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INTRODUCTION TO FEATURES OF PROPERTY TAX SYSTEMS

An overview of property tax basics with summaries of the property tax systems for Connecticut and four of its regional peers

April 2018

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Introduction

For local governments across the country, property taxes are the primary source of revenue and play a critical role in providing funding for public education, transportation, law enforcement, health care facilities, and other municipal services. In fiscal year 2015 alone, Americans paid nearly $488 billion in property taxes — roughly 17 percent of all state and local taxes paid.[1] With property taxes representing one of the largest taxes paid by households throughout the country, an understanding of how property tax systems work, and how they impact revenue and spending, is crucial for state and local policy discussions and decisions.

This report provides an overview of the basic features and structures found in property tax systems across the United States. Additionally, the report summarizes and analyzes the property tax systems of Connecticut and several of its regional peer states (Vermont, Massachusetts, Maryland, and Pennsylvania). Each state overview offers a summary of specific components of the respective state's property tax system, including taxing authorities, property assessment, taxation rates, and tax exemptions and/or relief programs.

Property Tax Basics and Features

Taxing Authorities and Types of Government

There are four primary types of governments that assess property taxes: state governments, county or parish governments, municipal or township governments,[A] and special purpose governments.[2] Although there is wide variation across the United States in systems of municipal or regional taxation, all but two states — Connecticut and Rhode Island — have organized county or parish systems of government through which taxes are levied and services such as public hospitals, health departments, public schools, courts, public safety, and administration are provided.[3]

In many states, school districts are considered fiscally independent and are a form of a special purpose government, meaning they have substantial autonomy to fix and collect charges and to issue debt for the provision of educational services.[4] Fiscally independent school district most often levy and collect property taxes separately from townships and municipalities. This means in states with fiscally independent school districts, taxpayers might receive a tax bill from the school district, which is separate from either the county or municipality that also collects a property tax for the provision of municipal services. Thirty states have entirely fiscally independent school districts, while 16 states have some fiscally dependent and some fiscally independent school districts, and eight states have state-dependent school districts. Only Connecticut, Maine, Massachusetts, New Jersey, and Rhode Island have school districts that are fiscally dependent on municipalities.[5]

In states that operate primarily municipal property taxation systems, local governments are empowered to tax the value of real and/or personal property within municipal boundaries.[6] In these systems, municipalities set property taxation rates and collect property taxes directly from residents.[7] Property taxes are used to provide municipal services such as fire prevention, snow and waste removal, community services, police departments, and administrative staffing. In addition, in states with fiscally dependent school districts, municipal property taxes also support public school systems.[8]

Some states assess and collect property taxes at the state-level, and the associated revenues may be used to support a state's general fund or may be dedicated to particular purposes, such as for the provision of resources to public schools. Statewide systems for the assessment and collection of property taxes have a number of variations. However, within statewide property tax systems, local governments frequently levy a portion of a resident's total property tax for the provision of municipal services and the state collects a second portion.[9] In statewide property tax systems, there may be different rates for local and state property tax levies, or there may be

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[A] Municipal governments are defined as "political subdivisions within which a municipal corporation has been established to provide general local government for a specific population concentration in a defined area," whereas township governments are "associated with minor civil divisions" that are "created to provide services or administer an area without regard necessarily to population." All six New England states have township governments, although of these, only Rhode Island and Connecticut do not also have a county government system.

different rates for different types of property. In some states, the state will collect its portion of property taxes directly, while in others, residents pay all their property taxes to a local tax collection agency, which then directs a portion of those revenues to the state.[10]

Assessment and Taxation Rates

No matter what type of government entity collects property taxes, there are two primary calculations that determine the total amount of taxes a resident should pay in real or personal property taxes, the assessment rate (or value) and the taxation or mill rate. Both of these calculations impact the effective tax rate, which is the ratio of total taxes paid to the market value of a piece of property.

The first step in a property tax system is to assess the value of each piece of property within a taxing authority. However, in many states, property is assessed at a rate that is a percentage of market value. This practice is a type of property tax exemption, which has the effect of lowering the effective tax rate. In some states, the assessment rate is set at the state-level, while in others the power to set assessment rates lies with the government entity levying the property taxes.[11] The taxing entity then sets a taxation rate, which is expressed as a percentage of the assessed value of the property, or as a mill rate. A mill rate is the amount of money taxed per $1,000 of assessed property value. Therefore, a mill rate of 20 means a taxpayer will pay $20 for every $1,000 of taxable property.

The total amount of taxable property, at assessment value, within a taxing authority is often known as the grand list. Generally, a taxing authority sets a budget, then determines the total amount of property tax revenue necessary to provide budgeted services, then sets a taxation rate that will garner the required revenue based on the authority's assessed grand list. If the value of the grand list decreases, due to lower property values or due to lowered assessment rates, the taxing authority will typically have to increase the taxation rate to fund services at the same budgeted level. This is one of the primary reasons why municipal property tax systems are often regressive, meaning lower-wealth communities have higher rates of property taxation than higher-wealth communities. The larger the value of a community's grand list, the lower a taxation rate the taxing authority needs to set in order to collect sufficient revenue.

The effective tax rate is the percentage tax on the market value of a piece of property.[12] It is important to use the effective tax rate when comparing property taxes between different taxing authorities, as exemptions and assessment rates can inflate taxation rates.[13] Figure 1 below shows how the mill rate, tax rate, and effective tax rate are calculated.

Figure 1: Sample Effective Tax Rate Calculation

Real (market) Property value	Assessment Rate	Assessed Value (Real Property Value * Assessment Rate)	Mill Rate	Tax Rate (Mill Rate / $1,000)	Tax Amount (Assessed Value * (Mill Rate / $1,000))	Effective Tax Rate (Tax Amount / Real Property Value)
$100,000	70%	$70,000	20	2.0%	$1,400	1.4%

Property Tax Assessment Schedules

Property tax assessment schedules refer to the number of years between property tax valuations by a taxing authority, where properties are assessed based on changes in market conditions.[14] Assessment schedules vary from state to state. Some states perform revaluations annually, while some states only require revaluation every five years. Optimally, tax rolls are accurate, up-to-date, and based on actual market conditions.[15] The longer an assessment cycle, the greater the chance property values have changed considerably since the previous assessment. For taxpayers, longer assessment cycles could mean a steep hike in taxes if their property has substantially increased in value.[16] For taxing authorities, longer assessment cycles could precipitate a drop in the overall taxable value of property, which can have broader consequences as the municipality, county, school board, etc. sets its budget, and can cause an increase in rates of taxation.[17] More frequent revaluation mitigates these hazards.[18] If a state uses a longer assessment schedule, it may choose to gradually impose any increase or decrease in taxation over the revaluation period, as seen in Maryland.[19]

Split Roll Taxes

Some states tax property types at different tax rates. This is called a "split roll" tax. Generally, split roll taxes refer to certain types of property being taxed at lower effective rates than other types of property.[20] States with split roll taxes may apply different tax rates to two or more property types. Split roll taxes are usually implemented in order to reduce the tax burden on homeowners by taxing owner-occupied homes at lower rates than commercial property.[21] There are two general methods to achieving lower effective rates on property types:

1. Applying different tax rates to different property types.
2. Applying different assessment rates to different property types.

Figure 2 below details how these two methods achieve effective lower rates on a hypothetical property with a real value of $100,000. In Example 1, the assessment rate is unchanged, but the mill rate is lowered, effectively decreasing the property tax amount by $350. In Example 2, the assessment rate is decreased to 52.5 percent, but the mill rate remains at 20; achieving the same decrease in property tax as in Example 1.

Figure 2: Sample Split Roll Tax Implementation

Scenario	Real Property Value	Assessment Rate	Assessed Value (Real Property Value * Assessment Rate)	Mill Rate	Tax Amount (Assessed Value * (Mill Rate / $1,000))
No Split Roll Tax	$100,000	70%	$70,000	20	$1,400
Example 1: Different Tax Rates	$100,000	70%	$70,000	**15**	**$1,050**
Example 2: Different Assessment Rates	$100,000	**53%**	$52,500	20	**$1,050**

Property Tax Exemptions

A property tax exemption is a form of tax relief that shields a portion of property value from taxation. This occurs prior to the levying of tax rates, which are excluded from this form of relief, and all property is taxed at the same rate whether the property owner qualifies for the exemption or not.[22] There are two general types of property tax exemptions:

1. Percentage exemption
2. Dollar value exemption

A percentage exemption typically exempts a flat percentage of the property for all applicable property owners, while a dollar value exemption exempts a certain amount of property value (in dollars) from taxes.[23]

One common property tax exemption, called a homestead exemption, is primarily directed at owner-occupied homes that are a taxpayer's primary residence (also known as a "homesteads"). Twenty-three states plus the District of Columbia utilize some type of homestead property tax exemption.[24] Often, states pair homestead exemptions with eligibility criteria targeting disabled, elderly, or veteran homeowners. Targeted homestead exemptions can, however, be implemented in addition to the standard homestead exemption for which all owner-occupied primary homes are eligible.[25] Figure 3 below details sample implementations of each homestead exemption type.

Figure 3: Sample Homestead Exemption Implementation

Scenario	Real Property Value	Assessment Rate	Assessed Value (Real Property Value * Assessment Rate)	Homestead Exemption	Assessed Property Value after Homestead Exemption	Mill Rate	Tax Amount (Net Value * (Mill Rate / $1,000))
No Homestead Exemption	$100,000	70%	$70,000	-	$70,000	20	$1,400
Homestead Exemption – Percentage	$100,000	70%	$70,000	**10%**	$63,000	20	**$1,260**
Homestead Exemption – Dollar Value	$100,000	70%	$70,000	**$7,000**	$63,000	20	**$1,260**

Property Tax Circuit Breakers

A circuit breaker program is a method for reversing the regressive nature of the property tax by giving some amount of tax relief to a specific population of property owners, such as those below an income threshold or a combined property tax and income measure. A circuit breaker is one form of property tax relief among other forms, such as assessment freezes, credits, deferrals, and exemptions.[26]

Circuit breakers can be targeted to low-income residents, elderly residents, veterans, etc., and are intended to protect higher-need or otherwise vulnerable property owners. For example, many elderly homeowners may no longer have a mortgage payment, but live on fixed-incomes, and could find themselves unable to pay large property tax bills, which puts them in danger of losing their homes. Advantages of circuit breakers include that they increase tax equity by granting tax relief to the lowest-income taxpayers, and are less expensive than property tax exemptions or rate decreases because they are targeted to a small number of taxpayers.[27]

However, many circuit breakers come in the form of property tax credits, which, if paid by the state could be an additional type of state-level tax expenditure as opposed to tax exemptions, which essentially redistribute the tax burden among taxpayers.[28] In 2016, 34 states plus the District of Columbia used property tax circuit breakers based on a variety and combination of eligibility criteria.[29] Figure 4 below details the number of states utilizing each eligibility type.

Figure 4: Number of States by Circuit Breaker Eligibility Criteria, 2016[30]

Eligibility Criteria	Number of States
Age	29
Disability	21
Homeowner	35
Income Ceiling	35
Other Criteria	14
Principal Residence	17
Property Value Limit	8
Renter	23
Surviving Spouse	12
Veteran	7
Wealth Limit	4

Property Tax Deferrals

Some states allow for individual taxpayers, who meet certain qualifications, to defer their tax payments for a limited period if they become unable to pay — often due to economic hardship or disability — until they are able to sell the property. When the property is sold, the tax loan is paid from the revenue of the sale, or from the estate of the homeowner if the homeowner dies.[31] Similar to property tax circuit breakers, many of these programs are targeted toward vulnerable taxpayer groups such as disabled veterans or first responders and elderly taxpayers.[32] Some property tax deferral programs waive interest payments on the taxes owed, while others charge annual interest on the debt.[33]

Statewide Property Tax Systems to Support Public Education

Prior to the 1970s, the primary source of funding for public schools in the United States came through local property taxes. However, over the past 40 years, federal and state governments' funding for education has increased, driven largely by court decisions concerning the equity of school funding, although there is significant variation among states.[34] Local revenues accounted for 45 percent of total public education revenues in FY 2014, and over 36 percent of total revenues were local property tax revenues.[35] Because property tax revenues comprise a substantial portion of education revenues across states,[36] it is important to note that when a statewide property tax is implemented, this action will impact school finance and education funding formulas.

Some states utilize a statewide property tax system to support public education. When a statewide property tax is used to fund public education, the state collects tax revenue from property owners and then redistributes these revenues to schools and districts using an education funding formula. One of the primary drivers for the implementation of a statewide property tax system is to increase the equity of funding between school districts. However, it is not uniformly true that statewide property tax

systems have increased equity in school finance.[37] Statewide property tax systems for education are varied in terms of proportion of property tax revenues to other types of revenues, as well as how the underlying funding formula operates.[38]

Property Tax Treatment of Businesses to Encourage Economic Development

Like individuals, businesses pay taxes on real property, comprised of land, buildings, and facilities.[39] In many states, the taxation rate on commercial property is higher than the rate on residential property and, more specifically, higher than most homestead property taxation rates.[40]

Additionally, in many states, businesses also pay taxes on personal property, which for some business types is of substantial value. Personal property includes any moveable equipment, machinery, furnishings, etc. This means that when a business chooses to expand its operations in a way that requires property and equipment investment, both real and personal property taxes must be considered to ensure the investment will provide a net value to the business. Some states also tax corporate inventory, intangible property, and real estate transfers, which can be considered types of property taxes.[41] Research has shown that differences between the treatment of personal property among states and other taxing authorities, and differences in business infrastructure, lead to different types of businesses experiencing different effective tax rates, within and between jurisdictions.[42]

All states provide tax incentives to promote business development.[43] Of these tax incentives, some are directly related to real property and associated development and improvements, while other incentives are intended to assist businesses with expanding capacity, which can include investment in personal property. Certain tax incentives are specifically targeted toward mitigating tax costs associated with personal property investments, while others are in the form of preferential treatment for certain types of real commercial property.[44]

Connecticut and Comparison States

The structures and features mentioned above are not used uniformly across the United States. Property tax systems vary across the country, and each state has its system and process for levying and collecting taxes on certain designated properties. The following section provides an overview of the property tax systems used in Connecticut and several regional peer comparison states (Vermont, Massachusetts, Maryland, and Pennsylvania). Each overview offers a summary of specific components of the respective state's property tax system, including taxing authorities, property assessment, taxation rates, and tax exemptions and/or relief programs.

