

Standard on Property Tax Policy

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International Association of Assessing Officers

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[1] For example, USPAP, CUSPAP, IVS, EVS.

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At the time of the 2010 adoption of the standard by the IAAO Executive Board, the IAAO Technical Standards Committee was composed of Chair Joe Hapgood, CAE; Nancy C. Tomberlin; Bill Marchand; Robert Gloudemans; and Mary Reavey. The majority of revisions were done in 2009. At that time the IAAO Technical Standards Committee was composed of Chair Nancy C. Tomberlin; Joe Hapgood, CAE; Alan S. Dornfest, AAS; Bill Marchand; and Mary Reavey. The standard also benefited from recommendations and thorough review by Wayne Llewellyn, CAE.

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Standard on Property Tax Policy

1. SCOPE

This standard focuses on elements of property tax policy and their influence on the equitable distribution of an annual property tax. These elements include the legal responsibility for paying the property tax, the kinds of property subject to the tax, and the basis of assessment— particularly the market value standard. Regarding the kinds of property subject to taxation, the standard deals chiefly with ordinary real (immovable) property. Less attention is paid to the taxation of personal (movable) property, the property of enterprises like railroads and utilities, and subsurface minerals. The standard addresses measures to control the amount of taxation and to provide targeted relief, such as exemptions and abatements, differential (fractional) assessment ratios and tax rates, and limits on taxes and assessed values. The standard discusses how tax policy affects the administration of the tax and vice versa, including the role of administrators in shaping tax policy. Policy issues affecting administration include the division of responsibilities among levels of government, including assessment, valuation, collection, equalization, appeals, and public engagement. The standard includes recommendations on ways to evaluate existing tax structures and proposed reforms.

2. INTRODUCTION

The core principles of property tax policy include the following:

- Assessments based on market value with regular and frequent (preferably annual) updates
- A broad tax base with limited exemptions
- Relief programs that are targeted, easily accessed by those who need assistance, and administratively efficient
- An assessment function that is proficient in mass appraisal techniques, well managed, transparent, and adequately funded.

This standard is intended to guide property tax administrators and tax policy analysts in comprehending the various features and options in annual taxes on property. It is an update of the 2010 edition of the Standard on Property Tax Policy. It aims to incorporate greater international relevance, stronger links to underlying principles of taxation and administration, and recognition of newer issues and features of property tax systems.

Reflecting its history, this standard is colored by features of property tax systems found in federal countries like Canada and the United States. Parts of it dealing with intergovernmental arrangements apply chiefly to the highly decentralized administrative structures found in the United States. Some system characteristics are well established, and there is no interest in changing them. Elsewhere, property tax systems are still under development.

Because a property tax system feature may be known by different terms, even within a country, Section 11, the Glossary addresses such issues. Appendix A, “Property Tax System Features Globally,” highlights patterns among key system features for taxing property annually around the world based (Almy 2013). Appendix B, “Categories of Taxes on Property,” addresses how two international organizations classify property taxes.

A property tax system has three functions: it identifies and links taxable subjects (taxpayers) and objects (taxable property); it produces tax assessments; and it collects taxes. If any of these functions is performed poorly, tax equity suffers, revenue generation may also suffer, and public acceptance is eroded. A tax system may be thought of as comprising policies, procedures, data, technology, and people. The time dimension is important as well.

From another perspective, the property tax system consists of an administrative or internal control component, an assessment component, and a collection component. The administrative component controls the other two. The assessment component determines who is to pay a tax and the size of each taxpayer’s share of total taxes. The valuation system and the administration of exemptions and relief measures are parts of the assessment component. The collection component receives tax payments, accounts for them, and deposits receipts in the appropriate treasury.

2.1 Evaluative Principles and Economic Concepts

Principles of a well-designed property tax system fall into four categories:

- Administrative
- Social justice
- Economic
- Political.

Perhaps the paramount principle is *fairness*. Fairness, however, has several dimensions, including uniformity, which can be indicated by uniformity in assessment ratios, nominal tax rates, and effective property tax rates.¹ Other fairness concepts include *ability to pay*, *benefits received*, and *administrative evenhandedness*.

Related administrative principles include certainty (in the sense that payments cannot be delayed without risk), *convenience* (of payment), and *cost-effectiveness* (low administrative and compliance costs and high accuracy and compliance). *Openness* and transparency contribute to public acceptance. Policies and practices should be *legitimate*, that is, legally sanctioned and not arbitrary. (*Fundamentals of Tax Policy* contains a further discussion of the qualities of a good tax system [Almy, Dornfest, and Kenyon 2008, 27] .)

The principles can be an expression of, or in conflict with, several economic concepts. These include horizontal equity, which holds that taxpayers who are economically similar should have similar (uniform) tax burdens, and vertical equity, which holds that taxpayers in different economic circumstances and who have differing abilities to pay should bear different tax burdens. This principle underlies progressive income taxes (and progressive property tax rate structures). In contrast, regressive systems are those in which the tax burden imposed on low-income taxpayers is relatively greater than that on high-income taxpayers.

A common criticism of property taxes is that they are inherently regressive. Analysis of this contention has led to debates about the ultimate incidence of a property tax, rather than its initial incidence. There is consensus that *regressive assessments* lead to regressive taxation. Assessments are said to be regressive when ratios of assessed values to sale prices (or tax rates) are higher for low-value properties than for high-value ones. This is an important area of inquiry in sales ratio studies.

There are several accessible discussions of the tax regressivity issue. Chapter 5 in *Fundamentals of Tax Policy* summarizes the schools of thought (views) about ultimate incidence and the elasticity of property taxes (Almy, Dornfest, and Kenyon 2008). A *Good Tax* contains both a strongly argued case for property taxes and a summary of the regressivity issue (Youngman 2016). In general, most economists consider the property tax to be at least somewhat progressive, falling mainly on owners of capital who tend to have greater ability to pay or higher income than renters.

Related to debates about the uniformity of effective property tax rates is the economic concept of a neutral tax—one that does not distort economic decisions about spending and investment. For example, differentials in burdens between one class of property and another may lead taxpayers to invest more heavily in the class with lower taxes than in the class with higher taxes. Differential tax burdens are believed to reduce economic efficiency and to cause an overall welfare loss because assets are suboptimally allocated. Yet policies favoring one class of property or people over others are common. Nevertheless, a uniform, broad-based property tax is likely to be more neutral than one with many exemptions and relief measures.

In principle, when effective tax rates are uniform, governments can more easily identify a publicly acceptable rate of tax. When effective tax rates are not uniform, which also occurs when valuations are out of date, governments take their

¹ Effective tax rates are taxes as a percentage of market value.

rate-setting cues from relatively over-valued taxpayers. As a result, they decide upon a general rate of tax that is lower than the rate the under-valued would accept. Consequently, less revenue can be raised than when valuations are uniform. Emerging from these general principles are more specific ones. Principles that apply to specific features of a property tax system are listed at the beginning of Sections 3 through 8 or major subsections of this standard.

2.2 The Role of Property Tax

As with all major taxes, the main purpose of annual taxes on property is to provide revenue to fund governmental services. The tax has—or can have—several related purposes.

A Balanced Revenue System. The best revenue systems are balanced; that is, the system includes significant taxes on income, consumption, and wealth, as well as on other sources of revenue. A tax on the capital value or current market value of real (immovable) property can be an important part of such a system. Because stocks of wealth fluctuate less dramatically than incomes and consumption, the base for property taxes is comparatively stable, which is attractive during economic swings. The real property portion of the tax base is immobile, which can contribute to stability in a globally interconnected economy. The fact that property taxes generally are assessed administratively, rather than by taxpayers, also contributes to the stability of the base. Moreover, property taxes are generally more progressive than consumption taxes such as sales taxes and most other user charges

Local Government Autonomy and Accountability and the Need for a Dedicated Source of Revenue. Local performance of governmental functions is an expression of the subsidiarity principle. This principle holds that governmental decisions should be made at the level of government closest to where they will have their effect, for example, in a local area rather than in a whole country. The aims are to make government more responsive to citizens' needs and to make it easier for citizens to hold government accountable. This is a fundamental principle in federal governments. It follows that local and intermediate governments (such as provinces and states) need dedicated sources of revenue. The portion of the property tax levied against immovable property is ideal in this regard because of the fixed nature of land and buildings; it is clear which governmental unit is entitled to the revenue from a particular property. Local government services are often provided to properties or their owners and occupants. The tax captures for local government some of the increases in the value of property that are partially created by public expenditures.

Harmony with Social and Economic Policies. Property taxes often are made deliberately non-neutral in order to further some social or economic policy. Common objectives include making housing more affordable (particularly for families with limited income); encouraging good works by nonprofit organizations; encouraging economic development; preserving farmland, forests, open space, wetlands, and historic buildings; protecting the environment; and expressing gratitude for military service in times of war.

An ancillary benefit of a recurrent tax on property is the valuable information that is captured. If up-to-date and publicly available, the information has many governmental and private uses. Satisfying private needs for land and building data can provide a source of revenue to defray part of the costs of administration.

Visibility. Property tax systems are generally more open than administrative systems for self-assessed taxes, such as income taxes. For example, property owners can examine their assessments and those of nearby properties. An appeals system exists to afford taxpayers the opportunity to appeal their assessments. In addition, the taxpayer usually receives a bill that shows the entire liability, thus making the full magnitude of the tax obvious. This is not the case with taxes that are collected in small amounts as part of the purchase cost (sales or consumption taxes) or are withheld from pay throughout the year (income tax). This visibility helps to focus attention on, and thereby improve, the overall accountability of government

2.3 Challenges

Property tax policy makers face difficult challenges, whether in evaluating a specific policy (proposed or enacted) or in undertaking to improve or reform a property tax system. One challenge is the visibility of property taxes in the ways that they traditionally have been assessed and collected; the total amount each taxpayer owes typically is published and collected in a few installments. This visibility is the root of the perceived unpopularity of the property tax. As noted above, however, it has been argued that visibility makes property taxes more manageable—hence more popular in a way, as taxes are nowhere loved (Youngman 2016, 1). However, this salience can divert attention from tractable problems, such as inequities in the distribution of property tax burdens (for a deeper discussion of the salience question, see Cabral and Hoxby [2012]).

A legacy of obsolete technology and work processes, whether voiced in law or custom, can also impede change. Requiring that taxes be paid in one or two payments is but one example. Beliefs that revaluations are too expensive to be done frequently is another.²

A related misconception is that the cost of administering a property tax is too expensive in relation to the cost of administering income and consumption taxes. When compliance costs (costs borne by taxpayers, not the tax administration) also are considered, overall costs are about equal. The property tax is difficult to avoid if serious effort is exerted to collect it. Analysis of collection failures in other taxes indicates serious underpayments and compliance administration difficulties. Many property tax systems have features that taxpayers and their elected representatives may find difficult to grasp. For example, assessment and taxation processes may ignore the liquidity of certain taxpayers. It matters not that property is a form of wealth if the taxpayer lacks the ready cash to pay the taxes due. As discussed, property tax systems abound in relief measures for this problem. In the case of a revaluation, people often wrongly equate the percentage change in their assessments as signaling how their taxes will change, ignoring how rates are actually calculated or patterns of change in assessments. This standard aims to suggest pathways to improve the design of property tax systems.

3. ASSESSING OFFICERS ROLE IN POLICY FORMATION

Assessing officers (and other professional property tax officials) should work continually with the issues and those in property tax administration to increase their knowledge of various property tax systems and then use this knowledge to improve their system. Their role will vary, depending on whether they represent local, state, or national agencies. Assessing officers can

- Serve as an information resource
- Help shape, debate, and define the administrative requirements of a policy proposal
- Call attention to problems that might be created by a policy and propose legislative remedies
- Participate in the development of laws, rules, and regulations.

Assessing officers are encouraged to develop their policy proposals or legislative action plans by working with their professional associations and other jurisdictions. Assessing officers and their associations should act as an information resource to enable legislators and other policy makers to better understand the effects of proposed policy changes. In fact, many assessing officers are in the best position to provide advice and counsel with skills and access to information that is often overlooked. Supervisory and oversight agencies often compile legal and technical information and provide research that can be shared with local assessing officers. Assessment agencies should be provided with, and assessing officers should seek to have, adequate resources to fulfill this responsibility, and data should be shared with jurisdictions having such resources.

² Use tax, a companion tax to sales tax, on internet purchases has been fraught with legal and administrative collection difficulties, although a 2018 U.S. Supreme Court decision allows states to develop mechanisms to collect the tax (*South Dakota v. Wayfair, Inc.* 2018).

3.1 Steering and Guidance

The assessing officer should help shape the debate over property tax policy into the most productive and most administrable avenues. For example, if a legislator wishes to lessen the impact of rapid inflation by imposing a cap on the amount that assessed or market values can increase, the assessing officer can explain the inequities that could result and propose alternatives that may be more equitable, practical, and transparent, such as budget or revenue caps or targeted exemptions. Some affiliate groups employ lobbyists to increase their members' awareness of proposed bills and to facilitate their communication with legislators.

