

Government of the
District of Columbia



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Tax Rates and Tax Burdens In the District of Columbia - A Nationwide Comparison

2018

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EXECUTIVE SUMMARY

State and local tax systems in the United States are widely diverse. The District of Columbia and governments in the 50 states employ a broad range of taxes and fees to fund state and local government operations. The combination of taxes and fees used by a particular jurisdiction is dependent upon many factors, including revenue needs, the tax base of the local government, the fiscal relationship between the state and local governments, constitutional limitations in some states, and the level of local government services demanded by residents.

The District's tax structure employs taxes typically used by local governments, such as real and personal property taxes, deed taxes, and others. At the same time, the District has taxes usually associated with the state level of government, such as the income tax, estate tax, sales and use taxes, excise taxes, gross receipts taxes, and motor vehicle taxes. About two-thirds of the District's generated revenues come from taxes usually administered by the states.

However, the District's tax rates are often compared to either state rates, or other city rates, and typically not a combination of both rates that would be applicable to residents living in those locales. As such, this study aims to calculate the combined state and local tax burdens that would apply to a hypothetical family of three at five different income levels living in DC as well as the largest city in each state. The study includes four main tax types in its tax burden calculations: income, property, sales, and auto taxes. For these four tax types, tax burdens are calculated by applying the relevant state and local tax rates to economic data on average and median costs of various consumer goods and housing. The study assumes that the incidence of each tax is on the individual and makes other assumptions that affect the findings. These assumptions, the sources of data, and the steps taken to arrive at the tax burdens are laid out in the following pages.

The main findings are presented in Charts 1a-e and Tables 1a-e (pages 13-22), with combined tax burdens broken out by tax type and income level. Readers may view the rankings at five income levels: \$25,000, \$50,000, \$75,000, \$100,000, and \$150,000. At the \$25,000/year income level, the lowest combined tax burden is on a family living in Burlington, Vermont, while the highest combined tax burden falls on a family earning \$150,000 and living in Bridgeport, Connecticut.

Income tax: Residents in 44 of the 51 cities in this study are subject to some type of individual income tax at the state and/or local levels (Table 3, page 29). There are several types of individual income tax systems, including graduated state and local rates, graduated state and flat local rates, flat state and local rates (or fees), graduated state tax rates, and flat state rates with exemptions. Income tax burdens in jurisdictions levying an income tax ranged from a low of negative \$4,207 in Burlington, Vermont, for a family earning \$25,000 (this negative amount represents an income tax refund due to refundable tax credits), to a high of \$11,747 for a family earning \$150,000 and living in New York City, New York.

The District's 2018 income tax structure included six rates, with the highest rate of 8.95 percent applying to income over \$1,000,000. The District's income tax burden was below the average for the 44 cities that levied an income tax for a family earning \$25,000, \$50,000, and \$75,000, and the third lowest overall at the \$25,000 income level due to refundable property tax and earned income tax credits. The income tax burdens in DC were higher than the 44-city average for the highest two income levels.

Property tax: All 51 cities in this study levy a tax on real property located within the city, and effective tax rates range from a high of \$3.58 per \$100 of assessed value in Detroit, Michigan to \$0.35 per \$100 of assessed value in Honolulu, Hawaii (Table 4, page 32). In addition, several jurisdictions allow tax exemptions and credits in the calculation of the real property tax liability (Table 6, page 35). Property tax burdens range from a low of \$682 on a family earning \$50,000 a year and living in Birmingham, Alabama, to a high of \$15,819 on a family earning \$150,000/year and living in Newark, New Jersey.

In 2018, the District taxed residential property at a rate of \$0.85 per \$100 of assessed value; and offered a \$73,350 homestead deduction for owner-occupied residences. DC's property tax burdens were below the 51-city average for the top four income levels (all of those assumed to own homes). However, the District's property tax burden for those earning \$25,000 (who are assumed to rent) was the second highest of all the cities (topped only by New York City). This is due to the high cost of rental housing, and the assumption that a portion of rental payments goes toward the property tax.

Sales tax: As shown in Table 7, page 39, residents in 46 of the 51 cities studied are subject to some form of sales and use tax. In 2018, the highest combined (state + local) sales tax rates were in Chicago, Illinois (10.25 percent); Seattle, Washington (10.1 percent); Birmingham, Alabama (10.0 percent); and Los Angeles, California (9.5 percent). Residents of Honolulu, Hawaii; Portland, Maine; and Milwaukee, Wisconsin have the lowest combined sales tax rates. These lowest rates range from 4.5 to 5.6 percent total. Sales tax burdens in jurisdictions levying a general sales tax ranged from a low of \$708 for a family earning \$25,000 in Detroit, Michigan; to a high of \$3,135 for a family earning \$150,000 in Nashville, Tennessee.

The District's general sales tax of 6 percent is the fourth lowest of the rates in all 51 cities (tied with seven other jurisdictions having the same rate), when looking at total state and local sales tax rates combined. Consequently, sales tax burdens in DC were lower than the 51-city average at all five income levels.

Auto tax: Table 9, page 43, indicates that residents in all 51 cities in this study pay some type of automobile registration fee or tax—usually either a flat rate per vehicle or by weight of the vehicle. In addition, either state or local personal property taxes on automobiles are levied in 10 of the cities. Auto tax burdens ranged from a low of \$118 for a family earning \$25,000 in New Orleans, Louisiana, to a high of \$4,136 for a family earning \$150,000 in Providence, Rhode Island.

The District's annual auto registration fees range from \$72 to \$155, depending on vehicle weight, and are among the highest in the study; however, DC does not charge an annual excise tax or personal property tax on automobiles. District gas tax rates were 23.5 cents per gallon, and DC auto tax burdens were below the 51-city average for all five income levels.

There is no single pattern that characterizes either a high or low tax burden city. Details concerning the various taxes levied and why the tax burdens differ from one jurisdiction to another are presented in this publication. Part I compares selected tax burdens in DC with those of the most populous city in each state, through December 31, 2018. Part II contains tax rate tables for DC and the 50 states for 12 different types of taxes as of January 1, 2019.

ACKNOWLEDGMENT

Each year the Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis publishes several reports to provide information to the residents and taxpayers of the District of Columbia about the tax rates of states and large cities. The reports contain information about the rates and burdens of major taxes in the District of Columbia compared with states and the largest city in those states.

This publication contains two reports: (I) Tax Burdens in Washington, DC Compared with Those in the Largest City in Each State, 2018 and (II) A Comparison of Selected Tax Rates in the District of Columbia with Those in the 50 States as of January 1, 2019. This information is requested annually by committees of the US Congress and the District of Columbia Council. It is provided pursuant to Public Law 93-407.

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Appreciation is extended to the many state and local officials in various state offices who responded to our state survey and provided data in response to our follow up inquiries. Their cooperation in providing information and their helpful suggestions make this publication possible. I would also like to thank Lori Metcalf, who conducted the research and prepared this document, and Bob Zuraski, who offered editing assistance.

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Part I

Tax Burdens in Washington, DC Compared with Those in the Largest City in Each State

2018

Overview

There is a wide diversity in state and local tax systems in the United States. The fifty states and the District of Columbia employ a broad range of taxes and fees to fund state and local government operations. The combination of taxes and fees used by a particular jurisdiction is dependent upon many factors, including its revenue needs, the local government tax base, the fiscal relationships between the state and the local government, constitutional and legal limitations on the powers of taxation, and the jurisdiction's philosophy of government taxation.

The District's tax structure includes taxes typically imposed by local governments, such as real and personal property taxes, deed taxes, and others. At the same time, the District also levies taxes usually associated with the state level of government, such as individual and corporate income taxes, excise taxes, and motor vehicle related taxes. About two-thirds of the District's locally generated revenues come from taxes usually administered by a state.

The District is often compared to other cities, or states, independently, and without considering its unique situation of having taxes that both a city and a state normally levy. Therefore, a primary goal of this study is to add the nominal state and local tax rates in a consistent way in order to provide a comparison of tax burdens across major taxes in the District and the largest city in each state. Further, this study defines the term 'tax burden' as the dollar amount of taxes owed if the final incidence of each major tax examined (income, property, sales, and auto) is on the individual.¹

This study compares the income, property, sales, and auto tax burdens in 51 different jurisdictions for a hypothetical family of three, at five different income levels. For context, Appendix Table 27 presents data on population and recent changes in population in these jurisdictions. Appendix Map 10 shows the population of the largest cities as a portion of total state population and illustrates how many people, and what portion of each state are represented by the combined tax rates presented in this study.

Useful information and insights can be gleaned from comparing the tax burdens in one jurisdiction with the burdens in other jurisdictions. However, in evaluating or interpreting these comparisons, consideration should be given to special circumstances within each jurisdiction that may affect tax burdens. Further, these tax burden comparisons reflect the assumptions used in their computation. For this reason, it is important to study the methodology used in the report before drawing conclusions. The methodology used in this report is best suited to provide a relative comparison of tax burdens, within a single tax type and within a single year, across each of the 51 cities studied.

As in past years, readers are advised not to compare the hypothetical tax burdens across years; any number of small changes in the assumptions of the study can result in misleading information under such comparisons. The purpose of the study remains to compare tax burdens on a hypothetical household in different jurisdictions in a specific year, and not over time. (See Appendix A for a discussion of the impact of federal tax reform in 2018.)

¹ This approach differs from the use of the phrase 'tax burden' that may be more common in the field of economics, which includes an economic analysis of which group bears the 'burden' of a tax by ultimately having to pay it, also known as the 'incidence' of a tax.

Further, the report does not include all taxes levied in each jurisdiction, as there are state and/or local taxes not captured in the calculations here. However, the report makes every effort to consistently capture and measure tax burdens across jurisdictions for the taxes we include, making comparisons of the relative tax burdens presented a key feature of the report.

Why Do Tax Burdens Differ from One City to Another?

In the following chapters, the differences in tax burdens for the largest city in each state in the United States will be discussed. The assumptions used to compute the various tax burdens will affect the relative tax burdens for the 51 cities. This is especially true for the real estate tax, because both the methodology used to derive housing values and the relative housing values from one income level to another and from one city to another are important determinants of the real property tax burden. However, no matter what set of assumptions is used in such a study; there will be substantial tax burden differences from one city to another. Some of the reasons for these differences are as follows:

- 1) This study only measures major state and local tax burdens for individuals. Business tax burdens also differ substantially from one city to another. Many cities, because of a large manufacturing base or because of a dominant industry, can shift a large portion of the tax burden away from individuals to businesses. Cities in natural resource states, for example, may shift a substantial portion of the tax burden to industry, thus exporting, to some extent, their local government tax burden. Convention and tourist activity in cities such as Chicago, Washington, DC, New York City, and Las Vegas can help reduce local tax burdens by increasing sales tax, gasoline tax, and parking tax revenues from non-residents, another form of tax exporting.
- 2) Service demands in each of the 51 cities may vary a great deal. Cold weather services, such as snow removal, in northern cities may increase costs. Furthermore, residents of some cities simply desire, or are accustomed to, more government services than residents of other cities.
- 3) The costs of providing services may differ substantially from one city to another. Wage levels, efficiency of the work force, and costs of overhead items, such as utilities, may be very different.
- 4) The tax base of each city is different. Cities that have a relatively large percentage of employed residents will normally have a broad tax base. This type of city can levy taxes at lower rates than can those with low levels of employment or high levels of exempt property. External forces, such as the federal presence in Washington, DC, can restrict the tax base. The tax base can also be defined by the scope of a tax. For example, it is desirable from a social point of view to exempt groceries from the sales tax; however, such an exemption can narrow the sales tax base and may require a higher sales tax rate to raise enough revenues.

- 5) The proportion of public versus private services may differ from one city to another. Some cities may provide services such as garbage collection and hospital care, while in other cities the private sector may perform these services for a fee.

As a result, a city in which the private sector performs such functions may have a lower tax burden than one in which these functions are performed by the city. In these instances, the fees charged by the private sector represent payments by individuals for public services that are not reflected in tax burdens.

- 6) Certain taxes that are not discussed in this study may affect state and local tax burdens. Taxes which are levied on individuals, but not covered by the study, include liquor and cigarette taxes and taxes on public utility bills. Rates for some of these taxes are listed at the end of the report.

As noted above, the number and kind of public services each city provides necessarily has a bearing on the amount of revenue that must be raised. The tax burden comparisons in this report should be studied in the context of these differing conditions, in addition to the assumptions and methodologies used.

In addition to these factors which may apply to any jurisdiction, DC's circumstances further set it apart from other state and local governments. The Government Accountability Office (GAO) has documented in the past that the District has had a structural imbalance, due primarily to two factors. First, the District has a higher service delivery cost than the average state fiscal system—due to the higher rates of poverty and crime associated with an urban area, as well as a higher cost of living.² Further, the District's revenue capacity is restricted by the federal presence—DC cannot tax non-residents who work in the city under its income tax, and as of Tax Year 2018 property assessments, 31 percent of the land value in the District is tax exempt.³ In spite of this restriction, GAO notes that the District has a high revenue capacity. The city's economic and fiscal situation has changed over the past decade; however, these factors remain relevant when considering the District's tax structure and its tax burdens.

² "Structural Imbalance and Management Issues." GAO-03-666. Government Accountability Office. Washington, DC: 2003. p. 1.

³ "DC Tax Facts 2019." 2018 Tax Exempt Land Value as a % of Total Taxable and Exempt Land Value. Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis. Washington, DC: 2019. p. 49.

CHAPTER I

How Tax Burdens are Computed for the Largest City in Each State

Many taxpayers in the United States are aware that the amount of state and local tax liability of an individual taxpayer varies from one jurisdiction to another. The extent of these differences in state and local tax burdens across the country, however, may not be fully recognized.

The taxing systems of states and local jurisdictions differ in many aspects. The relationship of state taxes to federal tax law is one of several factors causing differences in tax burdens from one state to another. Other differences reflect decisions by state and local governments on what should and should not be subject to tax. For example, several states do not levy an individual income tax, although for many others it represents a major source of state funding. Tax burdens also differ because some states can shift a larger portion of governmental costs to business and may be able to "export" some of their tax burden. This has been true, for example, for energy producing states and states specializing in tourism.

This report compares the major state and local tax burdens of hypothetical households in Washington, DC, with the burden for the households in the largest city in each of the 50 states for 2018. The four major taxes used in the comparison are the individual income tax, the real property tax on residential property, the general sales and use tax, and automobile taxes, including the gasoline tax, registration fees, excise tax, and the personal property tax. This study does not incorporate the effects of differing local tax burdens on the federal individual income tax burden. Income and property taxes are deductible in computing federal income taxes and the effect of federal deductibility is to reduce the overall difference in tax burdens between jurisdictions (See Appendix A for a discussion of the impacts of federal tax reform in 2018).

All tax burdens reflect state and local tax rates. Tax burdens are compared for a hypothetical family that consists of two wage-earning spouses and one school-age child. The gross family annual income levels used are: \$25,000, \$50,000, \$75,000, \$100,000, and \$150,000, and income is assumed to have been earned in the city. The wage and salary split is assumed to be 70-30 between the two spouses. The families at the top four income levels are assumed to own a single-family home and to reside within the confines of the city. At the \$25,000 income level, the study assumes that the household rents and does not own its housing unit. The assumptions used in the calculation of each major tax type are indicated on the following pages.

- **Housing Values.** Housing values across income levels in the 2018 study are based on data from the US Census Bureau’s American Community Survey (ACS) and adjusted using a linear multiplier for the different income levels. This involves dividing the median house value of each metropolitan statistical area (MSA) by the MSA’s median household income of mortgage holders, and then multiplying that number by each income level for which home ownership is assumed (\$50,000, \$75,000, \$100,000, and \$150,000).
- **Mortgage Interest.** The mortgage interest amount (for use as an itemized deduction in the income tax) in the 2018 study is derived by calculating an amortization schedule for the estimated home value for each income level in each city. Home values for the Mortgage Interest Deduction (MID) are calculated in the same manner as in the previous bullet, based on median house values and median incomes for mortgage holders for a house purchased in 2013.
- **Renters versus Owners.** The hypothetical family at the \$25,000 income level in this year’s study is assumed to rent, rather than own a home. Given the real estate values in most areas of the country, the assumption that families earning \$25,000 per year rent may be more realistic than the assumption that they own a home.

Individual Income Tax

The five income levels used in this study are divided between wage and salary income. In previous versions of this report, capital gains and interest income were included, as well as the assumptions of major itemized deductions on the following page. However, capital gains and interest income are *not* included in the current report to remove some of the variation that inconsistently changed the original income levels used, with little methodological benefit. (See the following page for more information on the itemized deductions that continue to be included in this report.) The following income levels are used for the income tax starting point in each state and the District of Columbia, where Spouse 1 is assumed to earn 70 percent of the total income and Spouse 2 is assumed to earn 30 percent.

Gross Income:	<u>\$25,000</u>	<u>\$50,000</u>	<u>\$75,000</u>	<u>\$100,000</u>	<u>\$150,000</u>
Spouse 1:	\$17,500	\$35,000	\$52,500	\$70,000	\$105,000
Spouse 2:	7,500	15,000	22,500	30,000	45,000

Total itemized deductions used for calculating state and local income taxes, which are also used in the federal tax computation, are shown below. These amounts are based on actual average deduction amounts at each income level for Washington, DC taxpayers who were married filing jointly and had itemized deductions in tax year 2017.

Gross Income Level					
Deduction	\$ 25,000	\$ 50,000	\$ 75,000	\$100,000	\$150,000
Medical (Gross)	2,856	4,829	6,435	7,909	11,514
Nondeductible Medical 1/	<u>-1,875</u>	<u>-3,750</u>	<u>-5,625</u>	<u>-7,500</u>	<u>-11,250</u>
Net Medical Deduction	981	1,079	810	409	264
Deductible Taxes	2/	2/	2/	2/	2/
Mortgage Interest	3/	3/	3/	3/	3/
Contribution Deduction 4/	2,113	2,766	3,660	3,519	3,154
Total Deductions-without taxes And mortgage interest 5/	3,094	3,845	4,470	3,928	3,418

1/ Medical deductions allowed when the total is more than 7.5 percent of federal AGI. All or part of medical deduction may be allowed in some states.

2/ The tax deduction varies from city to city and is based on real and personal property taxes computed in the 2018 study and individual income taxes computed in the 2017 study for tax year 2017.

3/ Assumed mortgage interest varies from city to city and is based on 5th year interest paid on a home purchased in 2013 at an interest rate of 3.98%.

4/ Contribution Deduction represents charitable contributions claimed.

5/ Note: the current report does not include miscellaneous deductions, taxable interest income or capital gains which have been included in previous reports.

Further, if all itemized deductions do not exceed the amount of the standard deduction, the standard deduction amount will be automatically used.

Because the Federal Earned Income Tax credit (EITC) at the \$25,000 income level in some states will determine the state's EITC, and because several states (such as Alabama, Iowa, Louisiana, Missouri, Montana, and Oregon) allow the deduction of all or part of an individual's federal income tax liability in computing the state income tax, it is necessary to compute the 2018 federal individual income tax at each income level using the above assumptions. Many states in 2018 allowed taxpayers to begin their state income tax computations with federal adjusted gross income (AGI) or federal taxable income. Other states do not use either of these two measures of federal income as a starting point.

Further, depending on levels of deductions used in each state, the standard deduction may be more advantageous for certain taxpayers. In 2018, the federal standard deduction almost doubled to \$24,000; and state level standard deductions vary by state (see Table 14 for more detail on state income tax parameters). Because the federal standard deduction was significantly increased in the Tax Cuts and Jobs Act of 2017 (TCJA), more of the families included will now take the standard deduction (See Appendix A for a discussion of the impacts of TCJA on 2018 state and local income taxes). This also means that if states require taxpayers taking the federal standard deduction to also take the state standard deduction, those in states with standard deductions lower than their itemized deductions would have an increased tax liability in 2018 as compared to 2017. For the current study of tax year 2018, all families earning \$75,000 per year and below, and many of the families earning \$100,000, would take the federal standard deduction as it was higher than the itemized deductions assumed for these income levels in the report.

The 2018 deductible real and personal property taxes computed in the current year's 51-city study are used for the 2018 property tax deduction. For the 2018 state and local individual income tax deduction, 2017 tax burdens from the previous year's study were used (unless the pre-calculated sales tax deduction in the tax calculator used was higher, which was often the case for the lower two income levels). Each of these figures was used in computing the 2018 federal income tax burden, which is the starting point for the state income tax burden calculations.

Real Property Tax

Real property tax burdens in the 51 cities are a function of residential real estate values, assessment levels and the ratio of assessed value to market value, and the tax rate. Some jurisdictions allow certain deductions from the value of residential property before the tax is calculated while others allow credits against the calculated real estate tax. These deductions and/or credits are normally limited to owner-occupied properties.

The nominal property tax rates for each of the 51 cities, presented in Table 4 (page 32) indicate a wide range in these rates. This information is based upon survey data received from various state agencies and/or local assessors and is intended to represent the total rate applicable to a homeowner in each city, inclusive of any state, city, and other local property taxes. In addition to tax rate differences, data presented in Table 5 (page 34) indicate that the assumed market value of a residence for purposes of this study varies widely from one city to another at all income levels. For example, based on extrapolations of 2018 American Community Survey (ACS) data, the estimated house value at the \$75,000 income level ranges from a high of \$424,275 in Los Angeles, California, to a low of \$137,345 in Wichita, Kansas.

The housing values for each income level (except the \$25,000 income level) shown in Table 5 are derived from 2018 ACS data. A series of assumptions and calculations were made to estimate the median house value in each city, for each income level used in the report. First, data on median house values and median household incomes of mortgage holders were retrieved from the Census Bureau's American Community Survey 2018. Data were collected for the Metropolitan Statistical Area (MSA) within which the largest city in each state falls.⁴

Since the focus of this study is identifying the median house value at the \$50,000, \$75,000, \$100,000 and \$150,000-income levels, a linear multiplier was calculated based on the median house value in the MSA divided by the median household income of mortgage holders in that MSA. This multiplier was used to scale the house values to the various income levels in the report by multiplying them by each income level to determine the hypothetical house value at that level. This assumption serves as an input for both the property tax burden calculations and the mortgage interest deduction for the income tax burden. This method, which has been used in each of the Tax Burden Studies since 2012, assumes that house values increase in a linear fashion with income, which is the case up to near \$100,000 of annual income (all median household incomes in the 51 cities are below this level). Since 2014, the median household income of *mortgage holders*, rather than the median income of all households, within an MSA is used to calculate the linear multiplier.

⁴ Newark, New Jersey, falls in the New York City MSA and Wilmington, Delaware, falls in the Philadelphia MSA, thus those MSA data are used for both cities. A sensitivity analysis presented in the 2013 Tax Rates and Tax Burdens Report shows how this choice affects the findings.

The use of the above methodology is an attempt to reflect the different values of housing in different parts of the country and at different income levels. Data from the 2018 ACS were used for estimating house values because they are the latest data comparable for all the jurisdictions in this study. It is important to note that these are **hypothetical** values based on income levels and do not represent **average** values for a particular jurisdiction.

For the present 2018 Study, median sales ratio statistics have been included where available to derive an “effective assessment level” that results from multiplying the statutory assessment level times the median sales ratio statistic. A sales ratio (or assessment sales ratio) is the ratio of the appraised value of the property to the sales price, or market value; the median is the median ratio value of all of the properties included in the study.⁵ Median sales ratios are a measure of the property valuation and assessment practices within a jurisdiction. If property assessments do not keep up with market value, residents’ property taxes will be lower than they would otherwise be if taxed at the full market value of the property. Including the available median sales ratio statistic into the property tax burden calculations is an attempt to reflect how property tax systems in each jurisdiction are administered in practice.

In computing property tax burdens, it is also necessary to consider the various exemptions and credits noted in Table 6 (page 35). The variety of real property tax exemptions, most of which apply only to residential real property, is very broad. Table 6 does not include senior citizen exemptions and credits that are available in many states, nor can it adjust for “caps” on the growth of assessed values or limitations on tax liability over time. Some states have a type of assessment limitation or valuation freeze. For example, strict limits in California mean many families’ assessments would be much lower than those assumed here, particularly if they have owned their home for many years. Table 4 (page 32), which compares residential real estate tax rates for each city, does not reflect the various exemptions and credits noted in Table 6. Other exemptions and credits may be available, such as those for senior citizens, but are also not reflected in Table 4 because seniors are not included in the hypothetical households of this study. However, the property tax burdens computed and shown in Table 1 of this study reflect the provisions in Table 6 applicable to families owning and residing in their homes.

Property Tax Equivalent of Rent

As previously noted, the study assumes that the family with an annual income of \$25,000 does not own a home (and as a result does not pay property tax directly), but instead rents. Because renters indirectly pay property taxes through their rent,⁶ this study computes a percentage of said rent constituting property taxes. This concept is called the property tax equivalent of rent (PTER) and is an important tool in comparing the incidence of the property tax on renters versus homeowners. In a 2019 50-State Property Tax Comparison report, the Lincoln Institute of Land Policy and the Minnesota Center for Fiscal Excellence note that states vary in how they tax rental properties in comparison to homesteads; on average cities tax apartments 31 percent more than homesteads.⁷ Their report presents a table illustrating this information for the

⁵ “Glossary for Property Appraisal and Assessment,” International Association of Assessing Officers. 2013. Page 150. https://www.iaao.org/media/Pubs/IAAO_GLOSSARY.pdf.

⁶ “50-State Property Tax Comparison Study for Taxes Paid in 2018.” The Lincoln Institute of Land Policy and the Minnesota Center for Fiscal Excellence. June 2019: pg. 4.

⁷ Ibid.

largest city in each state; Charleston, South Carolina has the largest difference in effective rates between apartment buildings and homesteads, taxing apartments more than 3 times the effective rate of that levied on homesteads.⁸ Conversely, in seven of the largest cities in each state (and DC), apartments are given preferential treatment over homesteads with the most preference toward apartments given in Virginia Beach, VA.⁹ In 10 cities, apartments are given the same treatment as homesteads.

To relieve the implicit tax burden on renters that exists in some locations, some states have property tax circuit breaker programs that offset renters' tax burdens (often through the income tax since they do not pay property taxes directly). These programs must make assumptions of the PTER to calculate the amount that renters are paying in property taxes, and the amount of relief they will receive through the circuit breaker program. Of the states that offer circuit breaker programs, the PTER assumptions generally range from 6 to 25 percent (NM has a low of 6 percent while MA uses a 25 percent assumption); on average, states assume that 17 percent of rent goes toward paying property taxes.¹⁰ DC's circuit breaker program assumes 20 percent.

Prior to the 2016 Tax Burden Study, a 20 percent assumption was used with some reservation given that it has a large impact on the calculated tax burdens of the families earning \$25,000 per year. The assumption often seemed unrealistic in cities with higher rental prices in which calculated PTERs would be the highest, especially given that rental buildings in more competitive markets may not be able to pass on all taxes paid since prices are set by the local market. And as the Lincoln report illustrates, the specific PTER level in a city is primarily based on the tax system in each jurisdiction. It is not clear whether states with higher PTER percentages in their circuit breakers have data backing up the percentage of PTER in their state, or if these states are using the circuit breaker to provide a subsidy to lower income renters hit hardest by higher rental markets.¹¹ The only published evidence found of this calculation at the time of our analysis is from a January 2016 report in which the Minnesota Department of Revenue (MN DOR) used several techniques based on both ACS and internal tax data to assess the percentage of rent that constitutes property taxes throughout Minnesota. MN DOR found the statewide PTER hovered around 15 percent each year from 2009 to 2014, though in Minneapolis it was often up to 16.9 percent.¹²

After considering the available information we decided to use a level of 15 percent for PTER in the 2016 and 2017 Studies and to continue to do so for current 2018 Study to attempt to be more realistic in the property tax burden on renters, particularly in cities with more expensive rental markets. Future refinements may be made as new information and data become available. The PTER in each city was calculated as 15 percent of median rents in each MSA. These data

⁸ Ibid, pg. 104-5.

⁹ Ibid. The study found that in Washington, DC, the classification ratio between apartments and homesteads is 1.096, indicating that homesteads are treated slightly preferentially to rental buildings by the property tax rates (exclusive of credits) in DC.

¹⁰ Based on analysis of state programs in the Lincoln Institute of Land Policy's *Significant Features of the Property Tax Database* for 2017.

¹¹ This discussion does not intend to assess appropriate levels of PTER used in circuit breaker programs. It is intended solely to consider whether and how these levels are used as an input for the Tax Burden Study's calculation of renter's tax burdens as compared to homeowner's tax burdens across the 50 states.

¹² The MN Renter's Property Tax Refund program allowed renters to qualify for a refund on their rent of up to 17% of rent paid (dependent on the renter's income level) in 2018.

were obtained from the US Department of Housing and Urban Development.¹³ This flat assumption means that any variation in the property tax burden for renters (families earning \$25,000) is driven by the housing market in each jurisdiction, and not the tax system in place.

Even with the lower assumption of PTER in the current study, this number still implies that the lowest income families in the report are spending, on average, 40 percent of their incomes on rent, with that portion being as high as 79 percent in New York City and 72 percent in Washington, DC. However, viewed in the context of some DC metro area statistics it may not be that unrealistic. In 2017, of renters earning less than \$50,000/year, more than 80 percent were spending more than 30 percent of their income in rent.¹⁴ Further, a 2016 DC Fiscal Policy Institute analysis of 2014 Census data found that 42 percent of extremely low-income renters (between \$16,100 - \$32,100/year for a family of four) in DC paid 80 percent of their income or more in rent, while over half of renters at this income level paid more than half of their income in rent.¹⁵

Sales and Use Tax

The sales tax burdens included in this study are based on information from the 2018 Bureau of Labor Statistics' Consumer Expenditure Survey (CES), and local and state sales tax rates. The CES provides data on average consumer expenditures by income level. The average expenditures by income level have been adjusted for a 3-person household. The same CES categories have been included since the 2013 Tax Burden Study and include: food (at home); food (away from home); over the counter drugs; housekeeping supplies, household furnishings, and equipment; apparel and footwear; new and used cars and trucks; vehicle finance charges, maintenance and repairs, and insurance; vehicle rentals, leases, and licenses and other charges; public and other transportation; entertainment: fees and admissions, audio visual equipment and services, and reading; and personal care products and services.¹⁶

The CES expenditure data and the specific state and local tax rates on each type of item are used to determine the sales tax that these expenditures would generate. The state and local general sales tax rates in each city are reported in Table 7, page 39. It is important to note that the sales tax burdens will be a function of the size of the sales tax base in a particular jurisdiction and the specific sales tax rates that apply to the consumer items included.

Automobile Taxes

Automobile taxes included in this study are gasoline taxes, motor vehicle registration fees (state and local), excise taxes, and personal property taxes levied on automobiles. Table 10 (page 43) summarizes automobile ownership assumptions for each income level, including types of vehicles, weight, value, and annual gasoline consumption.