Connecticut

In FY 2014, Connecticut had the third highest property tax burden per-capita of any state in the country,[B] and the sixth highest property tax rate as a percentage of owner-occupied housing value.[45] In the same year, property taxes accounted for 38 percent of total state and local revenues in Connecticut.[46] However, property taxes make up zero percent of the state budget,[47] as municipalities have sole authority to levy and collect taxes on real and personal property.[48] In FY 2014, 25 percent of total state and local revenues in Connecticut came in the form of federal aid, which ranks the state 48th in the country in the proportion of federal revenues to other sources.[49] Please see Chart 4 in Appendix A for a summary table of the property tax reliance indicators referenced here and in the following state comparison case studies.

Property ownership determines property tax liability, and property in Connecticut is defined as real estate,[50] personal property[51] (anything that is moveable and is not a permanent part of real estate), and motor vehicles.[52] Connecticut municipalities collected approximately $10.3 billion in property tax revenue in FY 2016.[53] For comparative purposes, the State of Connecticut collected $15.2 billion in net tax revenue, with the majority of this revenue coming from personal income ($9.2 billion in gross revenue) and sales and use ($4.2 billion in gross revenue) taxes.[54]

Taxing Authorities in Connecticut

Connecticut is unusual among states in that it does not have a form of regional government through which taxes are levied and services provided. Connecticut currently operates 643 separate government entities.[55] Connecticut abolished its county system of government in 1960,[56] and currently each of its 169 municipalities retains control over the provision of public services and has the authority to levy

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[B] It is important to note that Northeastern states tend to have similarly high property tax burdens. The New England states of Connecticut, Massachusetts, New Hampshire, Rhode Island, and Vermont, along with New York and New Jersey make up seven of the top 10 states in terms of property tax burden per capita, and Maine is ranked 11th. However, when looking at property tax burden as a percentage of owner-occupied housing value, these states' rankings are more dispersed although all fall in the top 20 states when ranked by this measure.
Tax Foundation. (2017). *Facts & Figures: How Does Your State Compare?* Washington, DC: Author. Retrieved from https://files.taxfoundation.org/20170710170127/TF-Facts-Figures-2017-7-10-2017.pdf.

property taxes in order to support municipal expenses; including those incurred by local and regional boards of education.[57] Connecticut currently operates 447 special district governments for the provision of services such as fire prevention, water pollution, sewer, waste removal, zoning, housing, and special forms of taxation.[58]

Municipalities and special district governments have sole authority to assess and levy property taxes in Connecticut. The State does not levy a property tax, and there is no regional governmental entity with taxing authority in the state.[59] Property taxes account for approximately 59 percent of municipal revenue in Connecticut, with 31 percent of revenues coming from the state and federal governments.[60] State municipal aid includes the Education Cost Sharing grant — the primary mechanism by which the State contributes to public education funding.[61] Municipal budgets include local funding for local and regional boards of education. In FY 2016, education expenditures comprised an average of 59 percent of total municipal expenditures.[62]

The majority of school districts in Connecticut are fiscally dependent, which means local boards of education are not allowed to levy taxes or carry debt, and are, essentially, functions of their associated municipality. The exceptions to this rule are regional school districts and Regional Education Service Centers, which are allowed to fix and collect charges for the services they provide as well as carry debt.[63] Regional school districts in Connecticut are considered fiscally independent. However, regional school districts cannot independently levy taxes on Connecticut residents to fund public education and are therefore still dependent on their member municipalities for the purpose of levying taxes. Career and technical high schools and state charter schools are considered state-dependent entities and are not considered forms of government.[64]

Property Tax Assessment in Connecticut

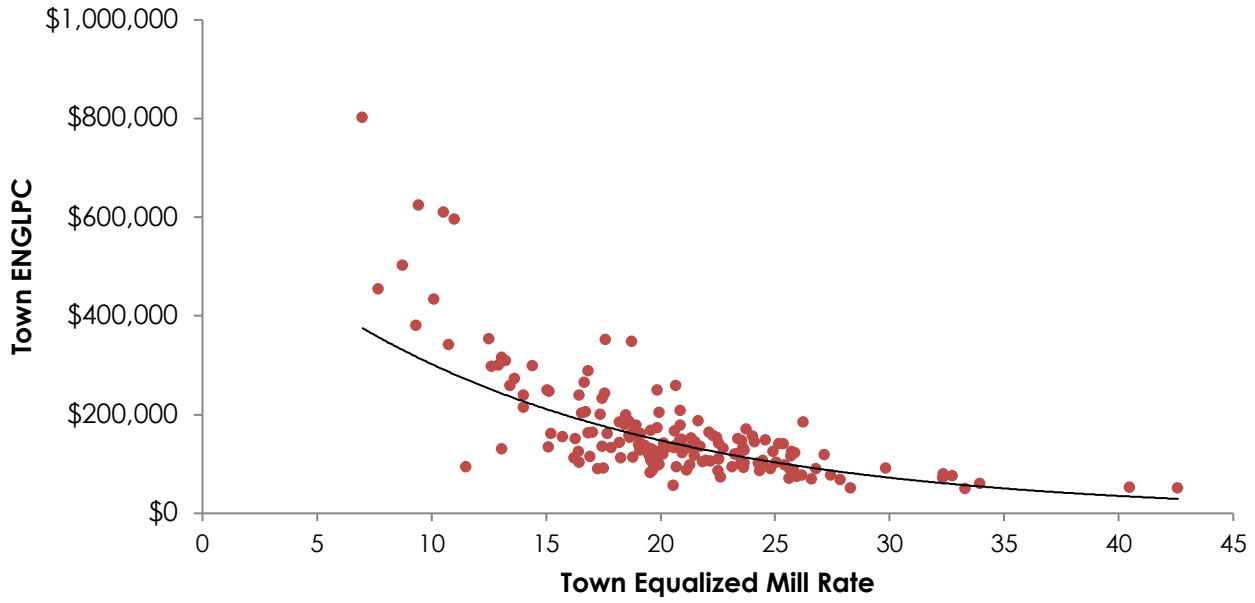
Currently, Connecticut General Statutes prohibit assessing different property types at different assessment rates or tax rates.[65,66] Municipalities in Connecticut must assess all property types at a uniform rate of 70 percent[67] of real property value.[68] In addition, municipalities have been allowed to phase in an increase in taxation due to a revaluation, or a portion of the increase, over a period of no more than five years.[69] Hartford is the sole municipality to use a different assessed value, however, with a current assessment ratio of 33.82 percent for residential properties,[70] which is allowed under the option of phasing in increases in assessed value.[71] State law does, however, provide tax exemptions and credits for various Connecticut populations. Appendix B details the various categories and estimated grand list values of property tax exemptions, abatements, and credits.

Property Tax Rates in Connecticut

In Connecticut, property tax rates, known as mill rates, are set by municipalities. There are no limits or restrictions on towns' authority to set mill rates on taxable personal property, as defined in state statute.[72] Automobiles may only be taxed up to 45 mills.[73] Mill rates in Connecticut vary widely, from just over 11 mills in Salisbury to more than 74 mills in the Hartford.[74] Town mill rates have an inverse correlation to each town's Equalized Net Grand List Per Capita (ENGLPC); meaning towns with higher property

wealth have lower rates of property taxation. Figure 5 below illustrates the relationship between town wealth, as measured by ENGLPC, to the town's Equalized Mill Rate (EMR), which is the effective tax rate per $1,000 in each town.

Figure 5: Relationship between Equalized Net Grand List Per Capita (ENGLPC) and Equalized Mill Rates (EMR), FY 2016



Property Tax Classification and Exemptions

The definition of real property, subject to property taxes, in the Connecticut General Statutes includes residential property, commercial property, industrial property, public utility property, vacant land, and apartments.[75] Because statute applies the local levy to this broad categorization of real property, municipalities cannot currently levy different tax rates on different property types. Connecticut does not have a homestead tax exemption, or any other property tax exemption that is applied to individual property holders. As a result, homestead, rental, commercial, and industrial properties are assessed at a uniform statewide rate and taxed under uniform mill rates within municipal boundaries.[76] Changing the statutory language regarding assessment and the local levy would be necessary to allow municipalities to institute different effective tax rates on different property types.

Connecticut does exempt nonprofit entities from property taxation, including property held by hospitals, universities, volunteer fire companies, cemeteries, churches and associated dwellings, horticultural societies, schools, camps, and others. Property owned by the federal, state, or municipal governments, as well as property owned by the National Guard, the Red Cross, and property held by trustees for public use, are all exempt from taxation.[77] Connecticut also provides a number of exemptions to for-profit entities that are intended to promote economic growth.[78] In all, there are more than

120 property tax exemption types in Connecticut statute.[79] Appendix B provides further detail about Connecticut's property tax exemptions, and their total values.

Property Tax Relief Programs in Connecticut

Connecticut provides an income tax credit of up to $200 for personal and real property taxes paid on homestead property or on a motor vehicle. However, for taxpayers whose income is greater than $49,500 this tax credit is reduced by 15 percent for every $10,000 in income over this cap.[80]

Connecticut employs a single circuit breaker program, which entitles elderly and permanently disabled people to a property tax reduction, or rent rebate for renters in the same income brackets, if their individual income is less than $23,600.[81] The amount of reduction or rebate is scaled based on income and property tax liability.[82] For example, an eligible, married homeowner with an income less than $11,700 will receive a 50 percent reduction in his/her property tax liability up to a maximum benefit of $1,250.[83] Figure 6 below details the program eligibility and benefit for Connecticut's current circuit breaker program for one type of eligible residents: married homeowners. Eligibility and benefit levels differ for non-married and renting residents.

Figure 6: Connecticut Circuit Breaker for Elderly or Disabled Married Taxpayers by Income Level[84]

Qualifying Income		Tax Reduction as Percentage of Property Tax	Tax Reduction Per Year	
Over	*Not Exceeding*		*Maximum*	*Minimum*
$ -	$11,700	50%	$1,250	$400
$11,700	$15,900	40%	$1,000	$350
$15,900	$19,700	30%	$750	$250
$19,700	$23,600	20%	$500	$150
$23,600	$28,900	10%	$250	$150
$28,900		None		

The State reimburses municipalities for the revenue foregone from the circuit breaker program allocation, which totaled approximately $19.2 million for property owners and $25 million for renters in FY 2017.[85,86] The funding for this property tax program, which is appropriated as a budget line item, has been eliminated under the biennial budget for FYs 2018 and 2019, and the renter rebate program (also a budget line item) was cut to $12.7 million in FY 2018 and $13.7 million in FY 2019.[87]

Treatment of Commercial Property in Connecticut

Because Connecticut does not have a split roll tax, each municipality taxes real and personal property owned by businesses at the same rate as it taxes residential property.[88] Therefore, commercial property tax rates mirror residential property rates in how they vary between jurisdictions. Approximately 17 percent of the total assessed value of property in Connecticut is attributable to corporate, industrial, and public utility properties.[89]

Connecticut also taxes tangible personal property of businesses, including machinery and equipment, trade fixtures, vehicles, etc.[90] Connecticut imposes a real estate transfer tax, the proceeds of which are split between the taxing authority and the state. Real estate conveyances between business subsidiaries, or made pursuant to the mergers of corporations, are exempt from the real estate transfer tax, in addition to a variety of less common exemptions.[91]

Connecticut's corporate property tax policies have been recently discussed by various pro-business entities. Ernst & Young estimates that in 2016, $2.7 billion of $8.1 billion in corporate tax collections in Connecticut were derived from property taxes.[92] In a 2018 analysis of Connecticut's business tax structures by the Tax Foundation, Connecticut's taxation of corporate personal property is identified as a type of tax that makes the state less competitive among its regional peers because New York, Pennsylvania, New Hampshire, and Vermont exempt almost all tangible personal property from taxation.[93]

Despite these claims, the Tax Foundation also notes that Connecticut has been reducing its reliance on commercial property through a variety of tax expenditures, including both exemptions and credits.[94] For example, Connecticut allows municipalities to freeze assessments for improvements to real property of more than $3 million, up to 100 percent of the increased assessment, for up to seven years; improvements over $500,000 for up to two years; and 50 percent of the assessment increase for improvements of over $10,000 for up to three years.[95] These assessment freezes apply to office, retail, residential, manufacturing, warehouse, parking garages for mass transit systems, information technology, recreation, transportation, and mixed-use development properties.[96] In addition, businesses in certain geographic regions, identified as Enterprise Corridor Zones, Manufacturing Plant Zones, Defense Plan Zones, and Contiguous Municipality Zones are eligible for property tax abatements of up to 80 percent on qualifying real and personal property that is related to business expansion.[97] Business developments that are expected to create jobs in urban areas, or are in the manufacturing sector, are eligible for similar tax abatement incentives.[98, C]

[C] For a full list of property tax incentives, please see the Lincoln Institute for Land Policy's database on Significant Features of the Property Tax, which provides a detailed description of these programs for each state in the United States.
Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax. Retrieved from https://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax.