3.2 Identifying Problems and Solutions

The assessing officer is encouraged to work with legislators and taxpayers alike to find legislative remedies to, or clarification of, proposed laws that may have unintended inequities or other problems. Understanding the problem is key. To be successful at identifying problems and finding solutions, the assessor needs to develop the skills of listening and communicating.³

The assessing officer should suggest practical and feasible alternatives to proposals that are well intentioned but poorly designed, administratively impractical, or fraught with unintended consequences.⁴ Providing specific alternative language to legislators or administrators is often helpful and welcome and can lead to even better solutions. A new perspective may help the administrator or legislator grasp a different side of the issue, and the drafted language is often incorporated as the revised wording.

The assessing officer is charged with administering laws related to property tax assessment and taxation. Under this system, equity is achieved through enforcement of these laws, which also ensure that assessments and taxes are distributed as equitably as possible. Whether this distribution is perceived as fair is a separate issue, more properly decided in the legislative arena. The assessing officer should endeavor to carry out legal requirements but should take note of fairness issues raised by taxpayers, bringing these to legislative attention when appropriate opportunities occur or directing taxpayers to the legislative arena.

3.3 Participating in the Development of Rules and Regulations

Administrative or oversight agencies often develop rules and regulations to clarify vague statutes. Administrative agencies are encouraged to incorporate clear and concise language into such regulations and to seek participation of local assessing officers and other local officials and stakeholders in developing this language. State, provincial, or oversight administrators are also encouraged to seek input from local practitioners in order to understand the impact of revised policies or rules.

3.4 Analyzing Tax Policies

Analysis of tax policy requires understanding many associated issues. Examples of specific tax analyses are presented in Appendix C. Although these examples are based on U.S. products, information for Canada, similar to what is available from the U.S. Census Bureau, can be found at the website of Statistics Canada (<https://www.statcan.gc.ca/eng/start>).

3.4.1 Tax Policy Statements

The assessing officer should be familiar with the specific language that formulates a policy, understand the nature of the policy, and, when appropriate, work with legislative bodies and citizens' groups to explain the effects of various policies

³ For example, assume that to accommodate financial difficulties associated with farming, a proposal is made to exempt all equipment and machinery from property tax. This may help the agricultural sector but may seriously erode the tax base of a jurisdiction that is highly industrial.

⁴ For example, reprogramming computer systems to track eligibility for a new exemption may require more time or money than is available. The assessing officer can suggest a more administratively feasible type of exemption or can ask for programming or other funding to be included with the proposed legislation without passing judgment on the concept.

and whether these policies achieve the goals of a model property tax system (see Sections 4 and 5).

3.4.2 Assessing Officer Role in Tax Policy Analysis

Assessing officers should consult with their colleagues in other jurisdictions to ensure that all perspectives are considered and provide detailed rationales for or against proposed policies. Policy analysis requires the compilation and interpretation of relevant information. Analysis must be highly objective to maintain credibility. Data maintained by assessment agencies at any level of government can help legislators and other policy makers understand the ramifications of policies. Assessing officers need to be capable of analyzing the data at their disposal to provide insight into the impact of proposed policy changes.

The administrative experience of assessing officers and their understanding of the effects of tax policies on equity can help policy makers examine the implications of new policies. Assessing officers are often in the best position to inform policy debate.

3.4.3 Analytical Resources

Local assessing officers and, more commonly, state/provincial or regional assessment administrative agencies should maintain tax research staff to provide objective information on the property tax system in place and the effects of any proposed system changes. This staff should provide ongoing or annually updated analysis of issues that are of continuing importance. Tax analysis should be included as a task for research staff, who should be supported with adequate analytical tools.

In addition to analytical studies of issues and proposals, resources in this area should be employed to review proposed legislation at an early stage and provide input on effects and unintended consequences of the proposed legislation on the current property tax system. It may also be useful to enlist analytical staff in reviewing legislative language to determine whether a proposal will function as intended and is consistent with other property tax provisions. Assistance from trained legal staff is necessary to accomplish this task properly.

3.4.4 Analyzing Tax Distribution and Benefits

Assessing officers should work to provide the public with accurate information and dispel misconceptions about the property tax. Property tax is often subject to complaints of inequity or unfairness. Although there may be policy (legal) or assessment-related causes for such complaints, often they arise because of misunderstanding about the amount of the tax and the benefits being provided by this revenue. In attempting to promote better understanding of the economic aspects of property tax, assessing officers should refer to analyses of tax incidence and elasticity (see Section 11, the Glossary) because incidence explains how much of the tax is borne by different sectors of the economy, and is important because it can dispel myths about whether any sector is escaping taxation or paying too much. The limited elasticity associated with the property tax often limits rapid reduction in revenue and can be a benefit in ensuring provision of essential services during economic downturns.

4. ADMINISTRATIVE FRAMEWORK

The administrative framework reflects the legal structural environment within which the property tax functions. The framework should

- Assign responsibilities clearly so that accountability can be maintained
- Design a system that is fit for its purpose and considers the principle of subsidiarity
- Provide adequate administrative resources

- Ensure that performance is monitored
- Allow for a system of appeals.

Administration encompasses directions, practices that comply with directions, people whose responsibility is to follow those directions in implementing policy, supporting technology, and appropriate data.

4.1 Functional Responsibilities

As previously mentioned, property tax administration encompasses (1) oversight; (2) valuation and assessment; (3) billing, collection, and accounting for revenues; and (4) appeals. Effective administration often requires timely information from other governmental functions, including title agencies, mapping agencies, and land use and construction regulators. When administrative functions are performed by different tiers of government and organizations, the law should address ways of ensuring good communications, cooperation, and smooth data flows. It should also address taxpayer responsibilities and appropriate roles for private-sector entities.

4.1.1 Oversight

A strong supervisory and oversight role in property tax administration promotes the uniform application of property tax laws and accountability, and can provide services that otherwise would be too costly for many local governments. The *IAAO Standard on Oversight Agency Responsibilities* (IAAO 2010) provides additional recommendations. However, the primary U.S. approach is for a state government to tailor its oversight functions by choosing appropriate activities from a supervision model first advocated by the U.S. Advisory Commission on Intergovernmental Relations (ACIR 1963). The model includes

- Developing standards
- Assisting and counseling valuers
- Monitoring performance
- Enforcing laws and regulations, including equalization
- Valuing certain properties for which broader uniformity is required or higher level resources are needed.

See *Guidance on International Mass Appraisal and Related Tax Policy* (IAAO 2014).

When responsibility for assessment and valuation is decentralized, supervision and oversight should be effective, and the responsible agencies should have authority to conduct independent reviews.

When the property tax is assigned to local governments, disparities in local property tax capacity in relation to local fiscal needs can arise. Uneven local assessment performance can also affect the funds available to local governments and the equitable distribution of funding from higher tiers of government. Consequently, oversight agencies should have a role in equalization studies and formulas [see Section 5.6].

4.1.2 Valuation

The responsibility for valuation can be centralized or decentralized. Real estate markets are highly localized for many ordinary types of property. When local governments have valuation responsibilities, there is a choice of the type of local government (e.g., counties, municipalities, and other areas). And within a government, there is variation in the types of agencies or their place in the bureaucracy. Regardless of the type of local government that has valuation responsibility, valuation offices should have appropriately qualified analysts and valuers and adequate technological support (see Section 4.2). In the case of properties that extend beyond a single assessment district, the subsidiarity principle holds that such properties should be valued by a higher tier valuation district, such as a state. Hence, network properties, such as railroads and utilities, should be valued centrally, not piece by piece by local governments.

In property tax administration, the valuation process has two main phases: (1) the development of valuation models and (2) the application of those models to assessable properties. (A model can be in the form of a mathematical model or a manual containing sets of tables of valuation rates.) An administrative issue is whether a single agency should be responsible for both phases or whether models should be developed by a central agency and then applied locally.⁵

A policy issue is the amount of discretion valuation agencies have regarding the valuation approaches to employ. At one end of the spectrum, the law establishes only the valuation standard, and the agency has discretion over how to meet it. This is preferable to the other end, where valuers are required to follow a restrictive valuation law or regulation, which may not be grounded in a current analysis of property markets.

4.1.3 Assessment

In addition to valuation, *assessment* encompasses all the processes needed to produce an assessment roll, which is a list of properties (or taxpayers) that is linked to the database of factors (such as property use, area, value, eligibility for exemptions, and so forth) that determine property tax liabilities (the *fiscal cadastre*). Assessment implicitly requires identification of taxable properties, and underlying statutes should be clear about which properties are considered taxable (or conversely, which ones are not). The local nature of the factors affecting most real property value and tax assessments argues for local assessment offices.

4.1.4. Collection

The assignment of responsibility for billing and collecting property taxes should provide for taxpayer convenience and consider administrative capacity and fiscal interest. The principle of subsidiarity suggests local collection offices. Not only do local governments provide for convenience, they have a direct interest in the effectiveness of the collection system (in that they benefit from the revenues collected).

4.1.5 Appeals

Systems for hearing and deciding appeals of values and tax assessments are important components of property tax systems. The appeal system should balance the interests of appellants and the assessment and tax administration. Administratively, appeals fall into three categories: appeals relating to valuation, appeals relating to exemptions and classification of property, and jurisdictional or property class appeals relating to equalization (see the *Standard on Ratio Studies* [IAAO 2013b]). Taxpayers need accessible and responsive avenues for challenging assessments, denied exemptions, and the classification to which property is assigned. Appeals systems should be designed to facilitate the taxpayer's right to appeal. To do this, the process should be clearly spelled out in a written brochure or other document that can be given to the taxpayer. Taxing bodies need a degree of finality in the assessment and equalization process; taxpayers should not be able to avoid taxes by clogging appeal systems with frivolous appeals.

The laws should establish who has standing to appeal a property tax assessment and the time, place, and manner of filing an appeal. They should specify the allowable grounds for an appeal.

Adequate resources should be provided to defend values and address other appeals-related issues. The need for response to value-related appeals typically increases during reappraisal years or periods with rapid property value inflation. Proper planning and staff allocation ensure sufficient resources to address the anticipated higher-than-normal number of appeals.

⁵ In some countries, taxpayers apply the models.

4.2 Resources

To accomplish its responsibilities in a fair and professional manner, an assessment or tax office should have a budget that provides for a well-organized and trained staff, sufficient computing resources, and necessary data.

Many factors affect funding requirements. However, administrative costs in the range of 2–5 percent of property tax revenues are often achieved in developed western countries (IAAO 2014). Costs in excess of 10 percent may be symptomatic of systemic administrative problems.

With regard to staffing requirements, parcels per employee is a commonly used benchmark. Over the years, the median figure for Canadian and U.S. agencies has grown from about 2,500 to 2,700 parcels per employee (Walters and the IAAO Research Committee 2014, 16).

Computing resource requirements vary with the amount of data to be processed, the imagery to be accessed, and the number of tasks to be performed by the office. In general, any office should house its data in a computer system, and related systems and applications should be well integrated, particularly with a geographic information system (GIS).

Agencies should justify their resource needs in their budget requests (IAAO 2013c). *GIS for Property Tax and Assessment Professionals* (Cusack, Bidanset, and Fasteen 2018) provides justification for investments related to GIS technology.

When higher tier governments, such as provinces and states, delegate important aspects of property tax administration to local governments, they should have mechanisms in place to provide the financial and other assistance necessary to ensure that local offices have adequate and well-trained professional staffs, accurate cadastral maps and records, and the greatest feasible degree of computerization.

Adequate resources have an impact on all aspects of government operations. Budgetary restraints on local governments can cause them to consider outsourcing the assessment function. In these instances, the contract that defines the contract assessor's role may limit the assessor's duties. In particular, the contract assessor does not have the responsibility of trying to improve the assessment function—this type of assessor is required only to meet the requirements of the contract. Government officials charged with oversight of the assessment function should include performance standards in the contract, and the results should be reviewed to ensure compliance (see the *Standard on Contracting for Assessment Services* [IAAO 2019]).

5. COMPONENTS OF A VALUATION SYSTEM

- Valuation systems based on current market value ensure the greatest overall equity in the distribution of the property tax burden and are the most transparent.
- Key components of valuation systems include
 - Adequate data and technological resources
 - A commitment to professionalism through education and ethics
 - An effective underlying legal structure that enables adequate market and property data to be obtained
 - Quality assurance measures using ratio studies and other performance measures.

The assessing officer is most closely involved with aspects of property tax relating to how assessed values are estimated. Legislative bodies establish the system, and certain elements (see Section 5.2) tend to produce systems of higher quality in terms of administrative feasibility, uniformity, and equitable treatment of property.

5.1 Fundamentals: Current Market Value the Basis for Taxation

To best reflect the changes inherent in a dynamic economy and to maximize fairness and ease of understanding, assessments should be based on the current market value of property. Values in one area may increase, whereas those in another may decrease or stabilize. Property taxes then shift to areas with increasing wealth as measured by property value. Only a system requiring current market value acknowledges these changes in local economies and the distribution of property-related wealth.

Assessing property at current market value maintains a uniform relationship between property-based wealth and property taxes. Also, current market value requires valuations based on objective market evidence. Under a current market value standard, it is easier for the public to understand whether they are being treated fairly.

