

Government of the
District of Columbia



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

2017

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Table of Contents

Tax Rates and Tax Burdens in the District of Columbia: A Nationwide Comparison

Table of Contents	iii
Listing of Charts, Tables, and Maps	iv
Executive Summary	vi
Acknowledgment	viii
Part I: Tax Burdens in Washington D.C. Compared with Those in the Largest City in Each State, 2017.....	1
Overview.....	2
Why Do Tax Burdens Differ From One City to Another?	3
Chapter I: How Tax Burdens are Computed for the Largest City in each State	5
Individual Income Tax.....	6
Real Property Tax.....	8
Sales and Use Tax	11
Automobile Taxes	11
Chapter II: Overall Tax Burdens for Hypothetical Families in the Largest City in Each State.....	12
Chapter III: Comparing Specific Tax Burdens for a Hypothetical Family of Three in the Largest City in Each State	24
Individual Income Tax.....	24
Real Property Tax.....	30
Sales and Use Tax	37
Automobile Taxes	41
Chapter IV: How Do Tax Burdens in Washington D.C. Compare with Those in the Largest City in Each State?.....	45
Individual Income Tax.....	45
Real Property Tax.....	46
Sales and Use Tax	47
Automobile Taxes	47
Summary.....	47
Part II: A Comparison of Selected Tax Rates in D.C. with Those in the 50 States	50
Tax Rate Comparisons at a Glance.....	51

Appendix	70
Office Locations and Telephone Numbers	78

Listing of Charts, Tables, and Maps

Charts

Charts 1a-e: 2017 Estimated Burdens of Major Taxes for 5 Hypothetical Families.....	13-21
Chart 2: 2017 Income Tax Burdens for All Income Levels, Sorted by Highest Income Level...	26
Chart 3: Residential Property Tax Rates in the Largest City in Each State, 2017.....	33
Chart 4: 2017 Property Tax Burdens for All Income Levels, Sorted by Lowest Income Level..	36
Chart 5: State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31, 2017.....	38
Chart 6: 2017 Auto Tax Burdens, Family Earning \$75,000/year.....	44
Chart 7: Combined 2017 Tax Burdens at Each Income Level; Comparison of DC and the Average of the 51 Cities.....	49

Tables

Tables 1a-e: 2017 Estimated Burdens of Major Taxes for 5 Hypothetical Families.....	14-22
Table 2: States That Index Some Part of Their Individual Income Tax, 2017.....	28
Table 3: Income Tax Burden As Percent of Income in the Largest Cities by Type of Income Tax for a Hypothetical Family of Three, 2017.....	29
Table 4: Residential Property Tax Rates in the Largest City in Each State 2017	32
Table 5: Housing Value Assumptions, 2017	34
Table 6: Cities That Allow Exemptions or Reduced Rates in the Calculation of Real Estate Taxes for Homeowners, 2017	35
Table 7: State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31, 2017.....	39
Table 8: Gasoline Tax Rates in the 51 Cities as of December 31, 2017.....	42
Table 9: Summary of Types of Automobile Registration Taxes 2017	43
Table 10: Automobile Tax Assumptions 2017	43

Table 11: Tax Burdens in Washington, D.C. for a Hypothetical Family Compared with the Average for the Largest City in Each State by Income Level, 2017	48
Table 12: Comparison of Selected State Tax Rates	51
Table 13: Individual Income Tax Washington Metropolitan Area	52
Table 14: Individual Income Tax 43 States and the District of Columbia.....	53
Table 15: Characteristics of State Individual Income Taxes.....	57
Table 16: State Corporation Income Tax Rates	59
Table 17: State Gross Premiums Tax Rates on Foreign Life Insurers	60
Table 18: State General Sales and Use Tax Rates	61
Table 19: State Beer Tax Rates	62
Table 20: State Light Wine Tax Rates	63
Table 21: State Distilled Spirits Tax Rates	64
Table 22: State Cigarette Tax Rates.....	65
Table 23: State Gasoline Excise Tax Rates	66
Table 24: State Motor Vehicle Sales and Excise Taxes.....	67
Table 25: State Motor Vehicle Annual Registration Fees	68
Table 26: State Real Estate Deed Recordation and Transfer Tax Rates	69
Table 27: Population Changes of the Largest City in Each State	76
<u>Maps</u>	
Map 1: Total 2017 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income.....	23
Map 2: 2017 Income Tax Burdens for Family Earning \$75,000/Year (\$).....	27
Map 3: 2017 Property Tax Burdens (\$) (Family Earning \$75,000/Year)	31
Map 4: 2017 Sales Tax Burdens, Family Earning \$75,000/Year.....	40
Maps 5-9: Combined 2017 Tax Burdens (Inc., Prop., Sales, & Auto) as a % of Income.....	71-75
Map 10: Population of the Largest Cities as a % of the State’s Total Population, 2017.....	77

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 at five different income levels living in D.C. 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, 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 \$4,027 in Burlington, Vermont, for a family earning \$25,000 (this negative amount represents an income tax refund due to refundable credits), to a high of \$11,965 for a family earning \$150,000 and living in New York City, New York.

The District's 2017 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, and slightly higher than the average for the other four 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 \$3.43 per \$100 of assessed value in Bridgeport, Connecticut 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 \$726 on a family earning \$50,000 a year and living in Honolulu, Hawaii to a high of \$16,766 on a family earning \$150,000/year and living in Bridgeport, Connecticut.

In 2017, the District taxed residential property at a rate of \$0.85 per \$100 of assessed value; and offered a \$72,450 homestead deduction for owner-occupied residences. D.C.'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 was the second highest of all the cities, 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 noted in Table 7, page 39, residents in 46 of the 51 cities studied are subject to some form of sales and use tax. In 2017, the highest combined (state + local) sales tax rates were in Chicago, Illinois (10.25 percent); Seattle, Washington (10.10 percent); Birmingham, Alabama and New Orleans, Louisiana (both at 10 percent). Residents of Honolulu, Hawaii; Milwaukee, Wisconsin; Portland, Maine; and Washington, D.C.; have the lowest combined sales tax rates. These lowest rates range from 4.5 to 5.75 percent total. Sales tax burdens in jurisdictions levying a general sales tax ranged from a low of \$744 for a family earning \$25,000 in Boston, Massachusetts; to a high of \$3,590 for a family earning \$150,000 in New Orleans, Louisiana.

The District's general sales tax of 5.75 percent is the fourth lowest of all 51 cities, when looking at total state and local sales tax rates combined. Consequently, sales tax burdens in D.C. 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, personal property taxes on automobiles are levied in eight of the cities. Auto tax burdens ranged from a low of \$110 for a family earning \$25,000 in New Orleans, Louisiana, to a high of \$3,897 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, D.C. does not charge an annual excise tax or personal property tax on automobiles. District gas tax rates were 23.5 cents per gallon, and D.C. 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 D.C. with those of the most populous city in each state, through December 31, 2017. Part II contains tax rate tables for D.C. and the 50 states for 12 different types of taxes as of January 1, 2018.

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, D.C. Compared with Those in the Largest City in Each State, 2017 and (II) A Comparison of Selected Tax Rates in the District of Columbia with Those in the 50 States as of January 1, 2018. This information is requested annually by committees of the U.S. 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.

Fitzroy Lee,
Chief Economist &
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Part I

**Tax Burdens in Washington, D.C. Compared with
Those in the Largest City in Each State**

2017

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.

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, D.C., 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, D.C., 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, D.C.'s particular 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 – D.C. cannot tax non-residents who work in the city under its income tax, and as of Tax Year 2017 property assessments, 29 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, D.C.: 2003. p. 1.

³ "D.C. Tax Facts 2018." 2017 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, D.C.: 2018. p. 42.

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, D.C., with the burden for the households in the largest city in each of the 50 states for 2017. 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.

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 2017 study are based on data from the U.S. 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 2017 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 2012.
- **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 is likely 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 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 were 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, D.C. taxpayers who were married filing jointly and itemizing deductions in tax year 2016.

Gross Income Level					
Deduction	\$ 25,000	\$ 50,000	\$ 75,000	\$100,000	\$150,000
Medical (Gross)	3,875	6,171	8,198	10,487	15,053
Nondeductible Medical 1/	<u>-2,500</u>	<u>-5,000</u>	<u>-7,500</u>	<u>-10,000</u>	<u>-15,000</u>
Net Medical Deduction	1,375	1,171	698	487	53
Deductible Taxes	2/	2/	2/	2/	2/
Mortgage Interest	3/	3/	3/	3/	3/
Contribution Deduction 4/	1,849	2,570	3,209	3,853	2,986
Total Deductions-without taxes And mortgage interest 5/	3,224	3,741	3,907	4,340	3,039

1/ Medical deductions allowed when the total is more than 10 percent of federal A.G.I. 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 2017 study and individual income taxes computed in the 2016 study for tax year 2016.

3/ Assumed mortgage interest varies from city to city and is based on 5th year interest paid on a home purchased in 2012 at an interest rate of 3.66%.

4/ Contribution Deduction represents charitable contributions claimed.

5/ Note: the current report does not include “miscellaneous deductions,” 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 2017 federal individual income tax at each income level using the above assumptions. Many states in 2017 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 2017, the federal standard deduction was \$12,700; and the state level standard deduction varies by state (see Table 14 for more detail on state income tax parameters).

The 2017 deductible real and personal property taxes computed in the current year’s 51-city study are used for the 2017 property tax deduction. For the 2017 state and local individual income tax deduction, 2016 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 2017 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, 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 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 research 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 2017 American Community Survey (ACS) data, the estimated house value at the \$75,000 income level ranges from a high of \$431,192 in Honolulu, Hawaii, to a low of \$135,322 in Charleston, West Virginia.

The housing values for each income level (except the \$25,000 income level) shown in Table 5 are derived from 2017 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 2017. 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). A modification made in the 2014 Study and all subsequent reports is the use of median household income of *mortgage holders*, rather than the median income of all households, within an MSA to calculate the linear multiplier. This change results in a lower multiplier, in general, which moderates the increase in house values as incomes rise. This change generally leads to lower property tax burdens overall than in the 2012 and 2013 Studies. However, any analysis should focus on the relative rankings within a given year.

The use of the above methodology is an attempt to reflect the different values of housing

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.

in different parts of the country and at different income levels. Data from the 2017 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.

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,⁵ 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 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.⁶ Their report presents a table illustrating this information for the largest city in each state; New York City has the largest difference in effective rates between apartment buildings and homesteads. For example, the effective tax rate on a \$600,000 rental building in New York City is five times higher than the rate on a median valued home, providing the most drastic example of a tax system that subsidizes homeowners at the expense of business and renters.⁷ The lowest ratio is in Chicago, Illinois, where apartments are given preferential treatment over homesteads.⁸

To relieve this implicit tax burden on renters, some states have property tax circuit breaker programs that offset renters’ tax burdens in some way (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

⁵ “50-State Property Tax Comparison Study for Taxes Paid in 2017.” The Lincoln Institute of Land Policy and the Minnesota Center for Fiscal Excellence. April 2018: pg. 4.

⁶ Ibid, pg. 102.

⁷ Ibid, pg. 4.

⁸ The study found that in Washington, D.C., the classification ratio between apartments and homesteads is 1.117, indicating that homesteads are treated slightly preferentially to rental buildings by the property tax.