Vermont

In FY 2014, Vermont had the sixth highest property tax burden per capita in the country, and the fifth highest property tax rate as a percentage of owner-occupied housing value.[99] In the same year, property taxes accounted for 42 percent of total state and local revenues in Vermont.[100] In FY 2014, 34 percent of total state and local revenues in Vermont came in the form of federal aid, which ranks the state 20th in the country in the proportion of federal revenue to other sources.[101] All real property is assessed and taxed,[102] but Vermont uses a split roll tax that applies different effective taxation rates to different property types. Vermont is unusual in that it has a school finance system that is almost entirely state-funded through a statewide property tax for education.[103]

Taxing Authorities in Vermont

The majority of property tax revenue in Vermont is contributed to the state budget to be distributed through its school finance system. However, municipalities assess and collect property taxes,[104] as guided by state-level requirements.[105] In FY 2015, just over 17 percent of state revenues came from property taxes.[106] Municipalities contribute a portion of property tax revenues to the State, which is redistributed through the education funding formula for the support of public schools, and keep a smaller portion of property tax revenue for the purpose providing municipal services.[107]

Split Roll Taxes in Vermont

Property taxes are levied through two different systems: one for homestead property (which is defined as a person's principal dwelling) and the parcel of land that accompanies it (no matter the size of that property),[108] and one for nonresidential (non-homestead) property.[109] Homestead property taxation is levied entirely in support of the statewide education funding system and is known as the Homestead Education Tax.[110] In FY 2015, approximately 57 percent of property tax revenues were derived from nonresidential taxes and 40 percent from homestead taxes. The balance came from property transfer and land use taxes.[111]

Property Taxation Rates in Vermont

All nonresidential property in Vermont is taxed at the same rate, which is set by the State. In FY 2017 the nonresidential tax rate was 15.35 mills.[112] However, this rate is adjusted up or down at the municipal-level through an assessment ratio known as the Common Level of Appraisal (CLA), which can increase or decrease a town's effective non-homestead tax rate.[113]

Beginning in FY 2018, the Homestead Education Tax Rate is also set at a statewide rate of 10 mills for all homestead properties. This was implemented in an effort to simplify tax calculations for municipalities and taxpayers.[114] However, this does not mean all homesteads are taxed identically, as property taxation rates are adjusted through a type of assessment adjustment known as a yield. The average Homestead Education Tax Rate was 15.27 mills in FY 2017.[115]

Property Tax Assessment in Vermont

Homestead properties are adjusted by a factor known as a "yield." In Vermont, the yield takes into account property value, education spending, and the number of

students in a district to determine how much revenue the 10 mills (the statewide Homestead Education Tax Rate) will raise on a per-pupil basis. The property yield is calculated at the state-level and is $10,160 in FY 2018. The calculation for a given municipality's homestead property tax rate is the school district's per-pupil spending, divided by the property yield, and multiplied by the statewide Homestead Education Tax Rate. If a district's per-pupil spending is greater than the property yield, the municipality's homestead tax rate increases.[116]

The nonresidential tax rate is adjusted by the CLA for the municipality. Developed to equalize what is paid in education property taxes in different municipalities, the CLA is derived from the annual Equalization Study, released by the Vermont Department of Taxes, which compares the ratio of grand list value to sale price of properties in a municipality over a 3-year period.[117] If a municipality's grand list values are lower than sale prices for homes, the municipality's nonresidential tax rate increases. If its grand list values are higher than recent sale prices, its tax rate decreases. For example, if a municipal has a CLA of 0.95, this means properties on the municipality's grand list are listed at approximately 95 percent of current sale prices, and, as a result, its effective tax rate will increase from the base rate of taxation.[118] The calculation for a given municipality's nonresidential education property tax rate is the statewide base nonresidential property tax rate divided by the CLA ratio.[119]

Property Tax Relief Programs in Vermont

Vermont has two circuit breaker programs to relieve low-income families from property tax burdens: the Homeowner Rebate and Renter Rebate Programs. The Homeowner Rebate Program applies to a subset of taxpayers who pay the Homestead Education Tax with a homestead income calculation. Homeowners who make under $47,000 per year are eligible for tiered homestead property tax rate caps of between two and five percent, depending on household income.[120]

Similarly, in the Renter Rebate Program, families that make less than $47,000 per year are eligible for a homestead tax credit equal to the amount by which their total household rent exceeds a percentage of their income. These rates are tiered so families earning less than $10,000 per year are eligible for a credit for the amount that their total rent exceeds two percent of their income. For families earning more than $10,000 but less than $25,000, the credit is for rent paid above 4.5 percent of their income. For families earning more than $25,000 but less than $47,000, the credit is for rent paid above five percent of their income. Credits cannot exceed the total allocable rent.[121]

Families earning less than $141,000 per year are also eligible to pay an income tax rather than a property tax. The income yield for FY 2018 is $11,990, and the statewide base income tax rate is two percent. The calculation for a given municipality's income tax rate is the school district's per-pupil spending, divided by the income yield, and multiplied by the base tax rate. If a district's per-pupil spending is higher than the income tax yield, the municipality's income tax rate will be higher than the base rate. These taxes are levied separately from the town's property taxes for municipal services.[122] The property tax adjustment is capped at $8,000 per year. Homestead owners pay the tax over this amount calculated using the homestead's value.[123]

In FY 2015, 65 percent of Homestead Education Tax revenues were collected using a homestead value calculation and 35 percent were collected using a homestead income calculation.[124] However, in the same year, 66 percent of homestead taxpayers received some type of property tax adjustment.[125] This system has the effect of flattening what would otherwise be a regressive property tax system, which means roughly the same percentage of property taxes are paid across household income levels.[126]

State and Local Taxation in Support of Public Schools

In Vermont, local school districts receive almost all of their funding through the statewide education finance system. Because of its unique property tax system, approximately 90 percent of education expenditures are included in the statewide school finance system. The remaining 10 percent of education spending is derived primarily from local revenues for capital expenditures and federal revenues.[127] Approximately 27 percent of total education revenues came from the homestead property tax, 41 percent came from the non-homestead property tax, 19 percent was derived from the state's general fund, and 13 percent came from other dedicated revenue sources such as the sales tax and the lottery fund.[128]

Vermont's education finance system was implemented in 1997 as a result of a school funding lawsuit (*Brigham v. State*, 166 Vt. 246 (1997)) in which the Vermont Supreme Court found the state's school funding formula was unconstitutional because it did not provide equal opportunity to education for all students due to persistent disparities in per-pupil expenditures.[129] In response, the Vermont legislature developed a new school finance system (known as Act 60), based on a statewide property tax, aimed at addressing inequity in public school funding. The school finance system was modified in 2004 by Act 68. [130]

Treatment of Commercial Property in Vermont

As discussed above in the section on split roll taxes, Vermont taxes non-homestead residential and commercial property at a higher rate than it does homestead property and uses the associated revenue streams for separate purposes.[131] These property types are classified as "nonresidential" property and are taxed at a statewide rate of 15.35 mills.[132] Nonresidential assessment values are adjusted at the municipal level, which impacts the effective tax rate for businesses between taxing jurisdictions in the state.[133]

Nonresidential property makes up approximately 36 percent of real property in Vermont, which includes personal property. Vermont allows municipalities to tax corporate personal property in the categories of inventory and machinery and equipment.[134] Most agricultural machinery and equipment, animals, plant inventories of greenhouses and nurseries, and household property are exempt from personal property taxation.[135] Vermont imposes a real estate transfer tax, known as the land gains withholding tax, of 10 percent of the purchase price for properties held less than six years, the first 10 acres of homestead properties are exempt from land gains taxes. Vermont also imposes a real estate withholding tax on properties sold by owners who are not residents of Vermont.[136]

Vermont has a number of tax incentives, which include preferential tax treatment of forest land and timber production, land used to produce renewable energy, land used for the conservation of open spaces, agricultural and farm buildings, and hotels and airports (although hotels are subject to other industry-specific taxes). Vermont does not have incentives for specific property improvements.[137]

Massachusetts

In FY 2014, Massachusetts had the eighth highest property tax burden per capita in the United States, and the 18th highest property tax rate as a percentage of owner-occupied housing value.[138,D] The same year, property taxes accounted for 36 percent of total state and local revenues in Massachusetts.[139] In FY 2014, 28 percent of Massachusetts' total state and local revenues came in the form of federal aid, which ranked the state 37th in the nation in its proportion of federal revenues to other sources.[140] Similar to Connecticut, property in Massachusetts is assessed and taxed by municipalities.[141] All real and personal property is subject to taxation in Massachusetts, although different property types are taxed at different rates, and the State maintains a number of exemptions.[142]

Taxing Authorities in Massachusetts

Municipalities are granted the sole authority to assess and levy property taxes in Massachusetts. However, the State places restrictions on the amounts municipalities can raise rates of taxation from year to year. The primary sources for state revenue in Massachusetts are the income tax, which comprised 56 percent of state revenues in FY 2017, and the sales and use tax, which comprised 24 percent of state revenues.[143] In FY 2015, 51 percent of local revenues in Massachusetts were raised through property taxes, while 34 percent came from state and federal aid.[144]

Massachusetts also levies a real estate transfer tax of $2.28 for every $500 of real estate value transferred.[145] This tax is collected by the county Registry of Deeds. Approximately 94 percent of the revenue collected through the real estate transfer tax is transferred to the State, with counties retaining the remainder of the revenue to help fund county-level services.[146]

Split Roll Taxes in Massachusetts

Massachusetts uses five property classification types, each of which is subject to different effective rates of taxation: residential, open space, commercial, industrial, and personal property.[147] Municipalities have a number of options in distributing the tax burden through these classification types. Towns may choose to impose a split roll tax by taxing residential and open space properties at a lower rate than commercial and industrial properties, but not vice versa.[148]

These rates are set by the local selectboard or council, with the approval of the mayor. If a municipality chooses to implement a split roll tax, it is done through applying a residential factor to residential and open space properties, and the difference in the tax burden is shifted to commercial, industrial, and personal properties. A residential factor of less than one reduces the tax share on eligible properties. However, the municipality may not apply a residential factor lower than the Minimum Residential Factor (MRF), which is set by the Massachusetts Department of Revenue (DOR).[149] State

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[D] It is important to note that in Massachusetts there is a concentration of high-value residences in Boston, while Vermont and Connecticut do not have a comparable urban center.

law requires residential taxpayers must pay at least 65 percent of their full and fair cash value (FFCV), and that commercial and industrial property owners cannot pay more than 150 percent of their FFCV, unless the adoption of the MRF results in a higher effective residential tax rate. If this occurs, statute requires that residential taxpayers pay at least 50 percent of their FFCV, and commercial and industrial property owners not pay more than 175 percent of their FFCV.[150] The MRF for each community is calculated by the DOR and is expressed as the minimum percentage of residential value that, if applied to residential property in a town, will result in the tax burden being distributed within the statutory guidelines.[151] A sample MRF calculation is shown in Figure 7 below.

Figure 7: Sample Municipal Revenue Factor Calculation

Percent of Grand List Residential / Open Space (RO)	Percent of Grand List Commercial / Industrial Property (CIP)	Maximum CIP (%CIP x 1.5)	New RO (100% Total Value – Max CIP)	Municipal Revenue Factor (MRF) (New %RO / Old %RO)
80% Total Value	20% Total Value	30% Total Value	70% Total Value	87.5%

Property Taxation Rates in Massachusetts

Municipalities set rates of taxation in Massachusetts but are required to submit their taxation rates to the DOR and establish that the proposed property tax levy is in support of a balanced budget, wherein budgeted expenditures equal the total tax levy.[152] In FY 2018, residential mill rates in Massachusetts ranged from 2.75 to 24.34, and the median residential tax rate was 15.10 mills. In the same year, commercial mill rates ranged from 2.75 to 39.98, and the median commercial tax rate was 17.54 mills.[153]

Massachusetts also imposes two limits on municipalities' ability to raise taxes, known as Proposition 2 ½. Municipalities cannot levy more than 2.5 percent of their total cash value or all taxable real and personal property, which is known as the "levy ceiling." In addition, the State imposes a "levy limit" on the amount a municipality can increase its taxes from year to year, which is based on the previous year's levy limit plus certain allowable increases. The levy limit cannot exceed the levy ceiling.[154] The levy limit is calculated annually for each municipality by the DOR.[155]

Property Tax Assessment in Massachusetts

All real and personal property in Massachusetts is assessed by municipalities, and assessments must be updated annually. All property is assessed based on its fair cash value. The DOR reviews each community's property values every five years to ensure assessment values correspond to current fair cash values.[156]

Property Tax Exemptions in Massachusetts

Municipalities may choose to implement property tax exemptions for open space properties to a maximum of the property's FFCV.[157] Towns may also provide a homestead exemption to all residential properties that are the primary residence of a taxpayer, to a maximum of 35 percent of the average assessed value of all residential properties in the town. If the municipality chooses to provide a homestead exemption

of this type, it first determines the average assessed value of all residential parcels, and the adopted percentage exemption is applied to the total value. Then, the assessed valuation of the homestead parcel is reduced by that amount.[158] The adoption of a homestead tax exemption has the effect of increasing the overall residential tax rate. While the total percentage of the property tax levy attributed to the residential class remains unchanged, the rate increases because the total taxable value of residential properties decreases.[159]

Additionally, municipalities may provide exemptions to commercial properties operated by small businesses — those with no more than 10 employees and an assessed valuation of less than $1 million. This exemption may not exceed 10 percent of the assessed value of eligible commercial properties.[160] The adoption of a small business property tax exemption has the effect of increasing the commercial and industrial property tax rates. While the total percentage of the property tax levy borne by commercial and industrial properties remains the same, the rate increases because the total taxable value of commercial and industrial properties decreases.[161]

Property Tax Relief Programs in Massachusetts

Massachusetts operates a number of property tax relief programs, which include circuit breakers, exemptions, and deferrals. The following is a listing of these programs.