Current market value implies annual assessment of all property. This does not necessarily mean that every value must be changed each year. In annual assessment, the assessing officer should consciously reevaluate the factors that affect value, express the interactions of those factors mathematically, and use mass appraisal techniques to estimate property values. Thus, it is necessary to observe and evaluate, but not always to change, the assessment of each property each year in order to achieve current market value. It is recommended that assessing officers establish regular reappraisal cycles or at least appraisal level and uniformity (vertical and horizontal equity) thresholds that trigger reappraisal (see the Standard on Ratio Studies [IAAO 2013b]). When assessments are not updated annually, the valuations on properties not reassessed in a given cycle may change dramatically when they are reassessed; this in turn adds to criticisms of current market value-based systems.

5.2 Legal Framework

Achieving equity requires a legislative framework that supports a current market value standard and that eliminates obstacles to its realization. Laws needed to implement and maintain support for uniform assessments include the following:

- A law expressly requiring that most or all property be valued on the basis of current market value (and stating applicable assumptions, and specifically identifying any departures from the current market value standard).
- A law (or regulation) requiring independent ratio studies measuring the level and uniformity of values within and among classes of property, in accordance with the *Standard on Ratio Studies* (IAAO 2013b). If performance is not measured independently, a market value standard has no meaning.
- A law requiring property inspections on either a specified schedule or when performance standards are not met. Market values change continuously and at different rates. As such, assessment uniformity can be maintained only with frequent revaluations based on accurately described properties.
- A law requiring buyers and sellers to disclose prices and terms of sales to assessing officers. Market values cannot be estimated accurately without access to prices and terms of sales. See Section 5.3.
- A law requiring owners or tenants of rental property to furnish statements of income and expenses to assessing officials. Assessing officers should treat confidentially all individual property operating data. See Section 5.3.
- A law providing safeguards against unapproved and undisclosed increases in property tax levies resulting from overall value increases. See Section 7.3.
- A law requiring that intergovernmental transfer payments such as education aid payments be based on credible estimates of actual taxable wealth. For example, the estimates should be based on equalized market values, rather than on unequalized or poorly equalized local assessed values. See Section 5.6.

Legislative remedies should be sought if the current legal framework is deficient. In a similar vein, laws that are detrimental to current market value should be repealed. *Assessment Practices: Self-Evaluation Guide* (IAAO 2013c), Table 1-2, identifies some examples.

5.3 Data Systems

Property taxation requires accurate and accessible data on properties, taxpayers, and value indicators, such as sale prices. As noted in Section 5.2, the underlying legal framework should support and facilitate the acquisition of the data needed in assessment and valuation. Fundamentally, owners, occupants, and other market participants should be required to disclose necessary details. Sales information is critical for all market-based approaches to value. Although sales need to be properly screened and verified regardless of source, legally mandated disclosure of sale prices to officials with valuation and oversight responsibilities is necessary to ensure the quality and availability of this information.⁶

For agricultural land and other properties with limited sales markets or legally restricted valuation requirements, periodic surveys may be used to establish productivity and expenses. Surveys can also be used to establish rental income and expense information for use in valuing income-producing property. As noted in Section 5.3, laws should establish requirements for property owners to provide necessary information and reasonable access. They also should spell out the consequences of failing to supply the required information, such as arbitrary assessments or limitations on appeal rights. The laws, to the extent practicable, should also provide for taxpayer confidentiality to protect taxpayer privacy and encourage compliance.

The assessor should maintain or have access to high-quality land records and an accurate inventory of property. Collection and maintenance of land data are expensive but are critical parts of any property tax valuation system. By establishing multipurpose cadastral systems, many different public officials or agencies can make use of the information that may help to defray the costs of data collection and management. Multipurpose systems can be computerized and can become extremely interactive, providing information on the relationship between location and other property characteristics or influences on value. GIS technology exemplifies this multipurpose principle (see *GIS for Property Tax and Assessment Professionals* [Cusack, Bidanset, and Fasteen 2018], the *Standard on Manual Cadastral Maps and Parcel Identifiers* [IAAO 2016a], and the *Standard on Digital Cadastral Maps and Parcel Identifiers* [IAAO 2015].)

Taxpayer returns, routinely used in the United States only for personal property data acquisition, may also expedite collection of real property attribute information, particularly in the early stages of setting up a property tax system. Initial data collection programs in the Czech Republic and Slovakia have successfully used such self-reporting systems, and they are used on an ongoing basis in Turkey (Almy, Dornfest, and Kenyon 2008, 243).

Ongoing valuation systems require maintenance and updating of property characteristics data. Physical review, including on-site verification, is recommended every 4–6 years. Digital imaging technology tools may be used to supplement field reinspections with a computer-assisted office review (IAAO 2017, Section 3.3.5).

5.4 Valuation Methods

The valuation system should use recognized methods. The principle of cost-effectiveness requires assessors to use automated mass valuation methods, such as those identified in *Assessment Practices: Self-Evaluation Guide* (IAAO 2013c) and the *Standard on Mass Appraisal of Real Property* (IAAO 2017) and detailed in *Fundamentals of Mass Appraisal* (Gloude-mans and Almy 2011).

5.5 Quality Assurance

Quality assurance is an important aspect of every valuation system. Specific quality assurance procedures should be established, and staff should be strongly encouraged to review all aspects of their work to ensure compliance. Lack of effective quality assurance can result in minor or major gaps, ranging from loss of data to failure to recognize or correct inequities.

⁶ Although transfer taxes can be useful in facilitating sale price data acquisition, high transfer taxes discourage accurate reporting; systems with high transfer taxes need alternative verification processes. Deterrents to registering ownership or occupancy changes or disclosing actual prices should be eliminated (Bahl 2009, iv-vi; Norregaard 2013, 35).

5.5.1 Valuer Qualifications

Ensuring a high-quality valuation system requires highly skilled and trained professional staff. Assessors may need legislative direction or administrative rules and regulations to ensure that this objective can be promoted and achieved. Accordingly, states and other governments have implemented legislation requiring practitioners in all branches of property appraisal to demonstrate appropriate qualifications before being allowed to practice, to maintain and improve their skills used in the course of practice, and to conduct themselves in accordance with professional and ethical standards.⁷ Legislation regulating independent appraisers, such as fee or contract appraisers, should be coordinated with legislation affecting assessing officers. When similar qualifications exist, transferability of experience, credentials, and course credits should be permitted. Objective standards should be developed and used to evaluate experience, credentials, and educational requirements. (See the *Standard on Professional Development* [IAAO 2013a].)

5.5.2 Internal Edits and Reviews

Every assessment jurisdiction should establish procedures for internal review of work product. Supervisory review of appraisal and assessment work as well as ratio studies, procedure reviews, performance audits, and peer reviews can be used and should be considered. This is particularly important for appraisals, which may otherwise be criticized as subjective or not well developed. Internal review includes establishment and review of quality and quantity performance criteria (see the *Standard on Mass Appraisal of Real Property* [IAAO 2017]). Numerous computer edits are needed to ensure that all accounts are in balance and to enable data entry errors to be caught and corrected.

5.5.3 Ratio Studies

Ratio studies are effective components of a quality assurance system and should be conducted at least annually. Ratio studies should be used to emphasize horizontal (within property classes or neighborhoods) and vertical (between properties of unequal value) equity of assessments as well as overall assessment level in comparison to legal requirements. When used by a primary assessing jurisdiction, ratio studies can be designed to measure the quality of assessments in neighborhoods or for specific types of property, as well as to provide overall quality indications. Oversight agencies typically use ratio studies as part of technical assistance, oversight, or equalization roles.

Oversight agencies responsible for conducting ratio studies on assessments done by local jurisdictions should publish the results of such studies. Published reports should be readily available to all interested parties and include narrative discussions of the method used as well as statistics that measure level and vertical and horizontal equity. Published ratio studies should clearly define their purpose to maximize their usefulness to prospective users. (See the *Standard on Ratio Studies* [IAAO 2013b].)

5.5.4 Performance and Procedure Audits

Reviews of appraisal and assessment procedures should be done periodically. This is important whether in-house staff or contractors perform these functions. The process should include a review of documentation and procedures, as well as actual appraisal results. If property characteristics are being captured, a sample should be audited to ensure accuracy. Performance and procedure audits can be conducted by specialized internal staff, governmental agencies, or independent contractors who should be separate from those hired for the appraisal or data collection work.

5.5.5 Oversight Agency Role in Local Quality Assurance

Oversight agencies have an important role as reviewer of the work of local assessing jurisdictions. This may be in response to ongoing audit requirements, legislative mandates, local jurisdiction requests, or taxpayer complaints. Often, states have authority to order reappraisals to correct assessment equity problems. If a review- or reappraisal-ordering function exists at the state level, responsible agencies should seek authority to conduct reviews or order reappraisals based on long-standing failure to meet ratio study standards for horizontal and vertical equity. Reviews or reappraisal

⁷ See, for example, the Uniform Standards of Professional Appraisal Practice (USPAP) (TAF 2020).

orders should also be triggered if local jurisdictions fail to meet reappraisal timelines, to maintain adequate property records and maps, or to meet other indices. (See *Assessment Practices: Self Evaluation Guide* [IAAO 2013c].) In any case, the oversight agency should establish clear goals, guidelines, standards, and objectives beforehand to minimize misunderstandings and to achieve desired results. Agencies that investigate taxpayer complaints should develop specific criteria to define the extent of the investigation and procedures to narrow and focus such complaints.

5.6 Equalization of Property Values

Equalization of property values is an important step that ensures uniform treatment of groups or classes of property. Equalization functions ensure that aid to local governments is apportioned according to a more consistent estimator of total value. Equalization also can ensure that the effects of exemptions and levy rate limits are equal in different jurisdictions. In equalization, broad adjustments to values, tax rates, or funding distributions may be made to correct for widespread assessment discrepancies that otherwise would create inequity among localities. Equalization, in this context, does not include adjustments to the values of individual properties that result from taxpayer appeals or review of the rolls by assessing officers.

5.6.1 Oversight and Local Equalization Roles

When primary assessment responsibility is vested with local assessors, local boards of review and equalization can provide a valuable check and balance for the assessment process and should be encouraged to take an active role. The authority of such boards can be broad, including the ability to adjust individual or entire class assessments. In the broadest cases, these boards play an equalization role equivalent in their jurisdiction to state or oversight-level equalization. Such equalization may be based on a review of ratio study information provided by the assessing jurisdiction, or independent ratio studies may be conducted.

Oversight agencies often perform equalization as part of their functions. Such equalization can merely serve as a check and balance on local equalization. However, when assessment responsibilities are split and different entities are responsible for assessing different types of property, oversight agency equalization can serve the added function of eliminating inequity between property types assessed by these different entities.⁸ Oversight agencies should also take an active role in equalization when properties subject to taxation by a taxing district are assessed by more than one local assessment agency (see the *Standard on Oversight Agency Responsibilities* [IAAO 2010]).⁹

5.6.2 Methods of Equalization

Whether accomplished at the oversight agency or the local level, equalization generally takes one of two forms: direct, involving adjustments to previously determined property values, and indirect, involving adjustments to tax rates or funding distributions between higher and lower level governments.¹⁰ For guidance and standards for these two types of equalization, see the *Standard on Ratio Studies* (IAAO 2013b). Appendix D provides additional discussion of school finance equalization.

5.6.3 Alternatives to Equalization

As an alternative to direct and indirect equalization, some oversight agencies have authority to approve or disapprove the locally developed assessment roll or to conduct performance or procedure audits. This is done to ensure compliance with state legal standards for completeness, accuracy, uniformity, and reliability (see the *Standard on Oversight Agency Responsibilities* [IAAO 2010]).

⁸ In the United States, for example, many states assess the property of public utilities and railroads, while local assessors value other property.

⁹ For example, if a school district is in three counties and each county has assessment responsibility for only the property within the portion of the school district located in its own county, assessment discrepancies may go uncorrected unless a state administrative agency performs an equalization function.

¹⁰ School districts often receive funding from both property tax and state or provincial revenue sources. Equalization ensures uniformity of per-student school funding regardless of underlying property wealth and ability to raise property taxes.

5.7 Variations from Current Market Value

In principle, nonmarket value systems should be rejected as a model because they deviate from the basic principle of ad valorem taxation and tend to be less equitable for all property taxpayers. Nonmarket value systems include base year assessments, acquisition value, and area-based systems.

Under a current market value system, each year's assessed value approximates a property's actual value in that year. Alternatives to current market value assessment differ in one or more ways, including value standards that do not embrace market value, valuations from the past, nonuniform valuation dates, excessive limits on year-to-year value changes, and assessed values that are a fraction of the market value estimates.¹¹ The best variants adhere to a firm reinspection program that ensures that new properties, sold properties, and appealed properties are reinspected in the year that the event took place and that all other properties are inspected at least once every six years (inspections can use imagery in lieu of field inspections). The best systems generally meet IAAO ratio study standards (IAAO 2013b). Good systems generally meet less strict ratio study standards, such as those for level, but not uniformity. Inadequate systems meet no objective performance standards.

5.7.1 Value Standards that Do Not Embrace Current Market Value

In Canada and the United States, most ordinary real property assessments are based—at least nominally—on market value. The main exception is current use value, which commonly is used in the taxation of farmland and other nondeveloped land. For such properties, market value based on a property's highest and best use can result in a level of taxation that current owners/users find onerous.¹² Current use-value assessment should be used only when the public's and private interests are aligned. See Section 7.4.2.

