07	1.14	1.36	1.03	1.17	1.08	1.18	1.11	1.29	1.15	1.34	1.04	1.09	1.14	1.07	1.12	1.06	1.07	1.35	1.10	1.12	1.06	1.04	1.07	1.46	1.07
2006	1.18	1.06	1.17	1.26	1.01	0.95	1.11	1.20	1.13	1.30	1.09	1.25	1.04	1.11	1.07	1.05	1.12	1.06	1.08	1.31	1.13	1.10	1.05	1.13	1.07	1.25	1.07
2007	NA								<b>-</b>	<b>-</b>			<b>-</b>					<b>-</b>		<b>-</b>	<b>-</b>				<b>-</b>		
2008	0.94	0.93	0.99	1.03	0.97	0.89	0.63	1.06	1.02	1.23	1.00	0.96	1.00	0.94	1.06	0.97	8.54	1.09	0.97	0.96	0.96	16.90	2.75	0.92	0.97	0.98	0.97
County	EIK	Erie	Fayette	Forest	Franklin	Fulton	Greene	Huntingdon	Indiana	Jefferson	Juniata	Lackawanna	Lancaster	Lawrence	Lebanon	Lehigh	Luzerne	Lycoming	McKean	Mercer	Mifflin	Monroe	Montgomery	Montour	Northampton	Northumberland	Perry

Appendix E (Continued)

1988																	
1989																	
1990																	
1991																	
1992	1.19	1.33	1.31	1.24	1.07	1.14	1.03	1.09	1.07	1.14	1.14	1.03	1.13	1.45	1.14	1.18	1.03
1993	1.15	1.25	1.19	1.21	1.04	1.11	1.17	1.10	1.12	1.05	1.17	1.06	1.03	1.37	1.12	1.08	1.02
1994	1.20	1.24	1.22	1.19	1.14	1.17	1.12	1.09	1.11	1.16	1.16	1.19	1.15	1.29	1.16	1.12	1.01
1995	1.15	1.27	1.39	1.18	1.00	1.16	1.10	1.07	1.14	1.14	1.30	1.14	1.07	1.14	1.18	1.09	1.02
1996	1.19	1.15	1.32	1.18	1.07	1.20	1.10	1.10	1.15	1.11	1.25	1.17	1.09	1.19	1.16	1.07	1.00
1997	1.13	1.22	1.25	1.06	1.05	1.26	1.11	1.05	1.15	1.17	1.25	1.16	1.15	1.21	1.16	1.07	1.02
1998	NA																
1999	35.33	37.12	45.74	29.41	32.20	28.88	30.28	26.13	34.06	25.75	50.75	28.97	36.89	39.31	34.97	33.68	13.97
2000	NA																
2001	NA																
2002	1.15	1.20	1.24	1.09	1.08	1.12	1.02	1.10	1.00	1.02	1.02	1.10	1.12	1.33	1.12	1.06	1.02
2003	1.16	1.28	1.25	1.12	1.09	1.13	1.08	1.12	1.05	1.06	1.04	1.11	1.12	1.31	1.16	1.04	1.02
2004	1.17	1.37	1.20	1.13	1.11	1.20	1.13	1.15	1.06	1.07	1.10	1.11	1.12	1.37	1.15	1.10	1.04
2005	1.18	1.34	1.21	1.16	1.09	1.19	1.08	1.14	1.08	1.04	1.05	1.16	1.15	1.14	1.16	1.08	1.06
2006	1.17	1.27	1.24	1.20	1.08	1.21	1.16	1.16	1.08	1.04	1.04	1.18	1.13	1.14	1.20	1.09	1.04
2007	AN																
2008	96.58	1.05	1.60	0.96	0.92	0.94	0.91	0.94	1.04	0.96	0.94	0.97	1.07	0.98	4.17	1.01	66.0
County	Philadelphia	Pike	Potter	Schuylkill	Snyder	Somerset	Sullivan	Susquehanna	Tioga	Union	Venango	Warren	Washington	Wayne	Westmoreland	Wyoming	York

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Source: Developed by LB&FC staff using information obtained from the Pennsylvania State Tax Equalization Board.

### APPENDIX F

### **Glossary of Terms**

**Appraisal** – A systematic examination of the factors which influence the value or utility of real estate. The act of estimating the monetary value of property.

**CAMA – Computer Assisted Mass Appraisal –** A system of appraising property that incorporates computer supported statistical analyses to assist the appraiser in estimating value. May include the use of mathematical models and can incorporate computer supported statistical analyses such as multiple regression analysis and adaptive estimation procedures to assist the appraiser in estimating value.