- Elderly persons, surviving spouses, or minor children of deceased parents are eligible for a property tax exemption of $2,000, or a credit of $175 on their principle residence if their total estate is valued at $20,000 or less.[162,163]
- Disabled veterans and their spouses, and parents of deceased veterans, who have resided in Massachusetts for at least five years, are eligible for a property tax credit or exemption on their primary residence. Exemptions and credits are tiered, depending on the classification of the veteran's disability. Exemptions range from $2,000 to $10,000 and credits range from $400 to $1,500.[164]
- Blind residents of Massachusetts are eligible for a property tax exemption of $5,000, or a credit of $437.50 for owner-occupied properties.[165]
- Massachusetts operates a program in which residents over age 60 may provide volunteer service in exchange for reductions in their residential property tax, known as the "Work-off Abatement." Participants are eligible for credits of up to $1,000 for volunteering for the municipality.[166]
- Surviving spouses and minor children of first responders killed in the line of duty are eligible for a total exemption from real estate taxation.[167]
- Active members of the Massachusetts National Guard are eligible for an interest-free deferral of their property taxes during active service, and for 180 days after their service has been completed.[168]
- Active-duty military members that must leave active service due to age or disability, and experience a financial hardship as a result, are eligible for a property tax deferral for up to three tax years, and are charged an annual interest rate of eight percent.[169]
- Taxpayers over age 70 are eligible for a property tax credit of $500, or an exemption of $4,000, on their principal residence. To be eligible for this program, taxpayers must be Massachusetts residents for 10 years and owned and

occupied property for five years. In addition, they must have gross receipts of less than $7,000 for a married couple, and an estate (excluding the residence) of less than $17,000.[170]

- Residents over the age of 65 who have gross receipts of less than $20,000, and who have lived in Massachusetts for at least 10 years and have owned and occupied property in the state for at least five years, are eligible for a tax deferral of up to 50 percent of their tax bill. Deferral arrangements must be established annually with the local taxing authority, and annual interest of eight percent is applied.[171]
- Homeowners over the age of 65 who make less than $85,000 for married couples, and less than $57,000 for individuals, are eligible for a property tax credit of up to $1,070 on residences valued less than $693,000. This is applied as a refundable credit to the taxpayer's state income tax equal to the amount by which real estate taxes exceed 10 percent of income. Renters are also eligible for this credit, and 25 percent of their rent is assumed to be applied to real estate taxes for the purpose of calculating the credit.[172]

Treatment of Commercial Property in Massachusetts

As discussed in the section on split roll taxes, Massachusetts taxing authorities are empowered to tax real property classified as commercial or industrial at a higher rate than properties classified as residential or open space, within certain guidelines, as defined in state statute.[173]

Massachusetts imposes a state excise tax on personal property owned by incorporated businesses, including inventory and machinery and equipment. Stock in trade owned by unincorporated businesses is considered taxable property. Intangible property is exempt from taxation in Massachusetts, as are certain farm animals.[174] Massachusetts also imposes an excise tax for real estate transfers — $2.00 for each $500 of value — and an additional state surcharge of 14 percent, which increases the effective rate to $2.28 per $500 of real estate value, with certain exceptions. The revenues from real estate transfer taxation are split between the state and county governments.[175]

Massachusetts applies preferential tax treatment for land used for agricultural purposes and certain types of land conservation. The state also maintains tax incentives for specific property improvements, including for the remediation of polluted lands and the restoration of historic properties. Massachusetts also has a number of tax incentives for economic development, some of which are related to the treatment of commercial property. These include the partial property tax exemptions for the development of properties in geographic areas designated as Improvement Districts,[176] and Tax Increment Financing (TIF) agreements between state and municipal governments and a given commercial entity. TIF agreements operate as assessment abatement on certain approved economic development projects.[177]

Maryland

In FY 2014, Maryland had the 16th highest property tax burden per capita in the country, and was ranked 20th for property tax rate as a percentage of owner-occupied housing value.[178] In the same year, property taxes accounted for 27 percent of total state and local revenues in Maryland.[179] In FY 2014, 29 percent of total state and local revenues in Maryland came in the form of federal aid, which ranked the state 32nd in the nation in the proportion of federal revenues to other sources.[180] Real property is taxed by state, county, and municipal governments, and counties have the sole authority to tax personal property.[181]

Taxing Authorities in Maryland

The majority of property tax revenue is collected through Maryland's 23 counties and the City of Baltimore (Baltimore City),[182] which is a taxing authority separate from a county system.[183] However, Maryland's municipalities are also empowered to levy property taxes,[184] and can impose special district taxes with the approval of property owners in the district.[185] Maryland also has a statewide property tax system.[186]

The primary sources for Maryland's General Fund are the income tax (which comprised 47 percent of General Fund revenue in FY 2017), the sales and use tax (which comprised 22 percent), and motor vehicle taxes (which made up 13 percent). Property taxes comprised five percent of Maryland's General Fund revenue in FY 2017.[187] In FY 2015, 30 percent of local revenues in Maryland came from property taxes.[188]

Split Roll Taxes in Maryland

Maryland allows counties, the Baltimore City, and municipalities to set different rates of property taxation for real property, personal property, and public utilities.[189] Under state law, personal property and public utilities can be taxed by counties and Baltimore City at no more than 2.5 times the county rate for real property.[190] Personal property and public utilities are taxed by municipalities at a rate of 2.5 times the municipal rate of taxation for real property.[191]

Property Tax Assessment in Maryland

The State Department of Assessments and Taxation (SDAT) assesses all real property at 100 percent of estimated market value,[192] and these assessment values are used by county, city, and municipal governments when setting rates of taxation.[193] Properties are assessed every three years and assessed value increases are phased in over three years.[194] The state property tax is capped from increases over 110 percent of the prior year's assessed value for residential properties.[195]

Property Taxation Rates in Maryland

The State of Maryland levies a statewide property tax on all real, taxable property in the state. In FY 2017, the statewide property tax rate was 1.12 mills. Each of Maryland's counties, incorporated municipalities, and Baltimore City establish their own rates of taxation.[196] The SDAT annually calculates the Constant Yield Tax Rate for each local government, which is the rate of taxation required to maintain revenue levels from the previous year. If a local government seeks to increase taxation rates over the Constant Yield Tax Rate, it must hold a public hearing to justify the increase.[197]

The effective rate of property taxation in Maryland is the combination of state, county, and municipal tax levies.[198] County rates of taxation on real property range from 5.708 mills in Talbot County to 22.48 mills in Baltimore City.[199] County rates of taxation on personal property range from 0 mills in Calvert County to 56.2 mills in Baltimore City.[200] Municipal rates of taxation on real property range from 0.1 mills in Chevy Chase to 10.6 mills in Luke.[201] Municipal rates of taxation on personal property range from 0 mills in Calvert County to 26.48 mills in Cumberland.[202] Figure 8 below illustrates the effective tax rate calculations for real property in four communities in Maryland.

Figure 8: Sample Effective Tax Rate Calculations in Four Maryland Communities[203]

	Real Property Value	State Mill Rate	County/City Mill Rate	Town Mill Rate	Special District Mill Rate	Effective Mill Rate	Total Tax Paid
Annapolis	$100,000	1.12	5.44	6.449	-	13.009	$1,300.90
Baltimore City	$100,000	1.12	22.48	-	-	23.60	$2,360.00
Baltimore City – Waterfront District	$100,000	1.12	22.48	-	1.7	25.30	$2,530.00
Town of Chevy Chase	$100,000	1.12	7.484	0.10	-	8.704	$870.40

Property Tax Classification and Exemptions in Maryland

Agricultural products and commodities, livestock, farming machinery, tools of artisans and mechanics, and rolling stock are exempt from all personal property taxation in Maryland. Businesses with personal property assessed at $10,000 or less are also exempt from all personal property taxation. Municipal governments have the authority to also exempt business inventory from personal property taxation.[204] Like most states, Maryland exempts most government, educational, and nonprofit property from taxation, with the exception of art and cultural organizations and literary organizations.[205]

Property Tax Relief Programs in Maryland

Maryland operates a number of property tax relief programs that include circuit breakers, exemptions, and deferrals. These programs are described below.

- The Homeowners' Property Tax Credit Program is the largest circuit breaker in Maryland, providing approximately $58 million in property tax relief[206] to homeowners with an income less than $60,000 and a net worth (including the primary residence) of less than $200,000.[207] The credit is determined according to the ratio of the homeowner's annual income to the actual amount of property tax levied against the taxpayer's principal residence, and is distributed on a sliding scale.[208]

- Disabled taxpayers, age 60 years or older, with incomes under the Federal Poverty Limit, are eligible for a rental tax credit on 15 percent of their rental payments, which is the portion of their rent assumed to be attributable to property taxes. Credits are tiered based on total income and have a maximum value of $750.[209]
- Under the Homestead Tax Credit Program,[210] homeowners whose assessment on their principal residence is more than 110 percent of the previous year's assessment value are eligible for a state tax credit for the amount of state and local taxation over 110 percent of the previous year's assessed value.[211]
- Disabled first responders and correctional officers or, if deceased, their surviving spouses are eligible for a property tax credit if the injury was obtained in the line of service. Counties and Baltimore City have the authority to provide this credit, and the power to set the amounts and duration of the credit.[212]
- Counties and Baltimore City have the authority to grant a property tax credit to owners of rental dwellings who provide reduced rent to elderly and disabled tenants over the age of 65.[213]
- Blind taxpayers are eligible for an exemption of $15,000 from the assessed value of their residential property.[214]
- Disabled veterans or, if deceased, their surviving spouses, are eligible to become entirely exempt from property taxation if the injury or death is service-connected.[215]
- Residents over the age of 65 are eligible for certain property tax deferrals. The features of the deferral program are set by local taxing authorities and differ from county to county.[216]
- Residents over the age of 65 are eligible for a property tax credit on their principal residence. Details of the program are determined by local taxing authorities and differ between communities.[217]
- Low-income taxpayers that provide housing for family members, at less than 90 percent of fair market value, are eligible for a property tax credit. Details of the program are determined by local taxing authorities and differ between communities.[218]

Treatment of Commercial Property in Maryland

Maryland taxes real commercial and residential property at the same rates, the bulk of which are collected by counties, although the state also assesses a tax on real property, as do certain large cities, as discussed in the above section on taxation rates.[219] Maryland also taxes personal property at a higher rate than it does real property, and this rate cannot exceed 2.5 times the real property rate of taxation.[220] Exempt from all personal property taxation are agricultural products and commodities, farming equipment and machinery, intangible property, and personal property of businesses whose total personal property value is assessed at less than $10,000. Business inventory is exempt from state and county-level taxation, with one exception. Inventory may be taxed by municipalities with taxing authority.[221]

Maryland imposes a state real estate transfer tax of 0.5 percent. Counties and certain large cities may impose additional real estate transfer taxes with the permission of the Maryland General Assembly. There are a relatively large number of exemptions to the

state transfer tax. Exemptions that are specifically targeted toward businesses include transfers of property between related corporations, corporate or partnership conveyances, mergers, consolidations, cooperative housing corporations, transfers of property from a predecessor entity to a real estate enterprise or limited liability corporation (L.L.C.), and certain types of agricultural land transfers. Similarly, real estate transfers to and from parent companies and subsidiary companies, and transfers related to corporate reorganization are exempt from the local option real estate transfer tax.[222]

Maryland applies preferential treatment of real property for certain types of uses, including land used for agriculture, forest conservation and management, open space preservation, and golf courses. Maryland also maintains several tax incentive programs for certain types of real estate development, such as the remediation of brownfield sites; for coal pollution control facilities; for the control of shoreline erosion; for the use of solar or geothermal energy on a property; for the development of properties that adhere to high environmental construction standards; for the restoration of historic buildings and architecturally valuable structures; and for the development of real estate that was damaged or destroyed by natural disaster.

Maryland also maintains a variety of economic development tax incentive programs, some of which are related to real and personal property. Tax credits are available for businesses that are developing real property to expand computer and telecommunications systems; for property development in Arts and Entertainment Districts; for operating properties owned by railroad companies; for grocery stores in low-income areas; and for marine trade and commercial waterfront properties. In addition, Maryland provides assessment abatements to businesses that are expected to create a certain number of new jobs. The state maintains Enterprise Zones, which provide credits for up to 10 years against renovations and capital improvements in certain geographic areas. Local tax authorities may provide Tax Incentive Financing agreements in the form of bond issuances for community development projects. Businesses in the manufacturing, fabrication, and assembly sectors may be eligible for up to 100 percent of county or municipal property taxes. Finally, Maryland maintains Regional Strategic Enterprise (RISE) Zones, wherein businesses that choose to locate within a specified geographic area may qualify for both local and state property tax credits, which are applied to each employee hired and are between $1,000 and $4,500 per employee.[223]

Pennsylvania

In FY 2014, Pennsylvania was ranked 21st in the nation in property tax burden per capita, and 11th in property tax rate as a percentage of owner-occupied housing value.[224] In the same year, property taxes accounted for 30 percent of total state and local revenues in Pennsylvania.[225] In FY 2014, 31 percent of total state and local revenues in Maryland came in the form of federal aid, ranking the state 30th in the nation in the proportion of federal revenues to other sources.[226] Pennsylvania taxes real property, but does not tax personal property.[227]

Taxing Authorities in Pennsylvania

The majority of property tax revenues in Pennsylvania are collected by fiscally independent school districts, but counties and municipalities also collect property taxes for regional and local service delivery. Pennsylvania has an unusually high number of taxing authorities, with 3,140 different types of local governments authorized to levy taxes. These taxing authorities include 500 school districts, 67 counties, and more than 2,500 localities to levy both property and income taxes.[228] In FY 2015, 31 percent of local revenues in Pennsylvania were derived from property taxes.[229]

Split Roll Taxes in Pennsylvania

Pennsylvania does not impose a tax on personal property and does not currently implement a split roll tax on real property.[230] However, a ballot initiative in 2017 changed the state constitution to allow the legislature to pass legislation that would allow local taxing authorities to exempt up to 100 percent of homesteads from local taxation.[231] Legislation is currently under discussion, but the legislature has yet to devise a way to replace the potential lost revenue for public schools, which will likely require large increases in the sales and income tax as a result of decreases in property tax revenue.[232] As of late October 2018, the Pennsylvania General Assembly had yet to pass a property tax relief act in response to the ballot initiative and were discussing the establishment of a commission to study the best way to fund public schools while implementing property tax reform.[233]

Property Tax Assessment in Pennsylvania

Supervisory boards at the county-level are responsible for administering property tax assessments every four years.[234] Counties in Pennsylvania are divided into eight classes based on population,[235] and the state mandates one assessment practice for counties in class one and another for counties in classes two through eight.[236] In addition, state statute allows municipalities of the third class, with populations less than 250,000, to perform their own assessments, separate from the county in which the municipality is located.[237] Pennsylvania has a constitutional mandate that there be uniformity in taxation, which has been interpreted by the Pennsylvania Supreme Court to mean there must be a uniform assessment rate for all properties in a county.[238] However, some counties use a real market valuation and others use a base-year valuation, which is allowable as long as all real property is assessed in the same way, using the same ratio of assessed value to real value.[239] However, a 1997 amendment to the Pennsylvania Constitution allowed for local governments to grant homestead and farmstead exclusions.[240]