5.7.2 Valuations from the Past

Although annual revaluation is often technically and financially feasible, many valuation systems allow longer intervals between revaluations or have no stated revaluation requirements. IAAO considers regular revaluation intervals of two to six years to be acceptable, depending on market conditions (see the *Standard on Mass Appraisal of Real Property* [IAAO 2017]). Longer intervals ignore legal revaluation requirements, and indefinite base-year assessments are unacceptable. Long intervals generally result in regressive assessments, violating the uniformity principle. In rising markets, they can unduly constrain property tax revenues. There is another problem with longer or indefinite intervals: the valuation of properties that did not exist in the base year. The changes in market conditions subsequent to the base year that led to the creation of the property would make the value estimate entirely hypothetical and indefensible. Simply using rates in a valuation manual as of the base year does not make the value estimate as of the base year.

Periodic revaluations are of two types: en masse revaluations and cyclical revaluations (*rolling revaluations*). In the former, all properties are revalued in mass at the end of the interval. In the latter, a subset of properties is revalued each year, so that all are revalued by the end of the interval. Under either option, in-place values may be indexed based on ratio study analyses annually or at longer intervals; this helps ensure that all classes of property or areas have the same general level of value. Rolling revaluations smooth year-to-year workloads and resource requirements.

5.7.3 Nonuniform Valuation Dates

In 1978, California enacted an *acquisition value* system to replace the existing annual revaluation system. The main rationale was greater certainty about future property values and, hence, taxes. In effect, since, ostensibly, this system requires sold properties to be assessed at current market value, every day subsequent to 1975–1976 becomes a base valuation period, virtually destroying any meaningful uniformity in effective tax rates.¹³ Other states have uncoupled

¹¹ There are also property taxes that are not based on value, including area-based property tax and flat per-property taxes (see Appendix A).

¹² In the troughs of some real estate cycles, current-use values can be higher than market values.

¹³ Studies in California have determined that 15 years after implementation of an acquisition-value-based system, it would

taxable values from current market values by adopting elements of an acquisition value system. Success in constraining taxable value increases while a taxpayer holds a property comes at the expense of understandability as well as uniformity. Systems become more complex because they need to track indexed base-year values as well as current market values.

Acquisition value systems also decrease mobility because the most recent movers to or in any area pay the largest tax share. Although research has shown that systems based on acquisition value can protect senior citizens who tend to sell property and move infrequently, this same protection can be afforded directly by programs such as circuit breakers, which are designed specifically to aid target groups. Thus, with a circuit breaker program, property tax relief goes to the defined group designated by policy makers as needing assistance. Any tax reduction provided to this same group under an acquisition value system is coincidental. Acquisition value makes even less economic sense for businesses because new businesses are presented with a competitive disadvantage because of substantially higher property taxes.

Furthermore, once such a system becomes entrenched through long-term application, it becomes virtually impossible to eliminate disparities that can only grow worse over time. A return to a system based on market value inevitably causes major intra-category tax shifts; therefore, the prospect of such reform ceases to be available after a few years of high inflation.

5.7.4 Assessed Values that Are a Fraction of Market Value

It is common for assessed values to be either a fixed fraction of estimated market value or variable fractions depending on how property is classified (a classified property tax system). There are two main reasons for such systems: (1) a belief that taxpayers will complain less if assessed values are less than market values and (2) a need to make a de facto situation legal following a legal challenge. Such systems tend to preserve assessment inequities and lessen uniformity (see Section 7.2.4).

6. COMPONENTS OF A MODEL PROPERTY TAX SYSTEM: TAXATION

The taxation portion of the model property tax system encompasses the processes of rate setting, notice of tax obligation, and billing, collection, and delinquency management. A model property tax system should

- Include visibility of the workings of the property tax system with taxes levied closely and transparently tied to the units of government they are funding
- Be budget (levy)-driven rather than rate-driven
- Assign responsibilities clearly between the assessor and the tax collector
- Provide reliable notice of the tax obligation and bill with convenient payment
- Provide methods for addressing nonpayment and late payment, which should be clearly defined by the legislative body and uniformly applied by the tax collector.

6.1 Visibility of Property Tax System

The workings of a property tax system should be visible to taxpayers (see Section 8). This means that the taxes being generated by the system are clearly tied to the taxing units of government that use this funding source. Overall increases or decreases in property taxes thereby become a function of the changing needs of these units of government, while the assessing officer's role, which is only to determine the proper distribution of the tax burden, is emphasized.

not be unusual, for example, for two identical, side-by-side properties to have legally correct values that differ by 500 percent (O'Sullivan, Sexton, and Sheffrin 1995). Because of these defects, public understanding of who actually benefits and to whom taxes are shifted is extremely limited.

6.2 Budget (Levy)-Driven vis-à-vis Rate-Driven Property Tax Systems

Taxing districts operate with funds generated from property tax (although other revenue sources often are available, they are not the subject of this discussion). The formula used to calculate these tax amounts takes one of two forms:

A. Budget (levy)-driven

$$\text{Rate} = \text{amounts budgeted from property tax} \div \text{taxable or assessed value}$$

B. Rate-driven

$$\text{Amounts budgeted from property tax} = \text{rate} \times \text{taxable or assessed value}$$

Formula A assumes that the taxing unit starts with a budget that it sets (sometimes known as a levy) and has subtracted all nonproperty tax sources of funding. In this case, given a fixed budget, the rate is merely a mathematical result and floats upward or downward, depending on both the current assessed value and changes to that value in the unit of government. Rates computed in this manner may be expressed using decimals, percentages, or mills. Formula B assumes that the taxing unit needs as much money from property tax as a certain fixed or maximum rate will generate. In this case, increases or decreases in assessed value directly affect the amount of money the unit of government can budget from property tax.

Assessing officers should discourage or offer alternatives to rate-driven property tax systems. Taxing units that generate revenue as described in Formula B justify taxpayer fears that reappraisal will probably raise their taxes and give credence to the idea that the assessing officer is controller of the magnitude, not just the distribution, of the property tax. Such taxing units are also able to hide windfalls they may reap by arguing that they did not increase their rate of taxation. Rate-driven property tax systems fail to meet the test of open and visible property taxation, but they do provide increased predictability, with assessment notices providing an early warning sign of tax increases.

6.3 Property Values vis-à-vis Property Taxes

A common misunderstanding about the property tax is the supposition that the tax is strictly value-driven and, therefore, that a 10 percent increase in appraised or assessed value must translate into a 10 percent increase in tax. Failure to understand and explain the fallacy of this perspective leads to placement of blame for all property tax increases squarely (and unfairly) on the assessing officer.

The legislative body establishes the framework for the distribution of property taxes by providing for classification, exemption, and valuation. Laws may also control the magnitude of the property tax. By appraising property equitably and uniformly and in accordance with legal guidelines, the assessing officer ultimately is responsible for the distribution of the property tax burden, not the magnitude of the tax.¹⁴ In principle, in a budget-driven system high values force rates downward and offset rising assessments.

6.4 Tax Collection

While tax collection is not usually assessing officers' responsibility, they should work closely with tax collection officials to ensure efficient and accurate transfer of ownership, location, taxability, and value of property information to the tax collector. This relationship is critical to fair and equitable taxation. It is important that the legislature or governing body clearly define and delineate the responsibilities of assessing officers and tax collectors. Tax collection officials are typically obligated to provide reliable notice of the tax obligation and bill. This is commonly done through mail service; however, electronic notification is becoming more widely used. Making the tax obligation public promotes transparency and can incentivize compliance, as well as horizontal equity, but should be balanced with the public's right to privacy.

¹⁴If the market value of lakefront lots doubles but the value of all other property in the jurisdiction remains constant, these lots will bear a higher proportional share of the total property tax for the jurisdiction—that is the principle of ad valorem taxation at work. It is possible, if the system is rate-driven, that the increase in value translates directly into higher taxes, raising the total tax charged, not just the share levied against the lakefront lots. In contrast, in a budget-driven system, higher values force rates downward and offset rising assessments. In this type of system, increases in the total amount of property tax result only from increases in budgets submitted and approved by taxing jurisdictions; this is the preferred model.

Many property owners and financial institutions choose to pay property taxes through mortgage escrow accounts, which divide the annual tax burden into multiple payments that can ease the financial stress on the taxpayer and increase taxes paid voluntarily. Additional discussion of the benefits of monthly payments is presented in a paper “Improving the Property Tax by Expanding Options for Monthly Payments” (Langley 2018). Ease of payment is also a key factor in voluntary compliance. Payments should be accepted at local government offices, by mail, or electronically. Offering discounts for early or prepayments may also be considered to improve cash flow for the jurisdiction.

The methods for addressing nonpayment and late payment should be clearly defined by the legislative body and may include several enforcement mechanisms to resolve the delinquency. These mechanisms can range from installment plans, garnishment of wages, seizure and sale of assets including real and personal property, and placing of tax liens. It is imperative that the tax collector use these powers consistently with all taxpayers and avoid discrimination in enforcement.

7. RESPONSE TO PROPERTY TAX PROBLEMS

While market-based assessment systems are superior in terms of fairness and equity, they are not perfect. In particular, market-based systems can be stressed when assessments increase rapidly, either from market appreciation or infrequent revaluations. To address these issues, legislative bodies often enact measures, such as exemptions and abatements, to shift the property tax from certain groups of taxpayers. Such measures nearly always increase the property tax on nonfavored groups or limit services by reducing revenue to taxing districts, and generally should be discouraged and limited. Without adequate controls, tax-shifting measures may result in a hodgepodge of cross subsidies, resulting in a lack of clarity of their true effect and unintended consequences.

7.1 Exemption Principles, Types, and Effects

In principle, exemptions and other tax-shifting mechanisms should incorporate the following principles:

- Be narrow in scope and construction.
- Require periodic review and include sunset provisions to ensure objectives remain relevant.
- Require adequate documentation to evaluate eligibility and enable periodic audits.
- Include an analysis of their effects on other taxpayers, taxing districts, revenue, and so on.

Legislative bodies should exercise caution in enacting exemptions, and they should be used sparingly as they represent a departure from ad valorem principles. In general, an exemption should not be granted unless it will be beneficial to a substantial, identified segment of the affected population and will apply to all similar properties or similarly situated taxpayers. As a corollary, exemption qualification should be narrowly construed.

Proposed exemptions should be analyzed to determine which groups may be assisted or hurt (intentionally or inadvertently) and whether the benefits of the exemption are significantly greater than any revenue lost (including increased administrative costs) or taxes are shifted onto other taxpayers. Excessive use of exemptions typically requires higher tax rates to compensate, potentially leading to additional stress and complaints from the remaining taxpayers. Extensive use of exemptions also increases the administrative and enforcement cost of the property tax.

7.1.1 Exemptions Based upon Ownership and Use

Government property commonly is exempt. Religious and educational institutions and charitable or benevolent societies also commonly receive full exemption. Aside from these common exemptions, innumerable broad or narrow special-purpose exemptions are available. The most common of these are for various personal property components, ranging from full exemptions for all personal property, business inventory exemptions, and exemptions that apply only to equipment used in farming or other specific tasks. Some exemptions require highly specialized statutory definitions to prevent unintended over-broadening.¹⁵

¹⁵For example, the specific activities expected of a qualifying charitable organization or a nonprofit corporation to enjoy the

Since conflicts and confusion may arise from having numerous exemptions, taxpayers and public policy officials should understand the effect of the exemptions. Exemptions should be reviewed at regular and frequent intervals to ensure that the owner or user qualifies for the exemption and that the property is used for a bona fide exempt purpose. When practicable, each owner of exempt property should be required to apply for the exemption annually. Each taxing or assessment jurisdiction should prepare a list of exempt properties each year showing the name of the owner, the location of the property, the size and market value of the property, and, when possible, the tax revenue forgone or shifted (see Section 7.1.4).

7.1.2 De Facto Exemptions

Property tax systems inevitably include some property that is difficult administratively or politically to assess properly. Personal property, for example, is generally difficult for tax officials to inventory and is often underreported by taxpayers. Residential property, on the other hand, is highly visible and represents a politically active sector. Jurisdictions that lack statutorily allowed exemptions to aid residential property owners often provide undesirable de facto exemptions in the form of systematic underassessment as a substitute. Assessing officers and oversight agencies should analyze assessments to discover problems of this nature and work with public policy officials to develop corrective procedures, guidelines, and legislatively authorized mechanisms to achieve the desired tax incidence environment. Often an exemption may be the only solution and may provide the advantage of making visible an otherwise hidden tax shift.

7.1.3 Managing Exemptions

Once granted as a result of legislative action, exemptions tend to become entrenched and thought of as rights related to property ownership. Assessing officers should encourage public policy officials to enact sunset provisions when exemptions are passed. Sunset provisions specify a date in the future after which the exemption ceases to exist unless it is renewed.

Although there may still be a need for the exemption, the expiration provision makes the exemption more visible and presents an opportunity for future public policy officials to review and recertify each exemption. Sunset provisions should not apply to constitutionally mandated exemptions (e.g., a prohibition on taxation of federal property).

Regardless of the existence of sunset provisions, the assessing officer should conduct ongoing analyses of the effect of each exemption so that information is available in the event of legislative review.