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.⁹ D.C.'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.¹⁰ 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.¹¹

After considering the available information we decided to use a level of 15 percent for PTER in the 2016 Study and the current 2017 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 were obtained from the U.S. Department of Housing and Urban Development.¹² This flat assumption means that any variation in the property tax burden for renters (families earning \$25,000) is driven entirely 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, 38 percent of their incomes on rent, with that portion being as high as 71 percent in New York City and 69 percent in Washington, DC. However, viewed in the context of some D.C. 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.¹³ Further, a 2016 D.C. 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 D.C. 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

⁹ Based on analysis of state programs in the Lincoln Institute of Land Policy's *Significant Features of the Property Tax Database* for 2017.

¹⁰ This discussion does not intend to assess appropriate levels of PTER used in circuit breaker programs, or to advocate that they be lower. 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 home owner's tax burdens across the 50 states.

¹¹ 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 2017.

¹² U.S. Department of Housing and Urban Development, "2016 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).

¹³ Analysis of U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates.

rent.¹⁴

Sales and Use Tax

The sales tax burdens included in this study are based on information from the 2017 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.¹⁵

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.

¹⁴ Zippel, Claire. "A Broken Foundation: Affordable Housing Crisis Threatens DC's Lowest-Income Residents." D.C. Fiscal Policy Institute. December 8, 2016.

¹⁵ 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 \$4,516 combined burden of all four taxes added together for Philadelphia, Pennsylvania, is significantly greater than the *negative* tax burden of \$1,219 that a similar taxpayer in Burlington, Vermont, would receive as a net refund. At the \$150,000 income level, the Bridgeport, Connecticut, burden of \$27,155 is four times the Anchorage, Alaska, burden of \$6,697. 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; Honolulu, Hawaii; Birmingham, Alabama; Seattle, Washington; and Atlanta, Georgia. Philadelphia's local wage tax adds to the state income tax to make it by far the highest income tax burden for a family 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 Honolulu put it at the top of this list, while Birmingham's high sales tax burden contributes to its ranking.

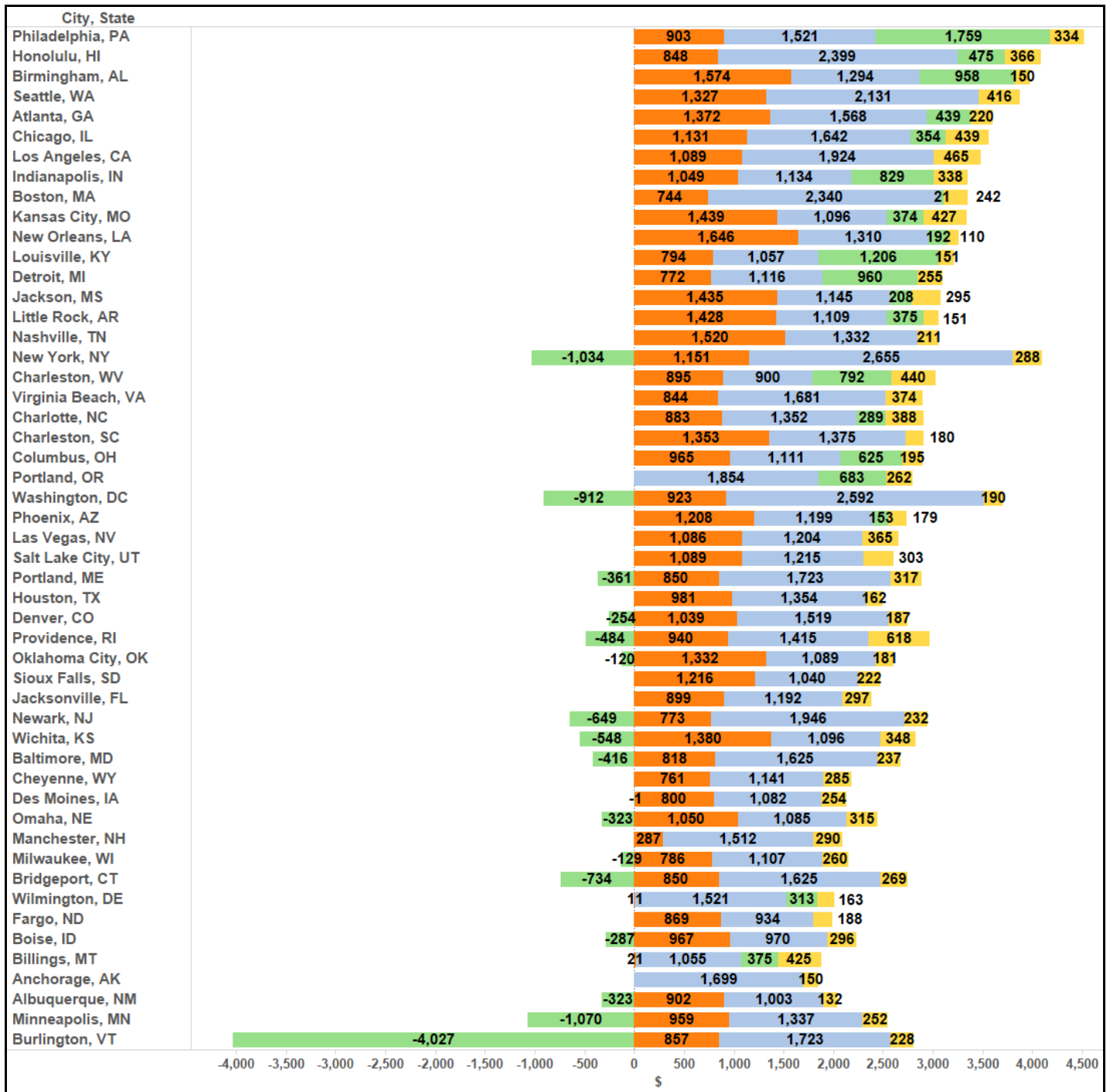
The lowest combined tax burdens of all four taxes added together at the \$25,000 income level occur in Burlington, Vermont; Minneapolis, Minnesota; Albuquerque, New Mexico; Anchorage, Alaska; and Billings, Montana. The first three states have a refundable EITC (or other credits), which contributes to their low ranking, and Montana has no general sales tax.

The highest combined tax burdens of all four taxes added together at the \$150,000 income level occur in Bridgeport, Connecticut; Newark, New Jersey; Baltimore, Maryland; Detroit, Michigan; and New York, New York. High property values drive several of these burdens, while New York's progressive income tax puts it in the top five. The lowest combined tax burdens at this income level are Anchorage, Alaska; Cheyenne, Wyoming; Nashville, Tennessee; Fargo, North Dakota; and Sioux Falls, South 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.¹⁶

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, moderate to high housing values and often are in the Northeast. Low tax burden cities generally have a low individual income tax (if at all) and average or below average property tax rates.

¹⁶ See the Appendix (page 71) for maps showing the combined burdens by state for the other income levels.

Chart 1a: 2017 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). Negative bars represent tax refunds due to state EITC (or other refundable credits). See Table 1a on the following page for tax burdens as a percent of income.



Table 1a: 2017 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	1,759	1,521	903	334	4,516	18.1%
2	Honolulu	HI	475	2,399	848	366	4,088	16.4%
3	Birmingham	AL	958	1,294	1,574	150	3,976	15.9%
4	Seattle	WA	-	2,131	1,327	416	3,875	15.5%
5	Atlanta	GA	439	1,568	1,372	220	3,599	14.4%
6	Chicago	IL	354	1,642	1,131	439	3,566	14.3%
7	Los Angeles	CA	0	1,924	1,089	465	3,478	13.9%
8	Indianapolis	IN	829	1,134	1,049	338	3,351	13.4%
9	Boston	MA	21	2,340	744	242	3,347	13.4%
10	Kansas City	MO	374	1,096	1,439	427	3,337	13.3%
11	New Orleans	LA	192	1,310	1,646	110	3,258	13.0%
12	Louisville	KY	1,206	1,057	794	151	3,207	12.8%
13	Detroit	MI	960	1,116	772	255	3,104	12.4%
14	Jackson	MS	208	1,145	1,435	295	3,083	12.3%
15	Little Rock	AR	375	1,109	1,428	151	3,063	12.3%
16	Nashville	TN	0	1,332	1,520	211	3,063	12.3%
17	New York	NY	(1,034)	2,655	1,151	288	3,060	12.2%
18	Charleston	WV	792	900	895	440	3,027	12.1%
19	Charlotte	NC	289	1,352	883	388	2,912	11.6%
20	Charleston	SC	0	1,375	1,353	180	2,908	11.6%
21	Virginia Beach	VA	0	1,681	844	374	2,899	11.6%
22	Columbus	OH	625	1,111	965	195	2,896	11.6%
23	Portland	OR	683	1,854	-	262	2,799	11.2%
24	Washington	DC	(912)	2,592	923	190	2,792	11.2%
25	Phoenix	AZ	153	1,199	1,208	179	2,739	11.0%
26	Las Vegas	NV	-	1,204	1,086	365	2,655	10.6%
27	Salt Lake City	UT	0	1,215	1,089	303	2,607	10.4%
28	Portland	ME	(361)	1,723	850	317	2,528	10.1%
29	Houston	TX	-	1,354	981	162	2,497	10.0%
30	Denver	CO	(254)	1,519	1,039	187	2,492	10.0%
31	Providence	RI	(484)	1,415	940	618	2,488	10.0%
32	Oklahoma City	OK	(120)	1,089	1,332	181	2,482	9.9%
33	Sioux Falls	SD	-	1,040	1,216	222	2,478	9.9%
34	Jacksonville	FL	-	1,192	899	297	2,388	9.6%
35	Newark	NJ	(649)	1,946	773	232	2,302	9.2%
36	Wichita	KS	(548)	1,096	1,380	348	2,276	9.1%
37	Baltimore	MD	(416)	1,625	818	237	2,264	9.1%
38	Cheyenne	WY	-	1,141	761	285	2,187	8.7%
39	Des Moines	IA	(1)	1,082	800	254	2,135	8.5%
40	Omaha	NE	(323)	1,085	1,050	315	2,127	8.5%
41	Manchester	NH	0	1,512	287	290	2,089	8.4%
42	Milwaukee	WI	(129)	1,107	786	260	2,024	8.1%
43	Bridgeport	CT	(734)	1,625	850	269	2,010	8.0%
44	Wilmington	DE	313	1,521	11	163	2,007	8.0%
45	Fargo	ND	0	934	869	188	1,991	8.0%
46	Boise	ID	(287)	970	967	296	1,946	7.8%
47	Billings	MT	375	1,055	21	425	1,876	7.5%
48	Anchorage	AK	-	1,699	-	150	1,849	7.4%
49	Albuquerque	NM	(323)	1,003	902	132	1,714	6.9%
50	Minneapolis	MN	(1,070)	1,337	959	252	1,478	5.9%
51	Burlington	VT	(4,027)	1,723	857	228	(1,219)	(4.9%)
AVERAGE		1/	(7)	1,432	996	275	2,659	10.6%
MEDIAN			0	1,321	962	257	2,631	10.5%