¹³ US Department of Housing and Urban Development, "2018 50th Percentile Rent Estimates." Data for studio apartments used. HUD provides data for Newark, NJ, but not for Wilmington, DE (thus the value for Philadelphia, PA, is used).

¹⁴ Analysis of US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates.

¹⁵ Zippel, Claire. "A Broken Foundation: Affordable Housing Crisis Threatens DC's Lowest-Income Residents." DC Fiscal Policy Institute. December 8, 2016.

¹⁶ In cases where a category includes items that are both taxed and not taxed, such as "drugs" which includes both prescription and over the counter (OTC) drugs, the expenditure amount is divided by two before applying the tax rate of the item that is taxed (For example, states often tax OTC drugs but not prescription drugs. Similarly, states often tax personal care products, but not personal care services.)

CHAPTER II

Overall Tax Burdens for Hypothetical Families in the Largest City in Each State

The major state and local tax burdens by tax type for the five different income levels used in this study are presented in Tables 1a-e (pages 14-22). As reflected in Table 1, tax burdens across the 51 cities vary widely at all income levels. At the \$25,000 income level, the \$4,533 combined burden of all four taxes added together for Philadelphia, Pennsylvania, is significantly greater than the *negative* tax burden of \$1,410 that a similar taxpayer in Burlington, Vermont, would receive as a net refund. At the \$150,000 income level, the Bridgeport, Connecticut, burden of \$25,504 is over four times the Anchorage, Alaska, burden of \$5,950. Differences in state and local tax structures, as well as housing markets and costs-of-living, contribute to the variation.

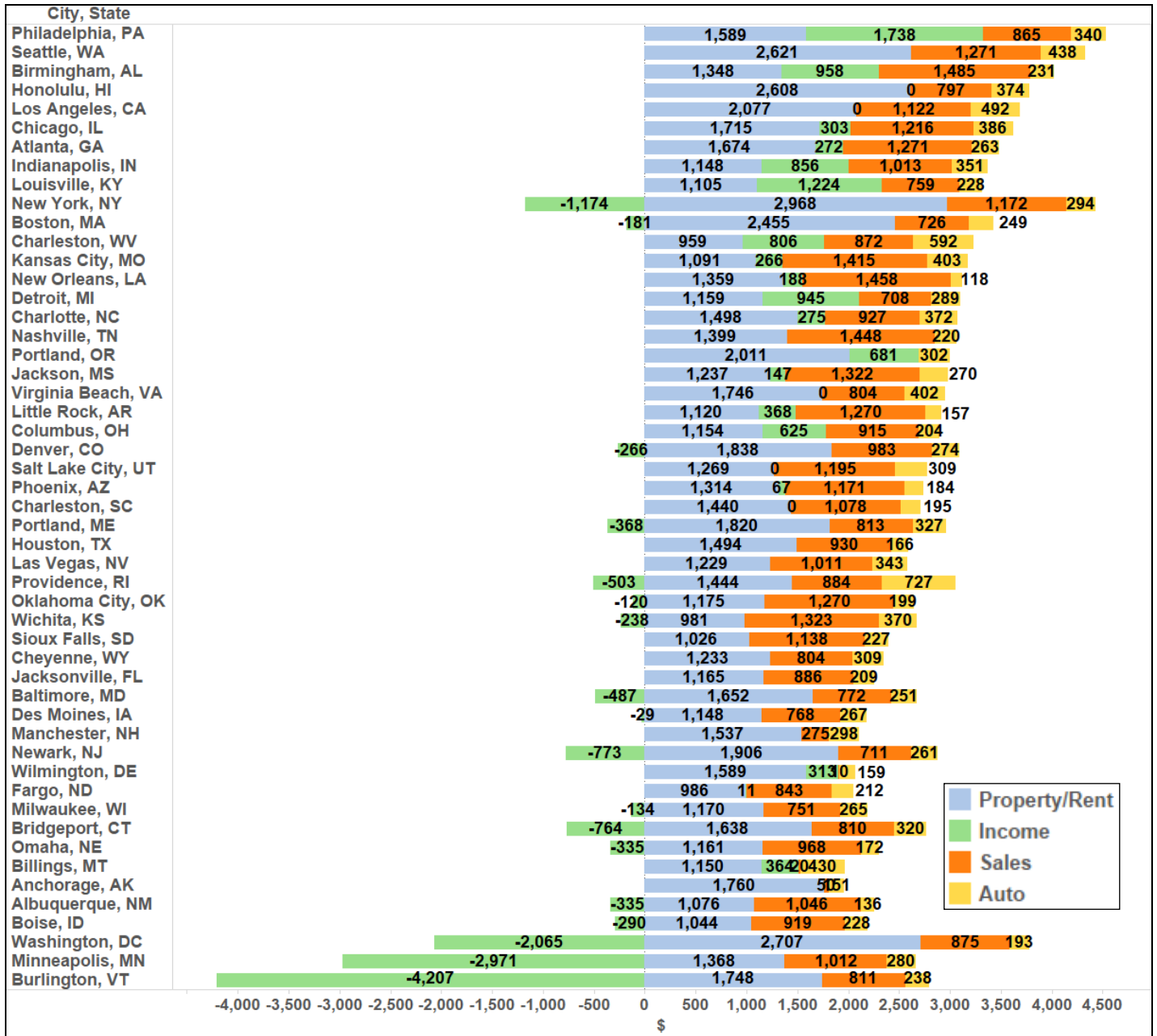
The highest combined tax burdens at the \$25,000 income level occur in Philadelphia, Pennsylvania; Seattle, Washington; Birmingham, Alabama; Honolulu, Hawaii; and Los Angeles, California. Philadelphia's local wage tax adds to the state income tax to make it by far the highest income tax burden at this income level. The high property tax burdens (which are assumed to be a portion of rent) due to expensive real estate markets in Seattle and Honolulu put them on this list, while Birmingham's high sales tax burden contributes to its ranking. The lowest combined tax burdens of all four taxes added together at the \$25,000 income level occur in Burlington, Vermont; Minneapolis, Minnesota; Washington, DC; Boise, Idaho; and Albuquerque, New Mexico. Each of these has a refundable EITC (or other credits), which contributes to their low ranking.

The highest combined tax burdens of all four taxes added together at the \$150,000 income level occur in Bridgeport, Connecticut; Newark, New Jersey; Detroit, Michigan; Baltimore, Maryland; and Milwaukee, Wisconsin. The lowest combined tax burdens at this income level are Anchorage, Alaska; Sioux Falls, South Dakota; Cheyenne, Wyoming; Nashville, Tennessee; and Fargo, North Dakota. These lower tax burdens are primarily a result of the lack of an income tax in all but one (ND) of these jurisdictions. Map 1 (page 23) illustrates the combined burden of all four taxes for a family earning \$75,000/year.¹⁷

No single pattern characterizes a high or a low tax burden city. High tax burden cities generally have a graduated individual income tax rate and/or high real estate tax rates and moderate to high housing values. Low tax burden cities generally have a low individual income tax (if at all) and average or below average property tax rates.

¹⁷ See the Appendix (page 71) for maps showing the combined burdens by state for the other income levels.

Chart 1a: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$25,000/Year



Source: ORA analysis. Cities are ranked by total estimated tax burden as a percentage of income (highest at the top).

Note: Negative bars represent income tax refunds due to state EITC (or other refundable credits). This is the first year DC's refundable property tax credit (through the income tax) was included.

See Table 1a on the following page for totals and tax burdens as a percent of income.

Table 1a: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$25,000/Year

RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY 3/	SALES 4/	AUTO	AMOUNT	PERCENT
1	Philadelphia	PA	1,738	1,589	865	340	4,533	18.1%
2	Seattle	WA	-	2,621	1,271	438	4,330	17.3%
3	Birmingham	AL	958	1,348	1,485	231	4,022	16.1%
4	Honolulu	HI	0	2,608	797	374	3,779	15.1%
5	Los Angeles	CA	0	2,077	1,122	492	3,691	14.8%
6	Chicago	IL	303	1,715	1,216	386	3,621	14.5%
7	Atlanta	GA	272	1,674	1,271	263	3,480	13.9%
8	Indianapolis	IN	856	1,148	1,013	351	3,369	13.5%
9	Louisville	KY	1,224	1,105	759	228	3,316	13.3%
10	New York	NY	(1,174)	2,968	1,172	294	3,260	13.0%
11	Boston	MA	(181)	2,455	726	249	3,250	13.0%
12	Charleston	WV	806	959	872	592	3,230	12.9%
13	Kansas City	MO	266	1,091	1,415	403	3,174	12.7%
14	New Orleans	LA	188	1,359	1,458	118	3,123	12.5%
15	Detroit	MI	945	1,159	708	289	3,101	12.4%
16	Charlotte	NC	275	1,498	927	372	3,072	12.3%
17	Nashville	TN	-	1,399	1,448	220	3,067	12.3%
18	Portland	OR	681	2,011	-	302	2,995	12.0%
19	Jackson	MS	147	1,237	1,322	270	2,976	11.9%
20	Virginia Beach	VA	0	1,746	804	402	2,952	11.8%
21	Little Rock	AR	368	1,120	1,270	157	2,914	11.7%
22	Columbus	OH	625	1,154	915	204	2,898	11.6%
23	Denver	CO	(266)	1,838	983	274	2,829	11.3%
24	Salt Lake City	UT	0	1,269	1,195	309	2,773	11.1%
25	Phoenix	AZ	67	1,314	1,171	184	2,736	10.9%
26	Charleston	SC	0	1,440	1,078	195	2,712	10.8%
27	Portland	ME	(368)	1,820	813	327	2,592	10.4%
28	Houston	TX	-	1,494	930	166	2,589	10.4%
29	Las Vegas	NV	-	1,229	1,011	343	2,584	10.3%
30	Providence	RI	(503)	1,444	884	727	2,552	10.2%
31	Oklahoma City	OK	(120)	1,175	1,270	199	2,525	10.1%
32	Wichita	KS	(238)	981	1,323	370	2,436	9.7%
33	Sioux Falls	SD	-	1,026	1,138	227	2,391	9.6%
34	Cheyenne	WY	-	1,233	804	309	2,347	9.4%
35	Jacksonville	FL	-	1,165	886	209	2,259	9.0%
36	Baltimore	MD	(487)	1,652	772	251	2,188	8.8%
37	Des Moines	IA	(29)	1,148	768	267	2,154	8.6%
38	Manchester	NH	-	1,537	275	298	2,110	8.4%
39	Newark	NJ	(773)	1,906	711	261	2,105	8.4%
40	Wilmington	DE	313	1,589	10	159	2,071	8.3%
41	Fargo	ND	11	986	843	212	2,052	8.2%
42	Milwaukee	WI	(134)	1,170	751	265	2,052	8.2%
43	Bridgeport	CT	(764)	1,638	810	320	2,004	8.0%
44	Omaha	NE	(335)	1,161	968	172	1,965	7.9%
45	Billings	MT	364	1,150	20	430	1,964	7.9%
46	Anchorage	AK	-	1,760	50	151	1,962	7.8%
47	Albuquerque	NM	(335)	1,076	1,046	136	1,923	7.7%
48	Boise	ID	(290)	1,044	919	228	1,900	7.6%
49	Washington	DC	(2,065)	2,707	875	193	1,711	6.8%
50	Minneapolis	MN	(2,971)	1,368	1,012	280	(311)	-1.2%
51	Burlington	VT	(4,207)	1,748	811	238	(1,410)	-5.6%
AVERAGE			1/					
MEDIAN			(115)	1,512	939	288	2,626	10.5%
			0	1,368	923	267	2,712	10.8%

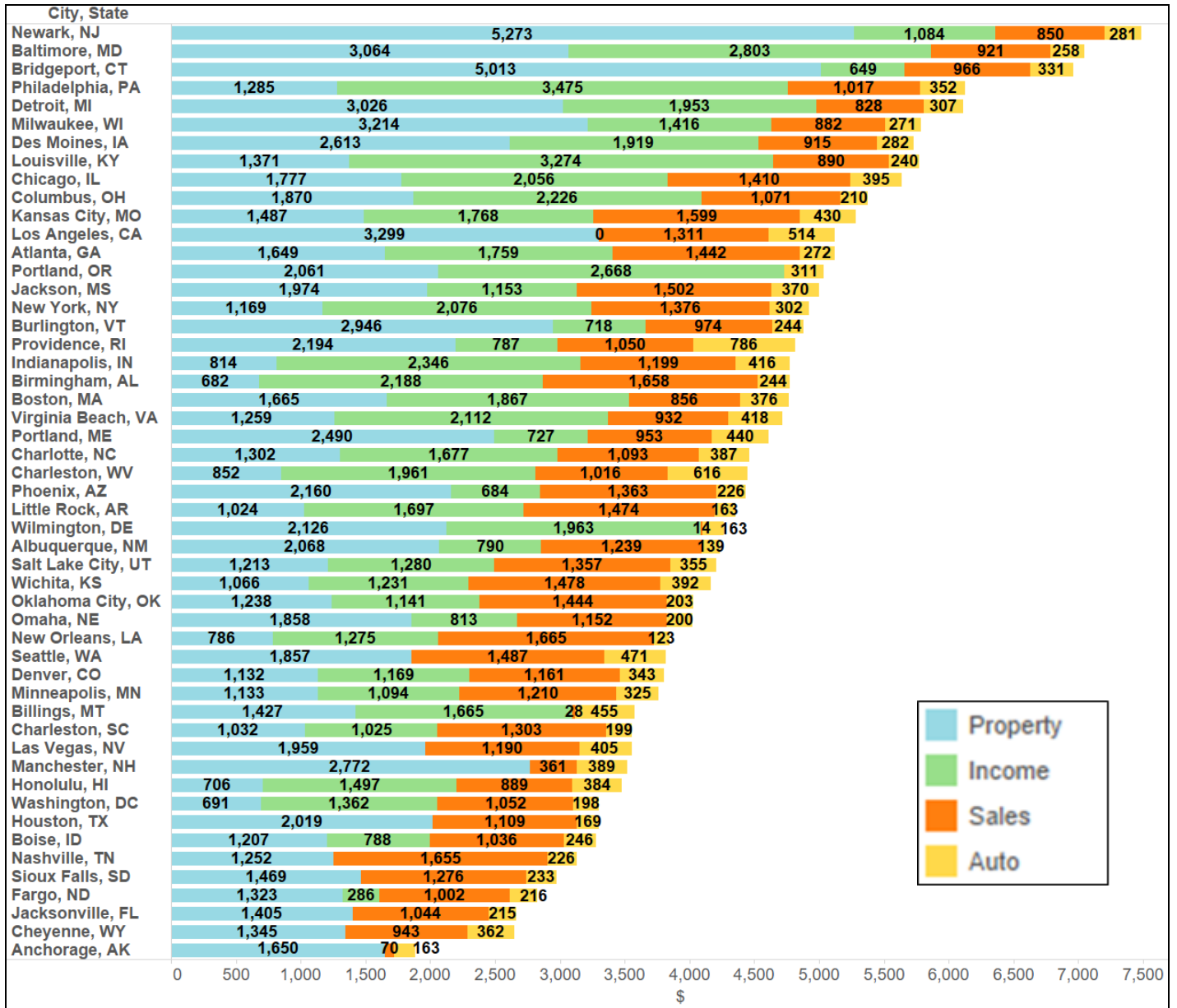
1/ Based on jurisdictions levying tax.

2/ Amounts in parentheses represent refundable State Earned Income Tax Credits. Negative income tax burdens in DC, MN, and VT also include a renter's rebate through the income tax. States with dashes do not have an income tax. Tennessee and New Hampshire tax interest and dividend income but the exemptions are high enough to eliminate individual income taxes at all income levels used in the study.

3/ Based on 15 percent of estimated annual rent.

4/ States with dashes do not have a sales tax. AK, DE, MT, and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

Chart 1b: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning 50,000/Year

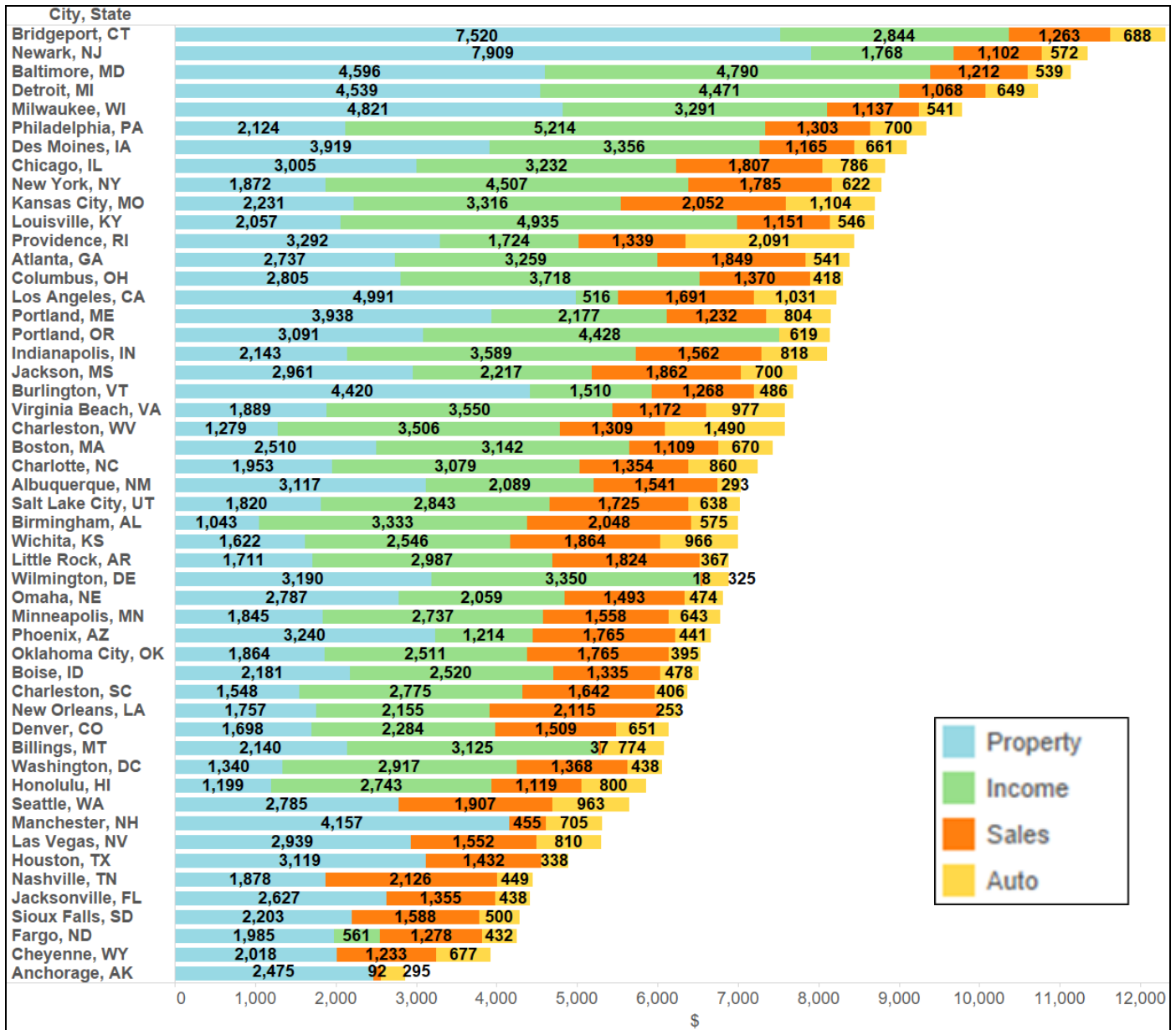


Source: ORA analysis. See Table 1b on the following page for totals and tax burdens as a percent of income.

Table 1b: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$50,000/Year

RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY	SALES 3/	AUTO	AMOUNT	PERCENT
1	Newark	NJ	1,084	5,273	850	281	7,488	15.0%
2	Baltimore	MD	2,803	3,064	921	258	7,046	14.1%
3	Bridgeport	CT	649	5,013	966	331	6,959	13.9%
4	Philadelphia	PA	3,475	1,285	1,017	352	6,129	12.3%
5	Detroit	MI	1,953	3,026	828	307	6,114	12.2%
6	Milwaukee	WI	1,416	3,214	882	271	5,784	11.6%
7	Louisville	KY	3,274	1,371	890	240	5,775	11.6%
8	Des Moines	IA	1,919	2,613	915	282	5,728	11.5%
9	Chicago	IL	2,056	1,777	1,410	395	5,638	11.3%
10	Columbus	OH	2,226	1,870	1,071	210	5,376	10.8%
11	Kansas City	MO	1,768	1,487	1,599	430	5,284	10.6%
12	Los Angeles	CA	0	3,299	1,311	514	5,124	10.2%
13	Atlanta	GA	1,759	1,649	1,442	272	5,121	10.2%
14	Portland	OR	2,668	2,061	-	311	5,039	10.1%
15	Jackson	MS	1,153	1,974	1,502	370	4,999	10.0%
16	New York	NY	2,076	1,169	1,376	302	4,922	9.8%
17	Burlington	VT	718	2,946	974	244	4,882	9.8%
18	Providence	RI	787	2,194	1,050	786	4,817	9.6%
19	Indianapolis	IN	2,346	814	1,199	416	4,774	9.5%
20	Birmingham	AL	2,188	682	1,658	244	4,772	9.5%
21	Boston	MA	1,867	1,665	856	376	4,764	9.5%
22	Virginia Beach	VA	2,112	1,259	932	418	4,721	9.4%
23	Portland	ME	727	2,490	953	440	4,610	9.2%
24	Charlotte	NC	1,677	1,302	1,093	387	4,460	8.9%
25	Charleston	WV	1,961	852	1,016	616	4,445	8.9%
26	Phoenix	AZ	684	2,160	1,363	226	4,432	8.9%
27	Little Rock	AR	1,697	1,024	1,474	163	4,358	8.7%
28	Wilmington	DE	1,963	2,126	14	163	4,267	8.5%
29	Albuquerque	NM	790	2,068	1,239	139	4,236	8.5%
30	Salt Lake City	UT	1,280	1,213	1,357	355	4,205	8.4%
31	Wichita	KS	1,231	1,066	1,478	392	4,168	8.3%
32	Oklahoma City	OK	1,141	1,238	1,444	203	4,027	8.1%
33	Omaha	NE	813	1,858	1,152	200	4,023	8.0%
34	New Orleans	LA	1,275	786	1,665	123	3,848	7.7%
35	Seattle	WA	-	1,857	1,487	471	3,814	7.6%
36	Denver	CO	1,169	1,132	1,161	343	3,805	7.6%
37	Minneapolis	MN	1,094	1,133	1,210	325	3,761	7.5%
38	Billings	MT	1,665	1,427	28	455	3,575	7.1%
39	Charleston	SC	1,025	1,032	1,303	199	3,558	7.1%
40	Las Vegas	NV	-	1,959	1,190	405	3,554	7.1%
41	Manchester	NH	-	2,772	361	389	3,522	7.0%
42	Honolulu	HI	1,497	706	889	384	3,476	7.0%
43	Washington	DC	1,362	691	1,052	198	3,303	6.6%
44	Houston	TX	-	2,019	1,109	169	3,297	6.6%
45	Boise	ID	788	1,207	1,036	246	3,277	6.6%
46	Nashville	TN	-	1,252	1,655	226	3,133	6.3%
47	Sioux Falls	SD	-	1,469	1,276	233	2,977	6.0%
48	Fargo	ND	286	1,323	1,002	216	2,828	5.7%
49	Jacksonville	FL	-	1,405	1,044	215	2,665	5.3%
50	Cheyenne	WY	-	1,345	943	362	2,650	5.3%
51	Anchorage	AK	-	1,650	70	163	1,883	3.8%
AVERAGE			1,534	1,809	1,094	314	4,459	8.9%
MEDIAN			1,457	1,487	1,082	302	4,432	8.9%
1/ Based on jurisdictions levying tax.								
2/ States with dashes do not have an income tax. Tennessee and New Hampshire tax interest and dividend income but the exemptions are high enough to eliminate individual income taxes at all income levels used in the study.								
3/ States with dashes do not have a sales tax. AK, DE, MT and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.								

Chart 1c: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$75,000/Year



Source: ORA analysis. See Table 1c on the following page for totals and tax burdens as a percent of income.

Table 1c: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$75,000/Year

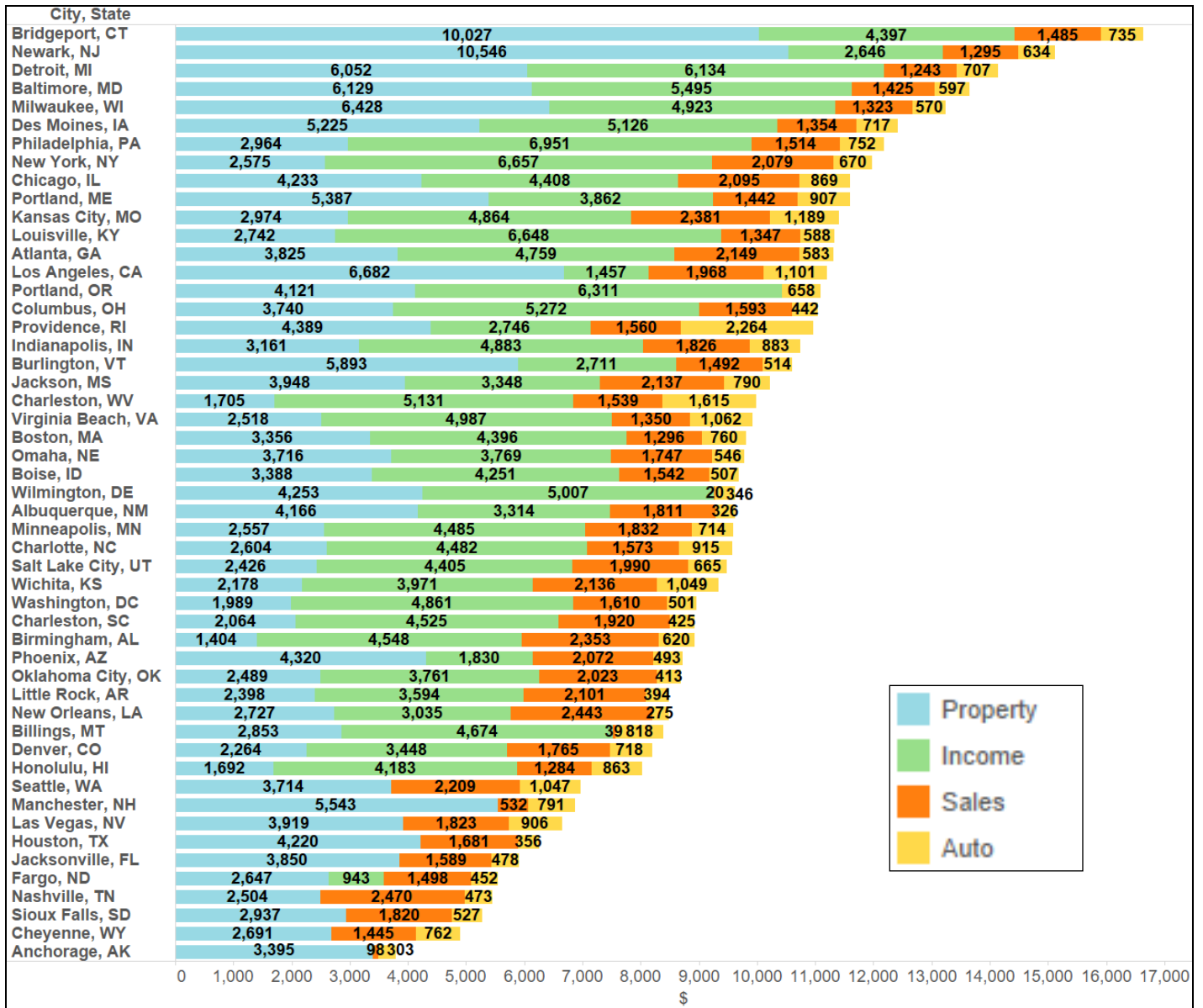
RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY	SALES 3/	AUTO	AMOUNT	PERCENT
1	Bridgeport	CT	2,844	7,520	1,263	688	12,315	16.4%
2	Newark	NJ	1,768	7,909	1,102	572	11,351	15.1%
3	Baltimore	MD	4,790	4,596	1,212	539	11,138	14.9%
4	Detroit	MI	4,471	4,539	1,068	649	10,727	14.3%
5	Milwaukee	WI	3,291	4,821	1,137	541	9,790	13.1%
6	Philadelphia	PA	5,214	2,124	1,303	700	9,341	12.5%
7	Des Moines	IA	3,356	3,919	1,165	661	9,101	12.1%
8	Chicago	IL	3,232	3,005	1,807	786	8,831	11.8%
9	New York	NY	4,507	1,872	1,785	622	8,785	11.7%
10	Kansas City	MO	3,316	2,231	2,052	1,104	8,703	11.6%
11	Louisville	KY	4,935	2,057	1,151	546	8,689	11.6%
12	Providence	RI	1,724	3,292	1,339	2,091	8,445	11.3%
13	Atlanta	GA	3,259	2,737	1,849	541	8,386	11.2%
14	Columbus	OH	3,718	2,805	1,370	418	8,310	11.1%
15	Los Angeles	CA	516	4,991	1,691	1,031	8,229	11.0%
16	Portland	ME	2,177	3,938	1,232	804	8,151	10.9%
17	Portland	OR	4,428	3,091	-	619	8,138	10.9%
18	Indianapolis	IN	3,589	2,143	1,562	818	8,113	10.8%
19	Jackson	MS	2,217	2,961	1,862	700	7,740	10.3%
20	Burlington	VT	1,510	4,420	1,268	486	7,684	10.2%
21	Virginia Beach	VA	3,550	1,889	1,172	977	7,588	10.1%
22	Charleston	WV	3,506	1,279	1,309	1,490	7,584	10.1%
23	Boston	MA	3,142	2,510	1,109	670	7,432	9.9%
24	Charlotte	NC	3,079	1,953	1,354	860	7,245	9.7%
25	Albuquerque	NM	2,089	3,117	1,541	293	7,040	9.4%
26	Salt Lake City	UT	2,843	1,820	1,725	638	7,026	9.4%
27	Birmingham	AL	3,333	1,043	2,048	575	6,999	9.3%
28	Wichita	KS	2,546	1,622	1,864	966	6,998	9.3%
29	Little Rock	AR	2,987	1,711	1,824	367	6,889	9.2%
30	Wilmington	DE	3,350	3,190	18	325	6,883	9.2%
31	Omaha	NE	2,059	2,787	1,493	474	6,813	9.1%
32	Minneapolis	MN	2,737	1,845	1,558	643	6,783	9.0%
33	Phoenix	AZ	1,214	3,240	1,765	441	6,660	8.9%
34	Oklahoma City	OK	2,511	1,864	1,765	395	6,535	8.7%
35	Boise	ID	2,520	2,181	1,335	478	6,514	8.7%
36	Charleston	SC	2,775	1,548	1,642	406	6,371	8.5%
37	New Orleans	LA	2,155	1,757	2,115	253	6,280	8.4%
38	Denver	CO	2,284	1,698	1,509	651	6,141	8.2%
39	Billings	MT	3,125	2,140	37	774	6,076	8.1%
40	Washington	DC	2,917	1,340	1,368	438	6,062	8.1%
41	Honolulu	HI	2,743	1,199	1,119	800	5,861	7.8%
42	Seattle	WA	-	2,785	1,907	963	5,654	7.5%
43	Manchester	NH	-	4,157	455	705	5,317	7.1%
44	Las Vegas	NV	-	2,939	1,552	810	5,301	7.1%
45	Houston	TX	-	3,119	1,432	338	4,889	6.5%
46	Nashville	TN	-	1,878	2,126	449	4,453	5.9%
47	Jacksonville	FL	-	2,627	1,355	438	4,421	5.9%
48	Sioux Falls	SD	-	2,203	1,588	500	4,291	5.7%
49	Fargo	ND	561	1,985	1,278	432	4,256	5.7%
50	Cheyenne	WY	-	2,018	1,233	677	3,928	5.2%
51	Anchorage	AK	-	2,475	92	295	2,862	3.8%
AVERAGE			2,926	2,802	1,398	656	7,238	9.7%
MEDIAN			2,952	2,475	1,369	622	7,026	9.4%

1/ Based on jurisdictions levying tax.