Property Taxation Rates in Pennsylvania

Property taxation rates in Pennsylvania are set by local governments, including counties, municipalities, and school districts.[241] Property tax mill rates range widely between communities. For example, in Cumberland County effective mill rates ranged from a high of 59.0561 in York City to a low of 11.561 in Hampden Township. Similarly, in Lancaster County, effective mill rates ranged from 44.9679 in Lancaster City to 16.0441 in Fulton Township.[242]

The authority of local governments to set mill rates is subject to millage caps, which differ depending on the class of county or municipality, and range from a low of 12 mills for all political subdivisions to 32.25 mills for school districts classified as First Class A (currently only Pittsburgh Public Schools).[243] However, the cities of Philadelphia, Pittsburgh, and Scranton, as well as the School District of Philadelphia, are not subject to millage caps. Additionally, home rule counties are not subject to millage caps, but voters in individual home rule municipalities may establish their own millage caps.[244]

School districts are also subject to a limit on property tax levy increases. Increases cannot exceed the percent increase of the federal employment cost index for elementary and secondary schools for the preceding year,[245] unless a Court of Common Pleas rules the increase is not sufficient to balance the district's budget and the increase is approved by the Pennsylvania Department of Education, or it is approved by voter referendum under certain circumstances.[246] Other local taxing authorities are limited from increasing taxes by more than 105 or 110 percent over the previous year, depending on the class of county where the taxing authority is located.[247]

Property Tax Classification and Exemptions in Pennsylvania

Article VIII of the Pennsylvania Constitution, and Act 50 of 1998, allow for flat rate, uniform homestead or farmstead exclusions within a local taxing authority, not to exceed 50 percent of the median value of all homestead property. The total value of homestead property is certified by the county assessor's office. Successive legislation has allowed school districts additional taxing authority, such as the levying of local services taxes and local income taxes, in order to subsidize these exclusions.[248]

Property Tax Relief Programs in Pennsylvania

Outside of the homestead and farmstead exclusions described in the section above, Pennsylvania operates two circuit breaker programs for property tax relief. Severely disabled veterans or, if deceased, their surviving spouse, are eligible for a 100 percent property tax exemption, as long as their incomes fall below $87,212 and their disability is service-related.[249] Taxpayers who are over the age of 65, or who are permanently disabled, are eligible for a property tax rebate for homeowners with annual incomes of $35,000 or less and renters with annual incomes of $15,000 or less. Benefits are tiered based on annual income, with a maximum benefit of $650 for homeowners and up to $975 for renters.[250]

Treatment of Commercial Property in Pennsylvania

As discussed in the section above on split roll taxes, Pennsylvania does not apply different taxation rates to commercial and residential property,[251] meaning that commercial property is taxed at the same rate as residential property. Personal property is exempt from taxation in Pennsylvania.[252]

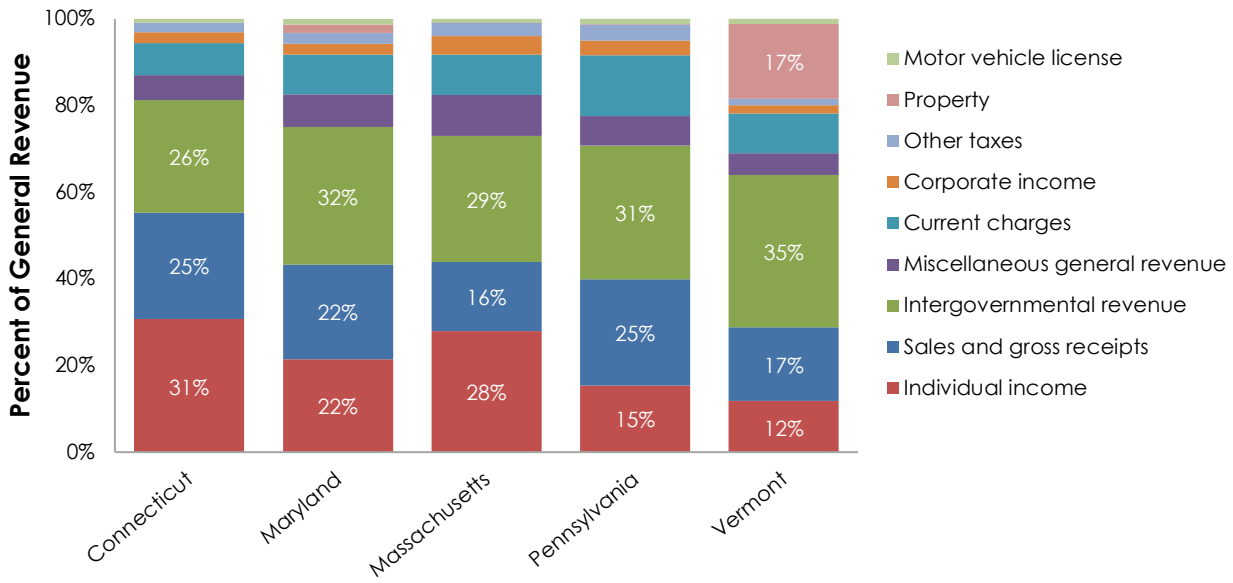
Pennsylvania imposes a one percent real estate transfer tax on the sales price of real property, and municipalities and school districts may also impose up to a one percent combined real estate transfer tax on the sale of property. There are a variety of exemptions to the transfer tax, of which two relate directly to businesses: an exemption for public-private transportation partnerships involving real property, and an exemption for corporate mergers.[253]

Pennsylvania applies preferential tax treatment to the assessment of farmland and forest land under the Clean and Green Act.[254] The state also maintains certain property tax incentive programs for the purpose of economic development. The Keystone Opportunity Zone (KOZ) program provides 100 percent state and local property tax abatement for the development of land in specific geographic regions, for the duration of the program, some of which have expired and some of which expire in 2025.[255] Exemptions are also available on the assessed value of new construction and property improvements for up to 10 years, as determined by the local taxing authority, under the Local Economic Revitalization Tax Assistance Program.[256] Pennsylvania also allows Tax Incentive Financing through the issuance of municipal bonds for community development projects, the debt service of which is paid through the increase in property tax revenues.[257]

Appendix A: State and Local Revenue Sources for Connecticut and Comparison States

Chart 1 below details the composition of general revenue for the State of Connecticut and several comparison states. Compared to these states, Connecticut is more heavily reliant on individual income tax and sales and gross receipts tax revenue. All comparison states are more reliant than Connecticut on intergovernmental revenue (transfers),[E] and most states have various "miscellaneous" revenue streams[F] that exceed Connecticut's percentage in this area. Vermont is the only comparison state with significant state revenue derived from property taxes.

Chart 1: Percent of State General Revenue by Source, FY 2015[G,258,259]



[E] Intergovernmental revenue are amounts received from other governments as fiscal aid in the form of shared revenues, grants-in-aid, reimbursements for performance of general government functions and specific services for the paying government, or in lieu of taxes. This category excludes amounts received from other governments for sale of property, commodities, and utility services.

[F] Miscellaneous general revenues are amounts of general revenue other than taxes, charges, and intergovernmental revenue.

[G] Current charges are amounts received from the public for performance of specific services benefitting the person charged, and from sales of commodities and services, except liquor store sales. These changes include fees, assessments, and other reimbursements for current services, rents, and sales derived from commodities or services furnished incident to the performance of particular functions, gross income of commercial activities, and the like. These exclude amounts received from other governments (see Intergovernmental revenue) and interdepartmental charges and transfers. Current charges are distinguished from license taxes, which relate to privileges granted by the government, or regulatory measures, for the protection of the public.

Chart 2 below details the composition of general revenue for municipalities in Connecticut and several comparison states. Connecticut municipalities are the most heavily reliant on property tax revenues among the comparison states, with only municipalities in Pennsylvania recording similar reliance on this revenue stream. While in Maryland municipalities rely less on property taxes, these revenues are bolstered by a significant individual income tax revenue stream.

Chart 2: Percent of Local General Revenue by Source, FY 2015[260]

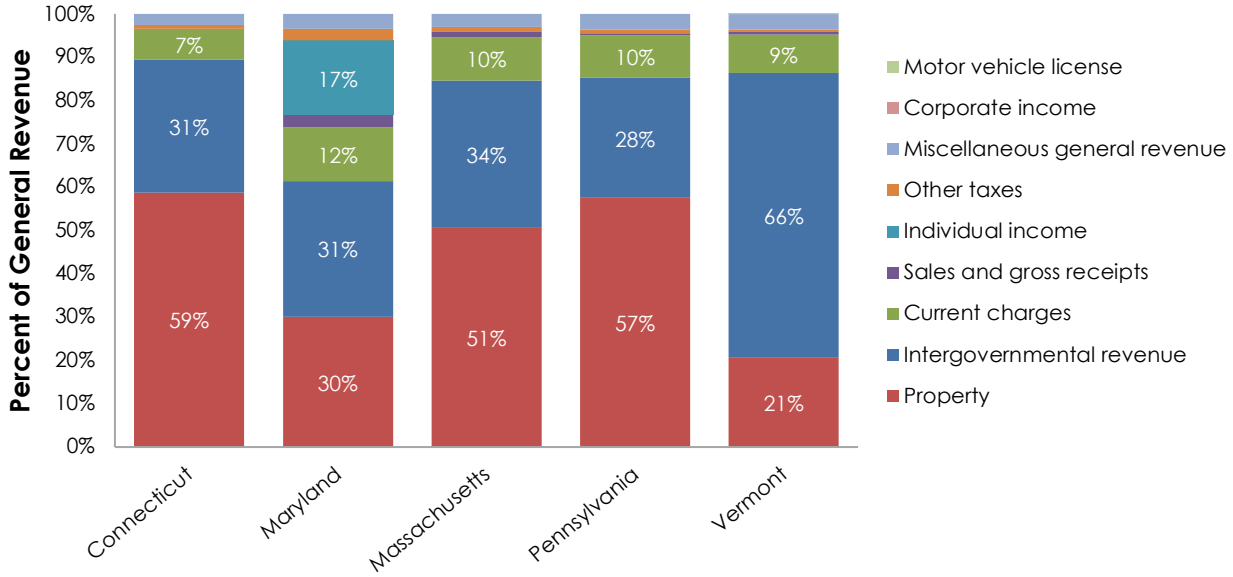


Chart 3 below shows the distribution of states receiving a percentage of general revenue from property taxes. Sixteen states reported receiving greater than one percent of their general revenue from property taxes in FY 2015.[261] The most significant state property tax systems are found in New England with Vermont[H] receiving 17.2 percent of its general revenue from property taxes and New Hampshire[I] receiving 6.3 percent of its general revenue from property taxes. Both New Hampshire and Vermont have adopted state property taxes as part of state education funding program reforms created as a result of school funding lawsuits.[262]

[H] For additional information on the Vermont statewide property tax, please see:
Teachout, S., Manchester, J., & Wexler, C. (2017). *The Vermont Tax Study, 2005-2015*. Montpelier, VT: Vermont General Assembly, Joint Fiscal Office. Retrieved from http://www.leg.state.vt.us/jfo/reports/2017%2010%20Year%20Tax%20Study%20Full%20Report%20Compressed.pdf.

[I] For additional information on the New Hampshire statewide property tax, please see:
State of New Hampshire, Department of Revenue Administration. (2017). *Annual Report 2017 The Department of Revenue Administration*. Concord, NH: Author. Retrieved from https://www.revenue.nh.gov/publications/reports/documents/ReducedAnnualreport2017.pdf.

Chart 3: Distribution of State Property Tax Revenue as Percent of General Revenue

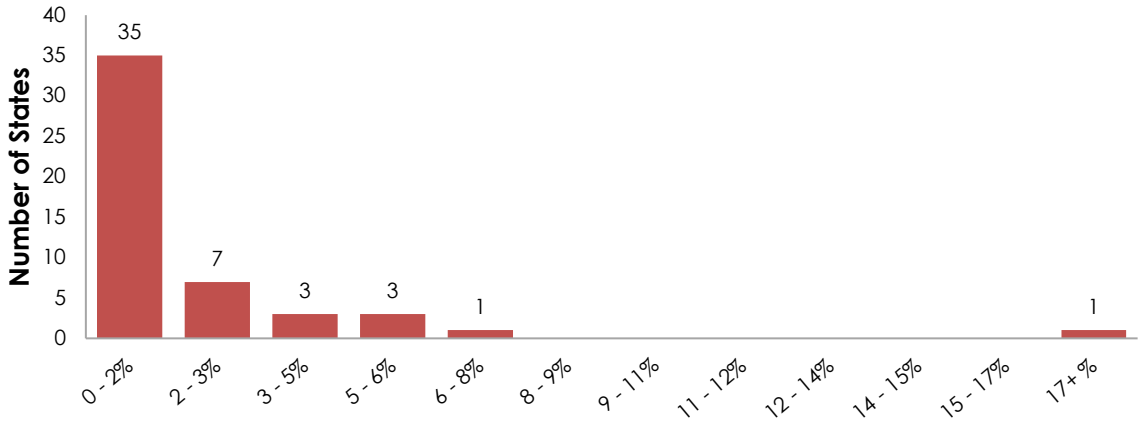


Chart 4 below provides a summary table of the property tax reliance indicators referenced in the state comparison case studies.