**Coefficient of Dispersion (COD)** – The average deviation of a group of observations such as assessment ratios from the mean or median ratio expressed as a percentage of that mean or median; the standard measure of assessment equity.

**Confidence Interval** – A range of values, calculated from the sample observations that are believed, with a particular probability, to contain the true population parameter (mean, median, COD); a measure of the precision of the sampling process.

**Equalization** – The process by which a governmental body attempts to ensure that property under its jurisdiction is assessed at the same assessment ratio or at the ratio required by law. Equalization is often used to bring various classes of property to the same level of assessment and to equalize tax burdens.

**Direct Equalization** – The process of converting ratio study results into adjustment factors and changing locally determined appraised or assessed values to more nearly reflect market value or the legally required level of assessment. An adjustment factor is applied to the assessed value of each property before the local tax rate is applied.

Tax rates can be equalized across municipalities. The proportion of tax revenue required from each municipality is determined based on its proportion of equalized market value. The required tax revenue from each municipality is divided by the total assessed value of all taxable property in the municipality to set the tax rate which is then applied to the assessed value of individual properties within that municipality.

**Indirect Equalization** – The process of computing hypothetical values that represent the oversight agency's best estimate of taxable value. The total value of all property in a jurisdiction is adjusted using a calculated equalization factor determined from ratio studies. Indirect equalization allows proper distribution of intergovernmental transfer payments despite different levels of appraisal between jurisdictions or property classes.

Level of Assessment - The common or overall ratio of assessed values to market values.

**Market Value** - The most probable price, expressed in terms of money, that a property would bring if sold in the open market in an arm's-length transaction between a willing seller and a willing buyer, both of whom are knowledgeable concerning all the uses to which it is adapted and for which it is capable of being used.

**Millage** – A tax rate expressed as a percentage of a dollar. One mill is one-thousandth of one dollar or one-tenth of one cent. A 2 percent tax rate is 20 mills per dollar.

**Modeling** – In appraisal, a representation in words or an equation that explains the relationship between value and variables that represents factors of supply and demand.

### Appendix F (Continued)

**Neighborhood -** A geographic area defined to ensure that the properties are homogeneous and share important locational characteristics that influence property values.

**Predetermined Ratio** - A factor set by the county commissioners and used to adjust the appraised value of property by a standard percentage before tax rates are applied.

**Price Related Differential (PRD)** – The mean divided by the weighted mean. The PRD can indicate inequity in the appraisal of low and high value properties. PRDs above 1.03 indicate that low value properties are being appraised at a greater percentage of market value than higher value properties; PRDs below 0.98 indicate that low value properties are appraised at a lower percentage of market value than high value properties.

**Ratio Studies** – Sales based studies designed to evaluate appraisal performance; a study of the relationship between appraised or assessed values and market values.

**Valuation** - (1) The process of estimating the value, market, investment, insured, or other properly defined value, of a specific parcel or parcels of real estate as of a given date. (2) The process or business of appraising, of making estimates of the value of something. The value usually required to be estimated is market value.

**Sales Approach** – The sales approach is based on the theory that a purchaser would pay no more for a property than the amount required to purchase a comparable property. The value of a property is estimated by analyzing the sales prices of similar properties.

**Cost Approach** – The cost approach is based on the theory that a purchaser would pay no more for a property than the cost to build the structure and purchase the land. An estimate of the cost to rebuild or reconstruct a structure, less depreciation, is added to the estimated value of the land to determine the fair market value.

**Income Approach** – The income approach is based on the theory that a purchaser of commercial property will pay no more than the property is worth as an investment and that the seller will accept no less than it is worth as an investment. This approach is used for commercial properties and uses income and expense data to estimate the property's income production. A capitalization rate, gross income multiplier, or discounted cash flow is used to convert an estimate of future income to current fair market value.

Source: Developed by LB&FC staff using the IAAO Standards.