2/ States with dashes do not have an income tax. Tennessee and New Hampshire tax interest and dividend income but the exemptions are high enough to eliminate individual income taxes at all income levels used in the study.

3/ OR does not have a sales tax. AK, DE, MT, and NH also do not have a general sales tax, but some selective sales taxes apply to consumption items included.

Chart 1d: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$100,000/Year



Source: ORA analysis. See Table 1d on the following page for totals and tax burdens as a percent of income.

Table 1d: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$100,000/Year

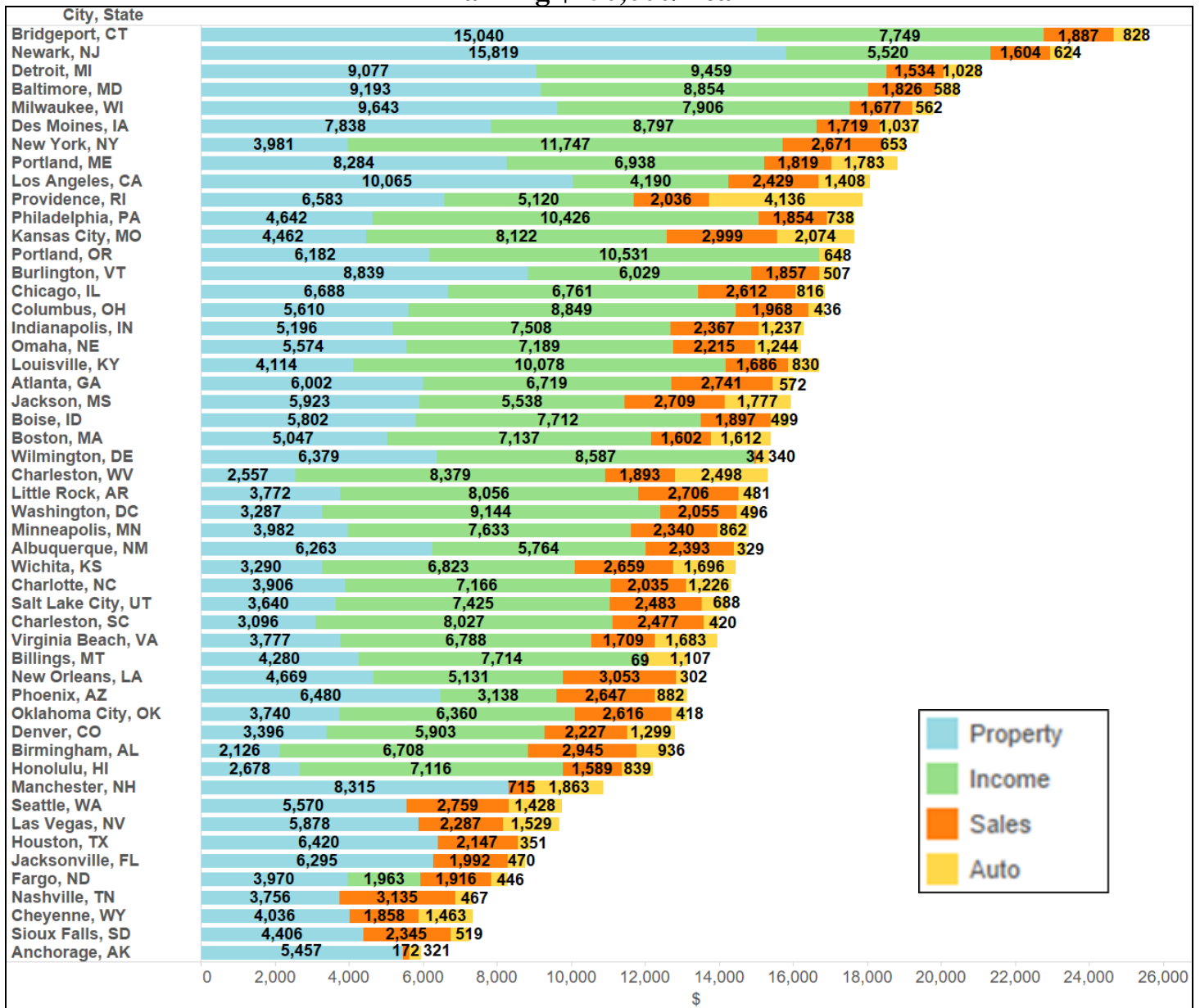
RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY	SALES 3/	AUTO	AMOUNT	PERCENT
1	Bridgeport	CT	4,397	10,027	1,485	735	16,644	11.1%
2	Newark	NJ	2,646	10,546	1,295	634	15,121	10.1%
3	Detroit	MI	6,134	6,052	1,243	707	14,135	9.4%
4	Baltimore	MD	5,495	6,129	1,425	597	13,645	9.1%
5	Milwaukee	WI	4,923	6,428	1,323	570	13,244	8.8%
6	Des Moines	IA	5,126	5,225	1,354	717	12,422	8.3%
7	Philadelphia	PA	6,951	2,964	1,514	752	12,180	8.1%
8	New York	NY	6,657	2,575	2,079	670	11,981	8.0%
9	Chicago	IL	4,408	4,233	2,095	869	11,604	7.7%
10	Portland	ME	3,862	5,387	1,442	907	11,599	7.7%
11	Kansas City	MO	4,864	2,974	2,381	1,189	11,408	7.6%
12	Louisville	KY	6,648	2,742	1,347	588	11,326	7.6%
13	Atlanta	GA	4,759	3,825	2,149	583	11,316	7.5%
14	Los Angeles	CA	1,457	6,682	1,968	1,101	11,208	7.5%
15	Portland	OR	6,311	4,121	-	658	11,090	7.4%
16	Columbus	OH	5,272	3,740	1,593	442	11,047	7.4%
17	Providence	RI	2,746	4,389	1,560	2,264	10,959	7.3%
18	Indianapolis	IN	4,883	3,161	1,826	883	10,752	7.2%
19	Burlington	VT	2,711	5,893	1,492	514	10,610	7.1%
20	Jackson	MS	3,348	3,948	2,137	790	10,224	6.8%
21	Charleston	WV	5,131	1,705	1,539	1,615	9,989	6.7%
22	Virginia Beach	VA	4,987	2,518	1,350	1,062	9,916	6.6%
23	Boston	MA	4,396	3,356	1,296	760	9,809	6.5%
24	Omaha	NE	3,769	3,716	1,747	546	9,778	6.5%
25	Boise	ID	4,251	3,388	1,542	507	9,688	6.5%
26	Wilmington	DE	5,007	4,253	20	346	9,625	6.4%
27	Albuquerque	NM	3,314	4,166	1,811	326	9,616	6.4%
28	Minneapolis	MN	4,485	2,557	1,832	714	9,589	6.4%
29	Charlotte	NC	4,482	2,604	1,573	915	9,574	6.4%
30	Salt Lake City	UT	4,405	2,426	1,990	665	9,486	6.3%
31	Wichita	KS	3,971	2,178	2,136	1,049	9,334	6.2%
32	Washington	DC	4,861	1,989	1,610	501	8,962	6.0%
33	Charleston	SC	4,525	2,064	1,920	425	8,933	6.0%
34	Birmingham	AL	4,548	1,404	2,353	620	8,925	6.0%
35	Phoenix	AZ	1,830	4,320	2,072	493	8,715	5.8%
36	Oklahoma City	OK	3,761	2,489	2,023	413	8,686	5.8%
37	Little Rock	AR	3,594	2,398	2,101	394	8,486	5.7%
38	New Orleans	LA	3,035	2,727	2,443	275	8,480	5.7%
39	Billings	MT	4,674	2,853	39	818	8,385	5.6%
40	Denver	CO	3,448	2,264	1,765	718	8,195	5.5%
41	Honolulu	HI	4,183	1,692	1,284	863	8,022	5.3%
42	Seattle	WA	-	3,714	2,209	1,047	6,970	4.6%
43	Manchester	NH	-	5,543	532	791	6,867	4.6%
44	Las Vegas	NV	-	3,919	1,823	906	6,648	4.4%
45	Houston	TX	-	4,220	1,681	356	6,256	4.2%
46	Jacksonville	FL	-	3,850	1,589	478	5,917	3.9%
47	Fargo	ND	943	2,647	1,498	452	5,539	3.7%
48	Nashville	TN	-	2,504	2,470	473	5,447	3.6%
49	Sioux Falls	SD	-	2,937	1,820	527	5,283	3.5%
50	Cheyenne	WY	-	2,691	1,445	762	4,898	3.3%
51	Anchorage	AK	-	3,395	98	303	3,796	2.5%
AVERAGE			4,314	3,795	1,626	712	9,654	6.4%
MEDIAN			4,445	3,388	1,601	665	9,625	6.4%

1/ Based on jurisdictions levying tax.

2/ States with dashes do not have an income tax. Tennessee and New Hampshire tax interest and dividend income but the exemptions are high enough to eliminate individual income taxes at all income levels used in the study.

3/ States with dashes do not have a sales tax. AK, DE, MT, and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

Chart 1e: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$150,000/Year



Source: ORA analysis. See Table 1e on the following page for tax burdens as a percent of income.

Table 1e: 2018 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$150,000/Year

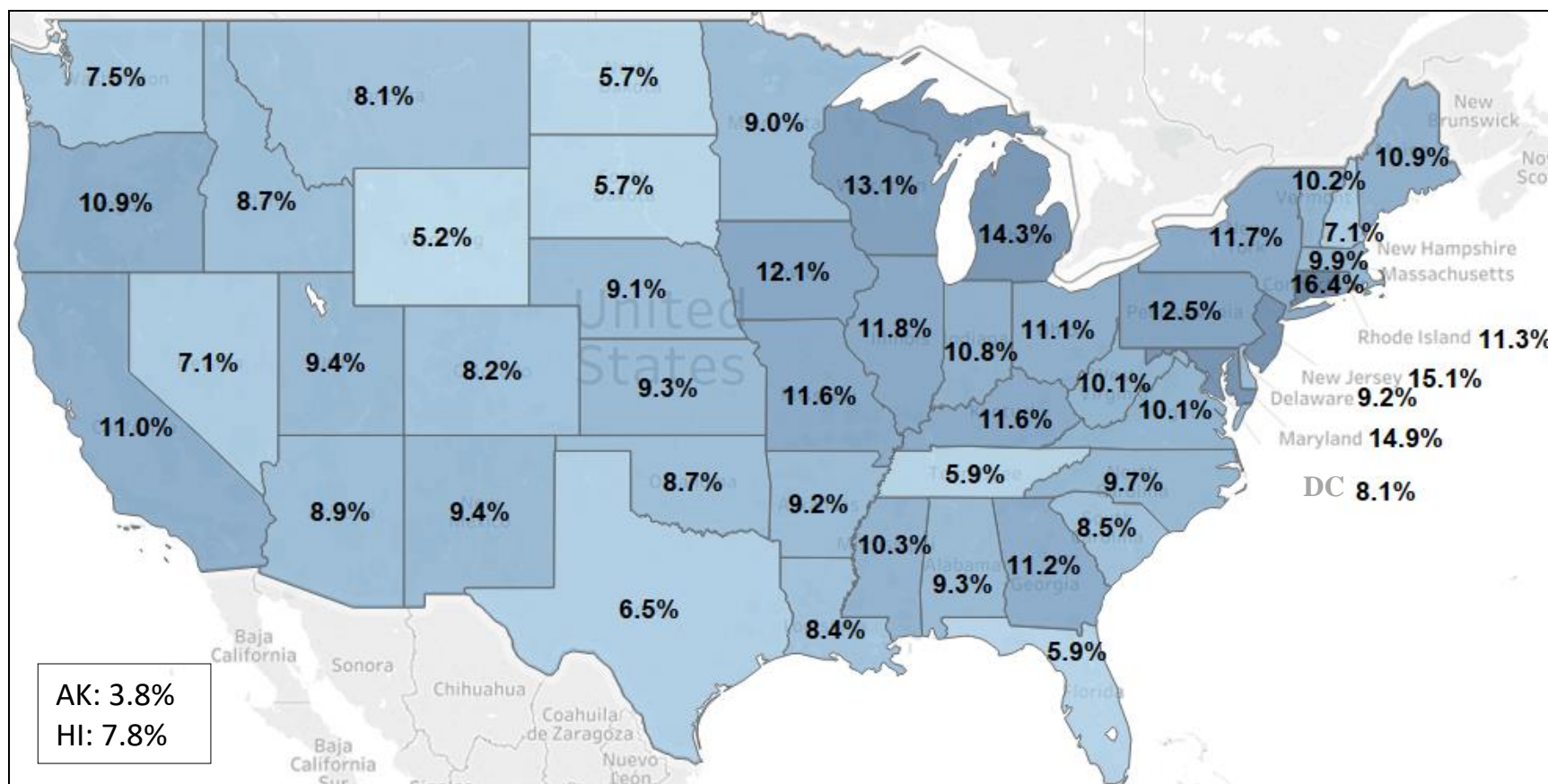
RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY	SALES 3/	AUTO	AMOUNT	PERCENT
1	Bridgeport	CT	7,749	15,040	1,887	828	25,504	17.0%
2	Newark	NJ	5,520	15,819	1,604	624	23,567	15.7%
3	Detroit	MI	9,459	9,077	1,534	1,028	21,099	14.1%
4	Baltimore	MD	8,854	9,193	1,826	588	20,462	13.6%
5	Milwaukee	WI	7,906	9,643	1,677	562	19,788	13.2%
6	Des Moines	IA	8,797	7,838	1,719	1,037	19,391	12.9%
7	New York	NY	11,747	3,981	2,671	653	19,052	12.7%
8	Portland	ME	6,938	8,284	1,819	1,783	18,824	12.5%
9	Los Angeles	CA	4,190	10,065	2,429	1,408	18,093	12.1%
10	Providence	RI	5,120	6,583	2,036	4,136	17,875	11.9%
11	Philadelphia	PA	10,426	4,642	1,854	738	17,660	11.8%
12	Kansas City	MO	8,122	4,462	2,999	2,074	17,657	11.8%
13	Portland	OR	10,531	6,182	-	648	17,360	11.6%
14	Burlington	VT	6,029	8,839	1,857	507	17,232	11.5%
15	Chicago	IL	6,761	6,688	2,612	816	16,877	11.3%
16	Columbus	OH	8,849	5,610	1,968	436	16,862	11.2%
17	Louisville	KY	10,078	4,114	1,686	830	16,707	11.1%
18	Indianapolis	IN	7,508	5,196	2,367	1,237	16,307	10.9%
19	Omaha	NE	7,189	5,574	2,215	1,244	16,222	10.8%
20	Atlanta	GA	6,719	6,002	2,741	572	16,033	10.7%
21	Jackson	MS	5,538	5,923	2,709	1,777	15,947	10.6%
22	Boise	ID	7,712	5,802	1,897	499	15,910	10.6%
23	Boston	MA	7,137	5,047	1,602	1,612	15,398	10.3%
24	Wilmington	DE	8,587	6,379	34	340	15,340	10.2%
25	Charleston	WV	8,379	2,557	1,893	2,498	15,327	10.2%
26	Little Rock	AR	8,056	3,772	2,706	481	15,015	10.0%
27	Washington	DC	9,144	3,287	2,055	496	14,981	10.0%
28	Minneapolis	MN	7,633	3,982	2,340	862	14,816	9.9%
29	Albuquerque	NM	5,764	6,263	2,393	329	14,750	9.8%
30	Wichita	KS	6,823	3,290	2,659	1,696	14,467	9.6%
31	Charlotte	NC	7,166	3,906	2,035	1,226	14,332	9.6%
32	Salt Lake City	UT	7,425	3,640	2,483	688	14,236	9.5%
33	Charleston	SC	8,027	3,096	2,477	420	14,019	9.3%
34	Virginia Beach	VA	6,788	3,777	1,709	1,683	13,957	9.3%
35	Billings	MT	7,714	4,280	69	1,107	13,170	8.8%
36	New Orleans	LA	5,131	4,669	3,053	302	13,155	8.8%
37	Phoenix	AZ	3,138	6,480	2,647	882	13,147	8.8%
38	Oklahoma City	OK	6,360	3,740	2,616	418	13,134	8.8%
39	Denver	CO	5,903	3,396	2,227	1,299	12,825	8.5%
40	Birmingham	AL	6,708	2,126	2,945	936	12,716	8.5%
41	Honolulu	HI	7,116	2,678	1,589	839	12,221	8.1%
42	Manchester	NH	-	8,315	715	1,863	10,892	7.3%
43	Seattle	WA	-	5,570	2,759	1,428	9,758	6.5%
44	Las Vegas	NV	-	5,878	2,287	1,529	9,694	6.5%
45	Houston	TX	-	6,420	2,147	351	8,918	5.9%
46	Jacksonville	FL	-	6,295	1,992	470	8,757	5.8%
47	Fargo	ND	1,963	3,970	1,916	446	8,296	5.5%
48	Nashville	TN	-	3,756	3,135	467	7,358	4.9%
49	Cheyenne	WY	-	4,036	1,858	1,463	7,357	4.9%
50	Sioux Falls	SD	-	4,406	2,345	519	7,270	4.8%
51	Anchorage	AK	-	5,457	172	321	5,950	4.0%
AVERAGE			7,302	5,785	2,059	1,000	14,817	9.9%
MEDIAN			7,307	5,457	2,045	828	15,015	10.0%

1/ Based on jurisdictions levying tax.

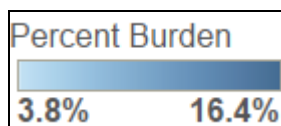
2/ States with dashes do not have an income tax. Tennessee and New Hampshire tax interest and dividend income but the exemptions are high enough to eliminate individual income taxes at all income levels used in the study.

3/ States with dashes do not have a sales tax. AK, MT, DE, and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

**Map 1: Total 2018 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$75,000/Year)**



Source: ORA Analysis. The lighter blue shading represents a lower tax burden.



CHAPTER III

Comparing Specific Tax Burdens for a Hypothetical Family of Three in the Largest City in Each State

Individual Income Tax

Residents of 44 of the 51 cities in the study are subject to some type of an individual income tax at the state and/or local levels (In NH and TN only interest and dividends are subject to the income tax but they are included in this count). Individual income tax burdens vary widely due to factors such as differences in tax base, tax rates, exemptions, deductions, and treatment of federal taxes. These variations are reflected in the individual income tax burdens shown in Table 3 (page 29) and Chart 2 (page 26).

In twenty-three of the cities that are in states that levy an income tax, the percentage of income paid in individual income taxes by the family earning \$25,000 per year is zero percent (or less than zero due to refundable credits). Notably, residents of Burlington, Vermont would receive a refundable income tax credit of \$4,207, making it by far the lowest income tax burden on a family earning \$25,000 per year. The highest income tax burden at this lower income level is 6.95 percent in Philadelphia, Pennsylvania, and next at 4.9 percent in Louisville, Kentucky. At the \$150,000 income level, the burden ranges from a low of 1.3 percent of income in Fargo, North Dakota, to 7.8 percent in New York City, New York. (The New Hampshire and Tennessee income taxes are applicable only to interest and dividend income and the exemptions are high enough to eliminate individual income taxes at all income levels used in the study).

Chart 2 provides the income tax burdens on each hypothetical family, sorted by the family earning \$150,000 per year. Viewing the data this way allows an assessment of how income tax burdens differ between the low- and high-income families in a city and state. Map 2 presents the income tax burdens for the family earning \$75,000/year.

Several state individual income tax systems are indexed. Indexing takes several forms and is used to keep individuals from being taxed at higher rates if their income rises less than the rate of inflation. Thus, only the “real” income gain above the inflation rate is subject to higher tax rates. States that tax a percentage of federal net taxable income or a percentage of the federal liability implicitly accept the federal indexing of tax brackets, exemptions, and the standard deduction. Table 2 (page 28) lists the various portions that are indexed.

As Table 3 indicates, there are several types of individual income tax systems including graduated state and local rates, graduated state and flat local rates, flat state and local rates (or fees), graduated state tax rates and flat state rates with exemptions. The most common system is the graduated state tax rate, which applies to taxpayers in 24 of the cities (this count includes DC). Taxpayers in six cities are subject to a flat state tax rate with exemptions. Thirteen states

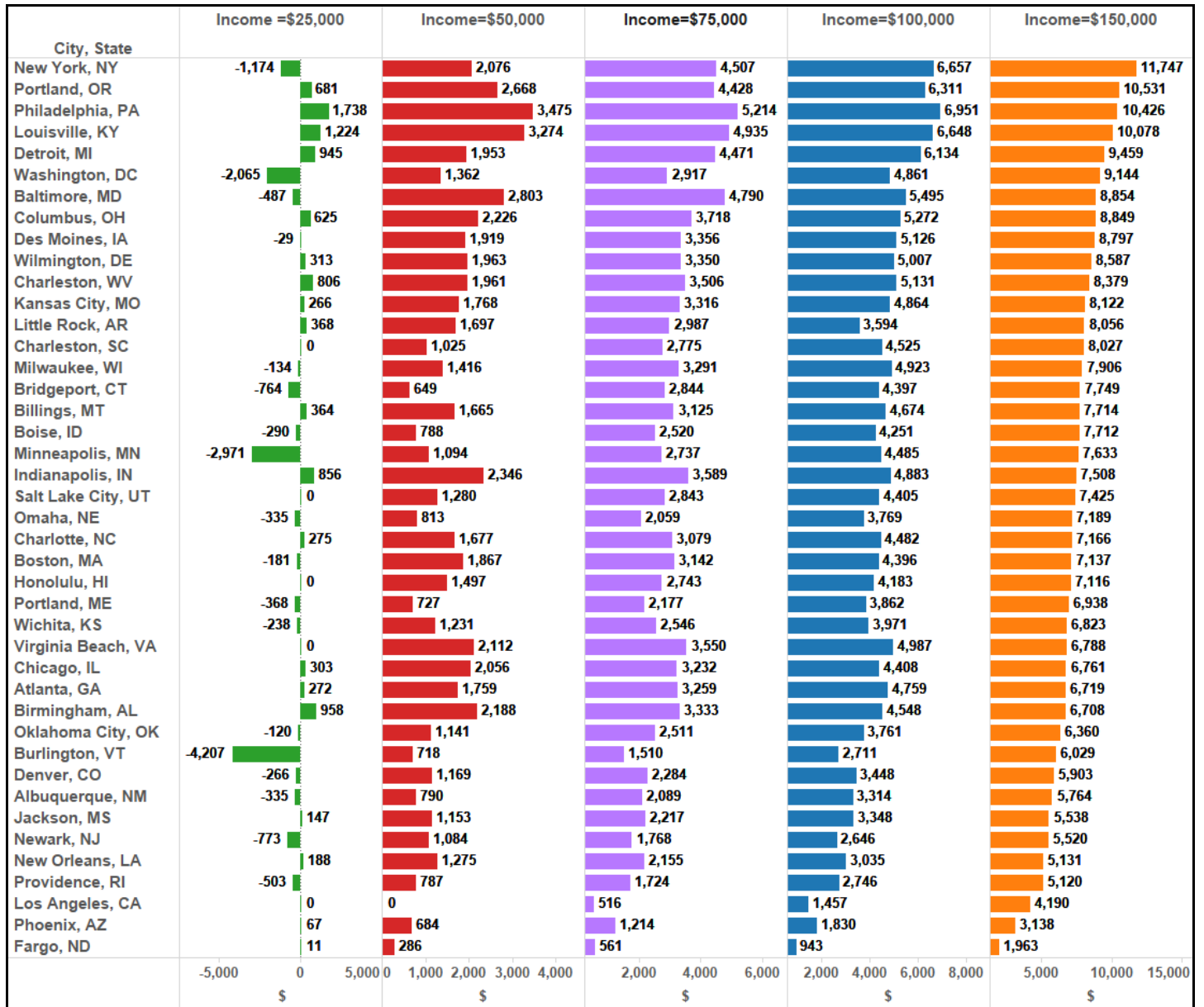
have either graduated or flat state rates and flat local rates (or fees). New York City residents are subject to separate state and local income taxes, both of which are characterized by graduated rate schedules. Fourteen cities in the current study apply a local income tax or fee on wages (see table below).

Local Income Tax Rates, 2018

City	State	Tax	Rate
Birmingham	AL	Income Tax	1.0%
Denver	CO	Occupational Privilege Tax	\$5.75/month
Wilmington	DE	Income Tax	1.25%
Indianapolis	IN	(County) Income Tax	2.02%
Louisville	KY	Income Tax	2.2%
Baltimore	MD	Income Tax	3.2%
Detroit	MI	Income Tax	2.4%
Kansas City	MO	Earnings Tax	1.0%
Newark	NJ	Payroll Tax	1.0%
New York	NY	Income Tax	3.078 - 3.876% (graduated rates)
Columbus	OH	Income Tax	2.5%
Portland	OR	(Tri-Met Transit District) Payroll Tax	0.75%
Philadelphia	PA	Wage Tax	3.88%
Charleston	WV	City Service Fee	\$12/month

Sources: ORA analysis of City and State web pages.

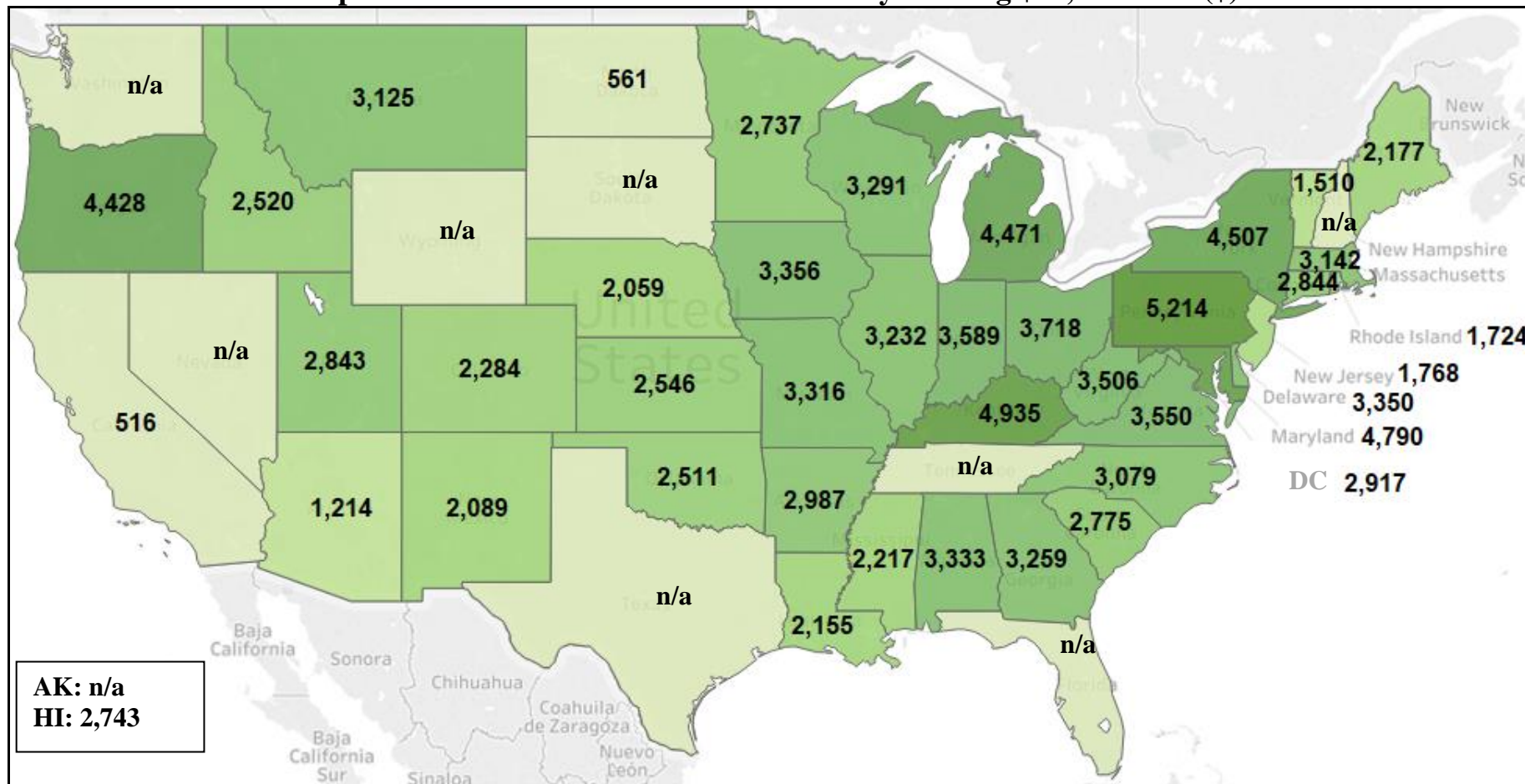
Chart 2: 2018 Income Tax Burdens for All Income Levels



Source: ORA analysis; see description on page 6-7 for data sources and methodology.

Note: All data are sorted by the \$150,000/year income level. Negative bars under the \$25,000/year category represent tax refunds due to state EITC or other refundable credits. Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming do not have an income tax. Tennessee and New Hampshire tax interest and dividend income but the exemptions are high enough to eliminate individual income taxes at all income levels used in the study.

Map 2: 2018 Income Tax Burdens for Family Earning \$75,000/Year (\$)



Source: ORA Analysis. Note: The lighter green shading represents a lower tax burden. States labeled 'n/a' do not have an income tax.