Chart 4: Comparison of Selected Property Tax Reliance Indicators[263]

	Property Taxes as Percentage of Owner-occupied Housing Value (2015)		State and Local Property Tax Collections Per Capita (2014)		Federal Aid as Percentage of General Revenue (2014)	
	Percent (%)	***Rank***	***Dollars ($)***	***Rank***	***Percent (%)***	***Rank***
Connecticut	1.65	6	2,774	3	24.6	48
Maryland	1.00	20	1,491	16	29.4	32
Massachusetts	1.13	18	2,181	8	27.8	37
Pennsylvania	1.46	11	1,405	21	30.8	30
Vermont	1.71	5	2,339	6	33.6	20

Appendix B: Connecticut Property Tax Exemptions and Reductions[264]

Table 1: Statewide Property Tax Grand List Reductions: Non-Taxed Properties — FY 2017, Grand List Year 2015[265]

Grand List	Connecticut Statutory Reference(s)	Fiscal Year 2017, Grand List Year 2015 ($)	State Reimbursed?	% of Gross Grand List
Property of the United States	Conn. Gen. Statutes ch. 203, § 12-81(1)	$1,329,223,505	No	0.31%
State Property	Conn. Gen. Statutes ch. 203, §§ 12-81(2),(45),(66)	$10,632,319,011	Partial[J]	2.47%
Municipal Property	Conn. Gen. Statutes ch. 203, § 12-81(4)	$20,855,059,197	No	4.85%
Public Purpose Property by Will or Trust	Conn. Gen. Statutes ch. 203, § 12-81(5)	$145,541,940	No	0.03%
Beach Property	Conn. Gen. Statutes ch. 203, § 12-81(67)	$304,503,660	No	0.07%
Municipal Airports	Conn. Gen. Statutes ch. 203, § 12-74, 81(4)	$178,065,200	No	0.04%
Municipal Water Supply Land	Conn. Gen. Statutes ch. 203, § 12-76	$315,795,314	No	0.07%
Municipal Port Authority	Conn. Gen. Statutes ch. 95, § 7-91	$1,584,660	No	0.00%
Volunteer Fire Company Property	Conn. Gen. Statutes ch. 203, § 12-81(6)	$207,830,660	No	0.05%
Property Used for Scientific, Educational, Literary, Historical, or Charitable Purposes	Conn. Gen. Statutes ch. 203, § 12-81(7)	$5,734,304,200	No	1.33%
Property Leased to Charitable, Religious, or Nonprofit, Organizations (Local Option)	Conn. Gen. Statutes ch. 203, § 12-81(58)	$29,701,705	No	0.01%
Nursing, Rest and Residential, Care owned by a federally exempt organization	Conn. Gen. Statutes ch. 203, § 12-81(75)	$34,225,160	No	0.01%

[J] Conn. Gen. Statutes ch. 201, §§ 12-19a-c require the State to reimburse municipalities at a rate of 45 percent for most state-owned property. Prison property, and the portion of the UConn Health Center used to provide medical care to prisoners, is reimbursed at 100 percent. Land owned by the Connecticut Valley Hospital is reimbursed at 65 percent. Conn. Acts 15-244 provided additional PILOT payments to towns with high percentages of tax-exempt property for FYs 2016 and 2017.

Grand List	Connecticut Statutory Reference(s)	Fiscal Year 2017, Grand List Year 2015 ($)	State Reimbursed?	% of Gross Grand List
Private Colleges' Property	Conn. Gen. Statutes ch. 203, § 12-81(8) Conn. Gen. Statutes ch. 201, § 12-20a	$5,002,204,682	Partial[K]	1.16%
Hospital and Sanitariums	Conn. Gen. Statutes ch. 203, § 12-81(16) Conn. Gen. Statutes ch. 201, § 12-20a	$5,425,368,126	Partial[L]	1.26%
Health Care Facility — HMO Property	Conn. Gen. Statutes ch. 698a, § 38a-188	$27,536,570	No	0.01%
American National Red Cross Property	Conn. Gen. Statutes ch. 203, § 12-81(29)	$17,852,000	No	0.00%
Property Held for Cemetery Use	Conn. Gen. Statutes ch. 203, § 12-81(11)	$539,752,212	No	0.13%
Property of Religious Organizations	Conn. Gen. Statutes ch. 203, §§ 12-81(12),(13),(14),(15)	$4,564,771,899	No	1.06%
Nonprofit Camps/Recreational Facilities	Conn. Gen. Statutes ch. 203, § 12-81(49)	$558,562,637	No	0.13%
Agricultural and Horticultural Society Property	Conn. Gen. Statutes ch. 203, § 12-81(10)	$77,221,311	No	0.02%
CT Resource Recovery Authority Property	Conn. Gen. Statutes ch. 446e, § 22a-270a	$191,693,902	Partial[M]	0.04%
CT Innovations Inc.	Conn. Gen. Statutes ch. 581, § 32-46	Not Reported	No	N/A
CT Housing Authority Property	Conn. Gen. Statutes ch. 134, § 8-265b	$158,359,240	No	0.04%
Metropolitan Transportation Authority Property	Conn. Gen. Statutes ch. 203, § 12-81(69)	Not Reported	No	N/A

[K] Conn. Gen. Statutes ch. 201, §§ 12-20a-b require the State to reimburse municipalities at a rate of 77 percent of taxes that would have been paid for private college and hospital property. Conn. Acts 15-244 provided additional PILOT payments to towns with high percentages of tax-exempt property for FYs 2016 and 2017.

[L] Ibid.

[M] Conn. Gen. Statutes ch. 201, § 22a-270a allows for certain property leased by the Connecticut Resources Recovery Authority (CRRA) to be exempt from property taxes if there is an agreement between CRRA, or the lessee, and the municipality to make a payment in lieu of taxes.

Grand List	Connecticut Statutory Reference(s)	Fiscal Year 2017, Grand List Year 2015 ($)	State Reimbursed?	% of Gross Grand List
CT Water Authority	Conn. Gen. Statutes ch. 128, § 8-58	Not Reported	No	N/A
Veterans Organizations Property	Conn. Gen. Statutes ch. 203, § 12-81(18),(27)	$58,886,350	No	0.01%
Prepaid Legal Services Property	Conn. Gen. Statutes ch. 698b, § 38a-240	Not Reported	No	N/A
Public Service Companies Property (Railroad)	Conn. Gen. Statutes ch. 210, § 12-255	$105,079,431	No	0.02%
TOTAL		**$56,495,442,572**		**13.15%**

Table 2: Statewide Property Tax Grand List Reductions: Taxed Properties Receiving Partial Exemptions — FY 2017, Grand List Year 2015[266]

Grand List	Fiscal Year 2017, Grand List Year 2015 ($)	Number of Taxpayers
Non-reimbursed Veterans	$511,490,269	150,242
Reimbursed Ad Vets — Income	$91,042,370	16,163
Non Reimbursed Ad Vets — Non-income	$155,084,045	115,119
100% Disabled Non-reimbursed	$30,363,805	3,759
100% Disabled Reimbursed	$14,247,767	13,427
Blind	$6,781,330	2,395
Economic & Developmental Non-reimbursed	$1,192,377,772	849
Economic & Developmental Reimbursed	$223,123,630	896
Farm & Mechanics	$77,461,197	5,538
Solar Energy & Pollution Control	$167,237,951	1,749
Personal Property of Tax Exempt Organizations	$148,676,239	3,673
Individuals	$54,231,434	4,131
Miscellaneous	$283,585,935	6,525
Phase-in Residential Properties	-	-
Residential Fixed Assessments	$4,670,311	8
Commercial Vehicles — Non-reimbursed	$124,239,557	2,206
Manufacturing & Biotechnology Machinery and Equipment — Non-reimbursed	$4,416,544,975	4,291
TOTAL	**$7,501,158,587**	**330,970**

Endnotes

[1] U.S. Census Bureau. (2017). *Table LF1500A1: State and Local Government Finances by Level of Government and by State: 2015, 2015 Annual Survey of State and Local Finances*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SLF_2015_00A1&prodType=table.
[2] U.S. Census Bureau. (n.d.). Lists & Structure of Governments: Population of Interest. Retrieved from https://www.census.gov/govs/go/population_of_interest.html.
[3] National League of Cities. (2016, December 13). Cities 101 –- Types of Local Governments. Retrieved from http://www.nlc.org/resource/cities-101-types-of-local-governments.
[4] U.S. Census Bureau. (n.d.). Lists & Structure of Governments: Population of Interest. Retrieved from https://www.census.gov/govs/go/population_of_interest.html.
[5] U.S. Census Bureau. (2013). *2012 Census of Governments – Individual State Descriptions: 2012*. Washington, DC: Author. Retrieved from https://www2.census.gov/govs/cog/2012isd.pdf.
[6] Ibid.
[7] Ibid.
[8] Ibid.
[9] Lincoln Institute of Land Policy, & Minnesota Center for Fiscal Excellence. (2017). *50-State Property Tax Comparison Study for Taxes Paid in 2016*. Cambridge, MA: Authors. Retrieved from https://www.lincolninst.edu/sites/default/files/pubfiles/50-state-property-tax-comparison-for-2016-full.pdf.
[10] Ibid.
[11] Ibid.
[12] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: Property Tax Rates. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/Report_Property_Tax_Rates.aspx.
[13] Lincoln Institute of Land Policy, & Minnesota Center for Fiscal Excellence. (2017). *50-State Property Tax Comparison Study for Taxes Paid in 2016*. Cambridge, MA: Authors. Retrieved from https://www.lincolninst.edu/sites/default/files/pubfiles/50-state-property-tax-comparison-for-2016-full.pdf.
[14] Rosengard, J.K. (2012). *The Tax Everyone Loves to Hate: Principles of Property Tax Reform*. Cambridge, MA: Harvard University, John F. Kennedy School, Mossavar-Rahmani Center for Business and Government. Retrieved from https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/MRCBG_FWP_2012_10-2012_Rosengard_Tax_Reform.pdf.
[15] Ibid.
[16] Ibid.
[17] Lockhart, B. (2016, March 10). Bridgeport loses $1 billion in property value. *Connecticut Post*. Retrieved from https://www.ctpost.com/local/article/Bridgeport-property-drops-by-1-billion-on-6879631.php.
[18] Rosengard, J.K. (2012). *The Tax Everyone Loves to Hate: Principles of Property Tax Reform*. Cambridge, MA: Harvard University, John F. Kennedy School, Mossavar-Rahmani Center for Business and Government. Retrieved from https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/MRCBG_FWP_2012_10-2012_Rosengard_Tax_Reform.pdf.
[19] State of Maryland, Department of Assessments & Taxation. (n.d.). A Homeowner's Guide to Property Taxes and Assessments. Retrieved from http://dat.maryland.gov/realproperty/Pages/HomeOwners-Guide.aspx.
[20] Institute on Taxation and Economic Policy. (2011). *Split Roll Property Taxes*. Washington, DC: Author. Retrieved from https://itep.org/wp-content/uploads/pb22split.pdf.
[21] Ibid.
[22] Ibid.
[23] Ibid.
[24] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: Residential Property Tax Relief Programs. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/Report_Residential_Property_Tax_Relief_Programs.aspx.
[25] Ibid.
[26] Ibid.

[27] Institute on Taxation and Economic Policy. (2011). *Property Tax Circuit Breakers*. Washington, DC: Author. Retrieved from https://itep.org/wp-content/uploads/pb10cb.pdf.
[28] State of Minnesota, Department of Revenue. (2011). *Understanding Recent Changes in Homestead Benefits*. Saint Paul, MN: Author. Retrieved from http://www.revenue.state.mn.us/propertytax/Documents/hmve-taxpayers.pdf.
[29] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: Residential Property Tax Relief Programs. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/Report_Residential_Property_Tax_Relief_Programs.aspx.
[30] Ibid.
[31] Munnell, A.H., Belbase, A., Hou, W., & Walters, A. (2017, November). *Property Tax Deferral: A Proposal to Help Massachusetts' Seniors* (Issue Brief No. 17-19). Chestnut Hill, MA: Center for Retirement Research at Boston College. Retrieved from http://crr.bc.edu/wp-content/uploads/2017/11/IB_17-19.pdf.
[32] Ibid.
[33] Ibid.
[34] Coleman, H.A. (2014). Nontraditional Public School Funding Sources: Trends, Issues, and Outlook. In G.K. Ingram, & D.A. Kenyon (Eds.), *Education, Land, and Location: Proceedings of the 2013 Land Policy Conference* (pp. 187-209). Cambridge, MA: Lincoln Institute of Land Policy. Retrieved from https://www.lincolninst.edu/sites/default/files/pubfiles/2402_1744_LP2013-ch07-Nontraditional_Public_School_Funding_Sources_Trends_Issues_and_Outlook_0.pdf.
[35] Reschovsky, A. (2017). *The Future of U.S. Public School Revenue from the Property Tax*. Cambridge, MA: Lincoln Institute of Land Policy. Retrieved from https://www.lincolninst.edu/sites/default/files/pubfiles/future-us-public-school-revenue-policy-brief_0.pdf.
[36] Ibid.
[37] Kenyon, D.A. (2007). *The Property Tax – School Funding Dilemma.* Cambridge, MA: Lincoln Institute of Land Policy. Retrieved from https://www.lincolninst.edu/sites/default/files/pubfiles/the-property-tax-school-funding-dilemma-full_0.pdf.
[38] Ibid.
[39] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax. Retrieved from https://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax.
[40] Loughead, K. (2018, October 24). Ranking Property Taxes on the 2019 State Business Tax Climate Index [Blog post]. Retrieved from https://taxfoundation.org/ranking-property-taxes-on-the-2019-state-business-tax-climate-index/.
[41] Ibid.
[42] Twait, A. (2018). *The Effects of State Personal Property Taxation on Effective Tax Rates for Commercial Property* (Working Paper WP18AT1). Cambridge, MA: Lincoln Institute of Land Policy. Retrieved from https://www.lincolninst.edu/sites/default/files/pubfiles/twait_wp18at1.pdf.
[43] Council for Community and Economic Research. (n.d.). State Business Incentives Database. Available from https://www.selectusa.gov/programs-and-incentives.
[44] U.S. Department of Commerce, International Trade Administration. (n.d.). Select USA: Programs and Incentives. Retrieved from https://www.selectusa.gov/programs-and-incentives.
[45] Tax Foundation. (2017). *Facts & Figures: How Does Your State Compare?* Washington, DC: Author. Retrieved from https://files.taxfoundation.org/20170710170127/TF-Facts-Figures-2017-7-10-2017.pdf.
[46] Ibid.
[47] U.S. Census Bureau. (2017). *Table LF1500A1: State and Local Government Finances by Level of Government and by State: 2015, 2015 Annual Survey of State and Local Finances*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SLF_2015_00A1&prodType=table.
[48] Conn. Gen. Statutes ch. 203, § 12-64.
[49] Tax Foundation. (2017). *Facts & Figures: How Does Your State Compare?* Washington, DC: Author. Retrieved from https://files.taxfoundation.org/20170710170127/TF-Facts-Figures-2017-7-10-2017.pdf.
[50] Conn. Gen. Statutes ch. 203, § 12-64.
[51] Conn. Gen. Statutes ch. 203, § 12-71a.