7.1.4 Possessory Interest

Often a portion of a property owned by entity that is exempt from the property tax is leased or used by a private, for-profit enterprise. Examples include a restaurant in a public airport or a gift shop in a hospital. In these cases, assessment laws and regulations should provide for the capacity to determine the portion of a property dedicated to these private uses so that a property tax can be assessed. This serves to broaden the tax base and ensure that similarly situated businesses pay their equitable share of property taxes. In cases in which the primary property owner is a governmental entity, collection remedies may need to be limited to exclude the taking of the property by foreclosure.

7.1.5 Tax Expenditures Related to Exemptions

A tax expenditure budget displays the estimated revenue losses from special exclusions, exemptions, deductions, credits, deferrals, and preferential tax rates. This is an important tool with regard to the costs associated with providing property tax exemptions. It promotes transparency, provides specific details for policy makers, and allows for other measures that can aid in analyzing exemption benefits to provide transparency around the costs of providing property tax exemptions and other measures that can be evaluated against their benefits. Tax expenditure budgets can be particularly helpful for jurisdictions in the consideration of payments in lieu of taxes (PILOTs).

charitable exemption must be made clear.

7.1.6 Payment in Lieu of Taxes

Communities with high concentrations of nonprofit institutions such as hospitals, colleges, and museums have struggled with the reduced tax base associated with these tax-exempt properties. Some jurisdictions have sought compensation for the tax revenue lost due to exemptions for nonprofit institutions by seeking PILOTs. PILOTs can offer critical revenue to communities and provide a mechanism to recapture a portion of both the forgone tax revenue and the costs of providing municipal services to nonprofit institutions (Rakow 2013).

A vibrant nonprofit sector can be a vital asset to a community, as these institutions provide many needed services and experiences and can be important contributors to the local economy. A well-designed PILOT program features communities and their nonprofit institutions working collaboratively to balance the costs of the exemptions with the services and other benefits provided by the nonprofit institutions.

The assessor's role in the PILOT process is an important one. By maintaining accurate and up-to-date valuations for exempt properties, assessors can accurately portray the revenue forgone due to property tax exemptions. While assessing officials should be active participants in PILOT discussions, care must be taken to separate PILOT negotiations from the process for reviewing exemption requests to avoid the perception that an exemption is contingent on a PILOT commitment.

7.2 Measures to Reduce Burdens on Residential Taxpayers

- Many property tax systems include mechanisms that seek to reduce the tax burden on owners of residential property.
- These measures can be broad and include entire classes of property, or they can be targeted to focus benefits on specific categories of property or taxpayers.
- Targeted mechanisms are preferred because they are more likely to achieve the desired relief outcomes with minimum impact on the tax base.

7.2.1 Homestead Exemptions

Homestead exemptions remove a fixed amount or a percentage of value from the otherwise taxable value of a property. The exemption is usually restricted to the primary residence of the taxpayer. Many governments grant such exemptions, sometimes restricting eligibility to individuals meeting certain age or income criteria. Residential homestead exemptions often are supplemented by circuit breaker programs to target additional relief to taxpayers with limited incomes and higher relative tax burdens (see Section 7.2.3).

Fixed-amount exemptions grant proportionately more relief to low-value property, where the fixed amount may make up a significant percentage of the total taxable value.¹⁶ To prevent the erosion of the exemption amount due to inflation and appreciation in property values, an indexing mechanism for the exemption amount is recommended. Percentage exemptions do not require indexing but give proportional tax relief to properties, regardless of whether they are low- or high-valued and are therefore less progressive. Occasionally hybrid exemptions, combining a fixed-amount exemption and percentage limits, may be used to focus the exemption where policy makers deem the relief is most appropriate.

Homestead exemptions can be an effective tool for reducing tax burdens; however, they do increase administrative complexity and costs to verify that the taxpayer meets the exemption residency requirements.

7.2.2 Property Tax Deferrals

Property tax deferrals are used by some governments to relieve the tax burden on low-income seniors or, in some cases, all households. Deferrals delay, but do not excuse, taxes, which accrue as an increasing lien until the property is sold or the estate settled. Deferred taxes are usually subject to interest charges but no penalties, and the property is not subject to forfeiture.

¹⁶For example, a \$10,000 exemption reduces the assessment of a \$100,000 home by 10 percent. The same \$10,000 exemption for a \$500,000 home represents just a 2 percent reduction for this high-value property.

Deferrals directly address the liquidity problem faced by homeowners who are *housing rich* but *income poor*. They allow homeowners to use an otherwise illiquid asset—their home equity—to pay current property taxes. Since the tax is repaid out of the proceeds when the property is transferred, deferrals have no long-term cost to other taxpayers.

Providing a deferral option to taxpayers is important because it essentially precludes the possibility of long-time homeowners being forced out of their home due to rising taxes. However, most deferral programs suffer from very low participation rates. Part of the reason for low participation is that seniors are reluctant to place a lien on their home because they want to leave the home to their heirs free of encumbrances. While such sentiment is laudable, it is not necessarily an argument for providing an exemption or other subsidy to a taxpayer holding a valuable asset. Participation rates can be increased by raising public awareness of deferral programs through outreach and advertising, by streamlining application processes, and by offering low interest rates.

7.2.3 Circuit Breakers

Circuit breaker programs provide targeted property tax relief to households with the heaviest property tax burdens relative to their incomes. Circuit breakers are widely used in the United States. The following is an analysis of the main policy options. Most states restrict circuit breakers to low-income elderly homeowners and renters, although 40 percent of states with such programs also cover nonelderly households. Besides deferrals, circuit breakers are the most cost-effective approach to property tax relief because they target assistance to households with the least ability to pay, rather than providing more expensive across-the-board relief to all taxpayers regardless of whether the relief is needed.

The most effective circuit breaker programs set a threshold percentage of income that property taxes must exceed before tax relief is available, with a circuit breaker benefit offsetting property taxes above that level. For example, with a 5 percent threshold circuit breaker, taxpayers would receive a credit equal to the amount by which their property tax bill exceeds 5 percent of their income. In that case, a household with a \$10,000 income and \$800 property tax bill (8 percent of the income) would receive a \$300 tax credit. Some states set multiple threshold percentages, with the thresholds applied incrementally like a graduated income tax.

Other states use *sliding scale circuit breakers*, which provide all households within an income bracket the same percentage reduction in property taxes, with the percentage decreasing from low- to high-income brackets. Finally, some states use *quasi circuit breakers*, which provide fixed-dollar property tax credits to all households within an income bracket, with the size of the tax credits decreasing from low- to high-income brackets. While these two approaches are less targeted than threshold circuit breakers, they are still more cost-effective than across-the-board homestead exemptions or credits. Circuit breakers are almost always funded by a high-level government, like a state or province. In contrast, other types of property tax relief are often locally funded, in which case local governments must absorb the tax loss themselves and/or raise property tax rates to pay for relief. Thus, state-funded circuit breakers help mitigate fiscal disparities across local jurisdictions and provide tax relief without undermining local fiscal health. Some states directly fund circuit breaker programs by providing credits on the income tax. Alternatively, states may reimburse local taxing jurisdictions for their potential revenue loss due to circuit breakers.

State administrative agencies and local assessors should promote awareness of circuit breaker programs and provide outreach and assistance to those wishing to apply for the benefits.

7.2.4 Classification of Property

Classification (or differential) systems provide favored treatment to certain types of property. The tax benefit is provided by assessing the property at a fraction of its full market value. Property classes with lower ratios receive greater benefit.

As an alternative, some classification systems alter the tax rate, setting a lower rate for the favored classes of property. The rate paid by these taxpayers therefore is lower, although their assessments (values) are unchanged. Although variable tax rates also can add to complexity and confusion, they maintain the independence of the appraisal and taxation processes and may therefore have an advantage over assessment classification schemes for jurisdictions that do not have overall or rate uniformity requirements.

Classification differs from exemption in that an application generally is not required. It is instead based on broad categorization assigned by the assessor rather than individual circumstances. Classification does afford some protection from reappraisal effects for protected classes. However, classification violates the economic principles of ad valorem taxation because properties tend to be taxed at more or less favored percentages of value based on political, not economic, conditions. Classification may also violate constitutionally mandated protection from discrimination.¹⁷

Classification adds a layer of complexity to the understanding of the property tax. This effect worsens as the number of classifications and variance in the percentages to be assessed grows.¹⁸ Classification violates the visibility standard providing instead a less open system in which assessment equity errors are easier to hide and more difficult to discover.

Numerous studies indicate that appraisal equity, as measured by such indicators as the coefficient of dispersion (COD), improves significantly when governments eschew fractional assessments and classification schemes for full market value.¹⁹ Finally, classification obscures the effective tax rate. In a classification system, the assessment fraction (ratio) for the class must be multiplied by the nominal tax rate to determine the effective tax rate. This step increases confusion and reduces understandability.

7.2.5 Tax Credits

Tax credits can be an effective way of reducing the financial impact of property taxes on selected types of taxpayers without affecting the assessment process or the ability of local units of government to receive funding generated from the property tax. Tax credits typically are allowed in the form of reduced income tax liability resulting from a property-tax-related expense. For example, low-income renters may be permitted to impute a property tax amount that is embedded within rent paid. This amount or some percentage of this amount may then be refundable or deductible through an income tax credit.

Property tax credits generally are most efficient and feasible when they are administered through a state or local income tax program. Refundable credits are more cumbersome to administer because they require money to be sent to individuals. However, refundable credits have the advantage of providing the full amount of the intended credit, whereas deductions or nonrefundable credits work only to the extent that offsetting income or tax liability exists.

7.3 Measures to Control the Overall Property Tax System

- Controls that limit increases in budgets, levies, and tax rates may be appropriate.
- Limits on the increase in market value are problematic and are to be avoided for reasons explained in Section 7.3.3.
- Truth-in-taxation programs promote transparency.

7.3.1 Budget Increase Limits

Regardless of whether a property tax system is budget (levy)- or rate-driven (see Section 6.2.1), it may be prudent to provide an upper limit, or cap, to the amount any local unit of government can increase the revenue it derives from property tax in any year. Such a system typically imposes a maximum percentage increase and typically provides exceptions to the limitation. Elective override provisions may be available, and there is usually some allowance to enable

¹⁷For example, judicial decisions related to the federal Railroad Revitalization and Regulatory Reform (4-Rs) Act of 1976 prohibit classification that would produce a lower assessment ratio for commercial and industrial property in comparison to the property of railroads, motor carriers, and airlines.

¹⁸A system with three classes of property and assessment fractions ranging from 15 percent to 30 percent of market value may not be too difficult to understand. Some systems, however, have 15 or more classes and fractions ranging from 3 percent to 50 percent of market value. Systems of this type should be avoided, and steps should be taken to simplify whenever possible.

¹⁹See, for example, “Analyzing Assessment Equity: Techniques for Measuring and Improving the Quality of Property Tax Administration” (IAAO 1977, 156–157).

additional amounts to provide services for new construction or growth (Paquin 2015, 10).

Budget increase limits can prevent reappraisal windfalls. However, truth-in-taxation provisions (see Section 7.3.4) can do the same without necessitating a one-shoe-fits-all approach. Budget increase limits have the following weaknesses:

- The cap may be generous for some units of government but may prevent others from adequately providing expected services.
- The ceilings often become floors; taxing units of government may be concerned about unanticipated future expenses and may feel obliged to set the maximum possible budget, even though it may not be needed.
- Because assessed values may change at different rates, budget increase limits do not usually constrain individual property tax changes.

7.3.2 Rate Limits

Rate limits constrain the maximum rate that can be levied. When assessments are stable or increase slowly over time, rate limits provide an effective brake on significant increases in property taxes, but they can strangle governments when there are long intervals between revaluations. Rate limits are less effective in controlling property tax growth when appraised values increase rapidly because of reappraisal or inflation. Under these conditions, such limits often produce revenue windfalls and fuel taxpayer discontent. Rate limits therefore have a place as part of a control system but should be coupled with budget (levy) or truth-in-taxation constraints.

7.3.3 Valuation Increase Limits

Limits that constrain changes in assessed or appraised value of property may appear to provide control. In fact, they actually

- Compromise property tax equity
- Distort the distribution of the property tax burden
- Tend to confuse taxpayers
- Add to administrative complexity.

Owners with properties that appreciate beyond the assessment cap limit receive a subsidy at the expense of those whose properties are decreasing in value or are increasing at lower rates. In addition, value increase limits typically focus their tax reductions on a relatively small number of properties with the largest increases. As a result, the majority of properties, some of which may still have had their assessments lowered by the cap, still pay higher taxes than they would if there were no cap at all. This effect is invisible to the taxpayer and therefore especially deceptive.

In effect, valuation increase limits result in lower effective property tax rates for owners of desirable property and higher effective property tax rates for owners of less desirable property. Similarly, when funds are distributed to school districts or other taxing jurisdictions based on taxable property value (indirect equalization), funding tends to shift from poorer areas to wealthier areas with rapid appreciation—an illogical and undesirable result. Legislators as well as the public should be made aware of the inequities resulting from valuation increase limits and be actively discouraged from pursuing such limitations. Any other control is preferable. A failure to keep valuations current has similar effects.

Valuation increase limits create the most distortion in horizontal equity because similarly situated properties no longer pay proportionately equal taxes. Vertical equity issues are less certain, especially if return to market value occurs only on condition of sale and if owners of low-value properties have lower income and are less mobile.