Table 2: States That Index Some Part of Their Individual Income Tax, 2018

STATE	INDEXED PORTION
Arizona	Tax brackets, standard deduction, personal exemption
Arkansas	Tax brackets, personal exemption
California	Tax brackets (partial), exemption (credit), standard deduction
Colorado	Standard deduction
Idaho	Tax brackets, standard deduction,
Illinois	Personal exemption
Iowa	Tax brackets, standard deduction
Kentucky	Standard deduction
Maine	Tax brackets, standard deduction
Michigan	Personal exemption
Minnesota	Tax brackets, exemptions, standard deduction
Missouri	Tax brackets, standard deduction
Montana	Tax brackets, exemptions, standard deduction
Nebraska	Tax brackets, Personal exemption, standard deduction
New Mexico	Standard deduction
North Dakota	Tax brackets, standard deduction
Ohio	Tax brackets, personal exemption
Oregon	Tax brackets (up to \$125,000), standard deduction credit, personal exemption
Rhode Island	Tax brackets, standard deduction, personal exemption
South Carolina	Tax brackets, standard deduction, personal exemption
Utah	Standard deduction
Vermont	Tax brackets, standard deduction, personal exemption
Washington, DC	Standard deduction
Wisconsin	Tax brackets, standard deduction

Sources: State Web Pages; Federation of Tax Administrators, "State Individual Income Tax Rates (as of January 1, 2019)"; Federation of Tax Administrators, "State Individual Income Taxes: Federal Starting Points (as of July 1, 2019)." Wolters Kluwer/CCH 2019 State Tax Handbook; Tax Foundation, "Inflation Adjusting State Tax Codes: A Primer," October 29, 2019.

Table 3: State and Local Income Tax Burden as Percent of Income in the Largest Cities by Type of Income Tax for a Hypothetical Family of Three, 2018

CITIES WITH:	ST	INCOME LEVELS:				
		\$25,000	\$50,000	\$75,000	\$100,000	\$150,000
GRADUATED STATE AND LOCAL TAX RATES						
New York City	NY	-4.7%	4.2%	6.0%	6.7%	7.8%
GRADUATED STATE AND FLAT LOCAL RATES						
Birmingham	AL	3.8%	4.4%	4.4%	4.5%	4.5%
Wilmington	DE	1.3%	3.9%	4.5%	5.0%	5.7%
Baltimore	MD	-1.9%	5.6%	6.4%	5.5%	5.9%
Kansas City	MO	1.1%	3.5%	4.4%	4.9%	5.4%
Newark 1/	NJ	-3.1%	2.2%	2.4%	2.6%	3.7%
Columbus	OH	2.5%	4.5%	5.0%	5.3%	5.9%
Portland 1/	OR	2.7%	5.3%	5.9%	6.3%	7.0%
GRADUATED STATE RATE AND LOCAL FLAT FEE						
Charleston 1/	WV	3.2%	3.9%	4.7%	5.1%	5.6%
FLAT STATE AND LOCAL TAX RATES 6/						
Indianapolis	IN	3.4%	4.7%	4.8%	4.9%	5.0%
Louisville 5/	KY	4.9%	6.5%	6.6%	6.6%	6.7%
Detroit	MI	3.8%	3.9%	6.0%	6.1%	6.3%
Philadelphia	PA	7.0%	7.0%	7.0%	7.0%	7.0%
FLAT STATE RATE AND LOCAL FLAT FEE						
Denver	CO	-1.1%	2.3%	3.0%	3.4%	3.9%
GRADUATED STATE TAX RATE						
Little Rock	AR	1.5%	3.4%	4.0%	3.6%	5.4%
Phoenix	AZ	0.3%	1.4%	1.6%	1.8%	2.1%
Los Angeles	CA	0.0%	0.0%	0.7%	1.5%	2.8%
Bridgeport	CT	-3.1%	1.3%	3.8%	4.4%	5.2%
WASHINGTON	DC	-8.3%	2.7%	3.9%	4.9%	6.1%
Atlanta	GA	1.1%	3.5%	4.3%	4.8%	4.5%
Honolulu	HI	0.0%	3.0%	3.7%	4.2%	4.7%
Des Moines	IA	-0.1%	3.8%	4.5%	5.1%	5.9%
Boise	ID	-1.2%	1.6%	3.4%	4.3%	5.1%
Wichita	KS	-1.0%	2.5%	3.4%	4.0%	4.5%
New Orleans	LA	0.8%	2.6%	2.9%	3.0%	3.4%
Portland	ME	-1.5%	1.5%	2.9%	3.9%	4.6%
Minneapolis	MN	-11.9%	2.2%	3.6%	4.5%	5.1%
Jackson	MS	0.6%	2.3%	3.0%	3.3%	3.7%
Billings	MT	1.5%	3.3%	4.2%	4.7%	5.1%
Fargo	ND	0.0%	0.6%	0.7%	0.9%	1.3%
Omaha	NE	-1.3%	1.6%	2.7%	3.8%	4.8%
Albuquerque	NM	-1.3%	1.6%	2.8%	3.3%	3.8%
Oklahoma City	OK	-0.5%	2.3%	3.3%	3.8%	4.2%
Providence	RI	-2.0%	1.6%	2.3%	2.7%	3.4%
Charleston	SC	0.0%	2.1%	3.7%	4.5%	5.4%
Virginia Beach	VA	0.0%	4.2%	4.7%	5.0%	4.5%
Burlington	VT	-16.8%	1.4%	2.0%	2.7%	4.0%
Milwaukee	WI	-0.5%	2.8%	4.4%	4.9%	5.3%
FLAT STATE TAX RATE WITH EXEMPTIONS						
Chicago	IL	1.2%	4.1%	4.3%	4.4%	4.5%
Boston	MA	-0.7%	3.7%	4.2%	4.4%	4.8%
Charlotte	NC 2/	1.1%	3.4%	4.1%	4.5%	4.8%
Manchester	NH 3/	0.0%	0.0%	0.0%	0.0%	0.0%
Nashville	TN 3/	0.0%	0.0%	0.0%	0.0%	0.0%
Salt Lake City	UT	0.0%	2.6%	3.8%	4.4%	5.0%
AVERAGE	4/	-0.4%	2.9%	3.7%	4.1%	4.6%

Note: Negative numbers result from refundable credits. AL, FL, NE, SD, TX, WA, and WY do not have an income tax.

Source: ORA Analysis; percentages are effective tax rates calculated using the assumptions and methodologies in this report.

1/ Imposed on employers.

2/ North Carolina has a flat rate, but no personal exemption.

3/ New Hampshire and Tennessee have a flat 5 percent income tax on dividends and interest income only, above personal exemptions.

4/ Based on jurisdictions levying tax and presented here.

5/ Previous 3-tier rate structure was reduced to a single flat rate effective July 1, 2018 for the 2018 tax year.

6/ Because local income tax liabilities are included in this chart, the percentage of income exceeds the flat state tax rates for these states.

Real Property Tax

All 51 cities in the study levy a property tax on residential property located within the city. The real property tax is a function of housing values, real estate tax rates, assessment levels, homeowner exemptions, and credits. Nominal rates used in Table 4 (page 32); represent the “announced” rates levied by the jurisdiction, while effective rates consider the various assessment levels in the cities. Effective rates range from a high of \$3.58 per \$100 of assessed value in Detroit Michigan to \$0.35 per \$100 of assessed value in Honolulu, Hawaii. Statutory assessment levels vary dramatically from 1.35 percent of assessed value in Billings, Montana, to 100 percent assessment in eighteen cities, including the District of Columbia.

As previously mentioned, the current 2018 report includes median sales ratio statistics where available to derive an “effective assessment level” that results from multiplying the statutory assessment level times the median sales ratio statistic (see Table 4, page 32).

Local assessors, state tax and county officials, and state and local websites provided the nominal rates, assessment levels, and median sales ratios of each city and state. Research of government web sites was performed to fill in any gaps and present the most accurate and updated information. The District’s effective property tax rate (net of assessment value and median sales ratio) is among the lowest of the 51 cities, ranking 46th. Chart 3 (page 33) provides a graphic of these rates.

The assumed housing values in the 51 cities at each of the five income levels are presented in Table 5 (page 34). Housing values at the same income level vary a great deal based on housing markets in each city. As previously mentioned, these housing values are extrapolated from Census data and represent a hypothetical house value for each income level. In addition, several jurisdictions allow tax exemptions and credits in the calculation of the property tax. These exemptions and credits are noted in Table 6 (page 35). This study does not consider the impact of property tax caps that are available in some jurisdictions.

At all four of the income levels for which home ownership is assumed (\$50,000 to \$150,000), Newark, New Jersey;¹⁸ Bridgeport, Connecticut; Los Angeles, California; Milwaukee, Wisconsin; and Baltimore, Maryland and have the highest property tax burdens, in that order for each income level. For these cities, this is due primarily to a combination of high real estate tax rates and high housing values, as can be seen in Table 4 (page 32) and Table 5 (page 34).

At the \$50,000 income level, the lowest property tax burdens can be found in Birmingham, Alabama; Washington, DC; and Honolulu, Hawaii. At the \$75,000, \$100,000 and \$150,000-income levels, the lowest are in Birmingham, Alabama; Honolulu, Hawaii; and Charleston, West Virginia. These low real estate tax burdens result from a combination of a low effective real estate tax rate, below average housing values, or an exemption program.

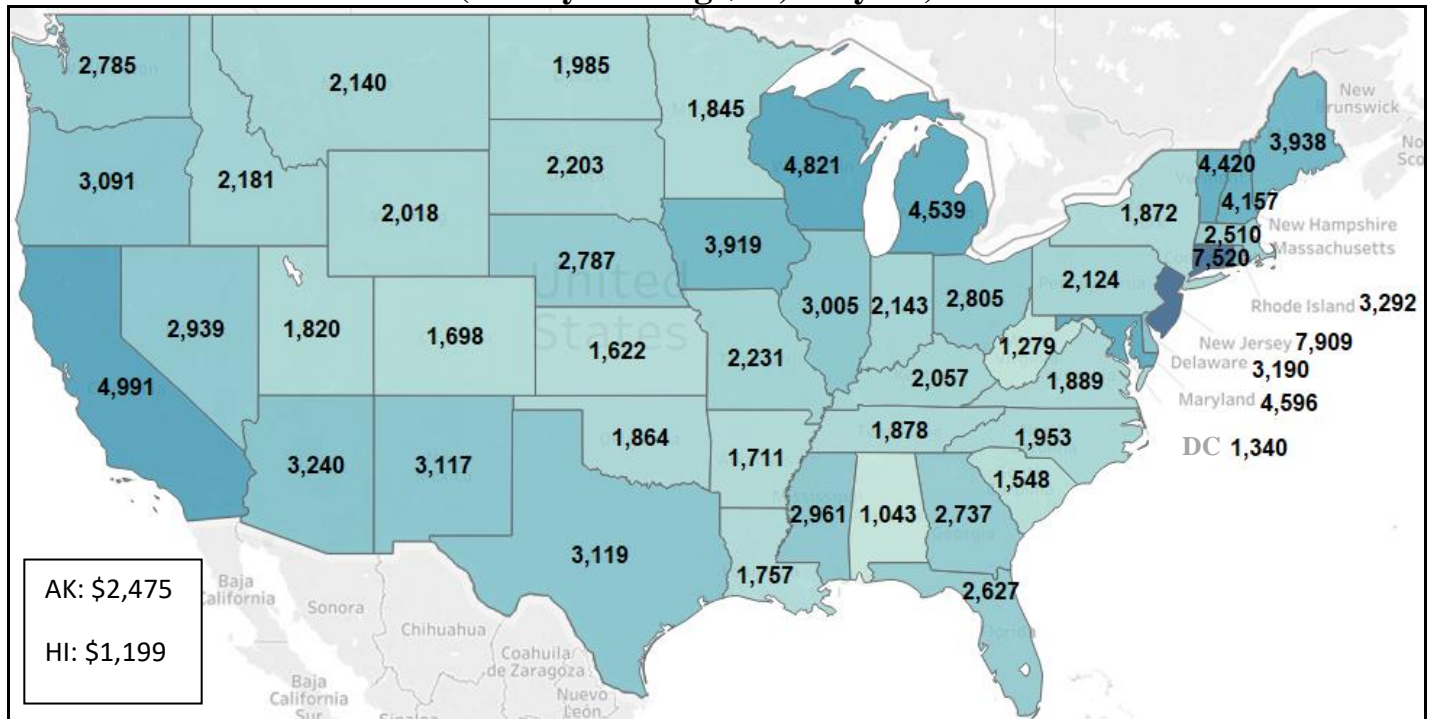
At the \$25,000 income level, it is assumed that the families rent rather than own a home.

¹⁸ Newark, NJ, is in the New York City (NYC) Metropolitan Statistical Area, thus the data used for Newark are the same as for NYC. See page 55 of the 2013 Tax Rates and Tax Burdens Study for a sensitivity analysis of how several cities’ (including Newark’s) property tax burdens would change using city-level data.

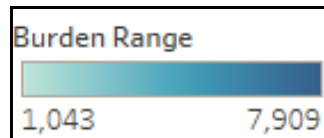
At this level, New York, New York; Washington, DC; Seattle, Washington; Honolulu, Hawaii; and Boston, Massachusetts have the highest property tax burdens (assumed as a portion of rent). This trend is solely due to the high cost of housing in these metropolitan areas, as actual property tax rates are not applied in the case of rental housing (as previously mentioned, 15 percent of the annual rent is assumed to go toward paying the property tax).

Map 3 below illustrates the range of property tax burdens for a family earning \$75,000 a year. The darker the blue shading in a state, the higher the burden is. Chart 4 (page 36) presents property tax burdens at each income level on one chart, sorted by the (rental) tax burden on the family earning \$25,000 per year. Viewing the data this way illustrates the differing burdens on renters versus homeowners (however the methodology for calculating the property tax burdens on the lowest income group—using the property tax equivalent of rent—is different than the property tax burden calculations for the other four income groups).

Map 3: 2018 Property Tax Burdens (\$)
(Family earning \$75,000/year)



Source: ORA Analysis. The lighter blue shading represents a lower tax burden.



**Table 4: Residential Property Tax Rates in the Largest City in Each State
2018**

RANK	CITY	ST	NOMINAL RATE PER \$100 of Assessed Value	EFFECTIVE ASSESSMENT LEVEL (Statutory Assessment Level x Median Sales Ratio) *	EFFECTIVE RATE PER \$100 of Assessed Value
1	Detroit	MI	7.17	50.0%	3.58
2	Bridgeport	CT	5.44	59.5%	3.24
3	Indianapolis	IN	3.11	100.0%	3.11
4	Newark	NJ	3.69	80.4%	2.97
5	Milwaukee 1/	WI	2.95	100.0%	2.95
6	Des Moines	IA	4.78	52.8%	2.53
7	Houston	TX	2.53	99.0%	2.50
8	Baltimore	MD	2.36	94.4%	2.23
9	Burlington	VT	2.68	79.9%	2.15
10	Manchester	NH	2.33	90.2%	2.10
11	Omaha	NE	2.24	93.0%	2.08
12	Portland	ME	2.17	94.0%	2.04
13	Chicago 1/	IL	6.79	10.0%	1.98
14	Columbus	OH	6.82	28.1%	1.92
15	Jackson	MS	18.93	10.0%	1.89
16	Providence	RI	1.88	100.0%	1.88
17	Jacksonville	FL	1.81	100.0%	1.81
18	Atlanta	GA	4.46	39.4%	1.76
19	Wilmington	DE	5.60	29.6%	1.66
20	Albuquerque	NM	4.77	33.3%	1.59
21	New Orleans	LA	15.10	10.0%	1.51
22	Anchorage	AK	1.64	89.0%	1.46
23	Boise	ID	1.53	94.0%	1.44
24	Phoenix	AZ	14.16	10.0%	1.42
25	Little Rock	AR	7.00	20.0%	1.40
26	Kansas City	MO	8.13	16.9%	1.38
27	Philadelphia	PA	1.40	93.6%	1.31
28	Sioux Falls	SD	1.65	78.5%	1.29
29	Louisville	KY	1.26	100.0%	1.26
30	Oklahoma City	OK	11.34	11.0%	1.25
31	Minneapolis	MN	1.32	94.2%	1.24
32	Wichita	KS	11.72	10.4%	1.22
33	Los Angeles	CA	1.20	100.0%	1.20
34	Fargo	ND	28.86	4.1%	1.18
35	Charleston	SC	29.46	4.0%	1.18
36	Las Vegas	NV	3.28	34.8%	1.14
37	Portland	OR	2.25	49.0%	1.10
38	Charlotte	NC	1.35	74.7%	1.01
39	Cheyenne	WY	10.25	9.5%	0.97
40	Billings	MT	71.43	1.4%	0.96
41	Boston	MA	1.05	91.0%	0.96
42	Seattle	WA	1.02	92.1%	0.94
43	Virginia Beach	VA	1.00	89.8%	0.90
44	Nashville	TN	4.05	21.2%	0.86
45	Charleston	WV	1.43	60.0%	0.86
46	WASHINGTON	DC	0.85	97.4%	0.83
47	New York City	NY	20.31	3.9%	0.79
48	Salt Lake City	UT	1.33	55.0%	0.73
49	Birmingham	AL	6.61	10.0%	0.66
50	Denver	CO	8.22	7.2%	0.59
51	Honolulu	HI	0.35	100.0%	0.35
UNWEIGHTED AVERAGE			7.12	56.1%	1.56
MEDIAN			3.11	57.3%	1.38

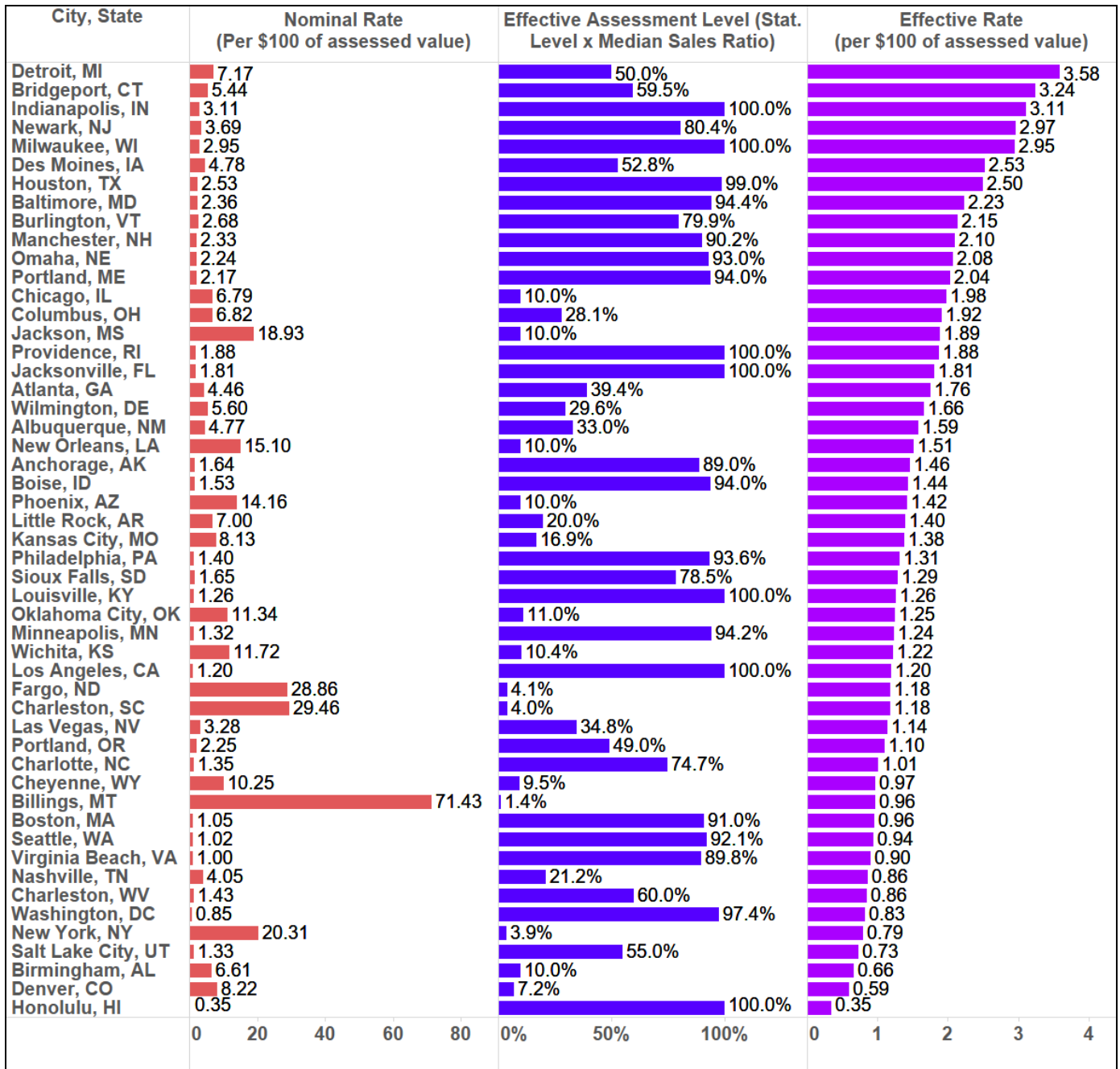
NOTE: All rates and percentages in this table are rounded and include state and local property taxes levied by multiple taxing authorities as identified by state survey respondents. Effective tax rates do not reflect any exemptions or credits noted in Table 6, or any other property tax credits, deductions, or exemptions offered by the state or locality.

Source: Data collected from surveys to State Revenue Department officials, and state web sites.

*Median assessment sales ratios have been combined with the statutory assessment levels where available to arrive at an “effective assessment level.”

¹For Milwaukee, WI, the nominal tax rate takes the assessment sales ratio statistic into account. For Chicago, IL the state equalizer of 2.9 was applied to the assessment level of 10% to reflect the equalizer’s impact on the final rate.

**Chart 3: Residential Property Tax Rates in the Largest City in Each State
2018**



Source: ORA Analysis of data from State Revenue Officials and State Department of Revenue Web sites. See notes on Table 4 above.

Note: Rates include state and local property taxes levied by multiple taxing authorities as identified by state survey respondents and from jurisdictions' web sites. For Milwaukee, WI, the nominal tax rate takes the assessment sales ratio statistic into account. For Chicago, IL the state equalizer of 2.9 was applied to the assessment level of 10% to reflect the equalizer's impact on the final rate.

Table 5: Housing Value Assumptions, 2018

CITY	ST	HOUSING ASSUMPTIONS AT INDICATED INCOME LEVELS:				
		TAX ON RENT	HOUSE VALUE			
		\$25,000	\$50,000	\$75,000	\$100,000	\$150,000
Anchorage	AK	1,760	141,313	211,970	282,626	423,939
Birmingham	AL	1,348	108,349	162,523	216,697	325,046
Little Rock	AR	1,120	98,151	147,226	196,301	294,452
Phoenix	AZ	1,314	152,553	228,830	305,106	457,659
Los Angeles	CA	2,077	282,850	424,275	565,701	848,551
Denver	CO	1,838	191,247	286,870	382,493	573,740
Bridgeport	CT	1,638	154,865	232,297	309,729	464,594
WASHINGTON	DC	2,707	156,779	235,168	313,558	470,336
Wilmington	DE	1,589	128,092	192,139	256,185	384,277
Jacksonville	FL	1,165	135,360	203,040	270,720	406,080
Atlanta	GA	1,674	123,724	185,586	247,448	371,171
Honolulu	HI	2,608	281,691	422,537	563,383	845,074
Des Moines	IA	1,148	103,439	155,159	206,878	310,317
Boise	ID	1,044	167,740	251,609	335,479	503,219
Chicago	IL	1,715	124,314	186,470	248,627	372,941
Indianapolis	IN	1,148	100,701	151,052	201,403	302,104
Wichita	KS	981	91,563	137,345	183,126	274,689
Louisville	KY	1,105	108,774	163,162	217,549	326,323
New Orleans	LA	1,359	126,016	189,024	252,032	378,048
Boston	MA	2,455	176,289	264,434	352,578	528,868
Baltimore	MD	1,652	137,545	206,317	275,089	412,634
Portland	ME	1,820	142,357	213,535	284,713	427,070
Detroit	MI	1,159	112,799	169,199	225,598	338,397
Minneapolis	MN	1,368	126,292	189,439	252,585	378,877
Kansas City	MO	1,091	107,985	161,978	215,971	323,956
Jackson	MS	1,237	104,270	156,405	208,539	312,809
Billings	MT	1,150	147,960	221,940	295,920	443,879
Charlotte	NC	1,498	129,135	193,702	258,269	387,404
Fargo	ND	986	112,145	168,217	224,290	336,435
Omaha	NE	1,161	93,198	139,798	186,397	279,595
Manchester	NH	1,537	131,759	197,638	263,518	395,277
Newark	NJ	1,906	177,538	266,307	355,077	532,615
Albuquerque	NM	1,076	139,352	209,028	278,705	418,057
Las Vegas	NV	1,229	171,747	257,621	343,494	515,242
New York City	NY	2,968	177,538	266,307	355,077	532,615
Columbus	OH	1,154	110,113	165,170	220,226	330,340
Oklahoma City	OK	1,175	100,236	150,353	200,471	300,707
Portland	OR	2,011	187,324	280,987	374,649	561,973
Philadelphia	PA	1,589	128,092	192,139	256,185	384,277
Providence	RI	1,444	142,959	214,438	285,918	428,876
Charleston	SC	1,440	148,464	222,696	296,928	445,392
Sioux Falls	SD	1,026	113,579	170,368	227,158	340,737
Nashville	TN	1,399	145,888	218,833	291,777	437,665
Houston	TX	1,494	109,246	163,869	218,492	327,738
Salt Lake City	UT	1,269	165,958	248,937	331,917	497,875
Virginia Beach	VA	1,746	139,933	209,899	279,865	419,798
Burlington	VT	1,748	137,309	205,964	274,618	411,927
Seattle	WA	2,621	198,038	297,057	396,076	594,115
Milwaukee	WI	1,170	117,566	176,349	235,131	352,697
Charleston	WV	959	99,134	148,701	198,269	297,403
Cheyenne	WY	1,233	138,150	207,225	276,300	414,450
AVERAGE		1,512	140,145	210,218	280,291	420,436
MEDIAN		1,368	135,360	203,040	270,720	406,080

Source for "Tax on Rent": Rental price data are from the US Department of Housing and Urban Development, for 2018 median fair market rents by MSA. Rents for studio apartments were selected. The property tax equivalent of rent is assumed to be 15 percent of annual rent (Note: in recent years PTER was assumed to be 20 percent of rent and was decreased to 15 percent beginning with the 2016 Study).

Source for all other columns: ORA Calculations. Data on MSA median household incomes and MSA median house values of mortgage holders for 2018 were retrieved from the Census Bureau's ACS 2018. A multiplier was applied to each income based on the relationship of median income to median home value. Newark, NJ is in the same MSA as NYC, so the same house value and income data are used for both. Similarly, Wilmington, DE, is in the same MSA as Philadelphia, and the same house value and income data are used for both (for the above PTER estimate, HUD provides a separate FMR figure for Newark, NJ, but not for Wilmington, DE)

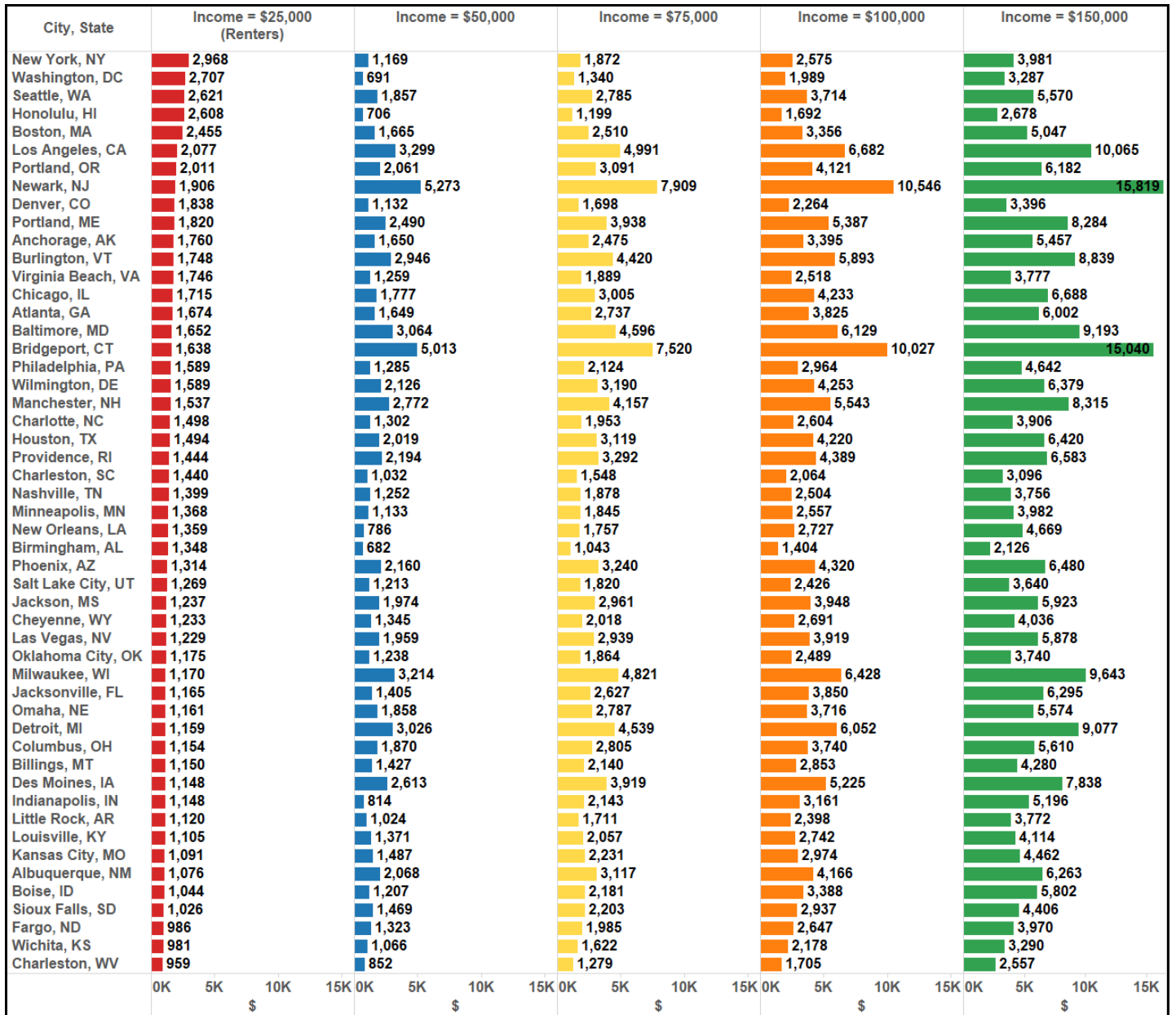
Table 6: Cities That Allow Exemptions or Reduced Rates in the Calculation of Real Estate Taxes for Homeowners, 2018

CITY	STATE	EXEMPTION OR TAX REDUCTION AMOUNT	BASIS OF TAX REDUCTION OR EXEMPTION
Anchorage	AK	The lesser of 20 % of the property value or \$50,000	Assessed Value
Birmingham	AL	Up to \$4,000 (local option to exempt \$2,000 to \$4,000)	Assessed Value-Homestead
Little Rock	AR	\$350 Credit against Homestead for Homeowners	Tax Credit
Los Angeles	CA	\$7,000 Exemption	Assessed Value
WASHINGTON 1/	DC	\$73,350 Exemption	Assessed Value-Homestead
Jacksonville	FL	1.First Homestead Exemption - \$25,000 exempt from all levies 2. Second Homestead exemption on value between \$25,000 - \$50,00, non-school levies	Assessed Value
Atlanta	GA	\$30,000 Exemption	Assessed Value
Honolulu	HI	\$80,000 Exemption	Assessed Value
Boise	ID	50% of Assessed Value, up to \$100,000 Exemption	Assessed Value and Homestead up to 1 acre
Chicago	IL	10,000 Exemption	Assessed Value- Homestead
Indianapolis	IN	60% Deduction (maximum of \$45,000) Supplemental deduction of 35% deduction of AV less than \$600,000; 25% deduction of AV greater than \$600,000.	Assessed Value-Homestead
Wichita	KS	\$20,000 on Appraised Value; \$2,300 on Assessed Value; up to a maximum tax exempted of \$46	Assessed Value
New Orleans	LA	\$7,500 Exemption	Assessed Value
Boston	MA	\$2,719 Homeowner Exemption	Assessed Value
Portland	ME	\$20,000 Homestead Exemption	Assessed Value
Detroit	MI	Homestead Property Exempt from Up to 18 mills of Local School Operating Millage Tax	Taxable Value
Minneapolis	MN	Market Value Homestead Exclusion = (40%*MV of first \$76,000) minus (9%*MV of the value over \$76,000)	Market Value
Jackson	MS	\$6 tax credit per \$150 of assessed value, up to \$300 maximum.	Assessed Value
Omaha	NE	Real property tax credit = reduction in tax bill of \$86.50 per 100,000 assessed value	Assessed Value
Albuquerque	NM	\$2,000 Exemption	Taxable Value
New York City	NY	\$30,000 Exemption on Primary Residence (STAR)	Equalized Assessed Value
Columbus	OH	12.5% of taxes charged on qualifying levies; (reduction of \$0.22 on \$100 value)	Assessed Value
Oklahoma City	OK	\$1,000 Exemption	Assessed Value-Homestead
Philadelphia	PA	\$30,000 Exemption	Assessed Value-Homestead
Charleston	SC	Owner occupied residential exempt from all school operating taxes, approximately 41% savings	Property Tax Relief Fund
Houston	TX	20% County Exemption on Value -Plus \$15,000 Exemption on School District Taxes Only -Plus, various exemptions on local levies, between 10% - 20% of assessed value	Assessed Value
Salt Lake City	UT	45% Residential (included in 55% assessment in Table 4)	Taxable Value
Burlington	VT	Homestead reduction for income eligible residence	Household Income
Milwaukee	WI	For \$150,000 home: -\$234.96 School Levy Credit; -\$129.79 Lottery Credit; -\$74.13 1st Dollar Credit	Equalized Assessed Value Equalized Assessed Value Equalized Assessed Value

Source: Data collected from surveys to State Revenue Department officials and review of State, and City, Revenue Department Web Sites.