### APPENDIX G

### Property Taxes on Owner-Occupied Housing for Pennsylvania and Surrounding States (2004-2007)

2007:

	Median Property Taxes Paid	National <u>Rank</u>	Median Home <u>Value</u>	Taxes as % of Home <u>Value</u>	National <u>Rank</u>	Median Income for <u>Home Owners</u>	Taxes as % of <u>Income</u>	National <u>Rank</u>
United States	\$1,838	:	\$194,300	0.95%	ł	\$63,059	2.91%	;
Delaware	1,001	39	239,700	0.42	47	66,426	1.51	42
Maryland	2,436	13	347,000	0.70	31	84,474	2.88	22
New Jersey	6,082	~	372,300	1.63	5	85,852	7.08	~
New York	3,486	4	311,000	1.12	17	72,845	4.79	5
Ohio.	1,794	22	137,800	1.30	12	N/A <sup>a</sup>	3.03	20
Pennsylvania	2,159	15	155,000	1.39	10	59,543	3.63	13
West Virginia	446	48	96,000	0.46	46	44,120	1.01	48
<u>2006</u> :	Median		Median	Taxes as		Median	Taxes as	
	Property <u>Taxes Paid</u>	National <u>Rank</u>	Home <u>Value</u>	% of Home <u>Value</u>	National <u>Rank</u>	Income for <u>Home Owners</u>	% of <u>Income</u>	National <u>Rank</u>
United States	\$1,742	:	\$185,200	0.94%	:	\$60,483	0.94%	:
Delaware	863	39	227,100	0.38	47	61,432	1.40	43
Maryland	2,334	12	334,700	0.70	33	80,607	2.90	21
New Jersey	5,773	~	366,600	1.57	5	82,116	7.03	-
New York	3,301	4	303,400	1.09	16	70,092	4.71	7
Ohio	1,710	21	135,200	1.26	13	56,233	3.04	19
Pennsylvania	2,057	15	145,200	1.42	6	56,301	3.65	1
West Virginia	422	48	89,700	0.47	45	41,901	1.01	48

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2005:

<u>2005</u> :	Median Property Taxes Paid	National <u>Rank</u>	Median Home <u>Value</u>	Taxes as % of Home <u>Value</u>	National <u>Rank</u>	Median Income for <u>Home Owners</u>	Taxes as % of <u>Income</u>	National <u>Rank</u>
United States	\$1,614	:	\$167,500	0.96%	1	\$57,843	2.79%	ł
Delaware	806	39	203,800	0.40	47	63,361	1.27	45
Maryland	2,159	13	280,200	0.77	29	77,349	2.79	21
New Jersey	5,352	~	333,900	1.60	9	79,234	6.75	~
New York	3,076	4	258,900	1.19	16	67,029	4.59	7
Ohio	1,598	21	129,600	1.23	15	54,522	2.93	20
Pennsylvania	1,937	14	131,900	1.47	6	54,282	3.57	10
West Virginia	389	48	84,400	0.46	46	40,088	0.97	48
<u>2004</u> :	Median Property <u>Taxes Paid</u>	National <u>Rank</u>	Median Home <u>Value</u>	Taxes as % of Home <u>Value</u>	National <u>Rank</u>	Median Income for <u>Home Owners</u>	Taxes as % of <u>Income</u>	National <u>Rank</u>
United States	\$1,485	:	\$151,366	0.98%	:	\$55,572	2.67%	1
Delaware	775	40	171,589	0.45	47	60,428	1.28	44
Maryland	1,966	13	216,529	0.91	25	70,972	2.77	23
New Jersey	5,023	~	291,294	1.72	4	77,488	6.48	~
New York	2,886	5	220,981	1.31	13	64,026	4.51	7
Ohio	1,461	21	122,384	1.19	17	52,402	2.79	22
Pennsylvania	1,805	15	116,520	1.55	80	52,195	3.46	11
West Virginia	381	48	81,826	0.47	46	37,578	1.01	46

<sup>a</sup>Not Available.

Source: Tax Foundation Calculation of U.S. Census Bureau data.
## APPENDIX H

### Calculation of the STEB Certified Aggregate Market Values and the STEB Ratio

Each year STEB calculates the Certified Market Value of taxable property in the Commonwealth to be used in equalizing property valuation for the allocation of state subsidies to school districts.

In odd numbered certification years STEB adjusts the school district's prior year's market value based on (1) adjustments in the school district's market value to conform with new data; (2) property going on or off of the tax rolls; (3) increases in real estate values over the two year period; and evidence of real estate wealth not previously evident or available. The following steps are used in this calculation:

1. For each valid sale, the assessed value is divided by the selling price to obtain the assessed value to sales ratio.

$$\frac{AV}{SP} = AS$$

2. The assessed value to sales ratios are summed and divided by the number of sales to obtain the average assessed value to sales ratio.

$$\frac{\sum AS}{\text{Number of Sales}} = AS_{Avg}$$

The average assessed value to sales ratio is multiplied by four to obtain the high limit and the average assessed value to sales ratio is divided by four to obtain the lower limit.

$$4(AS_{Avg}) = Upper Limit$$

$$\frac{AS_{Avg}}{4} = Lower\ Limit$$

- 4. Sales with ratios outside of the upper and lower limits are eliminated.
  - a. The upper limit is set at 200% in counties where the predetermined ratio is 100%. All sales ratios up to 200% are included in the calculations for these counties.
- 5. The sales price to assessed value ratio by property type is derived from the remaining valid sales. These ratios are summed and divided by the number of sales to get an average ratio for each property type in the municipality. These are aggregated over a five year period to obtain the average ratio used in the next step.