[52] Conn. Gen. Statutes ch. 203, § 12-71f.
[53] State of Connecticut, Office of Policy and Management. (2017). *Municipal Fiscal Indicators, Fiscal Years Ended 2012-2016*. Retrieved from http://www.ct.gov/opm/lib/opm/FI_2012-16_Edition_As_of_2-6-18.pdf.
[54] Lembo, K. (2017). *Annual Report of the State Comptroller, FY 2016*. Hartford, CT: State of Connecticut, Office of the State Comptroller. Retrieved from http://www.osc.ct.gov/2016annual/pdf/2016Budgetary.pdf.
[55] U.S. Census Bureau. (2013). *2012 Census of Governments – Individual State Descriptions: 2012*. Washington, DC: Author. Retrieved from https://www2.census.gov/govs/cog/2012isd.pdf.
[56] Ibid.
[57] Ibid.
[58] Ibid.
[59] Conn. Gen. Statutes ch. 203, § 12-64.
[60] U.S. Census Bureau. (2017). *Table LF1500A1: State and Local Government Finances by Level of Government and by State: 2015, 2015 Annual Survey of State and Local Finances*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SLF_2015_00A1&prodType=table.
[61] Connecticut State Department of Education. (2017). Grant Payment Report. Available from https://www.csde.state.ct.us/public/dgm/ grantreports1/paydetlMain.aspx.
[62] State of Connecticut, Office of Policy and Management. (2017). *Municipal Fiscal Indicators, Fiscal Years Ended 2012-2016*. Retrieved from http://www.ct.gov/opm/lib/opm/FI_2012-16_Edition_As_of_2-6-18.pdf.
[63] U.S. Census Bureau. (2013). *Table ORG002: Local Governments by Type and State: 2012, 2012 Census of Governments.* Retrieved from http://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG02.US01.
[64] U.S. Census Bureau. (2013). *2012 Census of Governments – Individual State Descriptions: 2012*. Washington, DC: Author. Retrieved from https://www2.census.gov/govs/cog/2012isd.pdf.
[65] Conn. Gen. Statutes ch. 203, § 12-62a.
[66] Conn. Gen. Statutes ch. 203, § 12-64.
[67] Conn. Gen. Statutes ch. 203, § 12-62a.
[68] Conn. Gen. Statutes ch. 203, § 12-63.
[69] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax. Retrieved from https://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax.
[70] City of Hartford, Assessment Division. (2018). *Historical Tax Rates*. Retrieved from http://www.hartford.gov/images/assessment/Historical_Tax_Rates.pdf.
[71] Conn. Gen. Statutes ch. 203, § 12-62c.
[72] Bell, M.E. (2015). *Overview of Property Taxes in Connecticut: Discussion Draft*. Hartford, CT: Connecticut General Assembly, Connecticut Tax Study Panel. Retrieved from https://www.cga.ct.gov/fin/tfs%5C20140929_State%20Tax%20Panel%5C20151027/CT%20Property%20Tax%20Primer%20Bell.%20Draft.pdf.
[73] Conn. Acts 17-2 (June Special Session).
[74] State of Connecticut, Office of Policy and Management. (2017). *Municipal Fiscal Indicators, Fiscal Years Ended 2012-2016*. Retrieved from http://www.ct.gov/opm/lib/opm/FI_2012-16_Edition_As_of_2-6-18.pdf.
[75] Conn. Gen. Statutes ch. 203, § 12-64.
[76] Bell, M.E. (2015). *Overview of Property Taxes in Connecticut: Discussion Draft*. Hartford, CT: Connecticut General Assembly, Connecticut Tax Study Panel. Retrieved from https://www.cga.ct.gov/fin/tfs%5C20140929_State%20Tax%20Panel%5C20151027/CT%20Property%20Tax%20Primer%20Bell.%20Draft.pdf.
[77] Ibid.
[78] Ibid.
[79] Ibid.
[80] Conn. Gen. Stat. ch. 229, § 12-704c.
[81] Conn. Gen. Statutes ch. 204, § 12-170aa.
[82] Ibid.
[83] Bell, M.E. (2015). *Overview of Property Taxes in Connecticut: Discussion Draft*. Hartford, CT: Connecticut General Assembly, Connecticut Tax Study Panel. Retrieved from

https://www.cga.ct.gov/fin/tfs%5C20140929_State%20Tax%20Panel%5C20151027/CT%20Property%20Tax%20Primer%20Bell.%20Draft.pdf.
[84] Ibid.
[85] Conn. Gen. Statutes ch. 204, § 12-170aa.
[86] State of Connecticut, Office of the State Comptroller. (n.d.). OpenBudget. Retrieved from http://openbudget.ct.gov/#!/year/default.
[87] Conn. Acts 17-2 (June Special Session).
[88] Bell, M.E. (2015). *Overview of Property Taxes in Connecticut: Discussion Draft*. Hartford, CT: Connecticut General Assembly, Connecticut Tax Study Panel. Retrieved from https://www.cga.ct.gov/fin/tfs%5C20140929_State%20Tax%20Panel%5C20151027/CT%20Property%20Tax%20Primer%20Bell.%20Draft.pdf.
[89] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax. Retrieved from https://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax.
[90] Ibid.
[91] Ibid.
[92] Phillips, A., Sallee, C., & Peak, C. (2017). *Total state and local business taxes: State-b- state estimates for fiscal year 2016.* Washington, DC: Ernst & Young LLP. Retrieved from https://www.ey.com/Publication/vwLUAssets/ey-total-state-and-local-business-taxes-2016/%24File/ey-total-state-and-local-business-taxes-2016.pdf.
[93] Walczak, J. (2018, July 31). Enhancing Tax Competitiveness in Connecticut [Blog post]. Retrieved from https://taxfoundation.org/enhancing-tax-competitiveness-connecticut/.
[94] Ibid.
[95] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax. Retrieved from https://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax.
[96] Conn. Gen. Statutes ch. 203, § 12-65b.
[97] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax. Retrieved from https://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax.
[98] Ibid.
[99] Tax Foundation. (2017). *Facts & Figures: How Does Your State Compare?* Washington, DC: Author. Retrieved from https://files.taxfoundation.org/20170710170127/TF-Facts-Figures-2017-7-10-2017.pdf.
[100] Ibid.
[101] Ibid.
[102] State of Vermont, Agency of Administration, Department of Taxes. (n.d.). Assessment. Retrieved from http://tax.vermont.gov/property-owners/understanding-property-taxes/assessment.
[103] Vt. Stat. Ann. tit. 16, § 4010.
[104] City of Burlington, Vermont. (n.d.). Property Tax FAQs. Retrieved from https://www.burlingtonvt.gov/CT/Property-Tax/FAQ.
[105] State of Vermont, Agency of Administration, Department of Taxes. (n.d.). Assessment. Retrieved from http://tax.vermont.gov/property-owners/understanding-property-taxes/assessment.
[106] Teachout, S., Manchester, J., & Wexler, C. (2017). *The Vermont Tax Study, 2005-2015*. Montpelier, VT: Vermont General Assembly, Joint Fiscal Office. Retrieved from http://www.leg.state.vt.us/jfo/reports/2017%2010%20Year%20Tax%20Study%20Full%20Report%20Compressed.pdf.
[107] Teachout, S., Manchester, J., & Wexler, C. (2017). *The Vermont Tax Study, 2005-2015: Summary Report*. Montpelier, VT: Vermont General Assembly, Joint Fiscal Office. Retrieved from http://www.leg.state.vt.us/jfo/reports/2017%20VT%20Tax%20Study%20Summary%201-17-2017.pdf.
[108] Vt. Stat. Ann. tit. 32, § 5401.
[109] State of Vermont, Agency of Administration, Department of Taxes. (n.d.). Education Tax Rate FAQs. Retrieved from http://tax.vermont.gov/research-and-reports/tax-rates-and-charts/education-tax-rates/faqs.

[110] Teachout, S., Manchester, J., & Wexler, C. (2017). *The Vermont Tax Study, 2005-2015: Summary Report*. Montpelier, VT: Vermont General Assembly, Joint Fiscal Office. Retrieved from http://www.leg.state.vt.us/jfo/reports/2017%20VT%20Tax%20Study%20Summary%201-17-2017.pdf.
[111] Teachout, S., Manchester, J., & Wexler, C. (2017). *The Vermont Tax Study, 2005-2015*. Montpelier, VT: Vermont General Assembly, Joint Fiscal Office. Retrieved from http://www.leg.state.vt.us/jfo/reports/2017%2010%20Year%20Tax%20Study%20Full%20Report%20Compressed.pdf.
[112] State of Vermont, Agency of Administration, Department of Taxes. (n.d.). Education Tax Rate FAQs. Retrieved from http://tax.vermont.gov/research-and-reports/tax-rates-and-charts/education-tax-rates/faqs.
[113] Ibid.
[114] Ibid.
[115] Teachout, S., Manchester, J., & Wexler, C. (2017). *The Vermont Tax Study, 2005-2015: Summary Report*. Montpelier, VT: Vermont General Assembly, Joint Fiscal Office. Retrieved from http://www.leg.state.vt.us/jfo/reports/2017%20VT%20Tax%20Study%20Summary%201-17-2017.pdf.
[116] State of Vermont, Agency of Administration, Department of Taxes. (n.d.). Education Tax Rate FAQs. Retrieved from http://tax.vermont.gov/research-and-reports/tax-rates-and-charts/education-tax-rates/faqs.
[117] Ibid.
[118] State of Vermont, Agency of Administration, Department of Taxes. (n.d.). Fiscal Year 2017 Education Tax Rate Table. Retrieved from http://tax.vermont.gov/research-and-reports/tax-rates-and-charts/education-tax-rates/fy2017.
[119] State of Vermont, Agency of Administration, Department of Taxes. (n.d.). Education Tax Rate FAQs. Retrieved from http://tax.vermont.gov/research-and-reports/tax-rates-and-charts/education-tax-rates/faqs.
[120] Teachout, S., Manchester, J., & Wexler, C. (2017). *The Vermont Tax Study, 2005-2015*. Montpelier, VT: Vermont General Assembly, Joint Fiscal Office. Retrieved from http://www.leg.state.vt.us/jfo/reports/2017%2010%20Year%20Tax%20Study%20Full%20Report%20Compressed.pdf.
[121] Vt. Stat. Ann. tit. 32, § 6066.
[122] State of Vermont, Agency of Administration, Department of Taxes. (n.d.). Education Tax Rate FAQs. Retrieved from http://tax.vermont.gov/research-and-reports/tax-rates-and-charts/education-tax-rates/faqs.
[123] Teachout, S., Manchester, J., & Wexler, C. (2017). *The Vermont Tax Study, 2005-2015*. Montpelier, VT: Vermont General Assembly, Joint Fiscal Office. Retrieved from http://www.leg.state.vt.us/jfo/reports/2017%2010%20Year%20Tax%20Study%20Full%20Report%20Compressed.pdf.
[124] Ibid.
[125] Ibid.
[126] Ibid.
[127] Cornman, S.Q., Zhou, L., Howell, M.R., & Young, J. (2018). *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2014-15 (Fiscal Year 2015)*. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2018/2018301.pdf.
[128] Yu, S. (2017). *Vermont School Funding 101* [PowerPoint slides]. Montpelier, VT: Public Assets Institute. Retrieved from http://www.voicesforvtkids.org/wp-content/uploads/EdFund101-2.pdf.
[129] Russo-Savage, D., Griffin, P., & Wasserman, R. (2015). *Memorandum to the State of Vermont House and Senate Committees on Education RE: Brigham v. State, 166 Vt. 246 (1997)*. Montpelier, VT: Vermont General Assembly, Office of Legislative Council. Retrieved from https://legislature.vermont.gov/assets/Documents/2016/WorkGroups/Senate%20Education/Brigham%20Decision/W~Donna%20Russo-Savage~Brigham%20v.%20State,%20166%20Vt.%20246%20(1997)~2-5-2015.pdf.
[130] Picus, L.O., Odden, A., Glenn, W., Griffith, M., & Wolkoff, M. (2012). *An Evaluation of Vermont's Education Finance System*. North Hollywood, CA: Lawrence O. Picus and Associates, LLC. Retrieved from http://picusodden.com/wp-content/uploads/2013/09/VT_Finance_Study_1-18-2012.pdf.