1/ DC's exemption amount increased to \$74,850 on October 1, 2018 (effective for DC's Real Property Tax Year 2019).

**Chart 4: 2018 Property Tax Burdens for All Income Levels,
Sorted by \$25,000 Income Level (Renters)**



Source: ORA analysis; see description on page 8-10 for data sources and methodology. Note: the methodology for calculating burdens for the \$25,000/year income earning family differ from the calculations for the other four income groups and represents a property tax equivalent of rent.

Sales and Use Tax

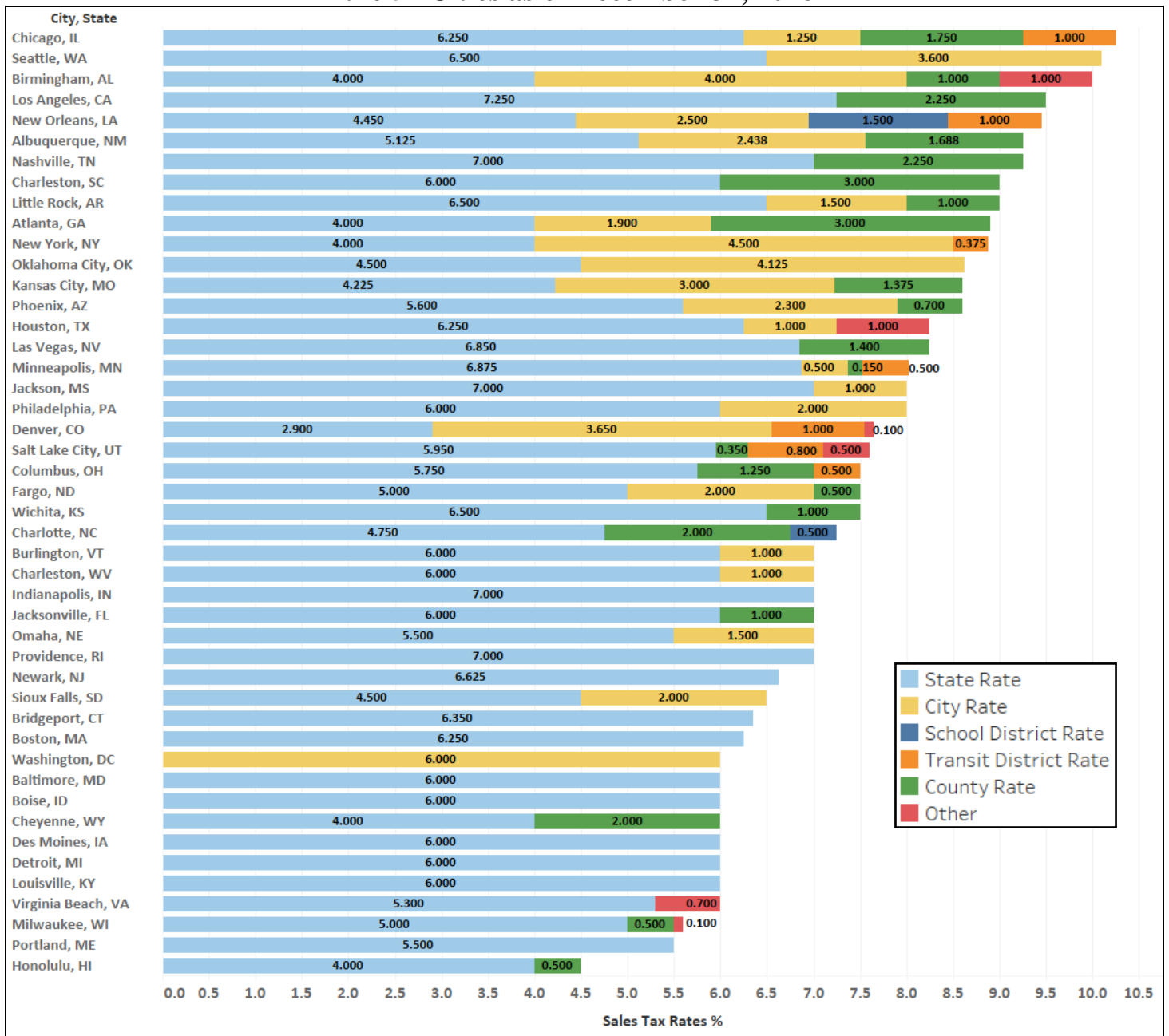
Residents of 46 of the 51 cities in this study are subject to some form of sales and use tax. The combined sales tax rates range from 10.25 percent in Chicago, Illinois to 4.5 percent in Honolulu, Hawaii, as illustrated in Chart 5, page 38, and presented in Table 7, page 39. The highest state sales tax rate is 7.25 percent in Los Angeles, California; while the lowest state rate of 2.9 percent is found in Denver, Colorado. Sales taxes are levied by 22 of the 51 cities (in addition to state sales taxes) with the highest city rate at 6.0 percent in Washington, DC (followed by 4.5 percent in New York City). The lowest city rate was 0.5 percent Minneapolis, Minnesota. Of the 21 counties levying a sales tax, the highest rate (3.0 percent) is in Fulton County (Atlanta, GA) and Charleston County (Charleston, SC). Two school districts and seven transit districts also levy sales taxes, with transit district rates ranging from 0.375 percent in New York, New York, to 1.0 percent in Chicago, Illinois; Denver, Colorado; and New Orleans, Louisiana.

Based on the results in Table 1, the average sales tax burden is the second highest of the four major tax types at the \$25,000 income level. For families subject to a general sales tax, the highest sales tax burdens are in Birmingham, Alabama, for the lowest income level, New Orleans, Louisiana, at the \$50,000 income level, and Nashville, Tennessee, at the three highest income levels. Other jurisdictions ranking in the top five sales tax burdens at one of the income levels are Kansas City, Missouri; Wichita, Kansas; Jackson, Mississippi; Seattle, Washington; and Atlanta, Georgia.

Cities and states that levy a general sales tax and have among the lowest sales tax burdens at all income levels include Detroit, Michigan (lowest at all income levels); Newark, New Jersey; Honolulu, Hawaii; Boston, Massachusetts; and Milwaukee, Wisconsin. (In Table 1, Wilmington, Delaware; Billings, Montana; Anchorage, Alaska; and Manchester, New Hampshire have the lowest sales tax burdens; however, these burdens are due to selective sales taxes that apply to rental car expenses and are included in the calculations for this report. However, these jurisdictions do not have a general sales tax and are therefore excluded from the counts on this page, as well as Chart 5 and Table 7.)

It is important to note that the calculated sales tax burdens are not a direct function of the general sales tax rates reported on the following pages as the consumer expenditures items used to calculate burdens often have selective sales tax rates. For example, vehicle rentals and food purchased away from home often have a higher sales tax rate than the general rate, while food purchased for home consumption often has a lower rate. Further, not all jurisdictions have the same sales tax base, meaning purchases of certain items could be taxable in one city, but not in another.

Chart 5: Composition of State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31, 2018



Source: ORA analysis of data collected from a survey of State Revenue Department Officials.

Cities with no state or local general sales tax: Anchorage, AK; Billings, MT; Manchester, NH; Portland, OR; and Wilmington, DE.

* The 0.700 "transit district rate" in Virginia is a regional sales tax that is dedicated to a transportation fund.

Table 7: State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31, 2018

CITY	STATE	TOTAL RATE (%)	STATE RATE (%)	CITY RATE (%)	COUNTY RATE (%)	SCHOOL RATE (%)	TRANSIT RATE (%)	OTHER RATE (%)
Chicago	IL	10.250	6.250	1.250	1.750		1.000	
Seattle	WA	10.100	6.500	3.600				
Birmingham	AL	10.000	4.000	4.000	1.000			1.000
Los Angeles	CA*	9.500	7.250		2.250			
New Orleans	LA	9.450	4.450	2.500		1.500	1.000	
Albuquerque	NM	9.250	5.125	2.438	1.688			
Nashville	TN	9.250	7.000		2.250			
Little Rock	AR	9.000	6.500	1.500	1.000			
Charleston	SC	9.000	6.000		3.000			
Atlanta	GA	8.900	4.000	1.900	3.000			
New York City	NY	8.875	4.000	4.500			0.375	
Oklahoma City	OK	8.625	4.500	4.125				
Phoenix	AZ	8.600	5.600	2.300	0.700			
Kansas City	MO	8.600	4.225	3.000	1.375			
Las Vegas	NV	8.250	6.850		1.400			
Houston	TX	8.250	6.250	1.000				1.000
Minneapolis	MN	8.025	6.875	0.500	0.150		0.500	
Jackson	MS	8.000	7.000	1.000				
Philadelphia	PA	8.000	6.000	2.000				
Denver	CO	7.650	2.900	3.650			1.000	0.100
Salt Lake City	UT*	7.600	5.950		0.35		0.800	0.500
Wichita	KS	7.500	6.500		1.000			
Fargo	ND	7.500	5.000	2.000	0.500			
Columbus	OH	7.500	5.750		1.250		0.500	
Charlotte	NC	7.250	4.750		2.000	0.500		
Jacksonville	FL	7.000	6.000		1.000			
Indianapolis	IN	7.000	7.000					
Omaha	NE	7.000	5.500	1.500				
Providence	RI	7.000	7.000					
Burlington	VT	7.000	6.000	1.000				
Charleston	WV	7.000	6.000	1.000				
Newark	NJ	6.625	6.625					
Sioux Falls	SD	6.500	4.500	2.000				
Bridgeport	CT	6.350	6.350					
Boston	MA	6.250	6.250					
WASHINGTON	DC	6.000		6.000				
Des Moines	IA	6.000	6.000					
Boise	ID	6.000	6.000					
Louisville	KY	6.000	6.000					
Baltimore	MD	6.000	6.000					
Detroit	MI	6.000	6.000					
Virginia Beach	VA*	6.000	5.300					0.700
Cheyenne	WY	6.000	4.000		2.000			
Milwaukee	WI	5.600	5.000		0.500			0.100
Portland	ME	5.500	5.500					
Honolulu	HI	4.500	4.000		0.500			
UNWEIGHTED AVERAGE		7.527	5.650	2.294	1.365	1.000	0.647	0.567
MEDIAN		7.500	6.000	2.000	1.125	1.000	0.500	0.600

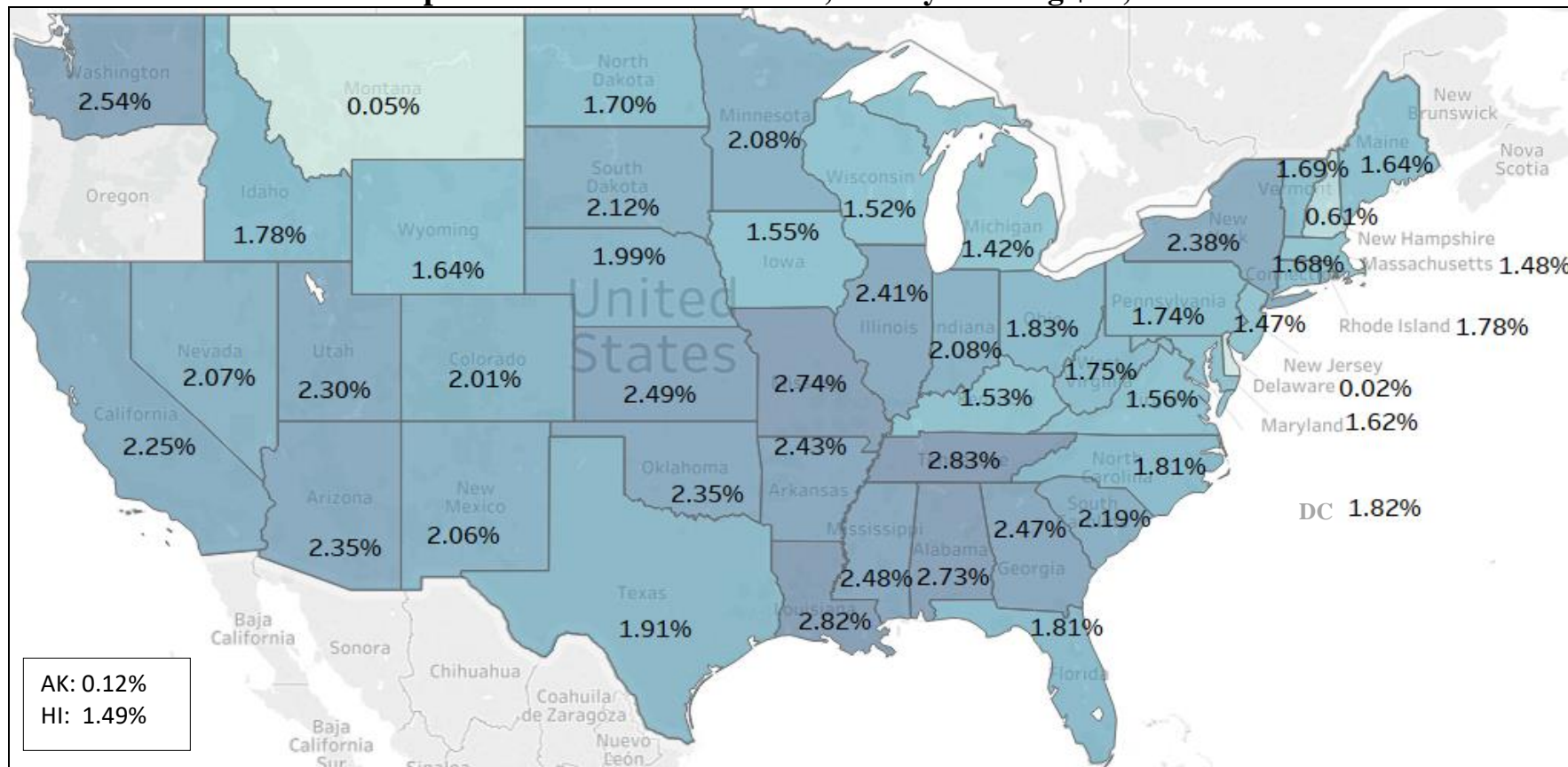
Source: Survey of State Revenue Department Officials, and state web sites.

Cities with no state or local general sales tax: Anchorage, AK; Billings, MT; Manchester, NH; Portland, OR; and Wilmington, DE.

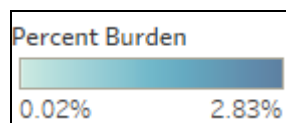
Note: Unweighted average includes only those jurisdictions with a sales tax.

*These rates include state-side mandatory local add-on rates: CA: 1.25%; UT: 1.25%; VA: 1.0%

Map 4: 2018 Sales Tax Burdens, Family Earning \$75,000/Year



Source: ORA Analysis. The lighter blue shading represents a lower tax burden. Alaska, Montana, New Hampshire, Oregon, and Delaware do not have a general sales tax. All these states except Oregon have a selective sales tax on some items included in the sales tax burden calculation.



Automobile Taxes

Residents of all 51 cities in this study are subject to gasoline taxes and some type of automobile registration fee or tax. The automobile taxes included in this study are gasoline taxes, state and local motor vehicle registration fees, annual excise taxes, and personal property taxes. Residents in 10 of the cities are subject to a personal property tax based on the value of motor vehicles owned by a taxpayer, while another 26 states or local jurisdictions levy some type of fee or tax with various names (e.g. wheel tax, use tax, uniform fee, county option tax, etc.). Taxpayers in at least 9 cities covered are subject to both a state and a local registration fee. Automobile registration fees and taxes are usually either flat per-vehicle rates or excise taxes based on either vehicle weight or value. The types of registration and other automobile taxes to which residents of the 51 cities are subject are summarized in Table 9, page 43.

Gasoline tax rates in each of the 51 cities as of December 31, 2018, are compared in Table 8, page 42. The total state and local gasoline tax rates vary from a high of 58.7 cents per gallon in Philadelphia, Pennsylvania; 56.9 in Los Angeles, California; and 53.7 in Honolulu, Hawaii; to a low of 9.0 cents per gallon in Anchorage, Alaska. Eleven states and four cities apply a sales tax to gasoline, and those rates are included in the rates in the table.

The vehicle assumptions used for calculating automobile personal property taxes, excise taxes, the gasoline tax, and registration fees are presented in Table 10, page 43.

The automobile tax burdens are generally the lowest of the tax burdens (by tax) at all income levels in this study (except in those states that offer refundable tax credits through the income tax at the \$25,000 income level). Providence, Rhode Island, and Charleston, West Virginia, are the cities with the highest automobile tax burdens across all income levels. Cities that show up in the top five for at least two of the income levels include Los Angeles, California; Kansas City, Missouri; Billings, Montana; Virginia Beach, Virginia; Portland, Maine; Wichita, Kansas; and Seattle, Washington. These cities levy either a personal property tax, excise tax, or other type of annual tax. New Orleans, Louisiana; Albuquerque, New Mexico; Anchorage, Alaska; and Louisville, Kentucky have the lowest automobile tax burdens at each income level. Each of these cities has flat registration rates or registration by weight, moderate gasoline tax rates, or no personal property or excise tax (or a low annual tax rate as in Anchorage, Alaska, and Louisville, Kentucky).

**Table 8: Gasoline Tax Rates in the 51 Cities, as of December 31, 2018
(State and Local Rates per Gallon)**

CITY	ST	TOTAL RATE	STATE RATE	LOCAL RATE
Philadelphia	PA	58.7	58.7	0.0
Los Angeles *+	CA	56.9	49.9	7.0
Honolulu *+	HI	53.7	35.4	18.3
Seattle	WA	49.5	49.5	0.0
Atlanta *+	GA	46.9	35.1	11.9
Chicago *	IL	46.1	35.1	11.0
Bridgeport *	CT	44.6	44.6	0.0
New York City*+	NY	44.5	33.7	10.8
Indianapolis *	IN	44.4	44.4	0.0
Portland	OR	44.0	34.0	10.0
Detroit *	MI	42.1	42.1	0.0
Newark	NJ	41.5	41.5	0.0
Charleston *	WV	35.7	35.7	0.0
Baltimore *	MD	35.5	35.5	0.0
Charlotte	NC	35.4	35.4	0.0
Providence	RI	34.1	34.1	0.0
Las Vegas	NV	33.6	23.8	9.8
Jacksonville *	FL	33.5	33.5	0.0 1/
Boise	ID	33.0	33.0	0.0
Milwaukee	WI	32.9	32.9	0.0
Billings	MT	32.3	32.3	0.0
Portland	ME	31.4	31.4	0.0
Burlington	VT	31.4	31.4	0.0
Des Moines	IA	30.7	30.7	0.0
Salt Lake City	UT	30.1	30.1	0.0
Sioux Falls	SD	30.0	30.0	0.0
Omaha	NE	29.3	29.3	0.0
Minneapolis	MN	28.6	28.6	0.0
Columbus	OH	28.0	28.0	0.0
Boston	MA	26.7	26.7	0.0
Nashville	TN	26.4	26.4	0.0
Louisville	KY	26.0	26.0	0.0
Wichita	KS	25.0	25.0	0.0
Cheyenne	WY	24.0	24.0	0.0
Manchester	NH	23.8	23.8	0.0
WASHINGTON	DC	23.5	0.0	23.5
Fargo	ND	23.0	23.0	0.0
Wilmington 2/	DE	23.0	23.0	0.0
Denver	CO	22.1	22.1	0.0
Birmingham	AL	22.0	21.0	1.0
Little Rock	AR	21.8	21.8	0.0
Virginia Beach	VA	21.5	16.8	4.7
New Orleans	LA	20.9	20.9	0.0
Charleston	SC	20.8	20.8	0.0
Oklahoma City	OK	20.0	20.0	0.0
Houston	TX	20.0	20.0	0.0
Phoenix	AZ	19.0	19.0	0.0
Albuquerque	NM	18.9	18.9	0.0
Jackson	MS	18.4	18.4	0.0
Kansas City	MO	17.4	17.4	0.0
Anchorage	AK	9.0	9.0	0.0
UNWEIGHTED AVERAGE		31.2	29.7	8.9
MEDIAN		30.0	29.7	9.8

Note: Rates include state and local sales taxes applicable to gasoline and other fees (such as environmental or inspection fees).

*Indicates a state sales tax is included in the rate; + indicates a local sales tax is included in the rate.

Source: ORA Survey of State Revenue Department Officials and review of State Web pages; Federation of Tax Administrators, "State Motor Fuel Tax Rates, as of January 1, 2019;" Federation of Tax Administrators, "Motor Fuel Tax Administration by State. September 2018;

1/ The local option tax of \$0.06 per gallon is included in the state rate for Florida because it is a minimum statewide rate. Duval County (Jacksonville) does not levy a local option above the minimum.

2/Additional Gross Receipts Tax of 0.9% applies to wholesaler

**Table 9: Summary of Types of Automobile Registration Taxes 2018
(50 states + DC)**

<u>TYPE OF REGISTRATION</u>	<u>NUMBER OF STATES (& DC)</u>
Flat Rate Only	22
Weight Only	13
Weight and Age	5
Horsepower Only	1
Age Only	3
Value Only	2
Value and Age	3
Value, Age, and Weight	2
	51
<u>OTHER AUTO TAXES (INCLUDING LOCAL) *</u>	
Personal Property	10
Excise	4
Other fees or taxes (incl. local registration)	26

*Based on State Survey responses. An excise tax is only applied in auto tax burden calculation if it is an annual tax.

Table 10: Automobile Tax Assumptions 2018

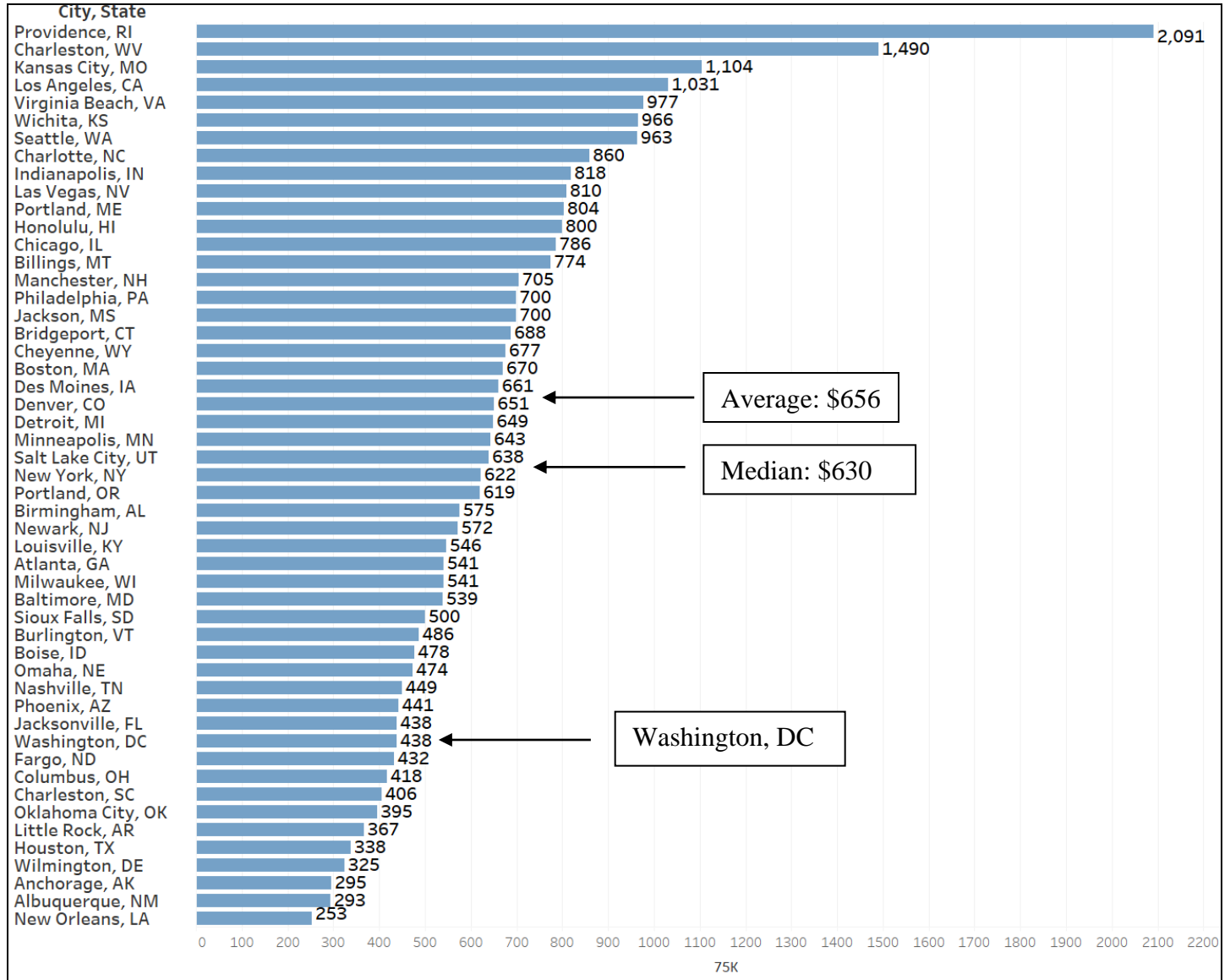
Income Level	Description of Auto	Engine Size Liters 1/	Weight 2/	Year	Market Values			Estimated Mileage Per Gallon 1/	Estimated Annual Gasoline Usage 3/
					Retail Price 2/	Trade-In Value 2/	Loan Value 2/		
\$ 25,000	Sedan, 4 Door 4-cylinder, Auto	1.8	2,908 lbs.	2015	\$12,925	\$9,675	\$12,796	29	517 gallons
\$ 50,000	Sedan, 4 Door 4 Cylinder, Manual	1.4	2,939 lbs.	2017	\$13,525	\$10,575	\$13,390	28	536 gallons
\$ 75,000	Sedan, 4 Door 4 Cylinder, Automatic	2.5	3,300 lbs.	2017	\$18,725	\$15,200	\$18,538	24	625 gallons
	4WD Utility, 4 Door 6 Cylinder, Automatic	3.5	4,464 lbs.	2012	\$17,775	\$15,025	\$17,597	17	441 gallons*
\$100,000	Sedan, 4 Door 6 Cylinder, Automatic	3.6	3,906 lbs.	2017	\$23,350	\$19,200	\$23,117	21	714 gallons
	4WD Utility, 4 Door 6 Cylinder, Automatic	3.5	4,732 lbs.	2012	\$16,525	\$13,575	\$16,360	17	441 gallons*
\$150,000	Sedan, 4 Door 6 Cylinder, Automatic	2.0	3,814 lbs.	2018	\$53,440	\$50,580	\$52,906	21	714 gallons
	AWD Utility, 4 Door 6 Cylinder, Automatic	3.5	4,234 lbs.	2014	\$18,800	\$15,150	\$18,612	18	417 gallons*

1/ Gas Mileage Guide, EPA fuel economy estimates for city driving, US Department of Energy. <http://www.fueleconomy.gov/>

2/ National Automobile Dealers Association Used Car Guide. <http://www.nadaguides.com>

3/ Assumes 15,000 miles driven for primary car; 7,500 for secondary car (secondary car denoted with an asterisk).

Chart 6: 2018 Auto Tax Burdens, Family Earning \$75,000/year



Source: ORA Analysis. See pages 41-43 for methodology and assumptions.

CHAPTER IV

How Do Tax Burdens in Washington, DC Compare with Those in the Largest City in Each State?