7.3.4 Truth in Taxation

Truth-in-taxation systems should be promoted whenever possible. Also known as truth-in-millage, truth-in-taxation systems place a notification burden on taxing units of government that are planning to increase rates or levies. Such procedures reduce the likelihood of reappraisal-related revenue windfalls because the additional revenue becomes highly visible.

In a truth-in-taxation system, clear, large newspaper advertisements or mailed individual notices are used to inform taxpayers of an impending increase in the rate of taxation or dollar amount to be charged. Usually, the effect of the increase on typical taxpayers must also be shown. Occasionally, such systems incorporate rollback elections or override (approval) elections.

A rollback election permits voters to negate seemingly excessive increases, while an override (approval) election permits voters to approve increases over a base allowance. Truth-in-taxation systems increase the openness and visibility of the property tax and place the burden of explaining increases on units of government seeking additional revenue.

In developing and adopting a truth-in-taxation system, it is important to recognize that the more successful systems include clear individualized notices of the effect of proposed budget changes on each taxpayer's property. Systems requiring only generic notices in newspapers tend to be confusing and often do not succeed in involving taxpayers in the budget process, promoting accountability, or effectively explaining budget increases.

7.3.5 Controls on Individual Property Tax Changes

Despite rate limits, budget (levy) limits, and truth-in-taxation provisions, the dynamics of market value may shift the tax burden between properties, raising some individual taxes more than any nominal limit. For this reason, the property tax system should include safety nets, such as circuit breakers, tax deferral programs, and credits, as discussed in Section 7.2.

7.4 Tax Incentives

- Property tax abatements and tax increment financing (TIF) systems often are used to attract businesses to economically depressed areas.
- Careful cost-benefit analysis should be encouraged before abatements or TIF areas are allowed.
- Tax incentives have the potential to achieve a variety of economic development goals, but overused and poorly designed programs can leave localities with smaller tax bases and no improvement in their local economies.
- Assessors have an important role in the negotiation, implementation, and administration of tax incentives.

7.4.1 Abatements and Tax Increment Financing

Tax abatements for economic development typically forgive all or a portion of property taxes for a specific period of time. TIFs use a different structure by pledging future property tax increases to fund expenses associated with infrastructure and improvements to support the development. TIFs may also involve bonds that will be paid off by revenue diverted in this manner.

Abatements require detailed analysis to prevent unanticipated negative effects. For example, the property receiving the tax incentive will not be added to the tax rolls for several years. As a result, the cost of public services like schools and infrastructure required to support the increased activity generated by the new business may go unmet or fall inordinately on existing property owners. Also, if the new business closes unexpectedly, there may be additional negative impacts, especially if many new homes and satellite businesses were built to support the new business. This problem can be especially acute with abatements given to cyclical industries prone to rapid boom-and-bust operation cycles.

Both abatements and TIFs can create areas of competitive advantage that can further damage the tax base by imposing a less favorable economic environment on existing businesses.²⁰ Abatements and TIFs also tend to pit cities, counties, and even states against each other in a competition to determine which area can offer the most lucrative package of tax incentives (Kenyon, Langley, and Paquin 2012). In this situation, an objective cost-benefit analysis is even more important to ensure that the outcome is a benefit to the community.

In addition to these concerns, abatement and TIF programs add to the administrative complexity of the property tax. Assessors may be required to track property values in abatement or TIF areas differently than in other areas, resulting in the potential need for additional computer or staffing resources to meet these demands.

7.4.2 Other Incentives

Policy makers have also implemented laws and regulations that eliminate or reduce tax burdens to encourage various activities, such as the following:

- *Historic Preservation.* Renovation and rehabilitation of buildings with historic designations may have a portion of the value of the property or the improvements exempt from the property tax to make the preservation of the historic property economically feasible.
- *Green Energy Development.* Solar panels, wind turbines, and other sources of renewable energy are often provided preferred treatment under the property tax to encourage their development. These incentives can take the form of partial exemptions or full exemptions from the property tax completely in favor of an alternative tax mechanism, based on their output, that provides a lower and more predictable tax amount.
- *Affordable Housing.* The creation and preservation of affordable housing is necessary in many areas (typically urban) where the cost of housing is beyond reach of those with limited, and in some cases moderate, incomes. This can be accomplished by providing specific exemptions to a portion of the value of the property to make its development economically feasible. Reduced assessments are also accomplished by placing deed restrictions on the property that limit its rental income or resale value. Since these restrictions remain on the property at sale, they establish limits on the market value that should be reflected in market-based assessments.
- *Current Use Assessments.* A unique form of these types of incentives is use value assessment. This encompasses the practice of open land used for farming or open space based on its current use, rather than on its market value (which is often significantly higher) for property tax purposes. Valuation of farmland or open space on the basis of use or productivity value generally has the effect of providing a partial exemption, but often no percentage or dollar adjustment can be clearly determined. As a result, the cost of the exemption is somewhat hidden. Preferential treatment for farmland and open land may be abused if the land is held for speculative purposes and is only incidentally used for farming. Assessing officers should make legislative bodies aware of this issue and should seek greenbelt or rollback legislation under which land that is changed from farming to development use within a certain period must pay a penalty related to the value that was not assessed under the farm use categorization (Anderson and England 2015).

While the preferred property tax treatment of these activities may be deemed to be desirable, they do serve to reduce the tax base and result in a loss of revenue or an increased burden on the remaining tax base. Accordingly, as with other forms of preferential tax treatment, they should be used sparingly and only when the outcomes they seek to produce significantly outweigh their negative impact on the tax base.

7.4.3 Role of Assessing Officers in Tax Incentives

Assessing officers possess knowledge in the disciplines of finance, real estate valuation, and development. As a result, they are important assets to their communities in the implementation and administration of tax abatements. Often when

²⁰For example, if advantageous tax treatment were given to develop a regional shopping center on the outskirts of a depressed city, downtown retail establishments that received no favored treatment might close or move to this center. If the shopping center were not required to pay property taxes and the downtown businesses no longer paid any, the net loss of revenue might be greater than anticipated.

a jurisdiction is considering a tax abatement incentive, most of the focus is on attracting a new business and jobs as well as the new real estate development that will result. The assessing officer needs to be the voice in the room that considers the impact of a potential abatement on the tax base and that seeks the evidence that the economic activity will not occur without the incentive.

An accurate accounting of the benefits and costs is necessary to determine whether a tax abatement or TIF program is effective. The Government Accounting Standards Board (GASB) has implemented GASB Statement No. 77, “Tax Abatement Disclosures,” to improve transparency around tax abatements (Government Accounting Standards Board 2015). GASB No. 77 requires governments that enter into tax abatement agreements to disclose information about the agreements in their financial statements and represents a significant change in how the costs of tax abatements are reported.

Assessors are uniquely positioned with the data and analytical tools for calculating these costs and are therefore essential to achieving compliance with the standard and meeting the larger goal of transparency.

Assessors should also note the following issues when tax incentives are considered:

- Many studies have shown that business locational decisions are only marginally related to property tax issues. The costs of labor, availability of trained workforce, transportation, and quality-of-life issues often take precedence. Assessing officers should make public policy officials considering abatements and TIFs aware of all these issues (Kenyon, Langley, and Paquin 2012).
- Communities should require full financial disclosure from firms seeking tax incentives to provide for informed decisions on whether the incentive is necessary and warranted.
- There should be some sort of means test by which the benefactor of an exemption or abatement can clearly demonstrate a need.
- Calculating the amount a development would pay if it were fully taxable provides an important baseline that can be used to calculate the benefit a firm or development will receive from a tax abatement.
- Clawback provisions, which provide for the return of all or a portion of a tax incentive, are an important tool to prevent unwarranted tax advantages from accruing to firms that fail to produce the economic benefits they promise.
- Assessors and stakeholders, including taxing districts and other taxpayers, should be involved to ensure administrative feasibility, cost-effectiveness, and overall transparency.
- Specialized exemptions may include mandatory PILOTs to prevent tax shifting and encourage participation in cost of public services.

8. PUBLIC ENGAGEMENT AND TRANSPARENCY

An active and visible public engagement program is a critical component of an effective property tax system. Effective public engagement includes active communications, open access to records (to the extent allowed by law), prompt attention to inquiries, a program to inform local journalists and media, an active web and social media presence, and participation in community meetings and programs. A program designed to enhance public understanding of assessments and property taxes alleviates taxpayer misgivings regarding reappraisal and other assessment activities.

Applications for participation in a program, such as an exemption, should be carefully designed with the affected taxpayers in mind. Such an application should not be overly complicated, should focus on required information, and should be easily obtainable.

Managing public expectations with today’s changing technology environment can be challenging. Assessors should adhere to current technology and data standards to help fulfil the commitment of delivering useful data. Using current standards supports the cross-jurisdictional use of data and supports aggregating local data to regional and state levels (see *Standard on Public Relations* [IAAO 2011]).

State/provincial and local assessing officers are stewards of public data. These data include property characteristics, assessments, sales data, and tax parcel maps, among other key data used by government, citizens, taxpayers, and private industry. Public access to these data is vital to open and transparent operations. Modern access to these public records should meet the public’s expectations and conform to laws and regulations governing privacy, open records, and public disclosure. Delivering these data in an accessible way increases the public trust and confidence in valuation and property tax operations.

The data delivered to the public should be current, correct, and usable. Today, assessment jurisdictions are expected to have updated sales and ownership data in just a few days. With the majority of these data having a spatial component, data should be presented in maps and easy-to-use apps.

Highly integrated GIS-based property tax portals providing information on ownership, enrolled tax programs, property tax due, as well as TIF districts can provide a high degree of transparency and taxpayer engagement. These portals may also be combined with budgetary information to give a complete picture of taxes collected and their budgetary allocation. With the public’s expectation of access to government services and data with mobile devices, state and local assessing jurisdictions should support technology that the public uses such as smartphones and tablets. These data should be delivered in standard formats, in web services, and with responsive applications, relieving the public from complicated data manipulation to be able to get answers to simple questions.

Engaging the public helps improve data accuracies particularly with property characteristics. With simple web and mobile apps, state and local assessing officers should implement capabilities for property owners and taxpayers to suggest improvements to data to augment field verification.

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GLOSSARY

Abatement. (1) An official reduction or elimination of one's assessed valuation after completion of the original assessment. (2) An official reduction or elimination of one's tax liability after completion of the assessment roll. (3) The temporary exemption of property from all or a portion of taxes that would otherwise be paid.

Ad Valorem. In proportion to value.

Acquisition Value. The market value of property at the time it was acquired by the present owner or of the last major physical change.

Appeal. A process in which a property owner contests an assessment either informally or formally.

Assessing Officer. In this standard, the general term used to describe any property tax official with professional responsibilities.

Assessment Acquisition-Value-Based. A system of valuing property at its market value as of the last transfer of ownership or of the last major physical change. A property is placed on the tax roll at its acquisition value. Annual increases are usually limited but may be updated when major physical changes occur or when the property is sold. The system established by California Proposition 13 is an example.

Assessment Level. The common or overall ratio of assessed values to market values.

Assessment Progressivity (Regressivity). An appraisal bias such that high-value properties are appraised higher (or lower) than low-value properties in relation to market values.

Assessment Ratio. (1) The fractional relationship an assessed value bears to the market value of the property in question. (2) By extension, the fractional relationship the total of the assessment roll bears to the total market value of all taxable property in a jurisdiction.

Audit. A systematic investigation or appraisal of procedures or operations for the purpose of determining conformity with specifically prescribed criteria.

Audit, Performance. An analysis of an organization to determine whether the quantity and quality of work performed meets standards. Ratio studies are an important part of performance audits of an assessing organization.

Audit, Procedural. An examination of an organization to determine whether established or recommended procedures are being followed.

Circuit Breaker. For qualifying property owners, a credit or rebate of specific amounts of property taxes incurred, whenever such taxes exceed specific percentages or amounts of household income. In instances in which renters are included, rent or rent equivalents substitute for property taxes.

Classification. The act of segregating property into two or more classes for the application of different effective tax rates by means of one or more special property taxes or a classification property tax system.

Clawback. A provision in a property tax relief measure designed to recover some or all of the taxes forgone when it is found that the property or the taxpayer is (or never was) qualified for the relief.

Coefficient of Dispersion. The average deviation of a group of numbers from the median expressed as a percentage of the median; in ratio studies, the average percentage deviation from the median ratio.

Credit, Property Tax. An offset against the property tax payment or another tax payment for taxpayers who meet certain criteria (e.g., renters) or whose properties have certain characteristics or are used for specific purposes (e.g., pollution abatement); a direct reduction in a tax payment rather than in a tax base.

Effective Tax Rate. (1) The tax rate expressed as a percentage of market value; will be different from the nominal (or stated) tax rate when the assessment ratio is not equal to 1. (2) The relationship between dollars of tax and dollars of market value of a property. The rate may be calculated either by dividing tax by value or by multiplying a property's assessment level by its nominal tax rate.