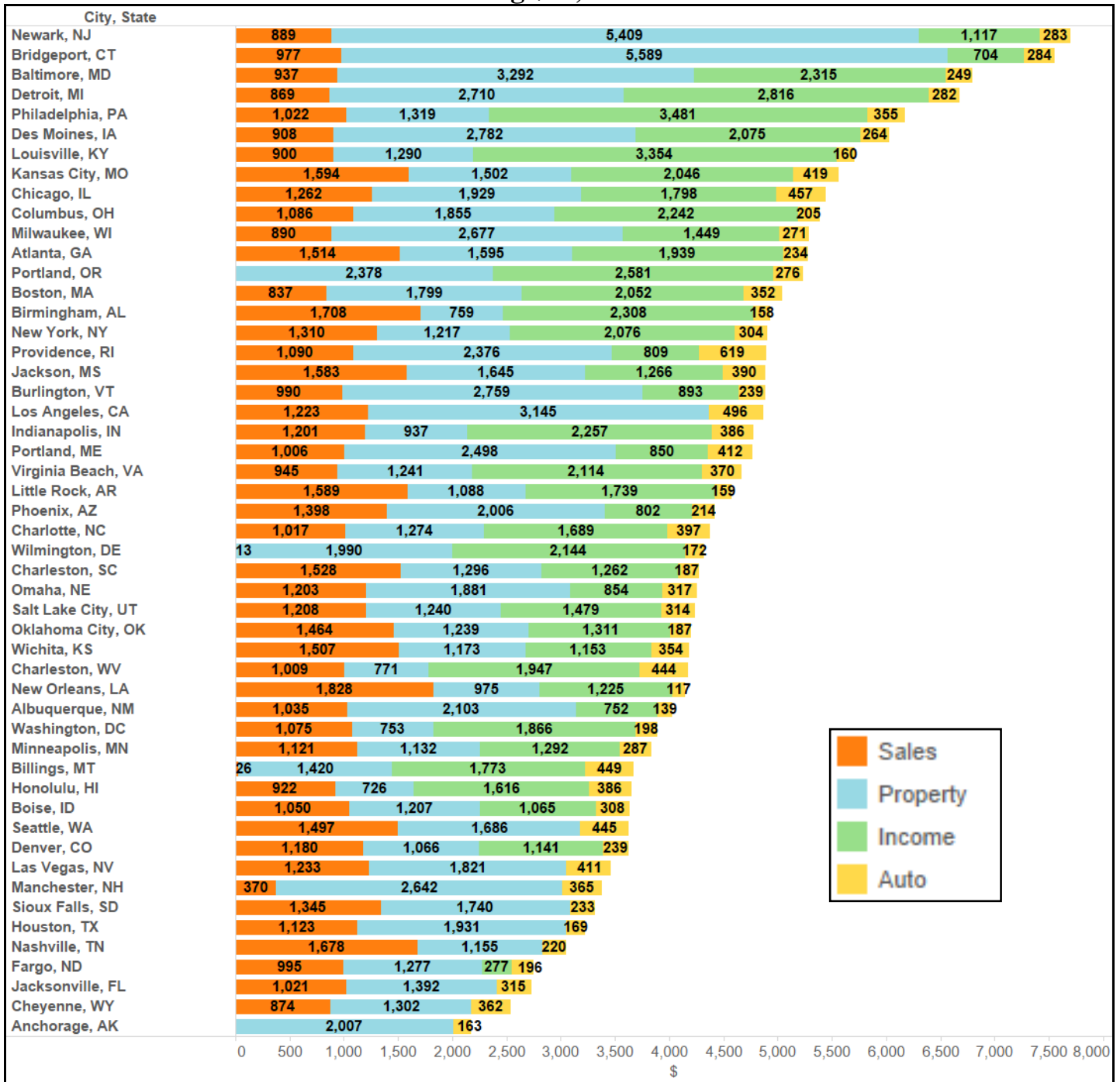
1/ Based on jurisdictions levying tax.

2/ Amounts in parentheses represent refundable State Earned Income Tax Credits. VT's negative burden also includes 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. DE, MT, and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

Chart 1b: 2017 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$50,000/Year



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

Table 1b: 2017 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$50,000/Year

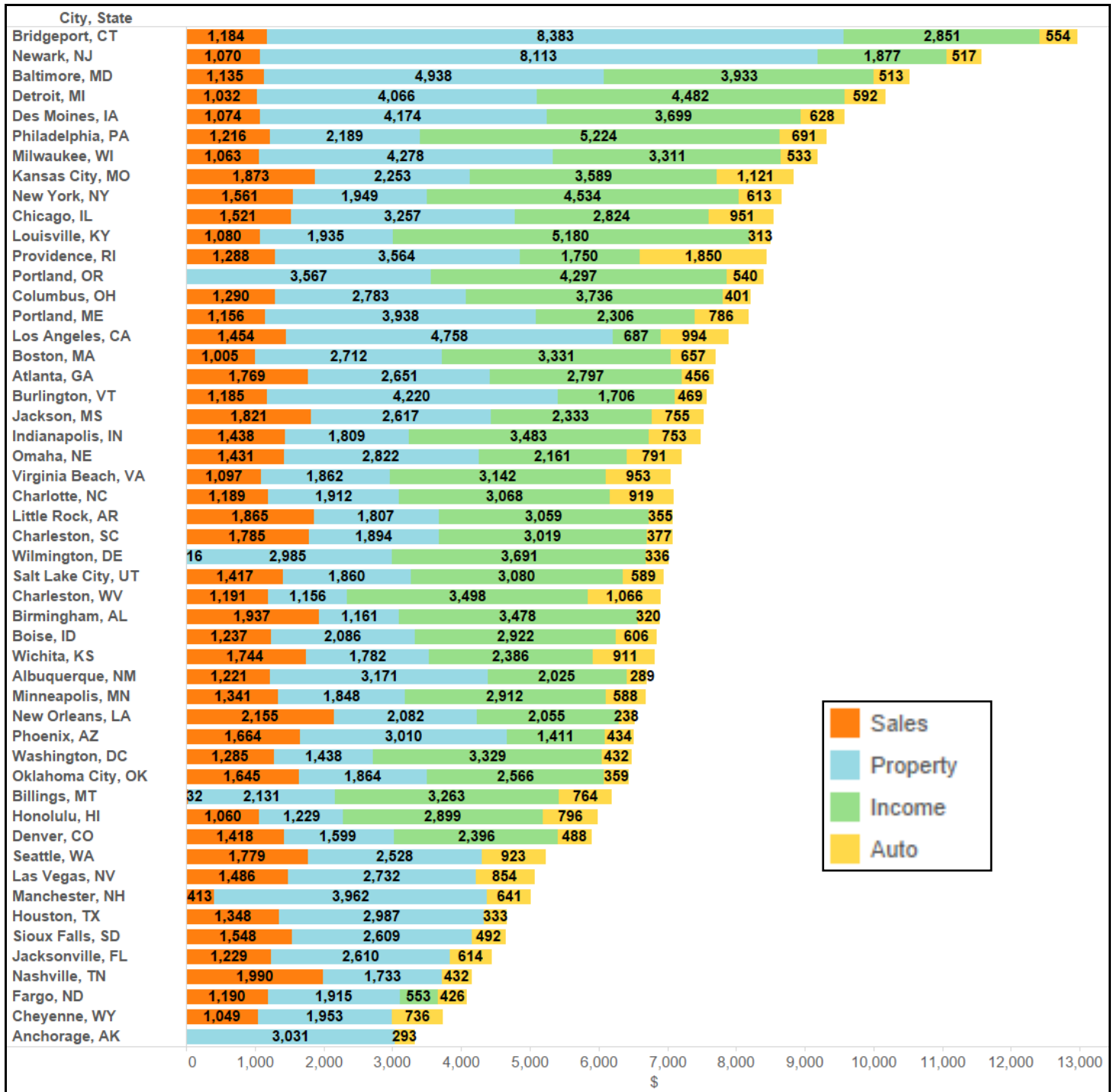
RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY	SALES 3/	AUTO	AMOUNT	PERCENT
1	Newark	NJ	1,117	5,409	889	283	7,698	15.4%
2	Bridgeport	CT	704	5,589	977	284	7,553	15.1%
3	Baltimore	MD	2,315	3,292	937	249	6,793	13.6%
4	Detroit	MI	2,816	2,710	869	282	6,678	13.4%
5	Philadelphia	PA	3,481	1,319	1,022	355	6,178	12.4%
6	Des Moines	IA	2,075	2,782	908	264	6,030	12.1%
7	Louisville	KY	3,354	1,290	900	160	5,704	11.4%
8	Kansas City	MO	2,046	1,502	1,594	419	5,561	11.1%
9	Chicago	IL	1,798	1,929	1,262	457	5,447	10.9%
10	Columbus	OH	2,242	1,855	1,086	205	5,388	10.8%
11	Milwaukee	WI	1,449	2,677	890	271	5,287	10.6%
12	Atlanta	GA	1,939	1,595	1,514	234	5,282	10.6%
13	Portland	OR	2,581	2,378	-	276	5,235	10.5%
14	Boston	MA	2,052	1,799	837	352	5,041	10.1%
15	Birmingham	AL	2,308	759	1,708	158	4,934	9.9%
16	New York	NY	2,076	1,217	1,310	304	4,908	9.8%
17	Providence	RI	809	2,376	1,090	619	4,895	9.8%
18	Jackson	MS	1,266	1,645	1,583	390	4,884	9.8%
19	Burlington	VT	893	2,759	990	239	4,881	9.8%
20	Los Angeles	CA	0	3,145	1,223	496	4,864	9.7%
21	Indianapolis	IN	2,257	937	1,201	386	4,781	9.6%
22	Portland	ME	850	2,498	1,006	412	4,766	9.5%
23	Virginia Beach	VA	2,114	1,241	945	370	4,670	9.3%
24	Little Rock	AR	1,739	1,088	1,589	159	4,575	9.2%
25	Phoenix	AZ	802	2,006	1,398	214	4,421	8.8%
26	Charlotte	NC	1,689	1,274	1,017	397	4,378	8.8%
27	Wilmington	DE	2,144	1,990	13	172	4,319	8.6%
28	Charleston	SC	1,262	1,296	1,528	187	4,272	8.5%
29	Omaha	NE	854	1,881	1,203	317	4,256	8.5%
30	Salt Lake City	UT	1,479	1,240	1,208	314	4,241	8.5%
31	Oklahoma City	OK	1,311	1,239	1,464	187	4,200	8.4%
32	Wichita	KS	1,153	1,173	1,507	354	4,187	8.4%
33	Charleston	WV	1,947	771	1,009	444	4,170	8.3%
34	New Orleans	LA	1,225	975	1,828	117	4,145	8.3%
35	Albuquerque	NM	752	2,103	1,035	139	4,030	8.1%
36	Washington	DC	1,866	753	1,075	198	3,892	7.8%
37	Minneapolis	MN	1,292	1,132	1,121	287	3,833	7.7%
38	Billings	MT	1,773	1,420	26	449	3,668	7.3%
39	Honolulu	HI	1,616	726	922	386	3,651	7.3%
40	Boise City	ID	1,065	1,207	1,050	308	3,630	7.3%
41	Seattle	WA	-	1,686	1,497	445	3,628	7.3%
42	Denver	CO	1,141	1,066	1,180	239	3,627	7.3%
43	Las Vegas	NV	-	1,821	1,233	411	3,466	6.9%
44	Manchester	NH	0	2,642	370	365	3,377	6.8%
45	Sioux Falls	SD	-	1,740	1,345	233	3,317	6.6%
46	Houston	TX	-	1,931	1,123	169	3,224	6.4%
47	Nashville	TN	0	1,155	1,678	220	3,054	6.1%
48	Fargo	ND	277	1,277	995	196	2,746	5.5%
49	Jacksonville	FL	-	1,392	1,021	315	2,729	5.5%
50	Cheyenne	WY	-	1,302	874	362	2,537	5.1%
51	Anchorage	AK	-	2,007	-	163	2,170	4.3%
AVERAGE			1,617	1,823	1,124	298	4,533	9.1%
MEDIAN			1,653	1,595	1,086	284	4,378	8.8%

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. DE, MT and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