The nation's capital, Washington, DC, is unique in many respects. It has a special status in which the day-to-day activities and functions of state, county, city, and special districts are combined in one governmental unit. The Mayor and the 13-member District of Columbia Council combine the functions of a state legislature, a county board of commissioners, and a city council. Due to this combination of responsibilities, the District has the taxing powers of a state, a county, and a municipality, although these powers are limited by actions of the federal government. The graduated income tax, the general sales and use tax, and the per gallon gasoline tax are all comparable in form to those levied by most states. The property tax based on assessed value is like the type levied in cities and counties. As a result, the tax burden of District residents should be compared to the combined state and local burdens borne by residents of other large cities.

The District of Columbia has a relatively high percentage of low-income taxpayers, which limits the District's revenue-raising capacity. Despite these limitations, the District of Columbia must perform and provide funding for functions usually provided at both state and local levels of government. The non-municipal functions include responsibility for welfare programs, physical and mental health care, and maintenance of the public education and state university systems.

The burden of each of the four major taxes for Washington, DC, is compared with the 51-city average at all income levels in Table 11, page 48 and the individual tax comparisons are described in more detail in the following sections. Further, Chart 7, on page 49 illustrates the comparisons between DC's overall combined burden and the 51-city average at each income level.

Individual Income Tax

As shown in Table 11 and based on the assumptions made in this report, the individual income tax burden for Washington, DC is below the 51-city average at the \$25,000, \$50,000, and \$75,000 level (the average is based on the cities and states that levy an income tax). The income tax burden at the \$100,000, and \$150,000 income levels is slightly higher in DC than for the average of the cities levying an income tax. This is due to the District's more progressive income tax. Washington, DC levied an individual income tax with six rates in tax year 2018: 4.0 percent on the first \$10,000 of taxable income; 6.0 percent on the next \$30,000 of taxable income; 6.5 percent on taxable income over \$40,000 up to \$60,000; 8.5 percent on taxable income over \$60,000 up to \$350,000; 8.75 percent on taxable income greater than \$350,000 and less than

\$1,000,000, and 8.95 percent on taxable income over \$1,000,000.

As a result of the 2017 Tax Cuts and Jobs Act (TCJA) and DC's federal conformity provisions, DC personal exemptions are reduced to zero for 2018, and the federal standard deduction will apply (See Appendix A for further discussion of the impacts of TCJA). Thus, a standard deduction of \$24,000 for joint married filers (\$12,000 for married filing separately) was in effect for the period of this study. Itemized deductions are the same as those allowed in computing the federal income tax (with a new limit of \$10,000 on state and local deductions that can be itemized on the federal schedule A), and the District does not allow the deduction of its own individual income tax. Washington, DC also has "circuit-breaker" property tax relief programs for both elderly and non-elderly qualified homeowners and renters, through which a credit can be claimed against a taxpayer's income tax liability (this is the first year the Schedule H property tax credit has been applied in this study).

The District's income tax rates have changed and become more progressive in recent years, with slightly decreasing rates on income between \$40,000 and \$60,000 and between \$350,000 and \$1,000,000, while rates slightly increased on income over \$1,000,000. Federal law prohibits Washington, DC from taxing the earnings of non-residents working within the city, a restriction not imposed on any other city in the nation. Partly because of this, the District of Columbia taxes residents at a higher rate than it might otherwise since about 60 percent of the wages and salaries earned in the District of Columbia are earned by non-residents.¹⁹

Real Property Tax

As previously noted, and based on the assumptions in this report, the property tax burdens in the District of Columbia are below the 51-city average at the \$50,000, \$75,000, \$100,000 and \$150,000-income levels. The property tax burden, as calculated in this study, is higher at the \$25,000 income level in Washington, DC than the average for the 51 cities (and second highest overall), which reflects the high cost of rental housing in the District. (However, this year the DC's property tax credit through the income tax was applied and is counted in the family's income tax burden.) Although the District's house values are higher than the 51-city average at each income level, these rankings highlight the District's relatively low property tax burden for homeowners, as compared to the other 50 cities.

The tax on residential property in the District of Columbia is based on the assessed value of the property, which is assessed at a statutory level of 100 percent of its estimated market value.²⁰ The tax rate on residential owner-occupied property in the District is \$0.85 per \$100 of assessed value for 2018. DC homeowners may deduct a homestead exemption of \$73,350 from the assessed base before calculation of the property tax for all owner-occupied dwellings. The District has capped the growth of property assessments at 10 percent, when calculating the tax due. The calculations in this study do not adjust for capped growth.

¹⁹ "District of Columbia Economic and Revenue Trends: December 2018." Data point for FY18. Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis. Washington, DC: 2018. p. 6.

²⁰ As detailed on page 30, median sales ratios were included where available to represent the actual level of assessment compared to market values. DC's median sales ratio is 97.4%.

Sales and Use Tax

As shown in Table 11, the sales tax burden in the District of Columbia is lower than the 51-city average at all five income levels (averages are based on cities levying tax). In 2018, the District levied a sales tax with seven different rates (some of these rates were effective on October 1, 2018). This rate structure is used, in part, to take advantage of the District's special status as a tourist center and to increase the contribution of non-residents working in the city. These differential rates illustrate the concept of tax exporting. The following table details the sales tax rates in effect at the end of 2018. Items exempt from the District of Columbia sales tax include groceries and prescription drugs.

ITEMS	2018 SALES TAX RATE
Retail rate for sales of certain tangible personal property and selected services, non-alcoholic soft drinks, food, or drinks sold in vending machines	6.0%
Medical marijuana	6.0%
Restaurant meals, liquor prepared for immediate consumption on the premises, and prepaid telephone cards,	10.0%
Off-premises alcohol, rental vehicles, tickets sold for games and events at the ballpark, merchandise sold at the baseball stadium, tickets sold for games and events at the Capital One Center and merchandise sold at the Capital One Center	10.25%
Hotels (transient accommodations)	14.95%
Parking of motor vehicles in commercial lots	18.0%

Source: "DC Tax Facts 2019." Government of DC, Office of the Chief Financial Officer, Office of Revenue Analysis, p. 33.

Automobile Taxes

Washington, DC, automobile tax burdens are below the 51-city average for all income levels, as shown in Table 11, indicating the District's competitive auto tax rates. Washington, DC taxes gasoline at 23.5 cents per gallon, and requires registration fees for automobile owners. Fees are \$72 on cars weighing less than 3,500 pounds; \$115 on cars equal to or greater than 3,500 pounds and less than 5,000 pounds; and \$155 on automobiles weighing more than 5,000 pounds. The District of Columbia does not impose an annual excise tax or personal property tax on automobiles.

Summary

As noted above, the tax burden of the District of Columbia is influenced by many factors. The District of Columbia is restricted by the federal government from taxing non-resident income; further a large percentage of DC land is tax-exempt (fifty-four percent of District acreage is tax exempt²¹). These factors limit the District's revenue raising capacity and some of the available tax bases from which the city must fund a range of government operations that are typically funded by both states and cities. There are positive factors that increase District tax bases, however, including substantial tourist activity as well as the large volume of business and lobbying activity generated by the federal presence.

²¹ "DC Tax Facts 2019." Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis, p. 49.

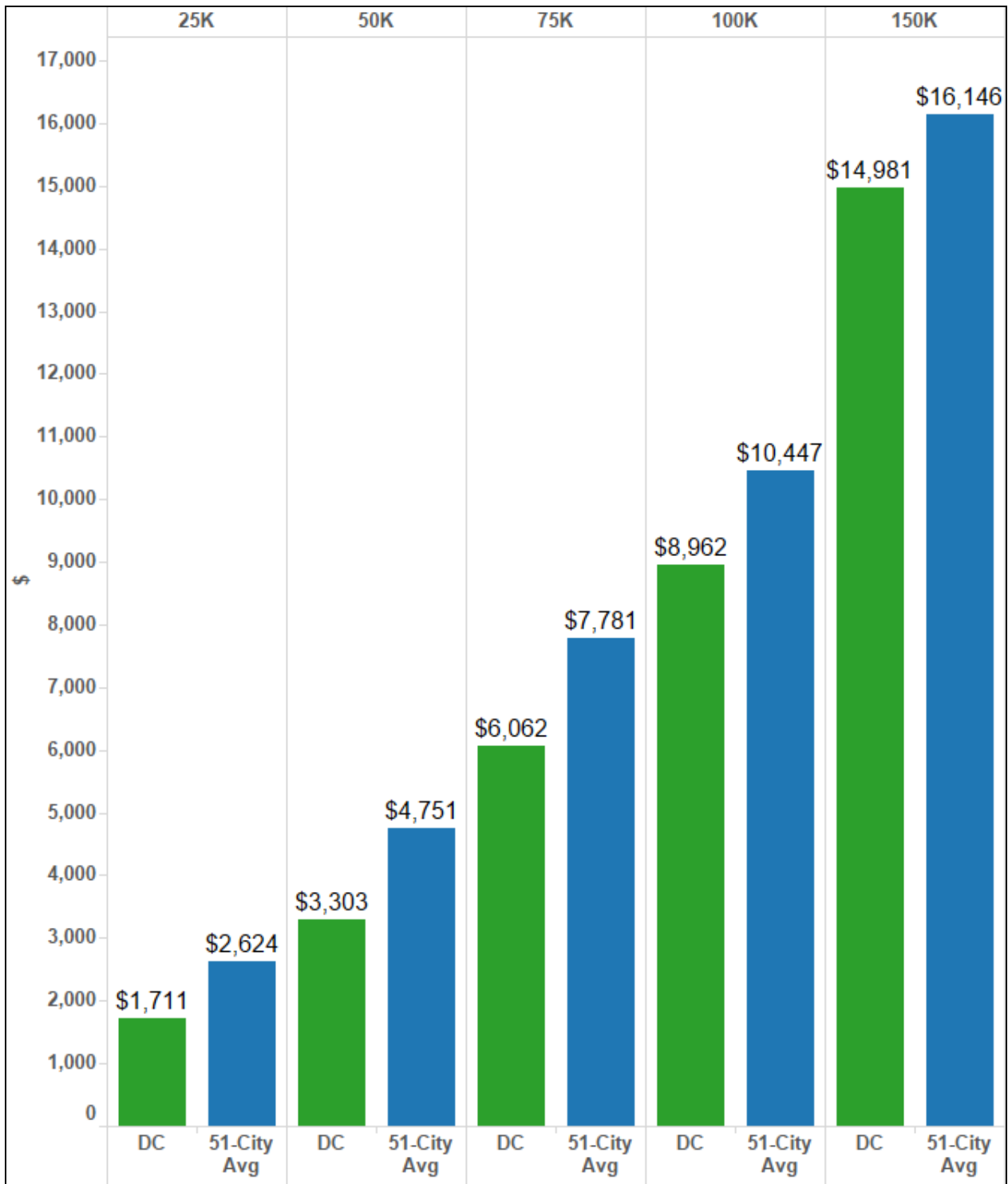
Table 11: Tax Burdens in Washington, DC for a Hypothetical Family Compared with the Average for the Largest City in Each State by Income Level, 2018

TAX	DISTRICT OF COLUMBIA	AVERAGE FOR CITIES LEVYING TAX ^{1/}	DIFFERENCE (DC Minus Average)
\$25,000 INCOME LEVEL			
Income	(2,065)	(115)	(\$1,950)
Property	2,707	1,512	\$1,195
Sales	875	939	(\$64)
Auto	193	288	(\$94)
TOTAL	\$1,711	\$2,624	(\$913)
\$50,000 INCOME LEVEL			
Income	1,362	1,534	(\$172)
Property	691	1,809	(\$1,118)
Sales	1,052	1,094	(\$42)
Auto	198	314	(\$116)
TOTAL	\$3,303	\$4,751	(\$1,448)
\$75,000 INCOME LEVEL			
Income	2,917	2,926	(\$9)
Property	1,340	2,802	(\$1,462)
Sales	1,368	1,398	(\$30)
Auto	438	656	(\$218)
TOTAL	\$6,062	\$7,781	(\$1,719)
\$100,000 INCOME LEVEL			
Income	4,861	4,314	\$547
Property	1,989	3,795	(\$1,806)
Sales	1,610	1,626	(\$16)
Auto	501	712	(\$210)
TOTAL	\$8,962	\$10,447	(\$1,485)
\$150,000 INCOME LEVEL			
Income	9,144	7,302	\$1,842
Property	3,287	5,785	(\$2,498)
Sales	2,055	2,059	(\$5)
Auto	496	1,000	(\$504)
TOTAL	\$14,981	\$16,146	(\$1,165)

^{1/} Income and sales averages are based on cities levying tax. As a result, the overall average is not equal to the sum of the averages for each separate tax type. Averages for Income and Sales taxes do not include cities/states with no income or sales tax.

Note: While using the median of the 51 cities results in slightly different dollar amounts, the results are the similar in that DC's overall burden is lower than the 51-city median at every income level, and DC's income tax burden is also higher than the median at the \$100,000 and \$150,000 levels. Similarly, DC's property tax burden is higher than the 51-city median for the \$25,000 income level. Using the median makes the DC sales tax burden around \$10 higher than the 51-city for the highest two income levels.

**Chart 7: Combined 2018 Tax Burdens at Each Income Level:
Comparison of DC and the Average of the 51 Cities**



Source: ORA Analysis. Averages for Income and Sales taxes do not include cities/states with no income or sales tax.

Note: While using the median of the 51 cities results in slightly different dollar amounts, the results are the same in that DC's overall burden is slightly higher than the 51-city median at the \$25,000 income level, and lower than the median at the other four income levels. Using the median, DC's sales tax burdens are slightly higher than the 51-city median at the \$100,000- and \$150,000-income levels.

Part II

A Comparison of Selected Tax Rates in the District of Columbia with Those in the 50 States as of January 1, 2019

Tax Rate Comparisons at a Glance

Below is a review of how DC's tax rates compare to the other jurisdictions in the report that levy each tax. Of the 12 taxes compared, tax categories for which District rates are higher than in most of the states include: cigarette; corporate income; individual income; deed recordation; and motor vehicle registration fees. In five tax categories—insurance premiums, beer, light wine, distilled spirits, and gasoline—the District has lower tax rates than most states. For cigarettes, all 50 states have lower excise taxes than the District and ten states now have the same sales tax rate as DC, while 15 are higher and 20 are lower.

Table 12: Comparison of Selected State Tax Rates

TAX	LEVYING TAX 1/	NUMBER OF JURISDICTIONS		
		LOWER THAN DC	SAME AS DC	HIGHER THAN DC
Individual Income	41 2/	36 3/	0	5 3/
Corporate Income	44	33	1	10
Insurance	50	13	0	37
Sales and Use	45	20	10	15
Beer	50	7	1	42
Light Wine	47	4	4	39
Distilled Spirits	33	0	1	32
Cigarette	50	50	0	0
Gasoline	50	15	0	35
Motor Vehicle Excise (for cars >3,500 and <5,000 lbs.)	46	39	5	2
Motor Vehicle Registration (Fee)	50	45	0	5
Deed Recordation	35	34	0	1

1/ This count excludes DC.

2/ Does not include two states that tax dividends and/or interest only.

3/ Comparisons are based on highest comparable rate in each jurisdiction. Those based on federal liability are not included.

Table 13: Individual Income Tax Washington Metropolitan Area

PERSONAL EXEMPTIONS	EXEMPTIONS	TAXABLE INCOME 5/	RATES
DISTRICT OF COLUMBIA			
Single	\$0 1/	\$0 - \$10,000	4.0%
Married Filing Separately	\$0	\$10,001-\$40,000	\$400 + 6.0% of excess > \$10,000
Married Filing Jointly	\$0	\$40,001-\$60,000	\$2,200 + 6.5% of excess > \$40,000
Head of Household	\$0	\$60,001-\$350,000	\$3,500 + 8.5% of excess > \$60,000
Dependent (additional)	\$0	\$350,000-\$1,000,000	\$28,150 + 8.75% of excess > \$350,000
Blind (additional)	\$0	Over \$1,000,000	\$85,025, plus 8.95% of the excess above \$1,000,000
Age 65 and over (additional)	\$0		
Standard Deduction	\$24,400		
MARYLAND 2/			
Single	\$3,200	\$0 - \$1,000	2.0%
Married Filing Separately	\$6,400	\$1,001-\$2,000	\$20 + 3.00% of excess > \$1,000
Married Filing Jointly	\$6,400	\$2,001-\$3,000	\$50 + 4.00% of excess > \$2,000
Head of Household	\$3,200	\$3,001-\$150,000	\$90 + 4.75% of excess > \$3,000
Dependent (additional)	\$3,200	\$150,001-\$175,000	\$7,072.50 + 5% of excess > \$150,000
Blind (additional)	\$1,000	\$175,001-\$225,000	\$8,322.50 + 5.25% of excess > \$175,000
Age 65 and over (additional)	\$1,000	\$225,001-\$300,000	\$10,947.50 + 5.5% of excess > \$225,000
Standard Deduction	3/	Over \$300,000	\$15,072.50 + 5.75% of excess > \$300,000
VIRGINIA			
Single	\$ 930	\$0 - \$3,000	2.0%
Married Filing Separately	\$ 930	\$3,001-\$5,000	\$60 + 3.00% of excess > \$3,000
Married Filing Jointly	\$1,860	\$5,001-\$17,000	\$120 + 5.00% of excess > \$5,000
Head of Household	\$ 930	Over \$17,000	\$720 + 5.75% of excess > \$17,000
Dependent (additional)	\$ 930		
Blind (additional)	\$ 800		
Age 65 and over (additional)	\$ 800		
Standard Deduction	4/		

Source: Survey of State Revenue Department Officials; State Web Sites; and Federation of Tax Administrators, "State Individual Income Taxes for tax year 2019." March 29, 2019. *2019 State Tax Handbook*, Wolters Kluwer/ CCH Group, 2018.

1/ As a result of the 2017 Tax Cuts and Jobs Act and DC's federal conformity provisions, DC personal exemptions are reduced to zero and the federal standard deduction will apply thereafter.

2/ Maryland rates do not include local rates that may be as low as 1.75% in Worcester County and as much as 3.20% in Howard, Montgomery and Prince George's Counties, among others. Baltimore City, which is used in this study, has a local rate of 3.20%.

3/ The standard deduction for an individual is 15% of Maryland AGI not to exceed \$2,250 (\$4,550 for joint and head of household returns and those filing as qualifying widow(er) with dependent child). The minimum is \$1,500 for single, married filing separately and dependent taxpayers. All others are allowed a minimum of \$3,000.

4/ Single - \$3,000; married persons filing separately - \$3,000; and married persons filing jointly or combined separate - \$6,000.

5/ Brackets and rates are for married filing jointly.

Table 14: Individual Income Tax
43 States and the District of Columbia

PERSONAL EXEMPTIONS (CREDITS)			RATES AND TAXABLE INCOME BRACKETS				
SINGLE	MARRIED FILING JOINT	DEPENDENTS	TYPE OF RETURN	MINIMUM		MAXIMUM	
				RATE	UP TO	RATE	OVER
ALABAMA 1/							
\$1,500	\$3,000	\$500 1/	S, HH, M M/J	2.0% 2.0%	\$ 500 1,000	5.0% 5.0%	\$ 3,000 6,000
ARIZONA							
\$2,292	\$4,585	\$2,292	S, M/S M/J, HH	2.59% 2.59%	\$11,047 22,092	4.54% 4.54%	\$165,674 331,346
ARKANSAS							
(\$26)	(\$52)	(\$26)	S, HH, M, M/J	0.9%	\$ 4,299	6.9%	\$ 35,100
CALIFORNIA 2/							
(\$118)	(\$236)	(\$367)	S,M/S HH M/J	1.0% 1.0% 1.0%	\$ 8,809 17,629 17,617	12.3% 12.3% 12.3%	\$590,742 803,410 1,181,484
COLORADO 1/							
\$0 3/	\$0 3/	\$0 3/	4.63% of federal taxable income with certain modifications.				
CONNECTICUT							
\$15,000	\$24,000	\$0 4/	S,M/S HH M/J	3.0% 3.0% 3.0%	\$ 10,000 16,000 20,000	6.99% 6.99% 6.99%	\$ 500,000 800,000 1,000,000
DELAWARE 1/							
(\$110)	(\$220)	(\$110)	S, M/S, M/J	0.0%	\$ 2,000	6.60%	\$ 60,000
DISTRICT OF COLUMBIA							
\$0 3/	\$0 3/	\$0 3/	S,M/S, M/J, HH	4.00%	\$ 10,000	8.95%	\$1,000,000
GEORGIA							
\$2,700	\$7,400	\$3,000	M/S S HH, M/J	1.0% 1.0% 1.0%	\$ 500 750 1,000	5.75% 5.75% 5.75%	\$ 5,000 7,000 10,000
HAWAII							
\$1,144	\$2,288	\$1,144	M/S,S HH M/J, SS	1.40% 1.40% 1.40%	\$ 2,400 3,600 4,800	11.0% 11.0% 11.0%	\$200,000 300,000 400,000

^{1/} Does not include various local income taxes. Alabama's personal exemption is \$2,500 for single taxpayers with an AGI less than \$20,500, and \$300 for those with an AGI greater than \$100,000. Alabama's personal exemption for a dependent is \$1,000 for taxpayers with incomes up to \$20,000, \$500 for incomes between \$20,001 to \$100,000, and for taxpayers with incomes over \$100,001 the dependent exemption is \$300.

^{2/} California imposes a Mental Health Services Tax at a rate of 1 percent on income over \$1,000,000.

^{3/} These states conform personal exemptions to the federal Internal Revenue Code, and the passage of the Tax Cut and Jobs Act of 2017 reduced federal personal exemptions to \$0.

^{4/} Connecticut's personal exemption incorporates a standard deduction.

Table 14 (Continued)
Individual Income Tax
43 States and the District of Columbia

PERSONAL EXEMPTIONS (CREDITS)			RATES AND TAXABLE INCOME BRACKETS				
SINGLE	MARRIED FILING JOINT	DEPENDENTS	TYPE OF RETURN	MINIMUM		MAXIMUM	
				RATE	UP TO	RATE	OVER
IDAHO							
\$0 3/	\$0 3/	\$0 3/	S,M/S HH,M/J	1.125% 1.125%	\$ 1,504 3,008	6.925% 6.925%	\$ 11,279 22,558
ILLINOIS							
\$2,225	\$4,450	\$2,225	4.95% of taxable net income. 1/				
INDIANA 2/ 3/							
\$1,000	\$2,000	\$1,000	3.23% of federal adjusted gross income.				
IOWA							
(\$40)	(\$80)	(\$40)	S, M/J	0.33%	\$1,598	8.53%	\$ 71,910
KANSAS 4/							
\$2,250	\$4,500	\$2,250	S, M/S M/J	3.1% 3.1%	\$ 15,000 30,000	5.7% 5.7%	\$ 30,000 60,000
KENTUCKY 1/							
\$0	\$0	\$0	5.0% of federal adjusted gross income.				
LOUISIANA							
\$4,500	\$9,000	\$1,000	S, M/S, HH M/J	2.0% 2.0%	\$ 12,500 25,000	6.0% 6.0%	\$ 50,000 \$100,000
MAINE							
\$4,200	\$8,400	\$4,2050	S, M/S HH M/J	5.80% 5.80% 5.80%	\$ 21,450 32,150 42,900	7.15% 7.15% 7.15%	\$ 50,750 76,150 101,550
MARYLAND 2/							
\$3,200	\$6,400	\$3,200	S,M/S M/J, HH	2.0% 2.0%	\$ 1,000 1,000	5.75% 5.75%	\$250,000 300,000
MASSACHUSETTS							
\$4,400	\$8,800	\$1,000	5.05% of taxable income.				
MICHIGAN 2/							
\$4,050	\$8,100	\$4,050	4.25% of taxable income.				

1/ Does not include filing fee of \$10.

2/ Does not include various local income taxes.

3/ Indiana allows an additional \$1,500 exemption for dependent children meeting certain conditions.

4/ Individuals with a taxable income of \$2,500 or less, and married individuals filing joint returns with a taxable income of less than \$5,000 will have a tax liability of zero.

Table 14 (Continued)
Individual Income Tax
43 States and the District of Columbia

PERSONAL EXEMPTIONS (CREDITS)			RATES AND TAXABLE INCOME BRACKETS				
SINGLE	MARRIED FILING JOINT	DEPENDENTS	TYPE OF RETURN	MINIMUM		MAXIMUM	
				RATE	UP TO	RATE	OVER
MINNESOTA							
\$4,150	\$8,300	\$4,150	S	5.35%	\$ 26,520	9.85%	\$ 163,890
			M/S	5.35%	19,385	9.85%	134,505
			HH	5.35%	32,650	9.85%	214,980
			M/J	5.35%	38,770	9.85%	269,010
MISSISSIPPI							
\$6,000	\$12,000	\$1,500	S, M/J, HH	3.0% 1/	\$5,000	5.0%	\$ 10,000
MISSOURI 2/							
\$0 3/	\$0 3/	\$0 3/	S, M/J, HH, M/S	1.5%	\$ 1,053	5.4%	\$ 8,424
MONTANA							
\$2,440	\$4,880	\$2,440	S, M/J, HH	1.0%	\$3,000	6.9%	\$ 17,900
NEBRASKA							
(\$137)	(\$274)	(\$137)	M/S,S	2.46%	\$3,230	6.84%	\$ 31,161
			HH	2.46%	6,020	6.84%	46,201
			M/J	2.46%	6,440	6.84%	62,321
NEW HAMPSHIRE							
\$2,400	\$4,800 4/	---	5.0% on dividend and interest income over personal exemption.				
NEW JERSEY							
\$1,000	\$2,000	\$1,500	S,M/S, HH,M/J	1.4%	\$ 20,000	10.75%	\$ 5,000,000
NEW MEXICO							
\$0 3/	\$0 3/	\$0 3/	S,M/S	1.7%	\$5,500	4.9%	\$ 16,000
			HH, M/J	1.7%	8,000	4.9%	24,000
NEW YORK 2/							
---	---	\$1,000	M/S,S	4.0%	\$ 8,500	8.82%	\$1,077,550
			HH 4/	4.0%	12,800	8.82%	1,616,451
			M/J	4.0%	17,150	8.82%	2,155,350
NORTH CAROLINA							
---	---	---	5.25%				
NORTH DAKOTA							
\$0 3/	\$0 3/	\$0 3/	S	1.10%	\$ 39,450	2.90%	\$ 433,200
			HH 4/	1.10%	52,850	2.90%	433,200
			M/J	1.10%	65,900	2.90%	433,200

1/ First \$1,000 exempted in 2018, with \$1,000 being added each year so that by 2022 first \$5,000 of income is not taxed.

2/ Does not include various local income taxes.

3/ These states conform personal exemptions to the federal Internal Revenue Code, and the passage of the Tax Cut and Jobs Act of 2017 reduced federal personal exemptions to \$0.

4/ In addition, a \$1,200 exemption is available for residents who are 65 years of age or older; a \$1,200 exemption is available for residents who are blind regardless of their age; and a \$1,200 exemption is available to disabled individuals who are unable to work.

Table 14 (Continued)
Individual Income Tax
43 States and the District of Columbia

PERSONAL EXEMPTIONS (CREDITS)			RATES AND TAXABLE INCOME BRACKETS				
SINGLE	MARRIED FILING JOINT	DEPENDENTS	TYPE OF RETURN	MINIMUM		MAXIMUM	
				RATE	UP TO	RATE	OVER
OHIO 1/							
\$2,350	\$4,700	\$2,350	S, M/J, M/S	0.0%	\$ 10,850	4.997%	\$217,400
OKLAHOMA							
\$1,000	\$2,000	\$1,000	S,M/S HH,M/J	0.5% 0.5%	\$1,000 2,000	5.00% 5.00%	\$7,200 12,200
OREGON 1/							
(\$206)	(\$412	(\$206)	S,M/S M/J	5.0% 5.0%	\$3,350 6,900	9.9% 9.9%	\$125,000 250,000
PENNSYLVANIA 1/							
---	---	---	3.07% of specified classes of taxable income is effective rate.				
RHODE ISLAND							
\$4,100	\$8,200	\$4,100	S, HH, M/S, M/J	3.75%	\$ 64,050	5.99%	\$ 145,600
SOUTH CAROLINA							
\$0 3/	\$0 3/	\$0 3/	S,M/S,M/J	0.0%	\$ 3,030	7.0%	\$ 15,160
TENNESSEE							
\$1,250	\$2,500	---	2.0% on interest and dividend income.				
UTAH /2							
			4.95% flat rate.				
VERMONT							
\$4,150	\$8,300	\$4,150	S M/S HH M/J	3.35% 3.35% 3.35% 3.35%	\$38,700 32,300 51,580 64,600	8.75% 8.75% 8.75% 8.75%	\$ 195,450 118,975 216,700 237,950
VIRGINIA							
\$930	\$1,860	\$930	S,M/J	2.0%	\$ 3,000	5.75%	\$ 17,000
WEST VIRGINIA 1/							
\$2,000	\$4,000	\$2,000	S,M/J	3.0%	\$ 10,000	6.5%	\$ 60,000
WISCONSIN							
\$700	\$1,400	\$700	S,HH M/J M/S	4.0% 4.0% 4.0%	\$11,760 15,680 7,840	7.65%	\$ 258,950 345,270 172,630

Source: Survey of State Revenue Department Officials; State Department of Revenue web sites; Federation of Tax Administrators, "State Individual Income Tax Rates as of July 1, 2019;" and Tax Foundation, "State Individual Income Tax Rates and Brackets for 2019."

^{1/} Does not include various local income taxes.

^{2/} Utah provides a tax credit equal to 6% of the federal personal exemption amounts (and applicable standard deduction).

^{3/} These states conform personal exemptions to the federal Internal Revenue Code, and the passage of the Tax Cut and Jobs Act of 2017 reduced federal personal exemptions to \$0.