Elasticity (Tax). A measure of the responsiveness of tax yields to changes in economic conditions. The yield of an elastic tax increases rapidly in a growing economy. The yield of an inelastic tax increases slowly. Often measured by the formula

$$\text{Percentage change in tax} \div \text{percentage change in personal income}$$

Equalization. The process by which an appropriate governmental body attempts to ensure that all property under its jurisdiction is assessed at the same assessment ratio or at the ratio or ratios required by law. Equalization may be undertaken at many different levels. Equalization among use types (such as agricultural and industrial property) may be undertaken at the local level, as may equalization among properties in a school district and a transportation district. Equalization among counties is usually undertaken by the state to ensure that its aid payments are distributed fairly.

Equity. (1) In assessment, the degree to which assessments bear a consistent relationship to market value. Measures include the coefficient of dispersion, coefficient of variation, and price-related differential. (2) In popular usage, a synonym for tax fairness. (3) In ownership, the net value of property after liens and other charges have been subtracted.

Exemption, Homestead. Freedom from property taxation of all or part of the value of a homestead; a reduction in the property tax base.

Fairness. *See Equity*

Fractional Assessments. Assessments that by law or by practice have assessment ratios different from 1. Usually the assessment ratio is less than 1, and if assessment biases are present, different classes of property may have different fractional ratios. Fractional assessments are often condemned as offering a way to obscure assessment biases.

Homestead. A home; as usually used in this standard, a primary residence.

Immovable Property. Real property (land, buildings, and other improvements to land).

In Rem. A legal term derived from Latin that means “against the thing” and is used when property itself, rather than a person, is formally liable for the property tax.

Levy, Property Tax. (1) The total amount of money to be raised from the property tax as set forth in the budget of a

taxing jurisdiction. (2) Loosely, by extension, the millage rate or the property tax bill sent to an individual or property owner.

Market Value. Market value is the major focus of most real property appraisal assignments. Both economic and legal definitions of market value have been developed and refined. A current economic definition agreed upon by agencies that regulate federal financial institutions in the United States is as follows:

The most probable price (in terms of money) which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue influence. Implicit in this definition is the consummation of a sale as of a specific date and the passing of title from seller to buyer under conditions whereby

- The buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in United States dollars or in terms of official arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Millage, Mill Rate. A tax rate expressed as mills per dollar. For example, a 2 percent tax rate is \$2 per \$100, \$20 per \$1,000, or 20 mills per dollar. One mill is one-thousandth of one dollar or one-tenth of one cent.

Nominal Tax Rate. The property tax rate expressed as mills per dollar of assessed value or as a percentage of assessed value.

Object (of a Tax). The thing that is taxed (e.g., land only, buildings only, immovable [real] property, and movable [personal] property).

Own-Source Revenue. Government funding that comes from only within the jurisdiction under consideration. For local governments, this means that it excludes revenue received from federal and state intergovernmental grants; it may include taxes, current charges, and miscellaneous revenue collected by the jurisdiction. Alternatively, general revenue minus intergovernmental revenue.

Progressive Tax System. A method of taxation in which those with more resources pay a greater percentage of their resources than those with fewer resources. Income progressivity occurs in a tax system under which a taxpayer's average tax rate increases with income. This is often the case with income taxation based on multiple rates. Assessment progressivity occurs when effective property tax rates on high-value properties are greater than effective property tax rates on low-value properties.

Rate-Driven Levy. The property tax rate to be applied is specified in the budget or tax levy ordinance of a taxing jurisdiction, rather than the situation in which the total revenue to be raised is specified and the rate is calculated.

Ratio Study. A study of the relationship between appraised or assessed values and market values. Indicators of market values may be either sales or independent expert appraisals. Of common interest in ratio studies are the level and uniformity of the appraisals or assessments.

Regressive Tax System. A method of taxation in which those with fewer resources pay a higher percentage of their resources than those with more resources. Income regressivity occurs when people with low incomes pay a higher percentage of their incomes in taxes than people with high incomes. This often occurs in sales tax systems in which the tax is applied to groceries and other necessities. Assessment regressivity occurs when assessment levels or effective property tax rates on low-value properties are greater than assessment levels or effective property tax rates on high-value properties.

Salience. In the economics of taxation, salience refers to the visibility of the tax in question and how this visibility affects behavior.

Subject (of a Tax). The person responsible for paying a tax.

Subsidiarity. A principle of government organization that holds that decisions should be made at the level of government closest to where they will have their effect, such as by a local government instead of a state or central government. The aim is to make government more responsive to citizens' needs and to make it easier **for citizens to hold government accountable.**

Sunset Provision. A provision within a statute creating a law or agency that provides for its automatic termination at a fixed date in the future.

Tax Burden. Economic costs or losses resulting from the imposition of a tax. Burden can be determined only by detailed economic analysis of all economic changes resulting from the tax. In popular usage, the term often refers to the initial incidence rather than ultimate economic costs.

Tax Incidence. The distribution of a tax on natural persons who bear the tax after the completion of the process of tax shifting, to be distinguished in particular from the distribution of the tax on the persons, natural or legal, who pay it in the first instance.

Tax Incidence Analysis. Economic analysis that compares the way different taxes affect the distribution of income. It requires analysis of the impact of taxes on the market for the taxed item and the market for all factors (land, labor, and capital) used in producing the taxed item.

Tax Increment Financing (TIF). A system that earmarks future increases in tax revenue in a designated area to fund investments in that area. Funds may be invested in various programs, such as public infrastructure improvements or land write-down subsidies to private investors.

Tax Policy Analysis. The process of gathering and interpreting economic data to provide information that can be used by policy makers to formulate tax policy.

Truth-in-Taxation (Full Disclosure) Requirements. Legal obligations for property tax districts to make taxpayers aware of assessment increases, levy increase proposals, and the like and to give taxpayers an opportunity to participate in public hearings on the changes.

APPENDIX A. FEATURES OF GLOBAL PROPERTY TAX SYSTEM

A study of 187 countries that have a recurrent tax on immovable property (Almy 2013) reveals many differences from the highly decentralized U.S. system. Factors that affect these differences include history, culture, and the economy. Although the data for many countries were incomplete, this appendix attempts to summarize major differences in fiscal arrangements, administrative arrangements, main characteristics, and other system features among the countries studied. The number of systems for taxing immovable property annually is greater than the number of countries represented for two reasons. Some countries have more than one type of property tax (such as a land tax and a real estate tax). In several (chiefly, federal) countries, subnational governments, such as provinces and states, have the power to design their property tax systems.²¹

Fiscal Arrangements

Some unitary governments and most federal governments have devolved some of the power to tax property to subnational

²¹ The sample contained 147 unitary governments and 24 federal governments. A few subnational governments (usually former colonies) were included in the sample when information was available.

and local governments. Even when the central government controls the property tax system, a portion of property tax revenues usually is assigned to local or regional governments. In more than half the countries studied, local governments receive all property tax revenues. They typically have some discretion in setting tax rates and frequently have some discretion over granting exemptions. Sometimes they have discretion over whether to impose the property tax. In contrast, some federal governments (notably Austria and Germany) have centralized property tax systems.

Administrative Arrangements

Arrangements for administering taxes on property vary widely among tiers of government and agencies. Areas of difference include supervision and control, fiscal cadastre maintenance, assessment, valuation (if applicable), billing, collection, enforcement, taxpayer responsibilities, and private-sector roles.

- When local governments have substantial administrative responsibilities, supervision by a higher -tier government generally is weak. Aside from Canada and the United States, exceptions include Netherlands and New Zealand.
- A country's land tenure system (the nature of rights to property, the extent to which they are formally transferred, and how rights are documented and protected are all important) and title system (registration or deed recordation) influence administrative frameworks, as well as the features of the property tax (as discussed below). Title registration is much more common than deed recordation, which is the predominant U.S. system. Central governments usually are responsible for title registration.
- Responsibility for valuation can be assigned to cadastral agencies, tax agencies, and separate valuation agencies (like assessor's offices). Central governments are most often responsible for valuation, although it can be a responsibility of local governments, which they sometimes share with regional and central governments. Modern mass valuation systems are rare.
- Billing can be separated from collection. Local governments are most often responsible for both functions, although the functions can be a responsibility of central governments. A few countries still have primitive collection methods, but most make collection more convenient by allowing payments to be made in a variety of ways.
- Taxpayers often are required to file a return declaring their ownership and providing details about their properties. In about half the cases, they value or compute the value of their properties from government-supplied schedules.
- Often governments have the authority to contract with private-sector valuers.

Main Characteristics

Aside from fiscal and administrative arrangements, differences in property tax systems are found chiefly in who is responsible for paying the tax (the *subject* of the tax), what is taxed (the *object* of the tax), the basis of assessment, and how different categories of property and property owners (or users) actually are taxed. This section covers the first three areas of difference.

The Subject of Taxation

Globally, there are two main ways of defining liability for paying the property tax: (1) the thing that is taxed (the object) is itself liable (*in rem* taxation) and (2) a person is, or persons are, designated as liable (*in personam* taxation). The distinctions are most important when past-due property liabilities are enforced. Factors affecting the choice include the unit and basis of assessment (discussed below) and the nature of the land tenure system.

In rem liability appears to be confined chiefly to Canada, Chile, and the United States. Under this system, the principle of certainty is served, because tax liabilities sometimes can be transferred to third parties, who then have a lien against the property. The property is security for the lien and can be confiscated if the lien is not satisfied. The owner is only nominally the taxpayer. *In rem* liability can be harsh in that an owner can be stripped of a valuable property because of a small tax liability, sometimes due to administrative mistakes or incompetence, and sometimes due to criminal conspiracies. (Legally designating non-owners as taxpayers is incompatible with *in rem* enforcement.)

Under in personam liability, a taxpayer must be identified and physically located before a liability can be established and any arrears (delinquencies) can be enforced. Two considerations can affect liability: (1) the relationship of the person to the property (object) that is taxable and (2) the nature of the person. Regarding the relationship, property owners, occupants (tenants), and either or both can be deemed to be responsible for paying the property tax. Designating owners (or properties) as taxpayers can simplify administration, because there are fewer assessments to be made and because property ownership usually is more stable than occupancy. This is a sensible choice when the owners of most properties can be readily determined and ownership is widespread (and markets are active). Countries in which ownership often is concealed or is unsettled usually adopt a hybrid system: The owner is the taxpayer when known, and the occupant (user) is the taxpayer when (a) ownership has not been determined or (b) when the person has a right to use government-owned (state-owned) property. When more than one person is potentially liable for paying property taxes, the principle of certainty requires that rules for making the liability determination be clear. The main options are (1) to designate only one person as the taxpayer or (2) to assess each person in proportion to her or his interest in the property. The first option simplifies administration and transfers to the property owners or occupants any problems with raising the money needed to pay the taxes. Advocates of the second approach stress its fairness to the part owners or occupiers who pay their share; they have no responsibility for the amounts unpaid by others. (Some laws allow persons who pay property taxes on behalf of another to establish a lien.) A policy argument for designating the occupant as the taxpayer, especially when many people live in rented housing, is that more people have a picture of the costs of government, arguably strengthening local government accountability. Some countries (including France and Netherlands) designate both the owner and the user as taxpayer with each paying a stipulated share.

Normally, no distinction is made between legal persons (enterprises, also known as juridical persons) and physical persons (living human beings, also known as natural persons). However, several countries do make a distinction, which can greatly affect the nature of the tax base and influence how property is held.

Especially when occupants are generally liable for paying property taxes, there also need to be rules governing the treatment of unoccupied (vacant) properties. Otherwise, vacant property can escape taxation, which can encourage inefficient land use.

The Object of Taxation and the Unit of Assessment

The objects (or coverage) of a property tax are the types of property that are potentially taxable. The possibilities are some or all categories of real (immovable) property (specifically, land separately, buildings separately, or both as a unit) and of personal (movable) property (also known as chattels). Along with defining the types of property that are taxable, it is necessary to define the unit of assessment. When the owner is responsible for paying the tax, the property (parcel) typically constitutes the unit of assessment. The premises occupied (e.g., an apartment) typically is the unit of assessment when a non-owner occupier is responsible for the tax.

As previously noted, a country may have more than one type of property tax. However, the most common choice (98 countries in the sample) is a real property tax under which both land and buildings (and other improvements) are valued and taxed under a single law. The next most common (43 countries) is such a tax combined with another property tax, such as a separate land tax, building tax, or both. Twenty-five countries have a land tax and a building tax. Nine countries have only a land tax, and seven have only a building tax.

Only 28 countries tax movable (personal) property. Usually only a few specified categories are taxable. The categories may be based on physical or functional characteristics (such as machinery and equipment, vehicles, and watercraft). The categories can be based on ownership type (such as business property). When a precise categorization of taxability is difficult, narrow rules (or lists of taxable types) are used.

Some countries employ additional factors to define the scope of a property tax. These include taxing only properties within municipal boundaries (formerly the case in Egypt), properties considered “urban” or “rural,” and only legally recognized properties (those that are officially registered in a cadastre and those with authorized construction). The latter policies can create incentives for persons who have customarily used land or buildings or have received property rights

under a restitution or privatization program to avoid taking steps to protect their rights, because doing so makes them liable for taxation. Such policies can also create incentives to construct buildings without authorization and conceal inheritances and other ownership changes. High property transfer taxes have a similar effect.

Some countries tax only land not covered by a building or structure (Czech Republic and Hungary are examples).