Chart 1c: 2017 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$75,000/Year



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

Table 1c: 2017 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$75,000/Year

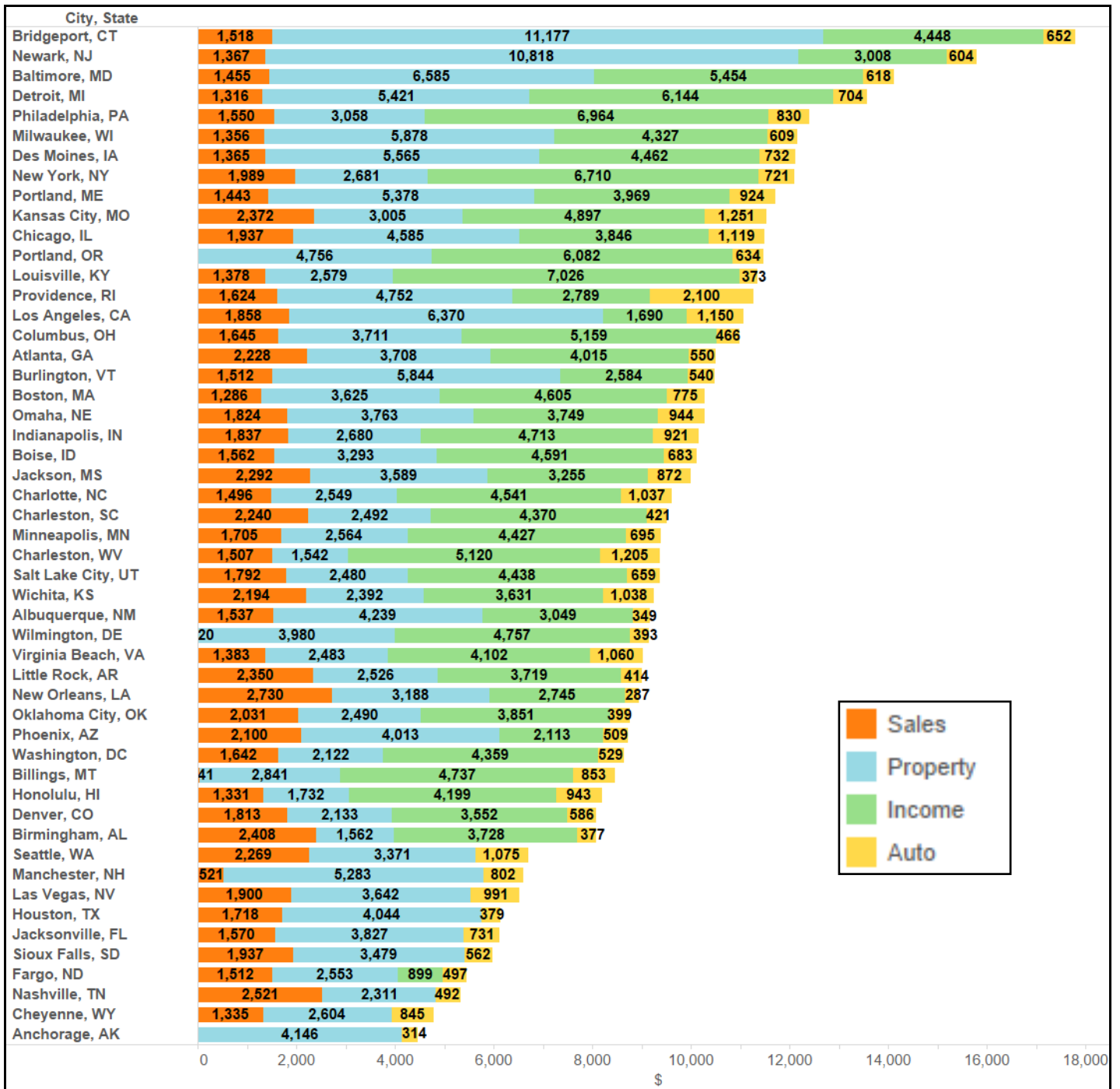
RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY	SALES 3/	AUTO	AMOUNT	PERCENT
1	Bridgeport	CT	2,851	8,383	1,184	554	12,973	17.3%
2	Newark	NJ	1,877	8,113	1,070	517	11,577	15.4%
3	Baltimore	MD	3,933	4,938	1,135	513	10,520	14.0%
4	Detroit	MI	4,482	4,066	1,032	592	10,172	13.6%
5	Des Moines	IA	3,699	4,174	1,074	628	9,574	12.8%
6	Philadelphia	PA	5,224	2,189	1,216	691	9,320	12.4%
7	Milwaukee	WI	3,311	4,278	1,063	533	9,184	12.2%
8	Kansas City	MO	3,589	2,253	1,873	1,121	8,837	11.8%
9	New York	NY	4,534	1,949	1,561	613	8,657	11.5%
10	Chicago	IL	2,824	3,257	1,521	951	8,553	11.4%
11	Louisville	KY	5,180	1,935	1,080	313	8,507	11.3%
12	Providence	RI	1,750	3,564	1,288	1,850	8,452	11.3%
13	Portland	OR	4,297	3,567	-	540	8,405	11.2%
14	Columbus	OH	3,736	2,783	1,290	401	8,210	10.9%
15	Portland	ME	2,306	3,938	1,156	786	8,185	10.9%
16	Los Angeles	CA	687	4,758	1,454	994	7,893	10.5%
17	Boston	MA	3,331	2,712	1,005	657	7,705	10.3%
18	Atlanta	GA	2,797	2,651	1,769	456	7,674	10.2%
19	Burlington	VT	1,706	4,220	1,185	469	7,579	10.1%
20	Jackson	MS	2,333	2,617	1,821	755	7,526	10.0%
21	Indianapolis	IN	3,483	1,809	1,438	753	7,482	10.0%
22	Honolulu	HI	2,899	1,229	1,060	796	7,338	9.8%
23	Omaha	NE	2,161	2,822	1,431	791	7,205	9.6%
24	Charlotte	NC	3,068	1,912	1,189	919	7,088	9.5%
25	Little Rock	AR	3,059	1,807	1,865	355	7,086	9.4%
26	Charleston	SC	3,019	1,894	1,785	377	7,075	9.4%
27	Virginia Beach	VA	3,142	1,862	1,097	953	7,054	9.4%
28	Wilmington	DE	3,691	2,985	16	336	7,028	9.4%
29	Salt Lake City	UT	3,080	1,860	1,417	589	6,945	9.3%
30	Charleston	WV	3,498	1,156	1,191	1,066	6,911	9.2%
31	Birmingham	AL	3,478	1,161	1,937	320	6,895	9.2%
32	Boise City	ID	2,922	2,086	1,237	606	6,852	9.1%
33	Wichita	KS	2,386	1,782	1,744	911	6,823	9.1%
34	Albuquerque	NM	2,025	3,171	1,221	289	6,706	8.9%
35	Minneapolis	MN	2,912	1,848	1,341	588	6,690	8.9%
36	New Orleans	LA	2,055	2,082	2,155	238	6,529	8.7%
37	Phoenix	AZ	1,411	3,010	1,664	434	6,518	8.7%
38	Washington	DC	3,329	1,438	1,285	432	6,483	8.6%
39	Oklahoma City	OK	2,566	1,864	1,645	359	6,435	8.6%
40	Billings	MT	3,263	2,131	32	764	6,189	8.3%
41	Denver	CO	2,396	1,599	1,418	488	5,902	7.9%
42	Seattle	WA	-	2,528	1,779	923	5,230	7.0%
43	Las Vegas	NV	-	2,732	1,486	854	5,071	6.8%
44	Manchester	NH	0	3,962	413	641	5,016	6.7%
45	Houston	TX	-	2,987	1,348	333	4,668	6.2%
46	Sioux Falls	SD	-	2,609	1,548	492	4,650	6.2%
47	Jacksonville	FL	-	2,610	1,229	614	4,453	5.9%
48	Nashville	TN	0	1,733	1,990	432	4,156	5.5%
49	Fargo	ND	553	1,915	1,190	426	4,084	5.4%
50	Cheyenne	WY	-	1,953	1,049	736	3,738	5.0%
51	Anchorage	AK	-	3,031	-	293	3,325	4.4%
AVERAGE		1/	3,005	2,822	1,326	628	7,199	9.6%
MEDIAN			3,064	2,609	1,288	589	7,075	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/ States with dashes do not have a sales tax. DE, MT, and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

Chart 1d: 2017 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$100,000/Year



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

Table 1d: 2017 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$100,000/Year