#### Appendix H (Continued)

 Previous year assessed values are adjusted to aggregate sales value in current dollars using the average assessed value to sales ratio for each property class calculated over the past five years to obtain the revised prior year market values.

$$(PSV_r).$$

7. All revised prior year aggregate sales values in current dollars are summed and the total is discounted\* by 15% to obtain the discounted aggregate sales value in current dollars ( $PASV_r$ ).

$$\Sigma PSV_r(.15) = PASV_r$$

8. The prior year aggregate market value is added to two times the prior year certified market value. This total is divided by three to obtain the three year average market value.

$$\frac{2(PMVc) + PASV_r}{3} = MV_A$$

9. Current year adjustments( $ADJ_{cy}$ ) are converted to aggregate sales values in current dollars and are discounted by 15%. They are then added to the three year average market value to obtain the current year certified market value ( $CMV_{cy}$ ).

$$ADJ_{cv}$$
 (.15) +  $MV_A = CMV_{cv}$ 

10. The current year assessed value  $(AV_{cy})$  is divided by the current year certified market value to obtain the STEB ratio.

$$\frac{AV_{cy}}{CMV_{cy}} = STEB \ Ratio$$

In even numbered certification years STEB adjusts the school district's prior year's market value based only on changes from the prior year's market value resulting from the addition or deletion of properties on the tax rolls.

<sup>&</sup>lt;sup>a</sup>In order to assure conservatism and realism in determining aggregate market value, STEB discounts the aggregate sales values of all properties state wide by 15% when determining aggregate market values for school subsidy purposes.

Source: Developed by LB&FC staff from information provided by STEB.

#### **APPENDIX I**

#### **Common Level Ratio Calculation**

STEB calculates the Common Level Ratio for each county based on all valid property sales for the previous year.

1. For each valid sale, the assessed value is divided by the selling price to obtain the assessed value to sales ratio.

$$\frac{AV}{SP} = AS$$

2. The assessed value to sales ratios are summed and divided by the number of sales to obtain the average assessed value to sales ratio.

$$\frac{\sum AS}{\text{Number of Sales}} = AS_{Avg}$$

The average assessed value to sales ratio is multiplied by four to obtain the high limit and the average assessed value to sales ratio is divided by four to obtain the lower limit.

$$4(AS_{Avg}) = Upper Limit$$

$$\frac{AS_{Avg}}{4} = Lower \ Limit$$

- 4. Sales with ratios outside of the upper and lower limits are eliminated.
  - a. The upper limit is set at 200% in counties where the predetermined ratio is 100%. All sales ratios up to 200% are included in the calculations for these counties.
- 5. The common level ratio is then calculated using the trimmed list of assessed value to sales ratios.

$$\frac{\sum AS_{T}}{\text{Number of Sales}_{T}} = CLR$$

Source: Developed by LB&FC staff from information provided by STEB.

# APPENDIX J

### STEB's Coefficient of Dispersion (COD) Calculation

STEB calculates the Coefficient of Dispersion for each county based on the same assessed value to sales price ratios that were used in the calculation of the common level ratio.<sup>a</sup>

1. Calculate the difference between each individual assessed value to sales ratio and the common level ratio for the county to obtain the deviations from the common level ratio.

r		r
Sales Ratio	CLR	Difference
.56	.412	.148
.45	.412	.038
.40	.412	.012
.35	.412	.062
.30	.412	.112
		.372

2. Add together all of the deviations as though they were positive numbers.

3. Divide the sum of the deviations by the total number of deviations to obtain the mean deviation.

$$\frac{.372}{5} = .0744$$

4. Divide the mean deviation by the common level ratio to obtain the coefficient of dispersion.

$$\frac{.0744}{.412} = .181 \ Coefficient \ of \ dispersion$$

<sup>&</sup>lt;sup>a</sup> This is the list of ratios after the high and low outliers have been trimmed from the list.

Source: Developed by LB&FC staff from information provided by STEB.