Some types of property, such as public rights-of-way and routes of transportation (waterways, railroads, and streets and roads), can be excluded from cadastres and the property tax base on grounds of administrative convenience. This is a common practice, because there is no market evidence of the value of long-established public routes of transportation. Mines and mineral rights can also be excluded from the property tax base.

In Ecuador, Guatemala, Nicaragua, and Peru, the base is the sum of the taxpayer's holdings, not each individual property (De Cesare 2010).

Basis of Assessment

The basis of a property tax is the quantity that is measured or estimated to determine each property's relative share of the total property tax burden. A value basis is most common, with 115 countries choosing between an annual (rental) value basis (38 countries) and a capital value basis (77 countries). Twelve countries base their property taxes solely on a measurement of surface area (of land, buildings, or both). Fifty-four countries employ more than one basis, including four with a flat per-property tax.

Each basis has advantages and disadvantages. This standard, however, argues that meaningful uniformity in property taxation is best achieved when current market value is the basis of the property tax, whether expressed in annual or capital value terms.

Under an area-based property tax system, individual tax assessments are determined simply by multiplying a measurement of area by a rate and any applicable modifying coefficients. Such systems are usually simpler to administer than value-based systems. There is no need to collect and analyze market data. There is no need for revaluations. Area-based property tax systems also are more objective than value-based systems, in that area measurements are less contestable than value determinations. On the other hand, area-based property tax systems are often perceived to be less fair. Highly desirable properties can pay the same taxes as undesirable properties. Assessments bear little relationship to either ability to pay or benefits received, which can reduce public acceptance. Although taxpayers might see this as an advantage, area-based property taxes are less buoyant than value-based systems.

Some of the disadvantages of area as a basis can be counteracted by introducing adjustment coefficients or rate differentials that reflect market factors. However, doing so reduces simplicity and objectivity. Many urban area-based systems involve adjustment coefficients for the size of a municipality, the area (zone) within the municipality, the story of a building in which an apartment is located, and the like. Commonly, rates or coefficients reflect differences in soil productivity in rural systems. Arguably, a well-designed area-based system can meet tests of equity as well as a poorly designed or long-neglected value-based system. Simple price per unit of area models in effect are a blend of a value basis and an area basis.

There are many differences among value-based property tax systems, based on the value concept, valuation standards, and valuation practices. One value concept is annual value, under which only a single year's rental income serves as the basis. Under capital value, another concept, the present value of future rents and other benefits serves as the basis for the tax. Open-market, arm's-length sales provide the evidence of capital market values. Thus, the two value concepts normally are not mathematically equivalent ways to apportion property taxes (although they can be, depending on valuation practices).

A standard of value other than market value can be employed. Such a standard can be current-use value (common for agricultural properties), insurance value, or acquisition price. In practice, when market value is not the basis, tax values

usually are described as being notional or normative, and they only accidentally reflect market value patterns. That is, they simply result from the application of rules, base rates, and adjustment coefficients.

Many factors can affect valuation practices, including the importance of the property tax, the administrative framework, the skills and aspirations of the valuers responsible for valuation, available resources and technology, market activity, and so on. To distinguish values produced for property tax purposes from values produced for other purposes, terms such as cadastral value, tax value, and assessed value are used.

Another important characteristic of a value-based property tax system is the frequency of revaluations. In principle, revaluations should be frequent enough to maintain an acceptable degree of uniformity in effective tax rates. That is, valuations should be adjusted upward or downward to keep pace with market developments and changes in price levels. Ideally, valuations would be updated annually if necessary, but this frequency is not common (in addition to areas in Canada and the United States, Iceland and Netherlands revalue property annually). More commonly, a cycle is stipulated, typically between two and five years. When properties are revalued cyclically, one option is to stagger the revaluation by property type or area so that the entire jurisdiction is revalued during the cycle (so-called “rolling revaluations”). The other approach is to revalue the entire jurisdiction in one large project. Especially when the cycle is long (say, five years), legal revaluation requirements often are ignored. When the interval between revaluations is long, indexing outdated values can maintain some buoyancy in revenues (France and Germany follow this approach). If separate factors are developed for different property types and areas, overall valuation accuracy can be improved slightly, thereby increasing property tax equity. Indexing also can reduce shocks caused by reappraisals.

Rate Structures and Controls, Exemptions and Other Relief Measures, and Other Special Provisions

No country taxes all immovable property uniformly. Most use familiar ways to vary property tax burdens among different types of property and taxpayers. As discussed in this standard, these include full and partial exemptions, temporary exemptions and incentives, differentials in rates (or assessment ratios) among classes of property or owners (at least 75 countries have classified property tax systems), and broader controls on taxes. Primary residences and agricultural property most often receive favorable treatment. Except for efforts to attract new business or retain existing business, business property rarely receives favorable treatment. Second homes may be subject to higher taxation. A few countries impose higher taxes on un- or underdeveloped land as a development incentive. Small or low-value properties (including residences) can be exempted from property taxes on grounds of compassion or “efficiency.” In contrast, a few countries impose a minimum tax, partly to strengthen the social contract between taxpayers and government. A few countries allow central government property to be taxed. Many countries have long lists of properties or owners eligible for full or partial exemption.

Bibliographic Note

Since 2013 when Almy wrote this paper, sporadic efforts have been made to update the database used in this appendix and additional works on individual countries have been published. In addition, several substantial multinational works have been published, as follows:

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APPENDIX B. CATEGORIES OF TAXES ON PROPERTY

The term property tax can cover many types of taxes. The subject of this standard—and the most important category—is a recurrent (annual) tax on immovable property, that is, a tax on land, buildings or both. Annual taxes on movable (personal) property also are covered.

The International Monetary Fund (IMF) and the Organization for Economic Co-operation and Development (OECD) have developed largely complementary schemes for classifying taxes, which they use in presenting property tax statistics. Taxes related to land and buildings include those listed in Table B-1.

Table B-1. Classification codes used by IMF and OCED

| Tax Category | Classification Code | |
|--|---------------------|--------------|
| | IMF | OECD |
| Taxes on property | 113 | 4000 |
| Recurrent taxes on immovable property | 1131 | 4100 |
| Recurrent taxes on net wealth | 1132 | 4200 |
| Estate, inheritance, and gift taxes | 1133 | 4300 |
| Taxes on financial and capital transfers (including notary fees, stamp duty, and transfer taxes) | 1134 | 4400 |
| Other non-recurrent taxes on property | 1135 | |
| Income tax on imputed rental income of owner-occupied homes | Included in 111 | Part of 1110 |

APPENDIX C. TAX ANALYSIS APPROACHES

As noted in Section 3, assessing officers can and should play a significant role in informing policy makers regarding equity, as well as administrative aspects of property tax policy options. Any analysis of equity issues should be rooted in property tax and valuation data that generally are available from one of two sources: (1) assessment and tax records that are developed locally or compiled by state or regional entities and (2) nationally compiled databases that include local or regional demographic information. Examples of analyses that fit either of these criteria include the following:

- The amount or proportion of property tax paid by different sectors of the economy of a local area or region, such as a state. Sectors analyzed should be those with significant presence, typically residential, commercial, industrial, agricultural, and others that may be significant in a particular area.
- The amount or proportion of taxable value represented by different types of property significant in a local area or region. These could be similar to those noted in the previous bullet, but may also include such information as numbers or arrays of very high-value properties, thus enabling further analysis of the potential effects of exemptions that may be under consideration for such large properties.
- The effect of exemptions and tax relief programs, such as circuit breaker and tax deferral, in terms of numbers of households or business units affected, money saved by typical affected taxpayers, and effect of taxing districts or noneligible taxpayers.
- Depending on the rate or levy basis of the underlying tax system, potential tax revenue losses or shifts to other sectors related to proposed new or expanded exemptions. An example would be the potential effect of exempting all business personal property in a state that currently taxes such property. Another example would be the potential effect of increasing a partial exemption for primary residential property with or without replacement funds from a higher level of government.
- A comparison of property and other major tax types in terms of typical amounts paid by homeowners earning various amounts of income or with different value properties. This type of analysis is currently available from a long-standing study conducted and annually updated by the District of Columbia in the United States (Government of the District of Columbia 2015).
- Tax effort, tax capacity, and tax burden studies showing how states compare in terms of per-capita taxes or taxes in comparison to typical income in that state. These studies should be based on independent and reliable data sources that have a history of consistency and have no underlying normative biases. An example is *Comparative Tax Potential: Tax Burden in Idaho and the United States*, annually updated by the Idaho State Tax Commission using data obtained from the U.S. Census Bureau and the Bureau of Economic Analysis (Dornfest 2019). The methodology used in compiling this report is demonstrated in Tables C-1 and C-2.
- Tax Incidence studies, showing the comparative amount or proportion of various taxes paid by various sectors of the economy. An example is the Minnesota Tax Incidence Study, annually updated by the Minnesota Department of Revenue using tax record data reported to the Department of Revenue and showing taxes on businesses and on households by income and population decile (Minnesota Department of Revenue 2019).
- To the extent practical, agencies compiling information and preparing tax analysis studies should
 - Prepare studies on a regular basis the exact nature of which depends on the data being analyzed and the frequency of any updates
 - Prepare studies using consistent, proven, and long-standing methodologies
 - Maintain databases including current and previous studies, and make studies readily available on agency websites
 - Publicize the existence of and major features in current updates.

Table C-1. Tax burden methodology—Income-based comparison^a

| Step Description | Calculation or Source | Explanation |
|--|---|--|
| Total personal income, each state and nationally | U.S. Bureau of Economic Analysis | Enables comparison of states with disparate income levels. |
| State and local property tax revenue | U.S. Census Bureau | Needed to determine percentage of income spent on property tax. |
| Tax capacity, potential | U.S. state and local property tax divided by U.S. total personal income to find U.S. average actual tax rate as percentage of income. This percentage is then multiplied by each state's total personal income. | Provides amount of tax revenue a state would raise if its effective tax rate matched the U.S. average rate. |
| Underutilized potential | Potential tax capacity minus actual state and local property tax revenue for each state | Provides indication of the amount by which a state's actual tax revenue exceeds or is below that state's tax capacity. |
| Average actual tax rate | U.S. state and local property tax divided by U.S. total personal income. Repeated for each state. | Used in calculation of tax capacity. |
| Tax effort | Percentage of tax capacity used. State and local tax in dollars divided by tax capacity. | U.S. average state. |
| Rank | Position out of potential of 51 states including the District of Columbia | 1 = highest tax effort |

^aThe District of Columbia is included in this analysis as if it were a state. Data used in these tables generally are updated once per year.

Table C-2. Tax burden methodology—Population-based comparison^a

| Step Description | Calculation or Source | Explanation |
|--------------------------------------|---|--|
| Population | U.S. Census Bureau estimates | Estimates are updated annually and correspond to July 1 of a given year. |
| State and local property tax revenue | U. S. Census Bureau | Needed to determine amount of property tax per person (per capita). |
| Per-capita property tax revenue | State and local property tax revenue divided by population | |
| Per-capita tax capacity | U.S. average per-capita property tax multiplied by each state's population | Amount that would be raised given per-capita property taxes that match the U.S. average |
| Per-capita tax effort | Each state's per-capita property tax divided by that state's per-capita property tax capacity | Enables comparison of each state taking population differences into account. Standardized around 100 with greater numbers indicating per-capita property taxes exceeding the U.S. average. |
| Rank | Position out of potential of 51 states including the District of Columbia | 1 = highest tax effort |

^aThe District of Columbia is included in this analysis as if it were a state. Data used in these tables generally are updated once per year.

APPENDIX D. EDUCATION FINANCE

An important property tax issue is education finance in the United States. In most states, property taxes are the primary source of funding for local schools. Courts have consistently ruled that inequalities in property tax bases lead to unconstitutional differences in education funding violating students' rights to an "adequate and equal" education. Property-rich districts can provide more and better programs than those with low property values even when these districts impose heavier tax burdens.

States have responded by using "minimum foundation" programs. While the programs vary in the details, each program requires a school district to have funding sufficient to provide a minimum amount of support for each student. The minimum amount consists of the local property tax effort and state aid. A required level of spending is established by the state to provide at least minimum resources for each pupil. If the local property tax (base times an established minimum rate) does not produce the necessary minimum, the state funds the difference.

A district would receive more state aid if the assessment authority maintains valuations below an established percentage. States have responded by increasing the level of local assessment to a required or uniform percentage (direct equalization).

Indirect equalization may be used where local assessments are not changed but state aid is distributed assuming the assessment level complies with the requirement. Both processes involve the use of ratio studies to estimate the departure, and state aid is distributed based on what assessments would have been at the required level.

Assessment Standards of the International Association of Assessing Officers

Guide to Assessment Standards

Standard on Assessment Appeal

Standard on Automated Valuation Models

Standard on Contracting for Assessment Services

Standard on Digital Cadastral Maps and Parcel Identifiers

Standard on Manual Cadastral Maps and Parcel Identifiers

Standard on Mass Appraisal of Real Property

Standard on Oversight Agency Responsibilities

Standard on Professional Development

Standard on Property Tax Policy

Standard on Public Relations

Standard on Ratio Studies

Standard on Valuation of Personal Property

Standard on Valuation of Property Affected by Environmental Contamination

Standard on Verification and Adjustment of Sales

To download the current approved version of any of the standards listed above, go to:

[IAAO Technical Standards](#)