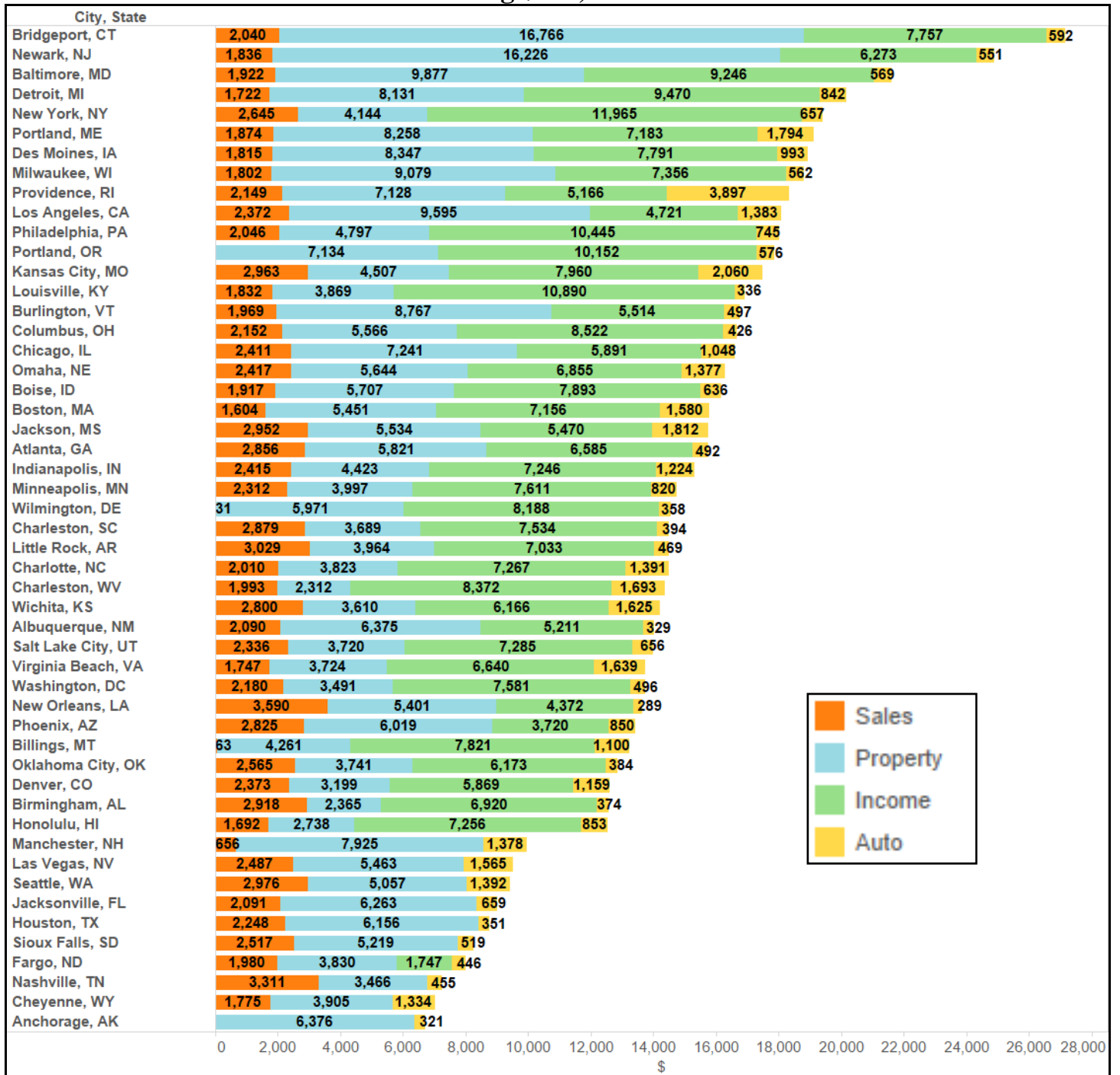
RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY	SALES 3/	AUTO	AMOUNT	PERCENT
1	Bridgeport	CT	4,448	11,177	1,518	652	17,796	17.8%
2	Newark	NJ	3,008	10,818	1,367	604	15,797	15.8%
3	Baltimore	MD	5,454	6,585	1,455	618	14,111	14.1%
4	Detroit	MI	6,144	5,421	1,316	704	13,584	13.6%
5	Philadelphia	PA	6,964	3,058	1,550	830	12,401	12.4%
6	Milwaukee	WI	4,327	5,878	1,356	609	12,170	12.2%
7	Des Moines	IA	4,462	5,565	1,365	732	12,124	12.1%
8	New York	NY	6,710	2,681	1,989	721	12,100	12.1%
9	Portland	ME	3,969	5,378	1,443	924	11,713	11.7%
10	Kansas City	MO	4,897	3,005	2,372	1,251	11,525	11.5%
11	Chicago	IL	3,846	4,585	1,937	1,119	11,488	11.5%
12	Portland	OR	6,082	4,756	-	634	11,472	11.5%
13	Louisville	KY	7,026	2,579	1,378	373	11,357	11.4%
14	Providence	RI	2,789	4,752	1,624	2,100	11,265	11.3%
15	Los Angeles	CA	1,690	6,370	1,858	1,150	11,068	11.1%
16	Columbus	OH	5,159	3,711	1,645	466	10,980	11.0%
17	Atlanta	GA	4,015	3,708	2,228	550	10,500	10.5%
18	Burlington	VT	2,584	5,844	1,512	540	10,480	10.5%
19	Boston	MA	4,605	3,625	1,286	775	10,291	10.3%
20	Omaha	NE	3,749	3,763	1,824	944	10,279	10.3%
21	Indianapolis	IN	4,713	2,680	1,837	921	10,151	10.2%
22	Boise City	ID	4,591	3,293	1,562	683	10,129	10.1%
23	Jackson	MS	3,255	3,589	2,292	872	10,009	10.0%
24	Charlotte	NC	4,541	2,549	1,496	1,037	9,623	9.6%
25	Charleston	SC	4,370	2,492	2,240	421	9,523	9.5%
26	Minneapolis	MN	4,427	2,564	1,705	695	9,391	9.4%
27	Charleston	WV	5,120	1,542	1,507	1,205	9,374	9.4%
28	Salt Lake City	UT	4,438	2,480	1,792	659	9,369	9.4%
29	Wichita	KS	3,631	2,392	2,194	1,038	9,255	9.3%
30	Albuquerque	NM	3,049	4,239	1,537	349	9,174	9.2%
31	Wilmington	DE	4,757	3,980	20	393	9,151	9.2%
32	Virginia Beach	VA	4,102	2,483	1,383	1,060	9,028	9.0%
33	Little Rock	AR	3,719	2,526	2,350	414	9,009	9.0%
34	New Orleans	LA	2,745	3,188	2,730	287	8,950	9.0%
35	Oklahoma City	OK	3,851	2,490	2,031	399	8,771	8.8%
36	Phoenix	AZ	2,113	4,013	2,100	509	8,735	8.7%
37	Washington	DC	4,359	2,122	1,642	529	8,652	8.7%
38	Billings	MT	4,737	2,841	41	853	8,472	8.5%
39	Honolulu	HI	4,199	1,732	1,331	943	8,205	8.2%
40	Denver	CO	3,552	2,133	1,813	586	8,083	8.1%
41	Birmingham	AL	3,728	1,562	2,408	377	8,075	8.1%
42	Seattle	WA	-	3,371	2,269	1,075	6,715	6.7%
43	Manchester	NH	0	5,283	521	802	6,606	6.6%
44	Las Vegas	NV	-	3,642	1,900	991	6,534	6.5%
45	Houston	TX	-	4,044	1,718	379	6,141	6.1%
46	Jacksonville	FL	-	3,827	1,570	731	6,129	6.1%
47	Sioux Falls	SD	-	3,479	1,937	562	5,978	6.0%
48	Fargo	ND	899	2,553	1,512	497	5,462	5.5%
49	Nashville	TN	0	2,311	2,521	492	5,324	5.3%
50	Cheyenne	WY	-	2,604	1,335	845	4,783	4.8%
51	Anchorage	AK	-	4,146	-	314	4,460	4.5%
AVERAGE		1/	4,210	3,832	1,680	730	9,642	9.6%
MEDIAN			4,343	3,479	1,642	683	9,391	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/ States with dashes do not have a sales tax. DE, MT, and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

Chart 1e: 2017 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: 2017 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$150,000/Year

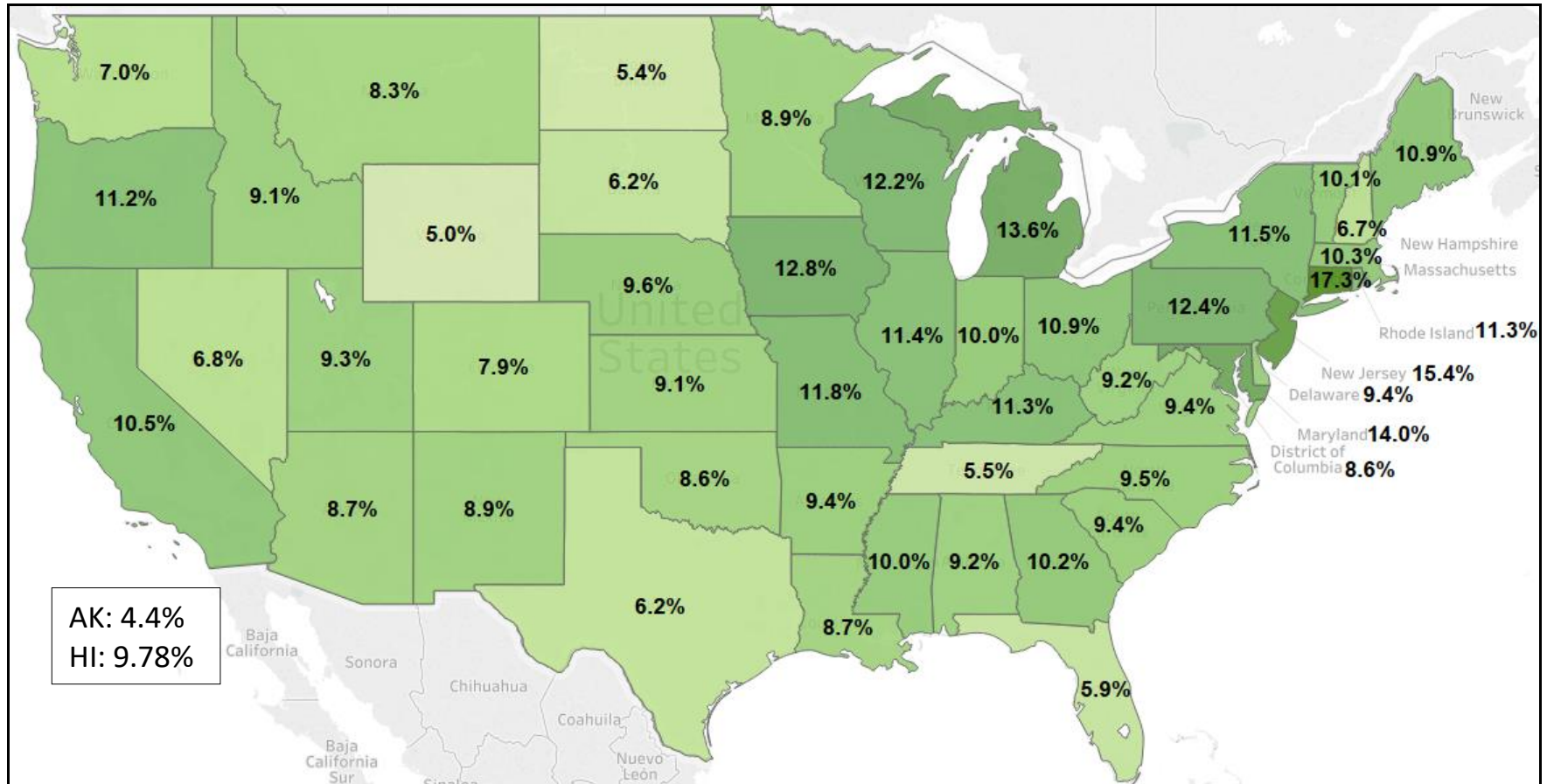
RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY	SALES 3/	AUTO	AMOUNT	PERCENT
1	Bridgeport	CT	7,757	16,766	2,040	592	27,155	18.1%
2	Newark	NJ	6,273	16,226	1,836	551	24,886	16.6%
3	Baltimore	MD	9,246	9,877	1,922	569	21,614	14.4%
4	Detroit	MI	9,470	8,131	1,722	842	20,165	13.4%
5	New York	NY	11,965	4,144	2,645	657	19,411	12.9%
6	Portland	ME	7,183	8,258	1,874	1,794	19,109	12.7%
7	Des Moines	IA	7,791	8,347	1,815	993	18,946	12.6%
8	Milwaukee	WI	7,356	9,079	1,802	562	18,800	12.5%
9	Providence	RI	5,166	7,128	2,149	3,897	18,340	12.2%
10	Los Angeles	CA	4,721	9,595	2,372	1,383	18,071	12.0%
11	Philadelphia	PA	10,445	4,797	2,046	745	18,033	12.0%
12	Portland	OR	10,152	7,134	-	576	17,863	11.9%
13	Kansas City	MO	7,960	4,507	2,963	2,060	17,489	11.7%
14	Louisville	KY	10,890	3,869	1,832	336	16,927	11.3%
15	Burlington	VT	5,514	8,767	1,969	497	16,746	11.2%
16	Columbus	OH	8,522	5,566	2,152	426	16,666	11.1%
17	Chicago	IL	5,891	7,241	2,411	1,048	16,590	11.1%
18	Omaha	NE	6,855	5,644	2,417	1,377	16,293	10.9%
19	Boise City	ID	7,893	5,707	1,917	636	16,152	10.8%
20	Boston	MA	7,156	5,451	1,604	1,580	15,791	10.5%
21	Jackson	MS	5,470	5,534	2,952	1,812	15,768	10.5%
22	Atlanta	GA	6,585	5,821	2,856	492	15,754	10.5%
23	Indianapolis	IN	7,246	4,423	2,415	1,224	15,308	10.2%
24	Minneapolis	MN	7,611	3,997	2,312	820	14,739	9.8%
25	Wilmington	DE	8,188	5,971	31	358	14,548	9.7%
26	Charleston	SC	7,534	3,689	2,879	394	14,496	9.7%
27	Little Rock	AR	7,033	3,964	3,029	469	14,495	9.7%
28	Charlotte	NC	7,267	3,823	2,010	1,391	14,492	9.7%
29	Charleston	WV	8,372	2,312	1,993	1,693	14,370	9.6%
30	Wichita	KS	6,166	3,610	2,800	1,625	14,201	9.5%
31	Albuquerque	NM	5,211	6,375	2,090	329	14,006	9.3%
32	Salt Lake City	UT	7,285	3,720	2,336	656	13,996	9.3%
33	Virginia Beach	VA	6,640	3,724	1,747	1,639	13,751	9.2%
34	Washington	DC	7,581	3,491	2,180	496	13,748	9.2%
35	New Orleans	LA	4,372	5,401	3,590	289	13,652	9.1%
36	Phoenix	AZ	3,720	6,019	2,825	850	13,415	8.9%
37	Billings	MT	7,821	4,261	63	1,100	13,245	8.8%
38	Oklahoma City	OK	6,173	3,741	2,565	384	12,863	8.6%
39	Denver	CO	5,869	3,199	2,373	1,159	12,599	8.4%
40	Birmingham	AL	6,920	2,365	2,918	374	12,576	8.4%
41	Honolulu	HI	7,256	2,738	1,692	853	12,539	8.4%
42	Manchester	NH	0	7,925	656	1,378	9,959	6.6%
43	Las Vegas	NV	-	5,463	2,487	1,565	9,515	6.3%
44	Seattle	WA	-	5,057	2,976	1,392	9,425	6.3%
45	Jacksonville	FL	-	6,263	2,091	659	9,013	6.0%
46	Houston	TX	-	6,156	2,248	351	8,754	5.8%
47	Sioux Falls	SD	-	5,219	2,517	519	8,255	5.5%
48	Fargo	ND	1,747	3,830	1,980	446	8,004	5.3%
49	Nashville	TN	0	3,466	3,311	455	7,232	4.8%
50	Cheyenne	WY	-	3,905	1,775	1,334	7,015	4.7%
51	Anchorage	AK	-	6,376	-	321	6,697	4.5%
AVERAGE			7,149	5,845	2,187	940	14,774	9.8%
MEDIAN			7,251	5,451	2,152	659	14,496	9.7%