Table 15: Characteristics of State Individual Income Taxes

JURISDICTION	FEDERAL INCOME TAX DEDUCTIBLE	NO INCOME TAX	WITH- HOLDING	FEDERAL DEFINITION OF INCOME FOR STATE TAX BASE	STATE DEFINITION OF INCOME FOR STATE TAX BASE
ALABAMA	AL		AL		AL
ALASKA		AK			
ARIZONA			AZ	AZ	
ARKANSAS			AR		AR
CALIFORNIA			CA	CA	
COLORADO			CO	CO*	
CONNECTICUT			CT	CT	
DELAWARE			DE	DE	
DISTRICT OF COLUMBIA			DC	DC	
FLORIDA		FL			
GEORGIA			GA	GA	
HAWAII			HI	HI	
IDAHO			ID	ID*	
ILLINOIS			IL	IL	
INDIANA			IN	IN	
IOWA	IA		IA	IA	
KANSAS			KS	KS	
KENTUCKY			KY	KY	
LOUISIANA	LA		LA	LA	
MAINE			ME	ME	
MARYLAND			MD	MD	
MASSACHUSETTS			MA	MA	
MICHIGAN			MI	MI	
MINNESOTA			MN	MN*	
MISSISSIPPI			MS		MS
MISSOURI 1/	MO		MO	MO	

Table 15 (Continued)
Characteristics of State Individual Income Taxes

JURISDICTION	FEDERAL INCOME TAX DEDUCTIBLE	NO INCOME TAX	WITH- HOLDING	FEDERAL DEFINITION OF INCOME FOR STATE TAX BASE	STATE DEFINITION OF INCOME FOR STATE TAX BASE
MONTANA 1/	MT		MT	MT	
NEBRASKA			NE	NE	
NEVADA		NV			
NEW HAMPSHIRE		NH 2/			
NEW JERSEY			NJ		NJ
NEW MEXICO			NM	NM	
NEW YORK			NY	NY	
NORTH CAROLINA			NC	NC	
NORTH DAKOTA			ND	ND*	
OHIO			OH	OH	
OKLAHOMA			OK	OK	
OREGON 3/	OR		OR	OR*	
PENNSYLVANIA			PA		PA
RHODE ISLAND			RI	RI	
SOUTH CAROLINA			SC	SC*	
SOUTH DAKOTA		SD			
TENNESSEE		TN 2/			
TEXAS		TX			
UTAH			UT	UT	
VERMONT			VT	VT	
VIRGINIA			VA	VA	
WASHINGTON		WA			
WEST VIRGINIA			WV	WV	
WISCONSIN			WI	WI	
WYOMING		WY			

Source: Federation of Tax Administrators, "State Personal Income Taxes: Federal Starting Points;" January 1, 2019 and "State Individual Income Taxes;" July 1, 2019; Survey of State Revenue Department Officials; "2019 State Tax Handbook." Wolters Kluwer/CCH. 2018.

* 'Federal taxable income' is the definition of income for state base (rather than Federal Adjusted Gross Income).

1/ Federal taxes used as a deduction are limited to \$5,000 for individuals and \$10,000 for joint returns in MO and MT.

2/ Tax only on interest and dividends.

3/ Federal deductibility is limited to \$6,350, and begins to phase out at a FAGI of \$125,000 for Single or Married Filing Separate or \$250,000 for Head of Household or Married Filing Joint.

**Table 16: State Corporation Income Tax Rates
(Maximum Rates)**

DISTRICT OF COLUMBIA: 8.25%

LOWER THAN THE DISTRICT 33 STATES			
North Carolina	2.50%	Alabama	6.50%
North Dakota 1/	4.31%	Arkansas	6.50%
Colorado	4.63%	New York	6.50%
Arizona	4.90%	Tennessee	6.50%
Utah	4.95%	West Virginia	6.50%
Kentucky	5.00%	Montana 2/	6.75%
Mississippi	5.00%	Idaho	6.93%
South Carolina	5.00%	Kansas 3/	7.00%
Florida	5.50%	Rhode Island 4/	7.00%
Georgia	5.75%	Connecticut	7.50%
Indiana	5.75%	Oregon	7.60%
New Mexico	5.90%	Nebraska	7.81%
Michigan	6.00%	Wisconsin	7.90%
Oklahoma	6.00%	Louisiana	8.00%
Virginia	6.00%	Massachusetts	8.00%
Missouri	6.25%	New Hampshire 5/	7.70%
Hawaii	6.40%		
SAME AS THE DISTRICT 1 STATE			
Maryland	8.25%		
HIGHER THAN THE DISTRICT 10 STATES			
Vermont	8.50%	Alaska	9.40%
Delaware	8.70%	Illinois 6/	9.50%
California	8.84%	Minnesota	9.80%
Maine	8.93%	Pennsylvania	9.99%
New Jersey	9.00%	Iowa 7/	12.00%
NO TAX 6 STATES			
Ohio 8/		Texas 10/	
Nevada		Washington	
South Dakota 9/		Wyoming	

Source: Survey of State Revenue Department Officials; and Federation of Tax Administrators, "Range of State Corporate Income Tax Rates, January 1, 2019."

1/ On income exceeding \$50,000.

2/ Montana's rate is 7% for corporations making a "water's edge" election.

3/ Kansas' rate includes a 3.0% surtax on taxable income in excess of \$50,000.

4/ In RI, a rate of 9.0% applies to financial institutions; not applicable to public service corporations or insurance companies.

5/ Rate is applied to income over \$100,000. Does not include a Business Enterprise Tax of 0.675%.

6/ Illinois' rate includes 2.5% Personal Property Replacement Tax.

7/ 50% federal deductibility.

8/ Ohio's Commercial Activity Tax (CAT) is imposed on the privilege of doing business in Ohio, measured by gross receipts.

9/ There is a Bank Franchise Tax for Commercial Lenders in South Dakota.

10/ There is a Franchise Tax on Entities with total revenues over \$1.13 million.

**Table 17: State Gross Premiums Tax Rates on Foreign Life Insurers
(Maximum Rates)**

DISTRICT OF COLUMBIA: 1.7%

LOWER THAN THE DISTRICT 13 STATES			
Illinois	0.50%	New Hampshire	1.25%
New York ^{1/}	0.70%	Indiana	1.30%
South Carolina	0.75%	Ohio	1.40%
Wyoming	0.75%	Idaho	1.50%
Iowa	1.00%	Kentucky	1.50%
Nebraska	1.00%	Connecticut	1.50%
Michigan	1.25%		
HIGHER THAN THE DISTRICT 37 STATES			
Florida	1.75%	Wisconsin	2.00%
Tennessee	1.75%	Georgia	2.25%
Texas	1.75%	Louisiana	2.25%
Arizona	1.80%	Oklahoma	2.25%
North Carolina	1.90%	Utah	2.25%
Colorado	2.00%	Virginia	2.25%
Delaware	2.00%	Alabama	2.30%
Kansas	2.00%	California	2.35%
Maine	2.00%	Arkansas	2.50%
Maryland	2.00%	South Dakota	2.50%
Massachusetts	2.00%	Alaska	2.70%
Minnesota	2.00%	Hawaii	2.75%
Missouri	2.00%	Montana	2.75%
New Jersey	2.00%	Mississippi	3.00%
North Dakota	2.00%	New Mexico	3.00%
Oregon	2.00%	West Virginia	3.00%
Pennsylvania	2.00%	Nevada	3.50%
Rhode Island	2.00%		
Vermont	2.00%		
Washington	2.00%		

Source: Survey of State Revenue Department Officials; Wolters Kluwer/CCH 2019 State Tax Handbook; and Gentry, John D., "Taxation of Insurance Companies." Informational Paper 10. Wisconsin Legislative Fiscal Bureau. January 2019.

^{1/} Life insurers pay a franchise tax which is equal to the sum of the premiums tax and a tax based on the highest of four bases, plus a tax on subsidiary capital. The sum of the two components cannot be less than 1.5% or greater than 2% of premiums.

Table 18: State General Sales and Use Tax Rates
(Maximum Local Rates in Parentheses)

DISTRICT OF COLUMBIA: 6.0% ^{1/}

LOWER THAN THE DISTRICT 20 STATES			
Colorado (8.3%)	2.900%	North Carolina (2.75%)	4.750%
Alabama (7.0%)	4.000%	North Dakota (3.5%)	5.000%
Georgia (5.0%)	4.000%	Wisconsin (1.75%)	5.000%
Hawaii (0.50%)	4.000%	New Mexico (4.125%)	5.125%
New York (4.875%)	4.000%	Virginia (0.70%) ^{2/}	5.300%
Wyoming (2.0%)	4.000%	Maine	5.500%
Missouri (5.454%)	4.225%	Nebraska (2.0%)	5.500%
Louisiana (7.0%)	4.450%	Arizona (5.6%)	5.600%
Oklahoma (6.5%)	4.500%	Ohio (2.25)	5.750%
South Dakota (4.5%)	4.500%	Utah (2.75%) ^{2/}	5.950%
SAME AS THE DISTRICT 10 STATES			
Florida (2.5%)	6.000%	Michigan	6.000%
Idaho (3.0%)	6.000%	Pennsylvania (2.0%)	6.000%
Iowa (1.0%)	6.000%	South Carolina (3.0%)	6.000%
Kentucky	6.000%	Vermont (1.0%)	6.000%
Maryland	6.000%	West Virginia (1.0%)	6.000%
HIGHER THAN THE DISTRICT 15 STATES			
Illinois (4.75%)	6.250%	Indiana	7.000%
Massachusetts	6.250%	Mississippi (1.0%)	7.000%
Texas (2.0%)	6.250%	Rhode Island	7.000%
Connecticut	6.350%	Tennessee (2.75%)	7.000%
Arkansas (5.125%)	6.500%	California (2.50%) ^{2/}	7.250%
Kansas (4.0%)	6.500%		
Washington (3.90%)	6.500%		
New Jersey (3.313%)	6.625%		
Nevada (1.415%)	6.850%		
Minnesota (2.0%)	6.875%		
NO TAX 5 STATES			
Alaska (7.5%)		New Hampshire	
Delaware		Oregon	
Montana ^{3/}			

Source: Survey of State Revenue Department Officials; State Revenue Department Web Sites; all maximum local rates from Tax Foundation, "State and Local Sales Tax Rates as of January 1, 2019."

^{1/} DC's sales tax rate increased to 6.0% on October 1, 2018.

^{2/} State rates in CA, UT, and VA include a mandatory local add-on sales tax of 1.25%, 1.25%, and 1%, respectively.

^{3/} Does not include sales taxes in some local resort areas.

**Table 19: State Beer Tax Rates
(Per Gallon, Alcoholic Content Of 4.5%)**

DISTRICT OF COLUMBIA: \$0.09

LOWER THAN THE DISTRICT 7 STATES			
Wyoming	\$.02	Kentucky	\$.08
Missouri	.06	Pennsylvania	.08
Wisconsin	.06	Oregon	.08
Colorado	.08		
SAME AS THE DISTRICT 1 STATE			
Maryland	\$.09		
HIGHER THAN THE DISTRICT 42 STATES			
Massachusetts	\$.11	Virginia	\$.2565
Rhode Island	.11	Washington 4/	.261
Indiana	.115	Delaware	.263
New Jersey	.12	Vermont	.265
Montana 1/	.14	South Dakota	.27
New York	.14	New Hampshire	.30
Minnesota 2/	.15	Nebraska	.31
Arizona	.16	Georgia	.32
Nevada	.16	Maine	.35
North Dakota 3/	.16	Louisiana	.40
Kansas	.18	Oklahoma	.40
Ohio	.18	New Mexico 5/	.41
West Virginia	.18	Utah 6/	.4129
Iowa	.19	Mississippi	.4268
Texas	.1935	Idaho	.45
California	.20	Florida	.48
Michigan	.20	Alabama	.53
Illinois	.231	North Carolina	.6171
Arkansas	.234	South Carolina	.77
Connecticut	.24	Hawaii 7/	.93
		Alaska	1.07
		Tennessee	1.29

Source: Survey of State Revenue Department Officials; and Federation of Tax Administrators, "State Tax Rates on Beer. (January 1, 2019)."

1/ Montana taxes beer at different rates per size of brewer (< 5k barrels produced - \$.04 per gallon; 5k to 10k - \$.07 per gallon; 10k to 20k - \$.11 per gallon; and > 20k - \$.14 per gallon).

2/ Credit allowed to small brewers.

3/ \$.08 per gallon for bulk beer.

4/ Credit allowed to small brewers.

5/ Rate is \$.08 per gallon for microbrewer.

6/ In Utah, "beer" is not more than 4% of alcohol by volume. This is the rate shown. For "heavy beer" which is >4% in Utah, there is a higher tax rate above the landed case cost and is sold at State Liquor Stores.

7/ Rate is \$.54 per gallon for draft beer.

**Table 20: State Light Wine Tax Rates
(Per Gallon, Alcoholic Content of 12%)**

DISTRICT OF COLUMBIA: \$0.30

MONOPOLY STATES 3 STATES			
Pennsylvania 1/		Utah 2/ Wyoming	
LOWER THAN THE DISTRICT 4 STATES			
California Texas	\$.20 .204	Wisconsin Colorado	\$.25 .28
SAME AS THE DISTRICT 4 STATES			
Kansas Minnesota	\$.30 .30	New Hampshire New York	\$.30 .30
HIGHER THAN THE DISTRICT 39 STATES			
Ohio	\$.32	New Jersey	\$.875
Mississippi	.35	South Carolina	.90
Maryland	.40	South Dakota	.93
Missouri	.42	Nebraska	.95
Idaho	.45	Delaware	1.63
Indiana	.47	North Carolina	1.00
Kentucky	.50	West Virginia	1.00
North Dakota	.50	Montana 2/	1.02
Michigan	.51	Tennessee	1.21
Massachusetts	.55	Hawaii	1.38
Vermont	.55	Illinois	1.39
Maine	.60	Rhode Island	1.40
Oregon	.67	Georgia	1.51
Nevada	.70	Virginia	1.51
Connecticut	.72	Alabama	1.70
Oklahoma	.72	New Mexico	1.70
Arkansas	.75	Iowa	1.75
Louisiana	.76	Florida	2.25
Arizona	.84	Alaska	2.50
Washington	.87		

Source: Survey of State Revenue Department Officials; Federation of Tax Administrators, "State Tax Rates on Wine, (January 1, 2019)."

1/ 18% wine & liquor tax on top of a 30% markup.

2/ \$1.06 per gallon if sold to an agency owned liquor store.

**Table 21: State Distilled Spirits Tax Rates
(Per Gallon)**

DISTRICT OF COLUMBIA: \$1.50

CONTROL BOARD STATES 17 STATES			
Alabama Idaho Iowa 1/ Maine Michigan Mississippi Montana 2/ New Hampshire North Carolina 3/		Ohio Oregon Pennsylvania 4/ Utah 5/ Vermont Virginia 6/ West Virginia Wyoming	
SAME AS THE DISTRICT 1 STATE			
Maryland	\$ 1.50		
HIGHER THAN THE DISTRICT 32 STATES			
Georgia	\$1.89	Nebraska	\$3.75
Kentucky	1.92	South Dakota	3.93
Missouri	2.00	Massachusetts	4.05
Colorado	2.28	Tennessee	4.40
Texas	2.40	Delaware 9/	4.50
Arkansas 7/	2.50	Minnesota	5.03
Kansas	2.50	Connecticut	5.40
North Dakota	2.50	Rhode Island	5.40
Indiana	2.68	New Jersey	5.50
South Carolina 8/	2.72	Oklahoma	5.56
Arizona	3.00	Hawaii	5.98
Louisiana	3.03	New Mexico	6.06
Wisconsin	3.25	New York	6.44
California	3.30	Florida	6.50
Nevada	3.60	Illinois	8.55
		Alaska	12.80
		Washington	14.27

Source: Survey of State Revenue Department Officials; Federation of Tax Administrators, "State Tax Rates on Distilled Spirits, (January 1, 2019)."

1/ 50% markup.

2/ Excise Tax (16%) and License Tax (10%) on top of a 40% markup. Excise tax varies by size of producer.

3/ 30% Excise Tax. State sales tax additional.

4/ 18% on the actual price paid by the consumer including mark-up, handling charge, and federal tax.

5/ Spirituous liquor is subject to a markup of 86% above the landed case cost.

6/ Virginia levies a tax of 20% of the price charged on alcoholic beverages.

7/ Containing more than 21% of alcohol by weight.

8/ Additionally, there is a \$1.79 case tax per gallon, and a \$0.41 surtax, totaling \$4.92 per gallon.

9/ Distilled spirits with 25% or less ethyl alcohol at \$2.50 per gallon.

**Table 22: State Cigarette Tax Rates
(Per Pack of 20)**

DISTRICT OF COLUMBIA: \$4.94 ^{1/}

LOWER THAN THE DISTRICT 50 STATES			
Missouri	\$.17	Ohio	1.60
Virginia	.30	New Mexico	1.66
Georgia	.37	Montana	1.70
North Dakota	.44	Utah	1.70
North Carolina	.45	New Hampshire	1.78
Idaho	.57	Nevada	1.80
South Carolina	.57	Illinois ^{2/}	1.98
Kentucky	1.10	Alaska	2.00
Wyoming	.60	Arizona	2.00
Tennessee	.62	Maine	2.00
Nebraska	.64	Maryland	2.00
Alabama	.675	Michigan	2.00
Mississippi	.68	Delaware	2.10
Colorado	.84	Wisconsin	2.52
Indiana	.995	Pennsylvania ^{3/}	2.60
Oklahoma	2.03	New Jersey	2.70
Louisiana	1.08	California	2.87
Arkansas	1.15	Washington	3.025
West Virginia	1.20	Minnesota	3.04
Kansas	1.29	Vermont	3.08
Oregon	\$1.33	Hawaii	3.20
Florida	1.339	Massachusetts	3.51
Iowa	1.36	Rhode Island	4.25
Texas	1.41	Connecticut	4.35
South Dakota	1.53	New York	4.35

Source: Survey of State Revenue Department Officials; Federation of Tax Administrators, "State Excise Tax Rates on Cigarettes, (January 1, 2019)."

^{1/} Includes an in-lieu cigarette sales tax currently at \$0.44. Tax increased from \$2.94/pack of 20 on October 1, 2018.

^{2/} Tax in Illinois increased to \$2.98/pack on July 1, 2019.

^{3/} Additional \$2.00 tax in Philadelphia.

**Table 23: State Gasoline Tax Rates
(Per Gallon)**

DISTRICT OF COLUMBIA: \$0.235

LOWER THAN THE DISTRICT 15 STATES			
Alaska	\$.090	South Carolina	\$.208
Virginia	.168	Louisiana	.209
Missouri	.174	Alabama	.210
Mississippi	.184	Arkansas	.218
New Mexico	.189	Colorado	.221
Arizona	.190	Delaware 1/	.230
Oklahoma	.200	North Dakota	.230
Texas	.200		
HIGHER THAN THE DISTRICT 35 STATES			
Nevada	.238	Oregon	.340
New Hampshire	.238	Florida 2/	.341
Wyoming	.240	Rhode Island	.341
Kansas	.250	New York	.345
Kentucky	.260	Illinois	.351
Tennessee	.264	Hawaii	.354
Massachusetts	.270	Maryland	.355
Ohio	.280	West Virginia	.357
Minnesota	.286	Georgia	.358
South Dakota	.300	North Carolina	.365
Nebraska	.305	New Jersey	.415
Utah	.307	Michigan	.421
Iowa	.307	Indiana	.444
Vermont	.314	Connecticut	.446
Maine	.314	Washington	.495
Montana	.323	California	.499
Wisconsin	.329	Pennsylvania	.587
Idaho	.330		

Source: ORA Survey of State Revenue Department officials; Federation of Tax Administrators, "State Motor Fuel Rates, (January 1, 2019)."

Note: Tax rates do not include local taxes (see Table 8). Rates do include inspection or environmental cleanup fees and applicable state sales taxes (also included in Table 8), and therefore this table differs from the same one presented in the prior year's (2017) edition of this report. Rates increased January 1, 2019 for the following states: FL, GA, NC, NE, NV, NY, RI, UT, and WA.

1/ Additional Gross Receipts Tax of 0.9% applies to wholesaler.

2/ Includes a minimum statewide local tax.

**Table 24: State Motor Vehicle Sales and Excise Taxes
Paid at Time of Sale or Titling**

46 States and DC

DISTRICT OF COLUMBIA: 1/ 6% of fair market value - 3,499 pounds or less 7% of fair market value - 3,500 pounds and less than 5,000 pounds 8% of fair market value – 5,000 pounds or more			
Alabama	2.00%	Maryland	6.00%
Colorado	2.90%	Michigan 7/	6.00%
North Carolina 2/	3.00%	Pennsylvania 7/	6.00%
Oklahoma	3.25%	Vermont	6.00%
Hawaii	4.00%	West Virginia 7/	6.00%
New Mexico	4.00%	Illinois 3/	6.25%
New York 3/	4.00%	Massachusetts 3/	6.25%
South Dakota	4.00%	Texas 3/ 7/	6.25%
Wyoming 3/	4.00%	Connecticut 3/	6.35%
Virginia	4.15%	Arkansas 3/, 9/	6.50%
Missouri 3/	4.225%	Kansas	6.50%
Delaware 4/	4.25%	Minnesota	6.50%
Louisiana 3/	4.45%	Washington 3/	6.50%
Utah	4.70%	New Jersey 3/	6.625%
Iowa 5/	5.00%	Georgia 10/	7.00%
North Dakota	5.00%	Indiana 3/	7.00%
South Carolina 6/	5.00%	Mississippi 3/	7.00%
Wisconsin 3/	5.00%	Tennessee 3/	7.00%
Maine 3/ 8/	5.50%	Rhode Island 7/	7.00%
Nebraska	5.50%	California 3/	7.50%
Arizona	5.60%	Nevada 3/	8.10%
Ohio 3/	5.75%		
Florida 3/ 7/	6.00%		
Idaho	6.00%		
Kentucky	6.00%		
NO TAX 4 STATES			
Alaska		New Hampshire	
Montana		Oregon 11/	

Source: Survey of State Revenue Department officials and review of State Web Sites.

1/ Tax does not apply to vehicles previously titled in another jurisdiction. No excise tax on hybrid vehicles.

2/ Tax on sales price less trade-in allowance. The maximum tax is \$250 on non-commercial vehicles.

3/ No excise tax; vehicles charged sales tax at time of purchase.

4/ Called a document fee.

5/ This is a statewide levy, but it is collected by the counties.

6/ Maximum tax is \$500.

7/ Tax on sales price less trade-in allowance.

8/ Rate listed is a sales tax; Maine's excise tax is an annual tax between .4% and 2.4% depending on the age of the vehicle.

9/ Local sales taxes are capped at \$25 per 1% of tax on a single transaction, maximum of \$62.50. Used cars below \$4,000 are exempt.

10/ Title Ad Valorem Tax collected at time of title application.

11/ A 0.5% tax (part vehicle dealer privilege tax and part consumer use tax) applies to vehicles <26,000 lbs. and < 7,500 miles.

Table 25: State Motor Vehicle Annual Registration Fees

Automobile Costing \$27,900, Bought New and Weighing 3,522 Pounds
(4-Door, 6-Passenger, 8-Cylinder)

DISTRICT OF COLUMBIA: \$115.00 ^{1/}

LOWER THAN THE DISTRICT 45 STATES			
Arizona	\$9.50	New Hampshire	\$43.20
Mississippi	15.00	Hawaii	45.00
Nebraska	15.00	Florida	45.60
Georgia	20.00	Kansas	45.75
Kentucky	21.00	California	46.00
Missouri ^{2/}	21.00	Alaska	50.00
Alabama	23.00	Texas	50.75
Arkansas	25.00	West Virginia	51.50
Louisiana ^{4/}	27.90	Oregon	56.00
New York ^{3/}	28.25	New Mexico ^{9/}	62.00
Tennessee	29.00	Washington ^{5/}	63.75
Massachusetts	30.00	Maryland	67.50
Wyoming	30.00	Idaho	69.00
Rhode Island	32.50	Colorado ^{8/}	72.00
Nevada	34.00	South Dakota	72.00
Ohio	34.50	Wisconsin	75.00
Maine	35.00	Vermont	76.00
North Carolina	36.00	New Jersey	84.00
Indiana	36.35	North Dakota ^{7/}	93.00
Pennsylvania	37.00	Oklahoma	96.00
Connecticut	40.00	Illinois	101.00
Delaware	40.00		
South Carolina	40.00		
Virginia	40.75		
HIGHER THAN THE DISTRICT 5 STATES			
Utah ^{6/}	150.00	Iowa ^{11/}	293.00
Michigan ^{8/}	166.00	Minnesota	324.00
Montana ^{10/}	217.00		

Source: Survey of State Revenue Department Officials; Review of State Motor Vehicle Registration Web Sites.

^{1/} \$72 (<3,499 lbs.); \$115 (3,500 - 4,999 lbs.); \$155 (>5,000 lbs.); and \$36 (clean fuel or electric vehicle).

^{2/} Based on vehicle horsepower. \$21 is for a vehicle between 12hp – 23 hp. Does not include \$1 insurance database fee.

^{3/} Biennial fees start at \$26 for a vehicle under 1,650 lbs. and increase by \$1.50 for every 100 lbs. above 1,650. Presented annually here.

^{4/} Based on value of the vehicle. Current rate is 0.1% of vehicle per year.

^{5/} Includes \$11.00 fee earmarked for Emergency Medical Services System.

^{6/} Includes \$1 insurance database fee.

^{7/} Fees range from \$49 to \$274 based on weight and number of years vehicle has been registered.

^{8/} Varies based on age, weight, taxable value, purchase date, and plate type.

^{9/} This fee is for the first registration, 1.25% of base vehicle value, plus \$10.

^{10/} There is an additional \$6 fee for Park access and a \$5 fee for police salaries.

^{11/} Based on fee of 1% of value plus a \$.40 fee per 100 lbs.

**Table 26: State Real Estate Deed Recordation and Transfer Tax Rates
(Per \$500 of Consideration)**

DISTRICT OF COLUMBIA: \$11.00 ^{1/}

LOWER THAN THE DISTRICT 34 STATES			
Colorado	\$.05	South Carolina ^{5/}	\$1.30
Alabama	.50	Tennessee	1.85
Georgia ^{2/}	.50	Arizona ^{6/}	2.00
Hawaii ^{3/}	.50	New York	2.00
Illinois	.50	Maine	2.20
Kansas ^{4/}	.50	Massachusetts	2.28
Kentucky	.50	Rhode Island ^{8/}	2.30
Ohio	.50	Maryland ^{5/ 9/}	2.50
Oklahoma	.75	New Jersey ^{5/ 7/}	2.90
Iowa	.80	Florida	3.50
North Carolina	1.00	Michigan	3.75
West Virginia ^{5/}	1.10	New Hampshire	3.75
Nebraska	1.125	Connecticut ^{5/}	3.75
Virginia	1.25	Pennsylvania	5.00
Nevada ^{5/}	1.30	Vermont ^{10/}	6.25
Wisconsin	1.50	Washington	6.40
Arkansas	1.65		
Minnesota	1.65		
HIGHER THAN THE DISTRICT 1 STATE			
Delaware \$15.00			
NO TAX 15 STATES			
Alaska	Louisiana	New Mexico	Texas
California ^{5/}	Mississippi	North Dakota	Utah
Idaho	Missouri	Oregon	Wyoming
Indiana	Montana	South Dakota ^{5/}	

Source: Survey of State Revenue Department Officials, State web sites; and National Conference of State Legislatures (NCSL), "Real Estate Transfer Taxes."

^{1/} For DC, \$11.00 represents the deed recordation tax + the deed transfer tax per \$500 (\$5.50/\$500 for each) for residential property.

The rate is 1.1% of consideration or fair market value for residential property transfers <\$400,000; 1.45% of consideration of fair market value on the entire amount if transfer is >\$400,000.

^{2/} \$1.00 for the first \$1,000 or fractional part thereof. Thereafter, \$0.10 per each \$100.00.

^{3/} Based on value, from \$0.50 to \$6.25 per \$500 of value, as value rises from less than \$600,000 to over \$10,000,000.

^{4/} This is a mortgage registration fee. Recording rate is per page.

^{5/} Transfer tax; rate for sales to first-time home buyers is \$1.25/\$500 of consideration. Additional local/County recording fees apply.

^{6/} Flat fee per deed or contract.

^{7/} Based on value, from \$2/\$500 to \$6.05/\$500 of consideration.

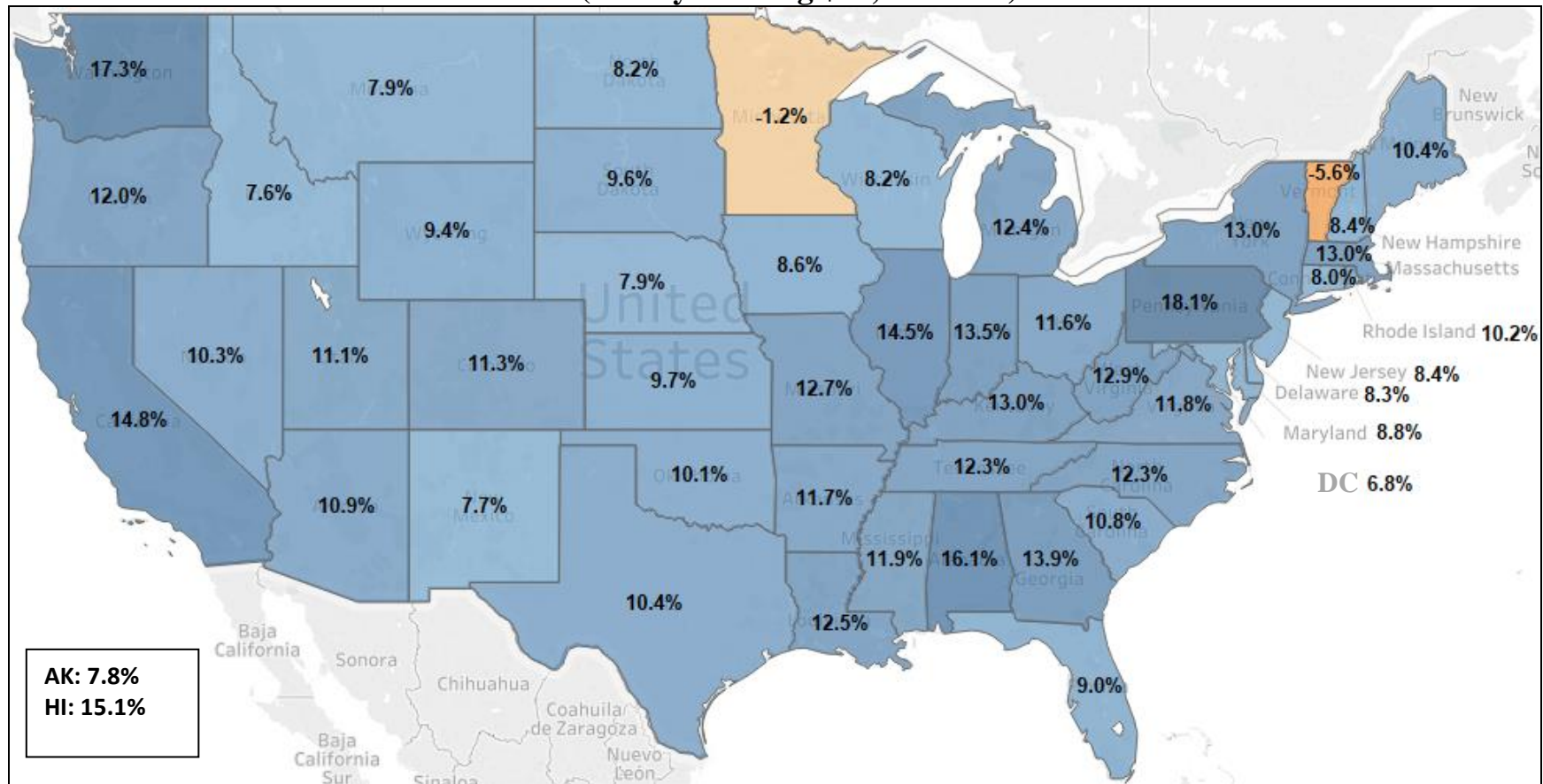
^{8/} Includes portion received by state rate of \$0.90; local government share of \$1.10, and state Housing Resources Commission share of \$0.30.