[131] Teachout, S., Manchester, J., & Wexler, C. (2017). *The Vermont Tax Study, 2005-2015*. Montpelier, VT: Vermont General Assembly, Joint Fiscal Office. Retrieved from http://www.leg.state.vt.us/jfo/reports/2017%2010%20Year%20Tax%20Study%20Full%20Report%20Compressed.pdf.
[132] State of Vermont, Agency of Administration, Department of Taxes. (n.d.). Education Tax Rate FAQs. Retrieved from http://tax.vermont.gov/research-and-reports/tax-rates-and-charts/education-tax-rates/faqs.
[133] Ibid.
[134] Vermont Agency of Administration, Department of Taxes. (2017). *2016 Personal Property Taxation in Vermont.* Montpelier, VT: Author. Retrieved from https://tax.vermont.gov/sites/tax/files/documents/AnnualRpt_PersonalPropertyTaxation2017.pdf.
[135] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[136] Vermont Agency of Administration, Department of Taxes. (n.d.). Understanding Property Taxes. Retrieved from https://tax.vermont.gov/property-owners/understanding-property-taxes.
[137] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[138] Tax Foundation. (2017). *Facts & Figures: How Does Your State Compare?* Washington, DC: Author. Retrieved from https://files.taxfoundation.org/20170710170127/TF-Facts-Figures-2017-7-10-2017.pdf.
[139] Ibid.
[140] Ibid.
[141] Mass. Gen. Laws ch. 59, § 2A.
[142] Mass. Gen. Laws ch.. 59, § 2.
[143] Commonwealth of Massachusetts, Department of Revenue. (2017). *Monthly Report of Collections and Refunds*. Boston, MA: Author. Available from http://www.mass.gov/dor/docs/dor/stats/bluebook/fy2017/june2017.pdf.
[144] U.S. Census Bureau. (2017). *Table LF1500A1: State and Local Government Finances by Level of Government and by State: 2015, 2015 Annual Survey of State and Local Finances*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SLF_2015_00A1&prodType=table.
[145] National Conference of State Legislatures. (2017). Real Estate Transfer Taxes: Massachusetts. Retrieved from http://www.ncsl.org/research/fiscal-policy/real-estate-transfer-taxes.aspx#MA.
[146] Wise, K., & Berger, N. (2010, December 1). Understanding Our Tax System: A Primer for Active Citizens. Boston, MA: Massachusetts Budget and Policy Center. Retrieved from http://www.massbudget.org/report_window.php?loc=Tax_Primer_83110.html.
[147] Commonwealth of Massachusetts, Department of Revenue. (2017). Chapter 4: Property Tax Classification. In *Assessment Administration: Law, Procedures and Valuation* (pp. 4-1-4-32). Boston, MA: Author. Retrieved from https://www.mass.gov/files/documents/2017/09/13/Chapter4.pdf.
[148] Ibid.
[149] Ibid.
[150] Ibid.
[151] Town of Topsfield, Massachusetts, Board of Assessors. (2017). *Fiscal Year 2018 Classification Hearing Packet*. Topsfield, MA: Author. Retrieved from https://www.topsfield-ma.gov/sites/topsfieldma/files/pages/fy2018_classification_packet.pdf.
[152] Commonwealth of Massachusetts, Department of Revenue. (2017). Chapter 4: Property Tax Classification. In *Assessment Administration: Law, Procedures and Valuation* (pp. 4-1-4-32). Boston, MA: Author. Retrieved from https://www.mass.gov/files/documents/2017/09/13/Chapter4.pdf.
[153] Seiffert, D. (2018, January 22). Massachusetts property-tax rates in 2018, by town and city. *Boston Business Journal*. Retrieved from https://www.bizjournals.com/boston/news/2018/01/22/massachusetts-property-tax-rates-in-2018-by-town.html.

[154] Commonwealth of Massachusetts, Department of Revenue, Division of Local Services. (2017). *Levy Limits: A Primer on Proposition 2 ½*. Boston, MA: Author. Retrieved from https://www.mass.gov/files/documents/2017/09/08/levylimitsprimer.pdf.
[155] Ibid.
[156] Commonwealth of Massachusetts, Department of Revenue. (2017). Chapter 4: Property Tax Classification. In *Assessment Administration: Law, Procedures and Valuation* (pp. 4-1-4-32). Boston, MA: Author. Retrieved from https://www.mass.gov/files/documents/2017/09/13/Chapter4.pdf.
[157] Ibid.
[158] Ibid.
[159] Ibid.
[160] Ibid.
[161] Ibid.
[162] Mass. Gen. Laws ch. 59, § 5-17.
[163] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[164] Ibid.
[165] Ibid.
[166] Ibid.
[167] Ibid.
[168] Ibid.
[169] Ibid.
[170] Ibid.
[171] Ibid.
[172] Ibid.
[173] Commonwealth of Massachusetts, Department of Revenue. (2017). Chapter 4: Property Tax Classification. In *Assessment Administration: Law, Procedures and Valuation* (pp. 4-1-4-32). Boston, MA: Author. Retrieved from https://www.mass.gov/files/documents/2017/09/13/Chapter4.pdf.
[174] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[175] Ibid.
[176] Ibid.
[177] Commonwealth of Massachusetts, Executive Office of Housing and Economic Development. (2016). EDIP & Local Real Estate Tax Incentives. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/upload/sources/Massachusetts/2014/MA_EDIP_and_Local%20Real%20Estate%20Tax%20Incentives_Housing_and_Economic_Development_2015.pdf.
[178] Tax Foundation. (2017). *Facts & Figures: How Does Your State Compare?* Washington, DC: Author. Retrieved from https://files.taxfoundation.org/20170710170127/TF-Facts-Figures-2017-7-10-2017.pdf.
[179] Ibid.
[180] Ibid.
[181] Franchot, P. (2017). *Comprehensive Annual Financial Report, Fiscal Year Ended June 30, 2017*. Annapolis, MD: Comptroller of Maryland. Retrieved from http://finances.marylandtaxes.gov/static_files/revenue/cafr/cafr2017.pdf.
[182] State of Maryland, Department of Assessments & Taxation. (n.d.). A Homeowner's Guide to Property Taxes and Assessments. Retrieved from http://dat.maryland.gov/realproperty/Pages/HomeOwners-Guide.aspx.
[183] State of Maryland, Department of Assessments & Taxation. (2017). *2017-2018 County & Municipality Tax Rate*. Baltimore, MD: Author. Retrieved from http://dat.maryland.gov/Documents/Tax%20Table%202017%20(3).pdf.

[184] State of Maryland, Department of Assessments & Taxation. (n.d.). A Homeowner's Guide to Property Taxes and Assessments. Retrieved from http://dat.maryland.gov/realproperty/Pages/HomeOwners-Guide.aspx.
[185] City of Baltimore, Bureau of the Budget and Management Research. (n.d.). City Tax Rates. Retrieved from https://bbmr.baltimorecity.gov/city-tax-rates.
[186] Franchot, P. (2017). *Comprehensive Annual Financial Report, Fiscal Year Ended June 30, 2017*. Annapolis, MD: Comptroller of Maryland. Retrieved from http://finances.marylandtaxes.gov/static_files/revenue/cafr/cafr2017.pdf.
[187] *Calculated from table "STATE OF MARYLAND Revenues, Primary Government Last Ten Fiscal Years" on page 158.*
Franchot, P. (2017). *Comprehensive Annual Financial Report, Fiscal Year Ended June 30, 2017*. Annapolis, MD: Comptroller of Maryland. Retrieved from http://finances.marylandtaxes.gov/static_files/revenue/cafr/cafr2017.pdf.
[188] U.S. Census Bureau. (2017). *Table LF1500A1: State and Local Government Finances by Level of Government and by State: 2015, 2015 Annual Survey of State and Local Finances*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SLF_2015_00A1&prodType=table.
[189] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[190] Md. Code Ann., Tax-Prop. § 6-302.
[191] Md. Code Ann., Tax-Prop. § 6-303.
[192] Franchot, P. (2017). *Comprehensive Annual Financial Report, Fiscal Year Ended June 30, 2017*. Annapolis, MD: Comptroller of Maryland. Retrieved from http://finances.marylandtaxes.gov/static_files/revenue/cafr/cafr2017.pdf.
[193] State of Maryland, Department of Assessments & Taxation. (n.d.). A Homeowner's Guide to Property Taxes and Assessments. Retrieved from http://dat.maryland.gov/realproperty/Pages/HomeOwners-Guide.aspx.
[194] Ibid.
[195] Md. Code Ann., Tax-Prop. § 9-105.
[196] Franchot, P. (2017). *Comprehensive Annual Financial Report, Fiscal Year Ended June 30, 2017*. Annapolis, MD: Comptroller of Maryland. Retrieved from http://finances.marylandtaxes.gov/static_files/revenue/cafr/cafr2017.pdf.
[197] State of Maryland, Department of Assessments & Taxation. (n.d.). Questions and Answers About Real Property Assessments. Retrieved from http://dat.maryland.gov/realproperty/Pages/Questions-and-Answers-About-Real-Property-Assessments.aspx.
[198] State of Maryland, Department of Assessments & Taxation. (n.d.). A Homeowner's Guide to Property Taxes and Assessments. Retrieved from http://dat.maryland.gov/realproperty/Pages/HomeOwners-Guide.aspx.
[199] State of Maryland, Department of Assessments & Taxation. (2017). *2017-2018 County & Municipality Tax Rate*. Baltimore, MD: Author. Retrieved from http://dat.maryland.gov/Documents/Tax%20Table%202017%20(3).pdf.
[200] Ibid.
[201] Ibid.
[202] Ibid.
[203] Ibid.
[204] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[205] Ibid.

[206] State of Maryland, Department of Assessments & Taxation. (n.d.). A Homeowner's Guide to Property Taxes and Assessments. Retrieved from http://dat.maryland.gov/realproperty/Pages/HomeOwners-Guide.aspx.
[207] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[208] State of Maryland, Department of Assessments & Taxation. (n.d.). A Homeowner's Guide to Property Taxes and Assessments. Retrieved from http://dat.maryland.gov/realproperty/Pages/HomeOwners-Guide.aspx.
[209] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[210] State of Maryland, Department of Assessments & Taxation. (n.d.). A Homeowner's Guide to Property Taxes and Assessments. Retrieved from http://dat.maryland.gov/realproperty/Pages/HomeOwners-Guide.aspx.
[211] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[212] Ibid.
[213] Ibid.
[214] Ibid.
[215] Ibid.
[216] Ibid.
[217] Ibid.
[218] Ibid.
[219] State of Maryland, Department of Assessments & Taxation. (2017). *2017-2018 County & Municipality Tax Rate*. Baltimore, MD: Author. Retrieved from https://dat.maryland.gov/Documents/statistics/Taxrate_July2017.pdf.
[220] Md. Code Ann., Tax-Prop. § 6-303.
[221] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[222] Ibid.
[223] Ibid.
[224] Tax Foundation. (2017). *Facts & Figures: How Does Your State Compare?* Washington, DC: Author. Retrieved from https://files.taxfoundation.org/20170710170127/TF-Facts-Figures-2017-7-10-2017.pdf.
[225] Ibid.
[226] Ibid.
[227] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[228] Tax Foundation. (2016). *Pennsylvania Illustrated: A Visual Guide to Taxes & the Economy*. Washington, DC: Author. Retrieved from https://files.taxfoundation.org/20170502093643/PA_Chartbook_final.pdf.
[229] U.S. Census Bureau. (2017). *Table LF1500A1: State and Local Government Finances by Level of Government and by State: 2015, 2015 Annual Survey of State and Local Finances*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SLF_2015_00A1&prodType=table.
[230] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from

http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[231] Brelje, B. (2017, October 31). Voters Guide: The property tax ballot question. *Reading (PA) Eagle*. Retrieved from http://www.readingeagle.com/news/article/voters-guide-the-property-tax-ballot-question&template=mobileart.
[232] McCrystal, L. (2018, January 22). Pa. could eliminate property taxes this year, senators say. *The Philadelphia Inquirer*. Retrieved from http://www.philly.com/philly/news/pennsylvania/pennsylvania-school-property-tax-eliminate-plan-argall-20180122.html.
[233] Finnerty, J. (2018, October 24). New plan to kill school property taxes emerging at state Capitol. *The Daily Item.* Retrieved from https://www.dailyitem.com/news/local_news/new-plan-to-kill-school-property-taxes-emerging-at-state/article_1a1e57ea-c0ab-5498-a023-bb98ba4b33cd.html.
[234] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[235] County Commissioners Association of Pennsylvania. (n.d.). Counties by Class. Retrieved from http://www.pacounties.org/PAsCounties/Pages/Counties-by-Class.aspx.
[236] Pennsylvania General Assembly, Local Government Commission. (2017). *Pennsylvania Legislator's Municipal Deskbook, Fifth Edition*. Harrisburg, PA: Author. Available from http://www.lgc.state.pa.us/Reports/deskbook17/complete_fifth_edition.pdf.
[237] Ibid.
[238] Ibid.
[239] Ibid.
[240] Ibid.
[241] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[242] Bunn, R. (2016, February 22). How much are your 2016 property taxes? Search the database. *PennLive*. Retrieved from http://s.pennlive.com/CnjlNuY.
[243] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[244] Ibid.
[245] Ibid.
[246] 53 Pa. Cons. Stat. § 6926.333.
[247] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[248] Pennsylvania General Assembly, Local Government Commission. (2017). *Pennsylvania Legislator's Municipal Deskbook, Fifth Edition*. Harrisburg, PA: Author. Available from http://www.lgc.state.pa.us/Reports/deskbook17/complete_fifth_edition.pdf.
[249] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[250] Ibid.
[251] Ibid.
[252] Ibid.
[253] Ibid.
[254] Ibid.

[255] Commonwealth of Pennsylvania, Department of Community & Economic Development. (n.d.). *Keystone Opportunity Zone (KOZ)*. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/upload/sources/Pennsylvania/2006/PA_sourcedocweb_2010_KeystoneOpportunityZones.pdf.
[256] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[257] Ibid.
[258] U.S. Census Bureau. (n.d.). Federal, State, & Local Governments - Definitions. Retrieved from https://www.census.gov/govs/definitions/.
[259] U.S. Census Bureau. (2017). *Table LF1500A1: State and Local Government Finances by Level of Government and by State: 2015, 2015 Annual Survey of State and Local Finances*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=SLF_2015_00A1&prodType=table.
[260] Ibid.
[261] Ibid.
[262] Lincoln Institute of Land Policy, & George Washington Institute of Public Policy. (n.d.). Significant Features of the Property Tax: State-by-State Property Tax in Detail. Retrieved from http://datatoolkits.lincolninst.edu/subcenters/significant-features-property-tax/state-by-state-property-tax-in-detail.
[263] Ibid.
[264] Connecticut General Assembly, Office of Fiscal Analysis. (2018). *Connecticut Tax Expenditure Report, February 2018*. Retrieved from https://www.cga.ct.gov/ofa/Documents/year/TER/2018TER-20180312_Tax%20Expenditure%20Report%20FY%2018.pdf.
[265] Ibid.
[266] Ibid.