1/ Based on jurisdictions levying tax.

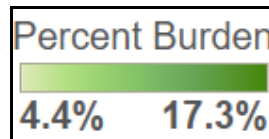
2/ States with dashes do not have an income tax. Tennessee and New Hampshire tax interest and dividend income but the exemptions are high enough to eliminate individual income taxes at all income levels used in the study.

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

Map 1: Total 2017 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income (Family Earning \$75,000/Year)



Source: ORA Analysis. The lighter green 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 individual income tax at the state and/or local levels. 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-four of the cities that are in states that levy an income tax, the percentage of income paid in individual income taxes by residents at the income level of \$25,000 is zero percent (or less than zero due to refundable credits). Notably, residents of Burlington, Vermont would receive a refundable income tax credit of \$4,027, making it by far the lowest income tax burden on a family earning \$25,000 per year. The highest income tax burden is at 7.0 percent in Philadelphia, Pennsylvania, and next at 4.8 percent in Louisville, Kentucky. At the \$150,000 income level, the burden ranges from a low of 1.2 percent of income in Fargo, North Dakota, to 8.0 percent in New York City, New York. It should be noted that the New Hampshire and Tennessee income tax is 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 hypothetical income tax burdens on each family, sorted by the family earning \$150,000 per year. Viewing the data this way allows for assessing 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, 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 D.C.). 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. New York City residents are subject to

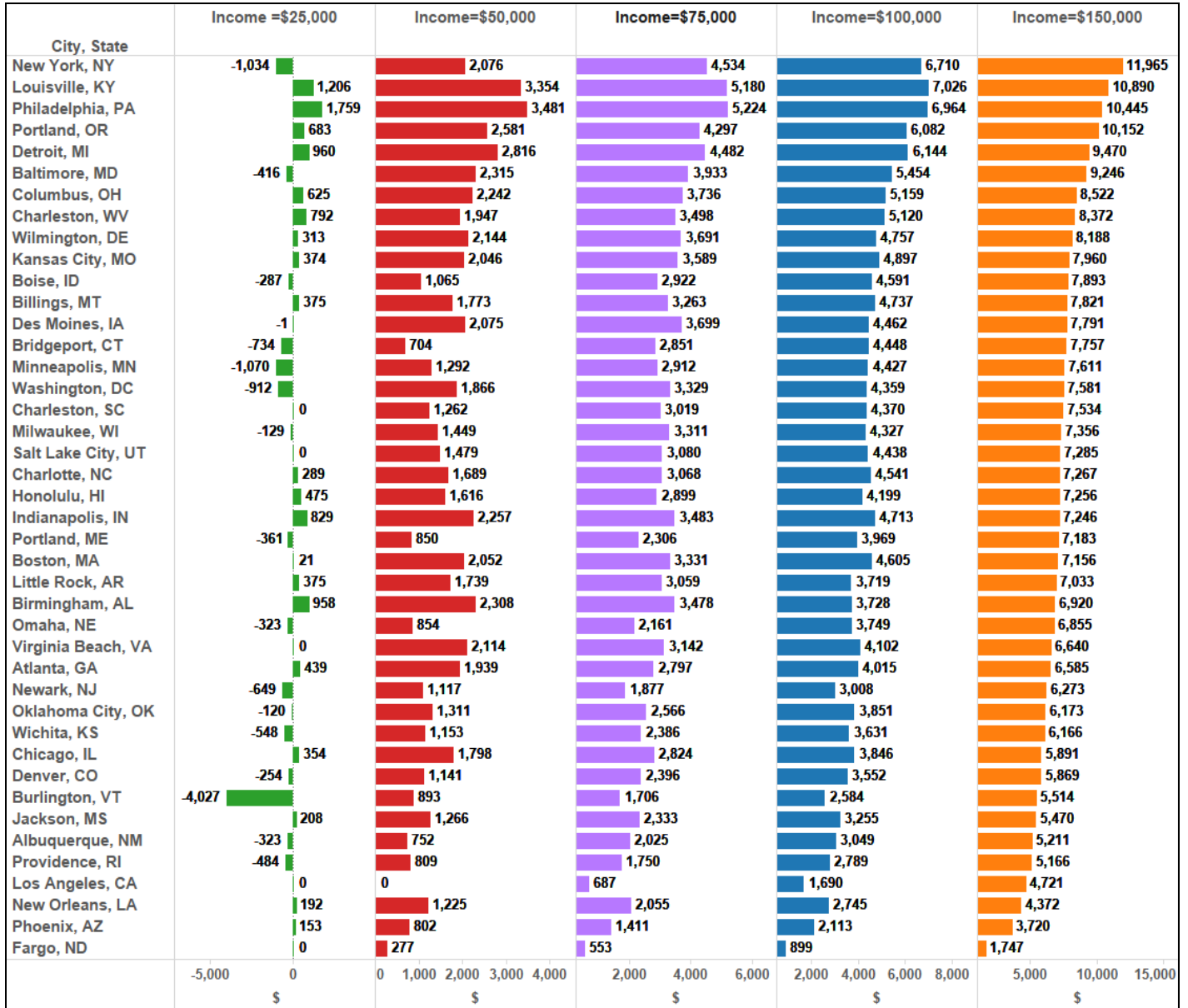
separate state and local income taxes, both of which are characterized by graduated rate schedules. Fourteen cities in the current study apply a local income tax or fee on wages (see table below).

Local Income Tax Rates, 2017

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	1.8%
Louisville	KY	Income Tax	2.2%
Baltimore	MD	Income Tax	3.2%
Detroit	MI	Income Tax	2.4%
Kansas City	MO	Income 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) Income Tax	0.72%
Philadelphia	PA	Income Tax	3.89%
Charleston	WV	City Service Fee	\$10.83/month

Sources: ORA analysis of City and State web pages.

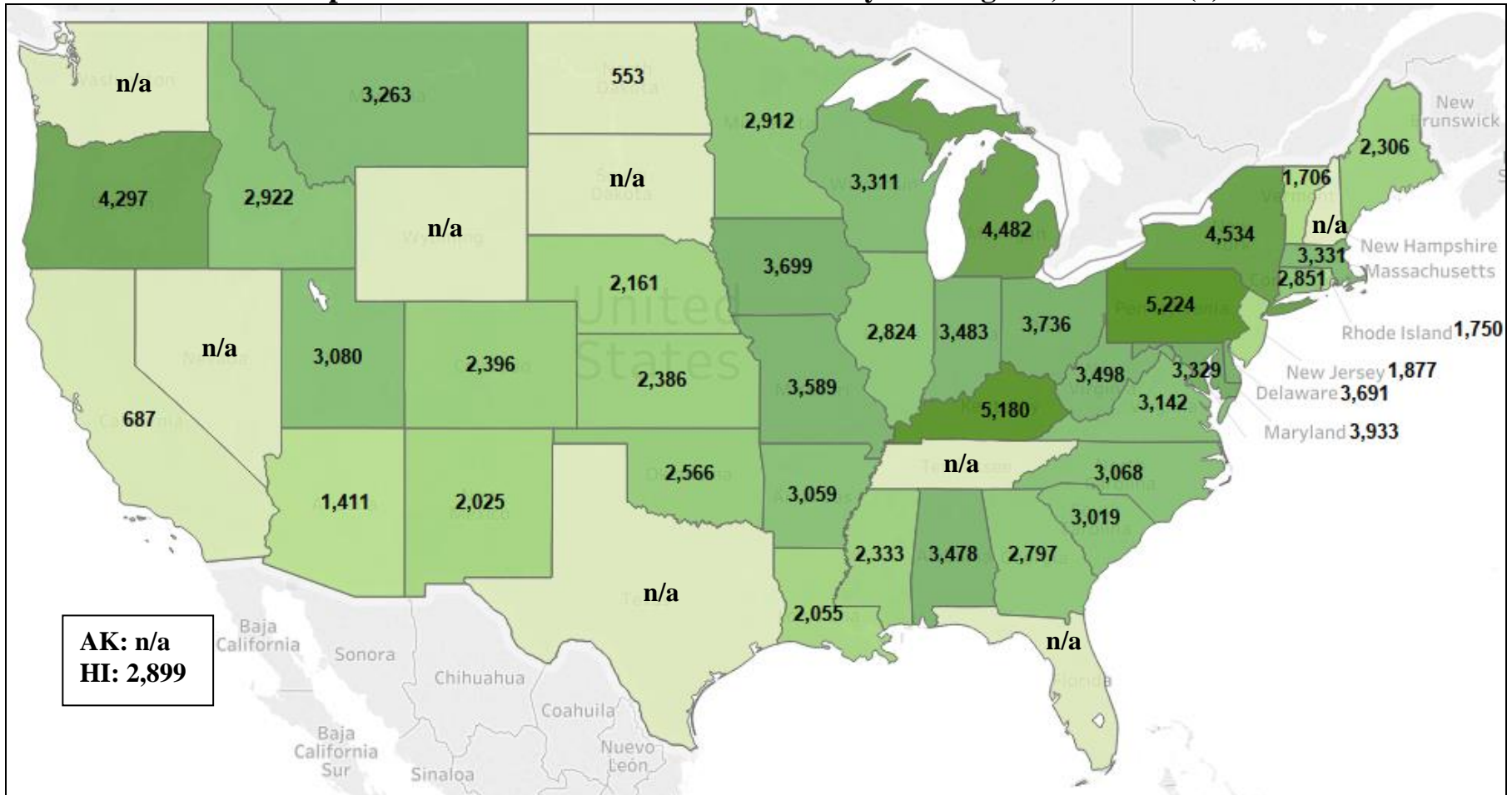
Chart 2: 2017 Income Tax Burdens for All Income Levels



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: 2017 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.