^{9/} Rate is 0.75% for up to \$800,000 and 1.25% over \$800,000.

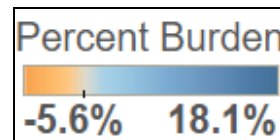
^{10/} Rate is \$2.50/ \$500 on first \$100,000 in value and \$6.25/\$500 on value over \$100,000.

Appendix

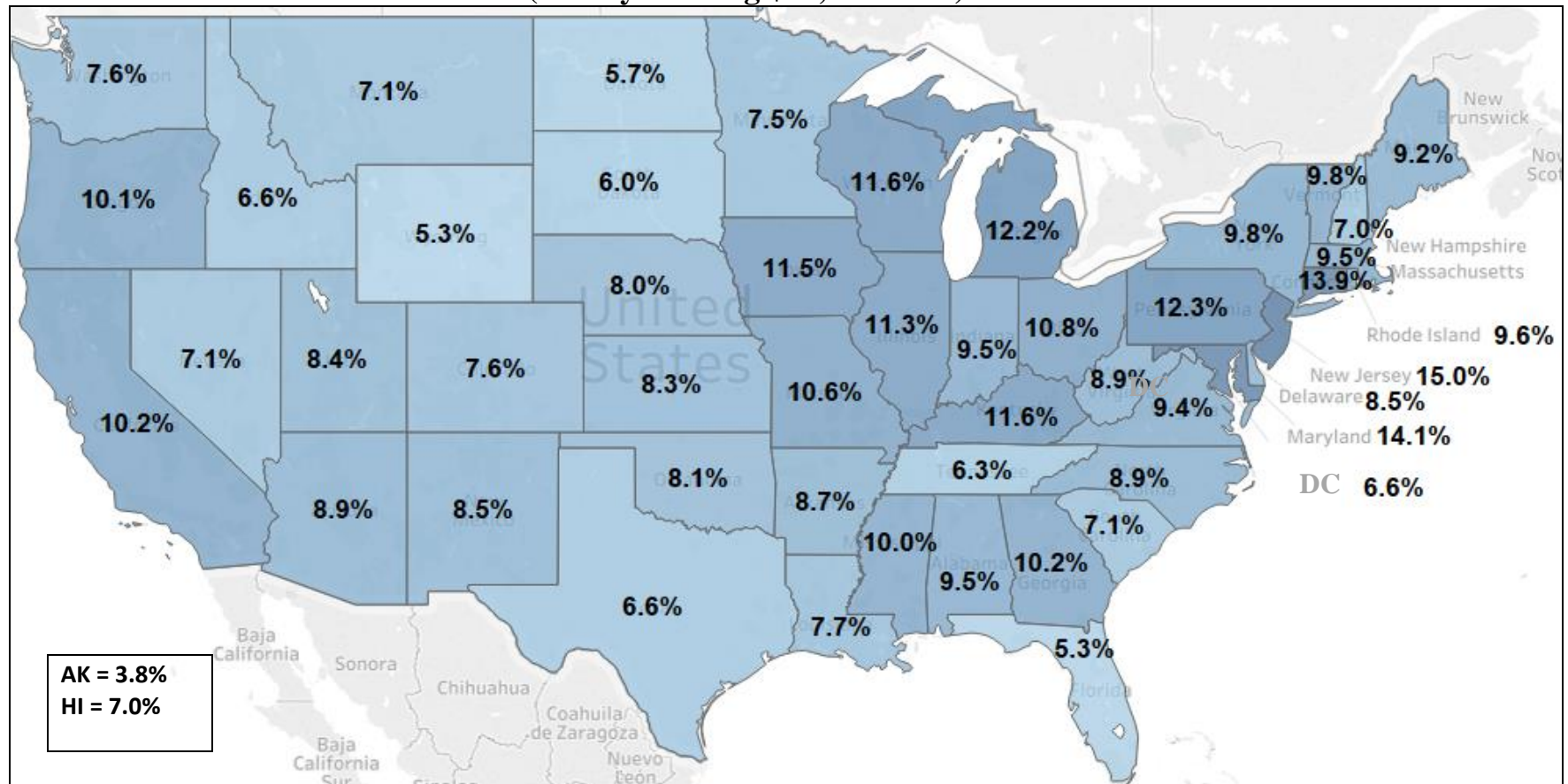
**Map 5: Combined 2018 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$25,000/Year)**



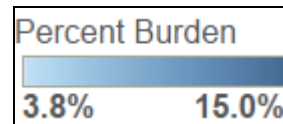
Source: ORA Analysis. The lighter the blue in the map, the lower the tax burden as a percentage of income. Orange indicates a negative burden (a refund).



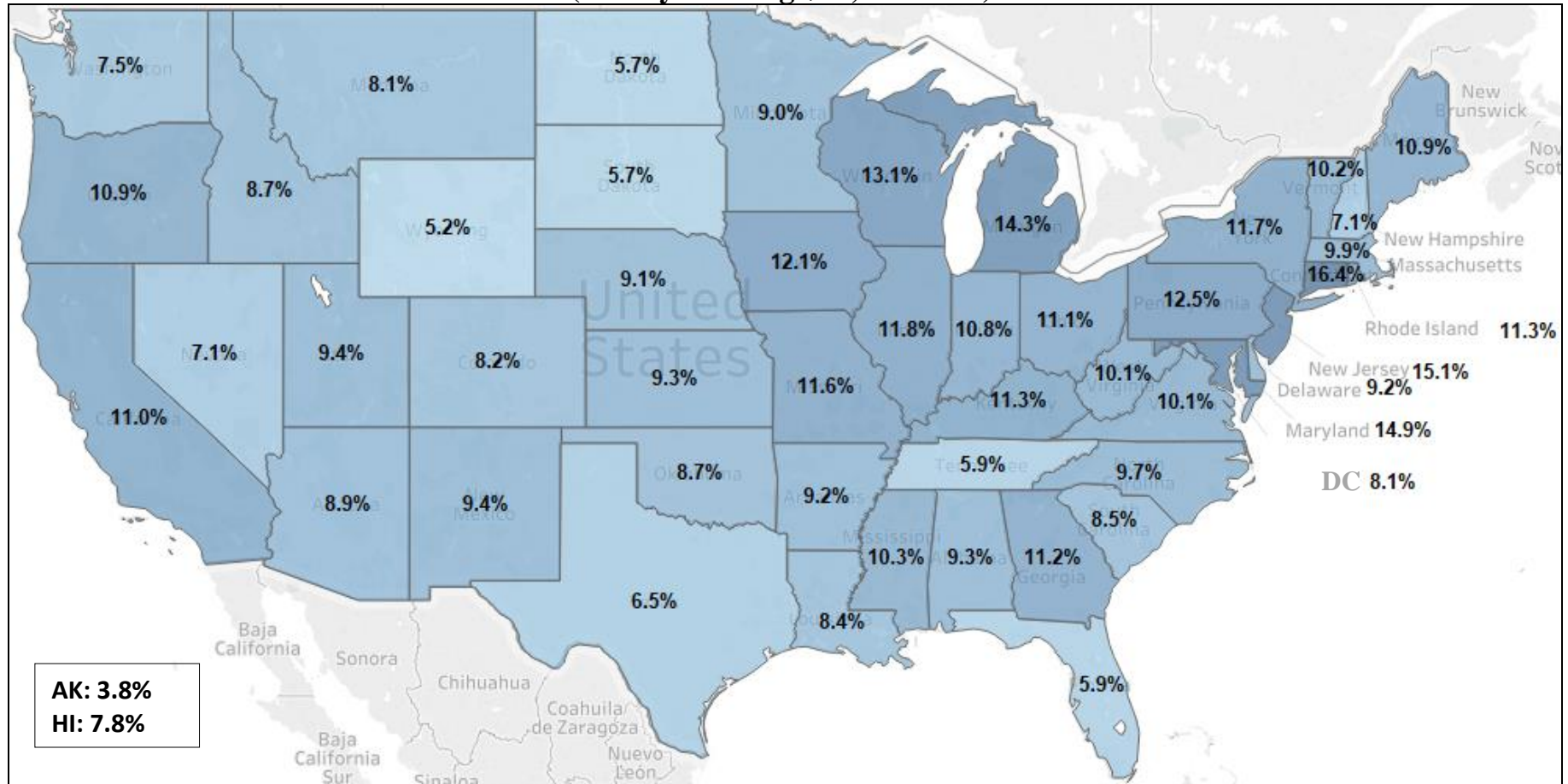
**Map 6: Combined 2018 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$50,000/Year)**



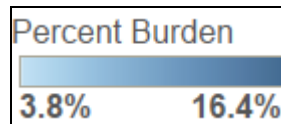
Source: ORA Analysis. The lighter the blue in the map, the lower the tax burden as a percentage of income.



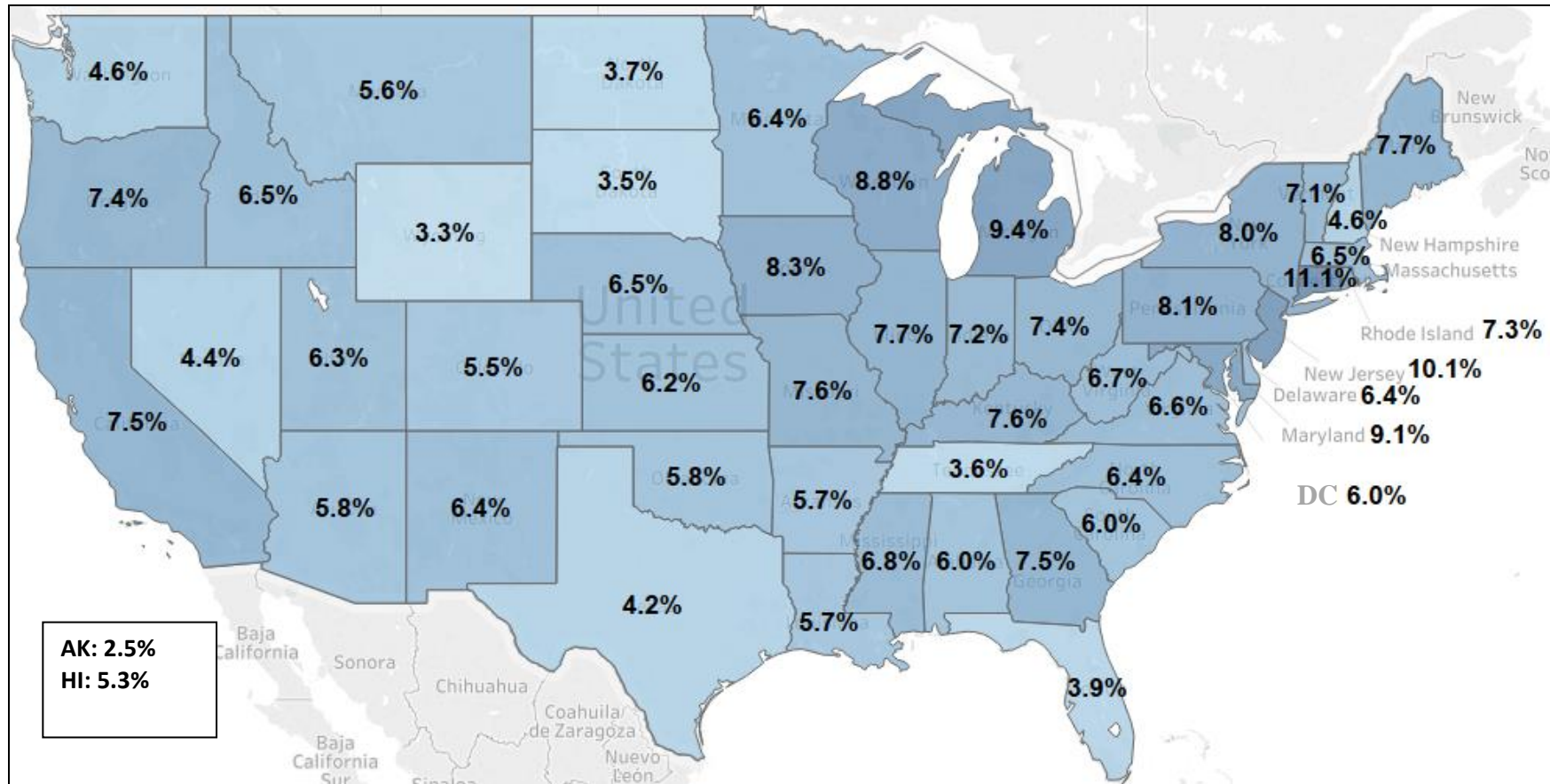
**Map 7: Combined 2018 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$75,000/Year)**



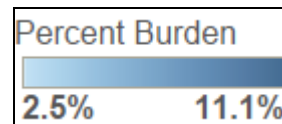
Source: ORA Analysis. The lighter blue shading represents a lower tax burden.



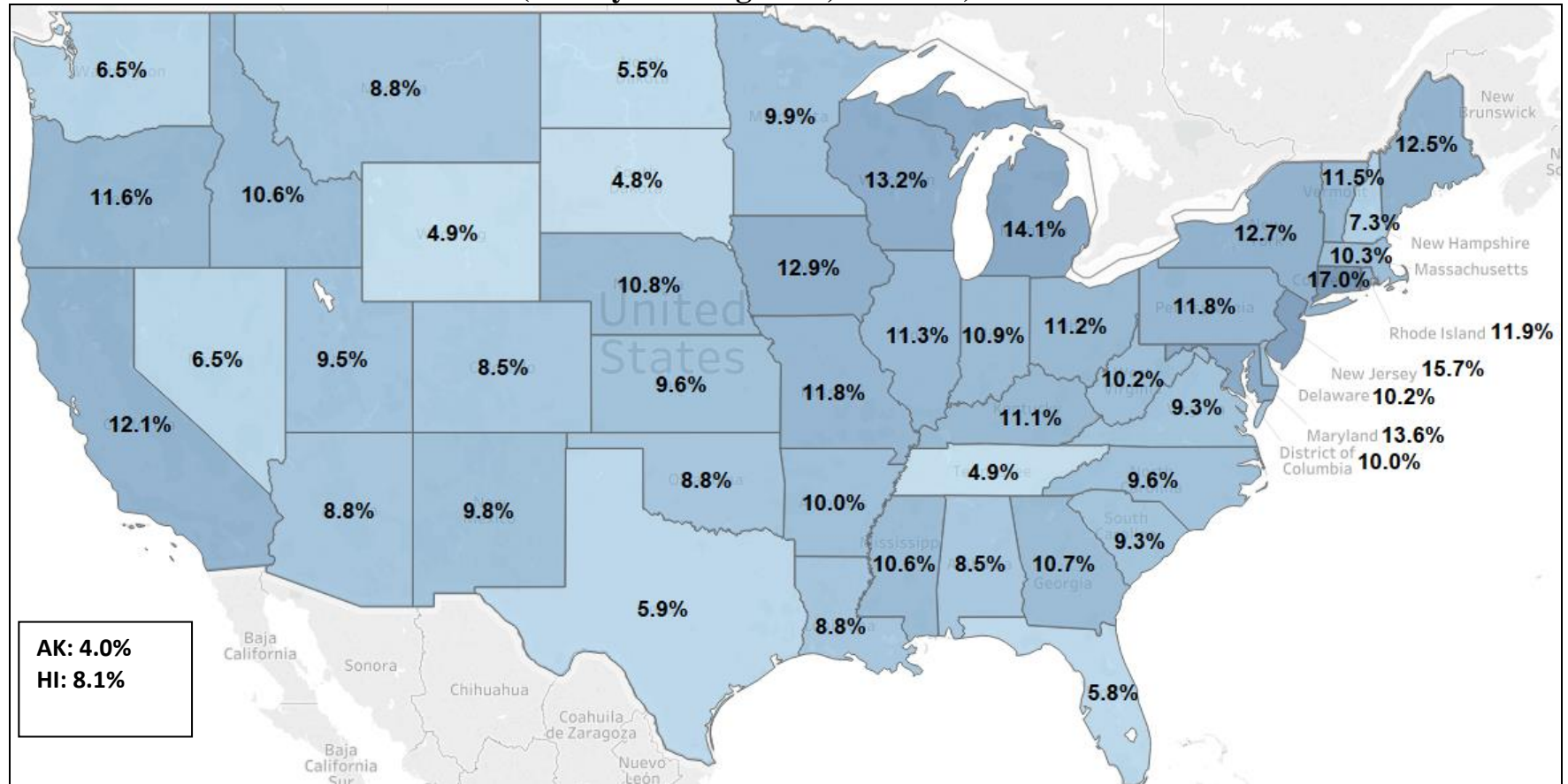
**Map 8: Combined 2018 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$100,000/Year)**



Source: ORA Analysis. The lighter the blue in the map, the lower the tax burden as a percentage of income.



**Map 9: Combined 2018 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$150,000/Year)**



Source: ORA Analysis. The lighter the blue in the map, the lower the tax burden as a percentage of income.

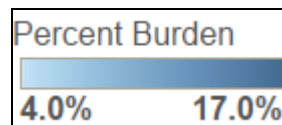


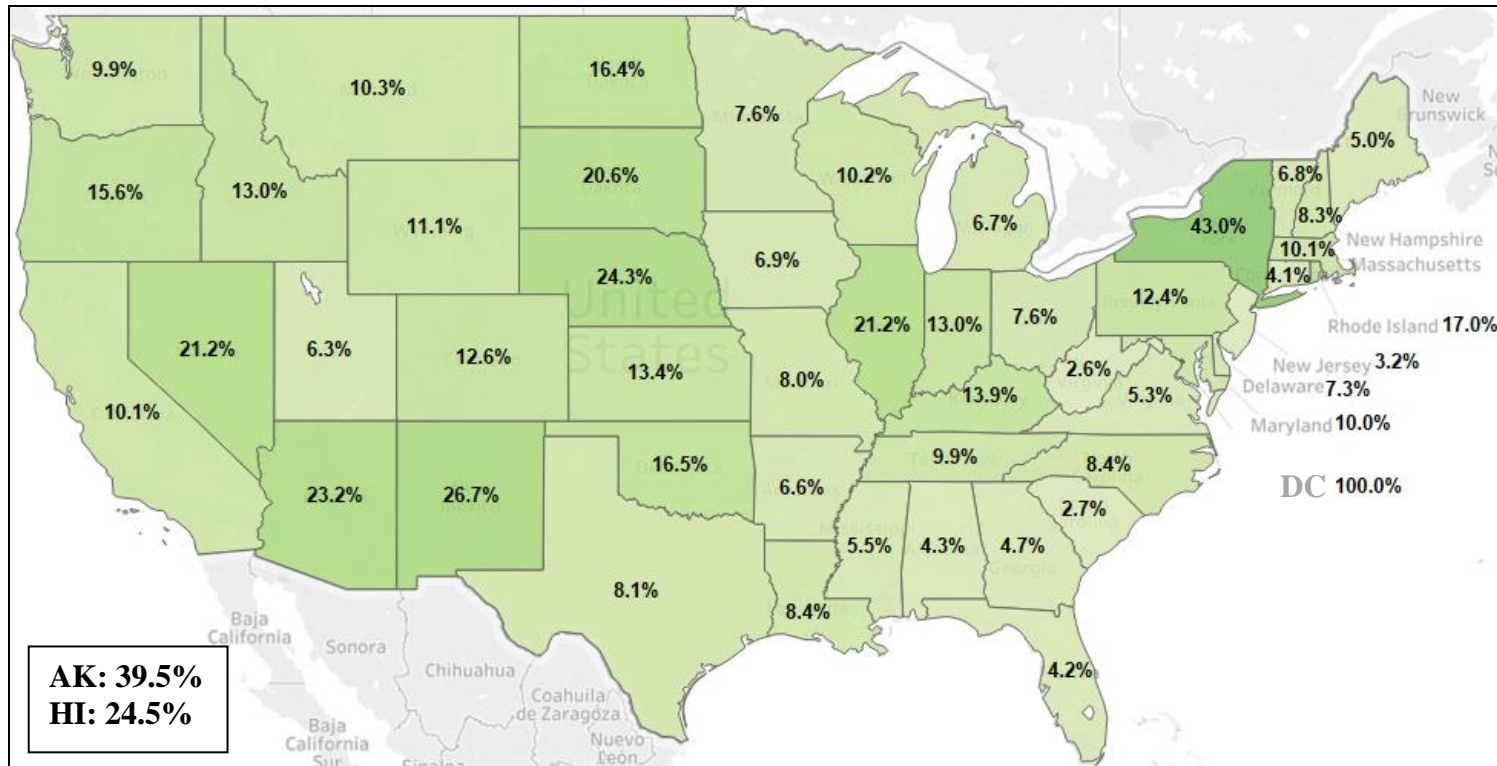
Table 27: Population Changes of the Largest City in Each State

City	State	2010 Population	2017 Population	2018 Population	% Difference 2010 to 2018
Birmingham	Alabama	212,026	210,710	209,880	-1.0%
Anchorage	Alaska	293,405	294,356	291,538	-0.6%
Phoenix	Arizona	1,450,267	1,626,078	1,660,272	14.5%
Little Rock	Arkansas	194,003	198,606	197,881	2.0%
Los Angeles	California	3,796,575	3,999,759	3,990,456	5.1%
Denver	Colorado	603,300	704,621	716,492	18.8%
Bridgeport	Connecticut	144,911	146,579	144,900	0.0%
Wilmington	Delaware	70,787	71,106	70,635	-0.2%
Jacksonville	Florida	823,280	892,062	903,889	9.8%
Atlanta	Georgia	422,753	486,290	498,044	17.8%
Honolulu	Hawaii	338,680	350,395	347,397	2.6%
Boise	Idaho	206,355	226,570	228,790	10.9%
Chicago	Illinois	2,697,650	2,716,450	2,705,994	0.3%
Indianapolis	Indiana	821,632	863,002	867,125	5.5%
Des Moines	Iowa	204,573	217,521	216,853	6.0%
Wichita	Kansas	382,872	390,591	389,255	1.7%
Louisville	Kentucky	597,738	621,349	620,118	3.7%
New Orleans	Louisiana	347,900	393,292	391,006	12.4%
Portland	Maine	66,087	66,882	66,417	0.5%
Baltimore	Maryland	621,180	611,648	602,495	-3.0%
Boston	Massachusetts	620,623	685,094	694,583	11.9%
Detroit	Michigan	711,049	673,104	672,662	-5.4%
Minneapolis	Minnesota	383,083	422,331	425,403	11.0%
Jackson	Mississippi	173,750	166,965	164,422	-5.4%
Kansas City	Missouri	460,732	488,943	491,918	6.8%
Billings	Montana	104,539	109,642	109,550	4.8%
Omaha	Nebraska	432,672	466,893	468,262	8.2%
Las Vegas	Nevada	584,780	641,676	644,644	10.2%
Manchester	New Hampshire	109,611	109,642	112,525	2.7%
Newark	New Jersey	277,347	285,154	282,090	1.7%
Albuquerque	New Mexico	547,092	558,545	560,218	2.4%
New York City	New York	8,192,426	8,622,698	8,398,748	2.5%
Charlotte	North Carolina	738,678	859,035	872,498	18.1%
Fargo	North Dakota	105,928	122,359	124,844	17.9%
Columbus	Ohio	790,694	879,170	892,533	12.9%
Oklahoma City	Oklahoma	582,118	643,648	649,021	11.5%
Portland	Oregon	585,427	647,805	653,115	11.6%
Philadelphia	Pennsylvania	1,528,338	1,580,863	1,584,138	3.7%
Providence	Rhode Island	178,114	180,393	179,335	0.7%
Charleston*	South Carolina	350,209	134,875	136,208	4.4%
Sioux Falls	South Dakota	154,594	176,888	181,883	17.7%
Nashville*	Tennessee	601,222	667,560	669,053	2.5%
Houston	Texas	2,114,761	2,312,717	2,325,502	10.0%
Salt Lake City	Utah	186,564	200,544	200,591	7.5%
Burlington	Vermont	42,417	42,239	42,899	1.1%
Virginia Beach	Virginia	439,038	450,435	450,189	2.5%
Seattle	Washington	610,383	724,745	744,955	22.0%
Charleston	West Virginia	51,400	47,929	47,215	-8.1%
Milwaukee	Wisconsin	595,120	595,351	592,025	-0.5%
Cheyenne	Wyoming	59,901	63,624	63,957	6.8%
WASHINGTON, DC		605,126	693,972	702,455	16.1%

Source: US Census Bureau. 2010 data: Table DP-1. Profile of General Demographic Characteristics: 2010. 2017 Data: Annual Estimates of the Resident Population for Incorporated Places of 50,000 or More, Ranked by July 1, 2017 Population: April 1, 2010 to July 1, 2017 Release Date: May 2018. 2018 Data: Annual Estimates of the Resident Population for Incorporated Places of 50,000 or More, Ranked by July 1, 2018 Population: April 1, 2010 to July 1, 2018 Release Date: May 2019. 2018 Estimates for Burlington, VT: Census Quick Facts; accessed February 27, 2020.

*In the 2017 report, the largest cities in South Carolina and Tennessee changed to Charleston, South Carolina (previously Columbia); and Nashville, Tennessee (previously Memphis).

Map 10: Population of the Largest Cities as a % of the State's Total Population, 2018



Source: ORA Analysis of data from Table 27 and the US Census Bureau, Population Division, Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2018.

Appendix A: Impacts of the Tax Cuts and Jobs Act of 2017

The federal Tax Cuts and Jobs Act (TCJA) became effective on January 1, 2018 and had significant impacts on federal and state income taxes across the country. In addition to lowering federal income tax rates for all incomes above \$19,050, the TCJA modified the federal income tax code in a variety of ways. Several changes had a direct impact on state individual income taxes, depending on how states conformed to the federal tax code and how the various provisions interacted with each other.²²

Two changes passed as part of TCJA had a large impact on the assumed families in the Tax Burden Study. First, the federal standard deduction nearly doubled to \$24,000 for a married couple filing jointly. Generally, this meant that taxpayers taking the standard deduction in states that conformed to the federal standard deduction likely saw a decrease in their state income taxes based on the increased standard deduction amount. However, taxpayers in states that did not conform to the federal standard deduction but still required taxpayers to take the state standard deduction if they took the federal standard deduction could have seen an increase in state income taxes.

Second, the allowance of state and local tax deductions ('SALT' deductions) for those who itemize on the federal Schedule A was capped at \$10,000, possibly raising federal income taxes for taxpayers with high local property taxes, for example, because they could no longer deduct the full amount of state or local taxes paid from their income before calculating taxes. The SALT cap also potentially led to increased state income taxes in states where state itemized deduction allowances are dependent on federal itemized deduction levels.

Other TCJA changes had an impact on some taxpayers' state income taxes depending on how states conformed to the federal tax code, including the elimination of federal personal exemptions. While some states conform to federal personal exemptions amounts, others do not, and in many cases the increased federal standard deduction offset the effect the elimination of personal exemptions may have had.

Because economic assumptions in this report change from year to year (such as house values, personal expenditures on consumption, and vehicle prices), the changes in income tax burdens reported from 2017 to 2018 cannot all be attributable tax policy changes in general, or to TCJA, in particular. However, supplemental research was undertaken in the summer of 2019 to assess how tax burdens would have changed for the hypothetical families in this study if the exact same economic assumptions from 2017 were used for calculating 2018 income taxes with the TCJA changes in effect.²³ There were some overall trends related to how the federal tax changes impacted tax burdens across the states; however, further research into the tax burden changes revealed that in some states, the changes were a result of state tax changes that were

^{22/} The changes discussed here primarily include those that had a major impact on the tax burden calculation for the families and income levels in the study. For example, a change in the limit on the amount of mortgage interest that could be deducted (reduced from \$1 million of home mortgage debt to \$750,000), did not impact any of the MID assumptions in the study.

^{23/} "Impact of TCJA on Families' Tax Burdens." Presentation to the Federation of Tax Administrators Revenue Estimating Conference, September 25, 2019. New Orleans, LA.
https://www.taxadmin.org/assets/docs/Meetings/19rev_est/metcalf.pdf.

implemented independently of federal tax reform.

For example, the research found that for the hypothetical family earning \$25,000 per year, the state and local income tax liability stayed the same in 11 states, it decreased in 27 states, and increased in four states. In the four states where income tax liabilities increased, in only one of those states (North Dakota) was the change attributable to federal tax reform and the state's conformity to the federal code (in this case, for the definition of taxable income). Similarly, in the 11 states where state and local income tax liabilities decreased, in only one state was TCJA the cause of the decrease. In this single case, Missouri's conformity to the federal standard deduction led to a decrease in Missouri taxable income after TCJA, and thus a lower state tax liability. In the other 10 states, state tax reforms passed prior to TCJA (or in the case of Iowa, a policy change to *not* conform to federal law in 2018) meant the state and local income tax burdens were lower (eight states increased earned income tax credit amounts for 2018).

At the highest income level, the family earning \$150,000/year saw an increase in their state and local income taxes in 17 states. However, in only one of those states (Maryland) was the increase in state/local income tax liability *not* offset by the federal income tax decreases in 2018 as compared to 2017. Notably, the federal income tax liability decreased for the family at this income level between 2017 and 2018 in all states except three: Connecticut, Maryland, and New Jersey. This was primarily due to the study's high property tax assumption for these three states being capped by the new SALT deduction limit and thus leading to a higher federal income tax.

At this higher income level, almost all the increases in state tax liability from 2017 to 2018 were attributable to changes resulting from TCJA. For example, in Georgia, Kansas, Nebraska, and Oklahoma, the family's deductions were limited by the new \$10,000 SALT cap and since their total itemized deductions were less than \$24,000 (the new federal standard deduction), it was more advantageous to take the federal standard deduction instead of itemizing as in 2017. This in turn required the family to take the state standard deductions, which are lower than the federal standard deduction and lower than their 2017 itemized deductions, leading to a higher tax liability in 2018.

Notably, in only three states were the tax increases at this level unrelated to TCJA: in Indianapolis, Indiana, there was a local income tax increase; in Chicago, Illinois, there was a state tax rate increase; and in Portland, Oregon, budget triggers led to the elimination of a "kicker credit" in 2018 that had been available in 2017.

At the \$150,000 income level, residents in 17 states saw a state and local income tax decrease in 2018 as compared to 2017. In seven of those states, the state made proactive changes to mitigate the effects of TCJA, such as conforming to a 2015 version of federal tax law (Iowa and California), decoupling from the federal standard deduction and personal exemption (such as in Rhode Island), or increasing the state property tax deduction from \$10,000 to \$15,000 (New Jersey). In several states, state tax changes unrelated to TCJA led to the decrease. For example, state tax rate reductions in Missouri, Arkansas, and Mississippi (passed in 2014, 2015, and 2016, respectively) all had the effect of lowering state tax burdens in these states.

To view tables, charts, and maps elaborating on the information summarized above, see the presentation referenced in footnote 23 on the previous page.

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