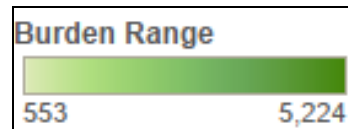


Table 2: States That Index Some Part of Their Individual Income Tax, 2017

STATE	INDEXED PORTION
Arizona	Tax brackets, standard deduction
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
Massachusetts	Personal exemption
Michigan	Personal exemption
Minnesota*	Tax brackets, exemptions, standard deduction
Missouri*	Tax brackets (beginning in 2017), standard deduction
Montana	Tax brackets, exemptions, standard deduction
Nebraska*	Personal exemption (for 2018), standard deduction
New Mexico*	Personal exemption, standard deduction
New York	Tax brackets, standard deduction
North Carolina	Personal exemption
North Dakota*	Tax brackets, personal exemption, standard deduction
Ohio	Tax brackets, personal exemption
Oklahoma*	Standard deduction
Oregon	Tax brackets (up to \$125,000), standard deduction credit
Pennsylvania	Tax brackets
Rhode Island	Tax brackets, standard deduction, personal exemption
South Carolina*	Tax brackets, standard deduction, personal exemption
Tennessee	Tax brackets,
Utah	Tax brackets, personal exemption, standard deduction
Vermont	Tax brackets, standard deduction, personal exemption
Washington, D.C.*	Standard deduction
Wisconsin	Tax brackets, standard deduction

Sources: State Web Pages; Federation of Tax Administrators, "State Individual Income Tax Rates (as of January 1, 2018)"; Federation of Tax Administrators, "State Individual Income Taxes: Federal Starting Points (as of July 1, 2018)." Wolters Kluwer/CCH 2018 State Tax Handbook; Urban Brookings Tax Policy Center, "State Income Tax Standard Deductions 2003-2017." February 8, 2018; Tax Foundation, "2018 Business Tax Climate Index.,"; and Wisconsin Legislative Fiscal Bureau, "Individual Income Tax Provisions in the States, Informational Paper 4." January 2017.

* Colorado, Idaho, Maine, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Oklahoma, South Carolina, Utah, Vermont, and Washington, D.C. used the federal standard deduction for 2017, which is indexed to inflation.

Table 3: Income Tax Burden as Percent of Income in the Largest Cities by Type of Income Tax for a Hypothetical Family of Three, 2017

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	-4.1%	4.2%	6.0%	6.7%	8.0%
GRADUATED STATE AND FLAT LOCAL RATES						
Birmingham	AL	3.8%	4.6%	4.6%	3.7%	4.6%
Wilmington	DE	1.3%	4.3%	4.9%	4.8%	5.5%
Louisville	KY	4.8%	6.7%	6.9%	7.0%	7.3%
Baltimore	MD	-1.7%	4.6%	5.2%	5.5%	6.2%
Kansas City	MO	1.5%	4.1%	4.8%	4.9%	5.3%
Newark 1/	NJ	-2.6%	2.2%	2.5%	3.0%	4.2%
Columbus	OH	2.5%	4.5%	5.0%	5.2%	5.7%
Portland 1/	OR	2.7%	5.2%	5.7%	6.1%	6.8%
Charleston 1/	WV	3.2%	3.9%	4.7%	5.1%	5.6%
FLAT STATE AND LOCAL TAX RATES						
Denver	CO	-1.0%	2.3%	3.2%	3.6%	3.9%
Indianapolis	IN	3.3%	4.5%	4.6%	4.7%	4.8%
Detroit	MI	3.8%	5.6%	6.0%	6.1%	6.3%
Philadelphia	PA	7.0%	7.0%	7.0%	7.0%	7.0%
GRADUATED STATE TAX RATE						
Little Rock	AR	1.5%	3.5%	4.1%	3.7%	4.7%
Phoenix	AZ	0.6%	1.6%	1.9%	2.1%	2.5%
Los Angeles	CA	0.0%	0.0%	0.9%	1.7%	3.1%
Bridgeport	CT	-2.9%	1.4%	3.8%	4.4%	5.2%
WASHINGTON	DC	-3.6%	3.7%	4.4%	4.4%	5.1%
Atlanta	GA	1.8%	3.9%	3.7%	4.0%	4.4%
Honolulu	HI	1.9%	3.2%	3.9%	4.2%	4.8%
Des Moines	IA	0.0%	4.2%	4.9%	4.5%	5.2%
Boise	ID	-1.1%	2.1%	3.9%	4.6%	5.3%
Wichita	KS	-2.2%	2.3%	3.2%	3.6%	4.1%
New Orleans	LA	0.8%	2.5%	2.7%	2.7%	2.9%
Portland	ME	-1.4%	1.7%	3.1%	4.0%	4.8%
Minneapolis	MN	-4.3%	2.6%	3.9%	4.4%	5.1%
Jackson	MS	0.8%	2.5%	3.1%	3.3%	3.6%
Billings	MT	1.5%	3.5%	4.4%	4.7%	5.2%
Fargo	ND	0.0%	0.6%	0.7%	0.9%	1.2%
Omaha	NE	-1.3%	1.7%	2.9%	3.7%	4.6%
Albuquerque	NM	-1.3%	1.5%	2.7%	3.0%	3.5%
Oklahoma City	OK	-0.5%	2.6%	3.4%	3.9%	4.1%
Providence	RI	-1.9%	1.6%	2.3%	2.8%	3.4%
Charleston	SC	0.0%	2.5%	4.0%	4.4%	5.0%
Virginia Beach	VA	0.0%	4.2%	4.2%	4.1%	4.4%
Burlington	VT	-16.1%	1.8%	2.3%	2.6%	3.7%
Milwaukee	WI	-0.5%	2.9%	4.4%	4.3%	4.9%
FLAT STATE TAX RATE WITH EXEMPTIONS						
Chicago	IL	1.4%	3.6%	3.8%	3.8%	3.9%
Boston	MA	0.1%	4.1%	4.4%	4.6%	4.8%
Charlotte	NC 2/	1.2%	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%	3.0%	4.1%	4.4%	4.9%
AVERAGE	4/	0.0%	3.4%	4.1%	4.4%	4.9%

No income tax: Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming.

Note: Negative numbers result from refundable state credits.

Source for classifications: Survey of State Revenue Department Officials; State Department of Revenue web sites; FTA, "State Individual Income Tax Rates as of July 1, 2018"; percentages at each income level are effective tax rates calculated by ORA using the assumptions and methodologies specific to 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.

4/ Based on jurisdictions levying tax.

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 \$3.43 per \$100 of assessed value in Bridgeport, Connecticut to \$0.35 per \$100 of assessed value in Honolulu, Hawaii. Assessment levels vary dramatically from 1.35 percent of assessed value in Billings, Montana, to 100 percent assessment in twelve cities, including the District of Columbia. Local assessors, state tax and county officials, and state and local websites provided the assessment level and nominal rates used in the cities. The District's effective property tax rate (net of assessment value) is among the lowest of the 51 cities, ranking 45th. 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), Bridgeport, Connecticut; Newark, New Jersey;¹⁷ Baltimore, Maryland; and Los Angeles, California, 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 Honolulu, Hawaii; Washington, D.C.; and Birmingham, Alabama. At the \$75,000, \$100,000 and \$150,000-income levels, the lowest are in Charleston, West Virginia; Birmingham, Alabama; and Honolulu, Hawaii. 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.

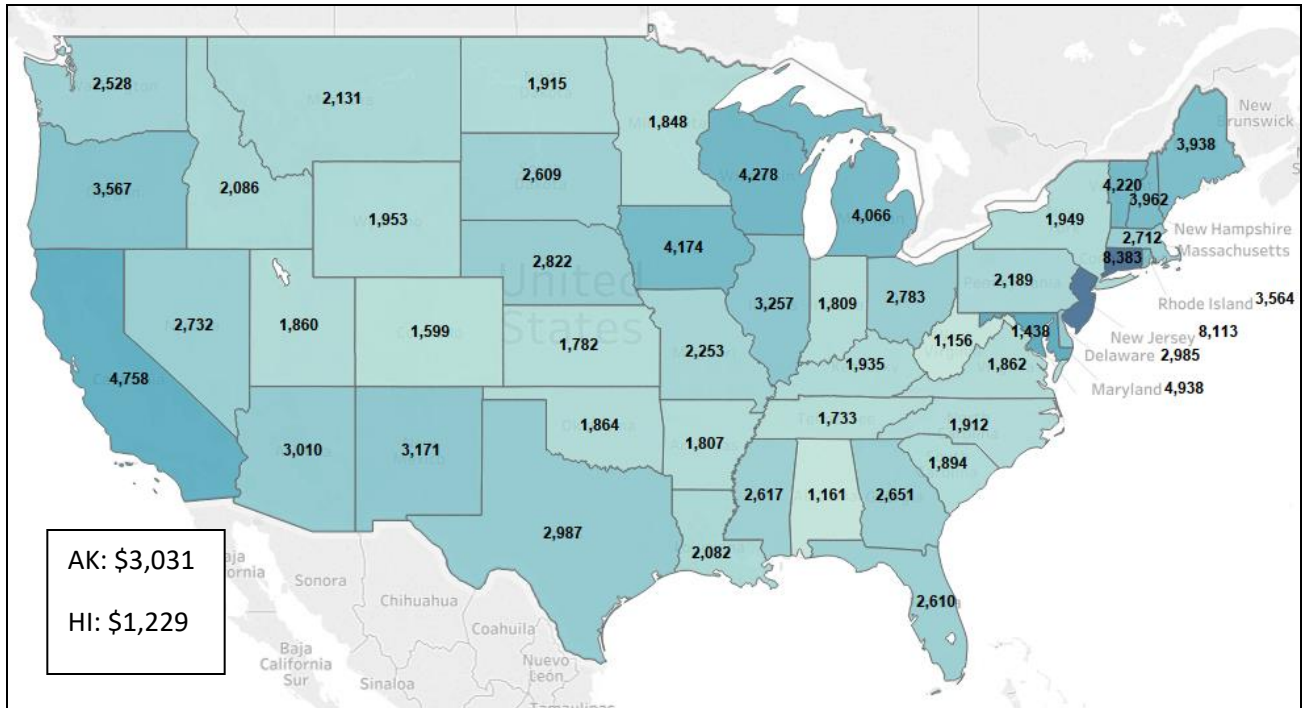
At the \$25,000 income level, it is assumed that the families rent rather than own a home. At this level, New York, New York; Washington, D.C.; Honolulu, Hawaii; and Boston, Massachusetts have the highest property tax burdens (assumed as a portion of rent). This trend is solely due to the high cost of 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

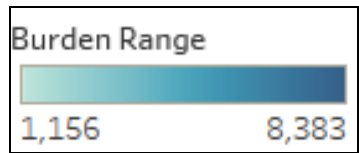
¹⁷ Newark, NJ, is in the New York City (NYC) Metropolitan Statistical Area, thus the data used for Newark are the same as for NYC. See page 55 of the 2013 Tax Rates and Tax Burdens Study for a sensitivity analysis of how several cities' (including Newark's) property tax burdens would change using city-level data.

property tax burdens at each income level on one chart, sorted by the (rental) 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: 2017 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
2017**

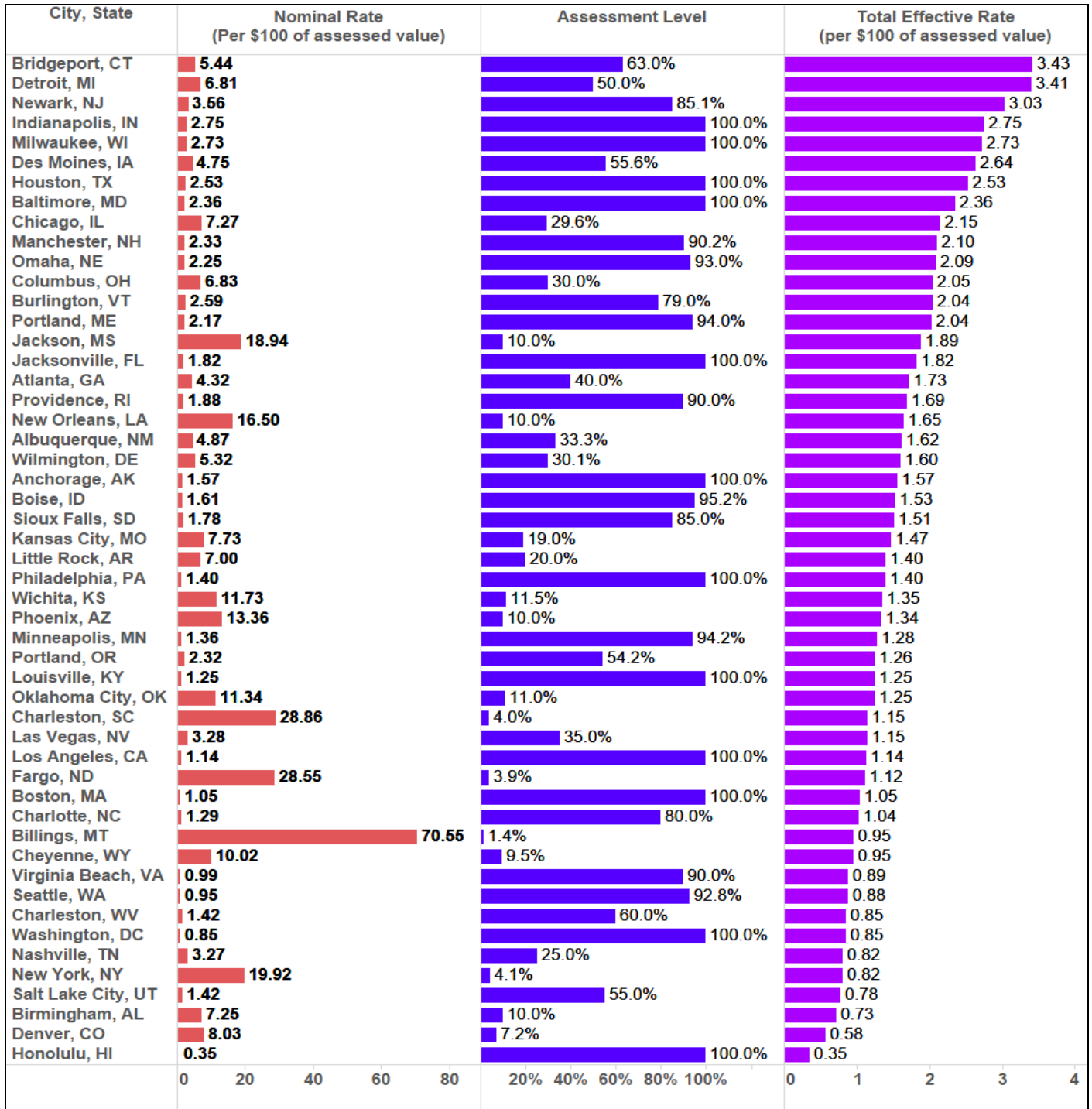
RANK	CITY	ST	NOMINAL RATE PER \$100	ASSESSMENT LEVEL	EFFECTIVE RATE PER \$100
1	Bridgeport	CT	5.44	63.00%	3.43
2	Detroit	MI	6.81	50.00%	3.41
3	Newark	NJ	3.56	85.14%	3.03
4	Indianapolis	IN	2.75	100.00%	2.75
5	Milwaukee	WI	2.73	100.00%	2.73
6	Des Moines	IA	4.75	55.62%	2.64
7	Houston	TX	2.53	100.00%	2.53
8	Baltimore	MD	2.36	100.00%	2.36
9	Chicago	IL	7.27	29.63%	2.15
10	Manchester	NH	2.33	90.20%	2.10
11	Omaha	NE	2.25	93.00%	2.09
12	Columbus	OH	6.83	30.00%	2.05
13	Burlington	VT	2.59	79.00%	2.04
14	Portland	ME	2.17	94.00%	2.04
15	Jackson	MS	18.94	10.00%	1.89
16	Jacksonville	FL	1.82	100.00%	1.82
17	Atlanta	GA	4.32	40.00%	1.73
18	Providence	RI	1.88	90.00%	1.69
19	New Orleans	LA	16.50	10.00%	1.65
20	Albuquerque	NM	4.87	33.30%	1.62
21	Wilmington	DE	5.32	30.13%	1.60
22	Anchorage	AK	1.57	100.00%	1.57
23	Boise	ID	1.61	95.20%	1.53
24	Sioux Falls	SD	1.78	85.00%	1.51
25	Kansas City	MO	7.73	19.00%	1.47
26	Little Rock	AR	7.00	20.00%	1.40
27	Philadelphia	PA	1.40	100.00%	1.40
28	Wichita	KS	11.73	11.50%	1.35
29	Phoenix	AZ	13.36	10.00%	1.34
30	Minneapolis	MN	1.36	94.20%	1.28
31	Portland	OR	2.32	54.24%	1.26
32	Louisville	KY	1.25	100.00%	1.25
33	Oklahoma City	OK	11.34	11.00%	1.25
34	Charleston	SC	28.86	4.00%	1.15
35	Las Vegas	NV	3.28	35.00%	1.15
36	Los Angeles	CA	1.14	100.00%	1.14
37	Fargo	ND	28.55	3.92%	1.12
38	Boston	MA	1.05	100.00%	1.05
39	Charlotte	NC	1.29	80.00%	1.04
40	Billings	MT	70.55	1.35%	0.95
41	Cheyenne	WY	10.02	9.50%	0.95
42	Virginia Beach	VA	0.99	90.00%	0.89
43	Seattle	WA	0.95	92.80%	0.88
44	Charleston	WV	1.42	60.00%	0.85
45	WASHINGTON	DC	0.85	100.00%	0.85
46	Nashville	TN	3.27	25.00%	0.82
47	New York City	NY	19.92	4.10%	0.82
48	Salt Lake City	UT	1.42	55.00%	0.78
49	Birmingham	AL	7.25	10.00%	0.73
50	Denver	CO	8.03	7.20%	0.58
51	Honolulu	HI	0.35	100.00%	0.35
UNWEIGHTED AVERAGE			7.05	58.06%	1.57
MEDIAN			2.75	60.00%	1.40

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 listed here are net of assessment value and 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.

*For Chicago, IL the state equalizer of 2.97 was applied to the assessment level of 10% to reflect equalizer's impact on the final rate.

**Chart 3: Residential Property Tax Rates in the Largest City in Each State
2017**



Source: ORA Analysis of data from State Revenue Officials and State Department of Revenue Web sites.

Note: Rates include state and local property taxes levied by multiple taxing authorities as identified by state survey respondents. For Chicago, IL the state equalizer of 2.97 was applied to the assessment level of 10% to reflect the equalizer's impact on the final rate.

Table 5: Housing Value Assumptions, 2017

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	1,699	142,385	213,578	284,771	427,156
Birmingham	AL	1,294	110,725	166,088	221,450	332,176
Little Rock	AR	1,109	102,704	154,056	205,408	308,113
Phoenix	AZ	1,199	149,734	224,601	299,468	449,202
Los Angeles	CA	1,924	282,165	423,248	564,331	846,496
Denver	CO	1,519	184,346	276,520	368,693	553,039
Bridgeport	CT	1,625	162,887	244,330	325,773	488,660
WASHINGTON	DC	2,592	161,055	241,583	322,111	483,166
Wilmington	DE	1,521	124,235	186,352	248,469	372,704
Jacksonville	FL	1,192	133,577	200,366	267,154	400,732
Atlanta	GA	1,568	122,307	183,460	244,614	366,921
Honolulu	HI	2,399	287,462	431,192	574,923	862,385
Des Moines	IA	1,082	105,314	157,970	210,627	315,941
Boise	ID	970	157,331	235,996	314,661	471,992
Chicago	IL	1,642	123,374	185,061	246,748	370,122
Indianapolis	IN	1,134	97,337	146,005	194,674	292,011
Wichita	KS	1,096	90,349	135,524	180,699	271,048
Louisville	KY	1,057	103,065	154,597	206,130	309,195
New Orleans	LA	1,310	124,330	186,494	248,659	372,989
Boston	MA	2,340	174,228	261,342	348,456	522,684
Baltimore	MD	1,625	139,502	209,253	279,004	418,506
Portland	ME	1,723	141,534	212,301	283,068	424,602
Detroit	MI	1,116	108,222	162,332	216,443	324,665
Minneapolis	MN	1,337	123,242	184,862	246,483	369,725
Kansas City	MO	1,096	102,285	153,428	204,571	306,856
Jackson	MS	1,145	102,668	154,002	205,335	308,003
Billings	MT	1,055	149,129	223,693	298,257	447,386
Charlotte	NC	1,352	123,061	184,591	246,121	369,182
Fargo	ND	934	114,081	171,121	228,161	342,242
Omaha	NE	1,085	93,915	140,873	187,830	281,746
Manchester	NH	1,512	125,690	188,535	251,380	377,070
Newark	NJ	1,946	178,448	267,672	356,896	535,344
Albuquerque	NM	1,003	131,667	197,500	263,334	395,001
Las Vegas	NV	1,204	158,715	238,073	317,431	476,146
New York City	NY	2,655	178,448	267,672	356,896	535,344
Columbus	OH	1,111	100,293	150,439	200,586	300,879
Oklahoma City	OK	1,089	100,352	150,528	200,704	301,056
Portland	OR	1,854	188,734	283,101	377,469	566,203
Philadelphia	PA	1,521	124,235	186,352	248,469	372,704
Providence	RI	1,415	140,428	210,641	280,855	421,283
Charleston	SC	1,375	143,591	215,387	287,182	430,773
Sioux Falls	SD	1,040	114,914	172,371	229,828	344,742
Nashville	TN	1,332	141,342	212,013	282,684	424,026
Houston	TX	1,354	103,996	155,993	207,991	311,987
Salt Lake City	UT	1,215	158,257	237,386	316,515	474,772
Virginia Beach	VA	1,681	139,483	209,225	278,967	418,450
Burlington	VT	1,723	142,964	214,445	285,927	428,891
Seattle	WA	2,131	191,201	286,801	382,402	573,603
Milwaukee	WI	1,107	117,169	175,753	234,338	351,507
Charleston	WV	900	90,215	135,322	180,429	270,644
Cheyenne	WY	1,141	136,797	205,196	273,594	410,391
AVERAGE		1,432	138,108	207,161	276,215	414,323
MEDIAN		1,332	131,667	197,500	263,334	395,001

Source for "Tax on Rent": Rental price data are from the U.S. Department of Housing and Urban Development, for 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 2017 were retrieved from the Census Bureau's ACS 2017. 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, thus the same house value and income data are used for both. Similarly, Wilmington, DE, is in the same MSA as Philadelphia, thus 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)

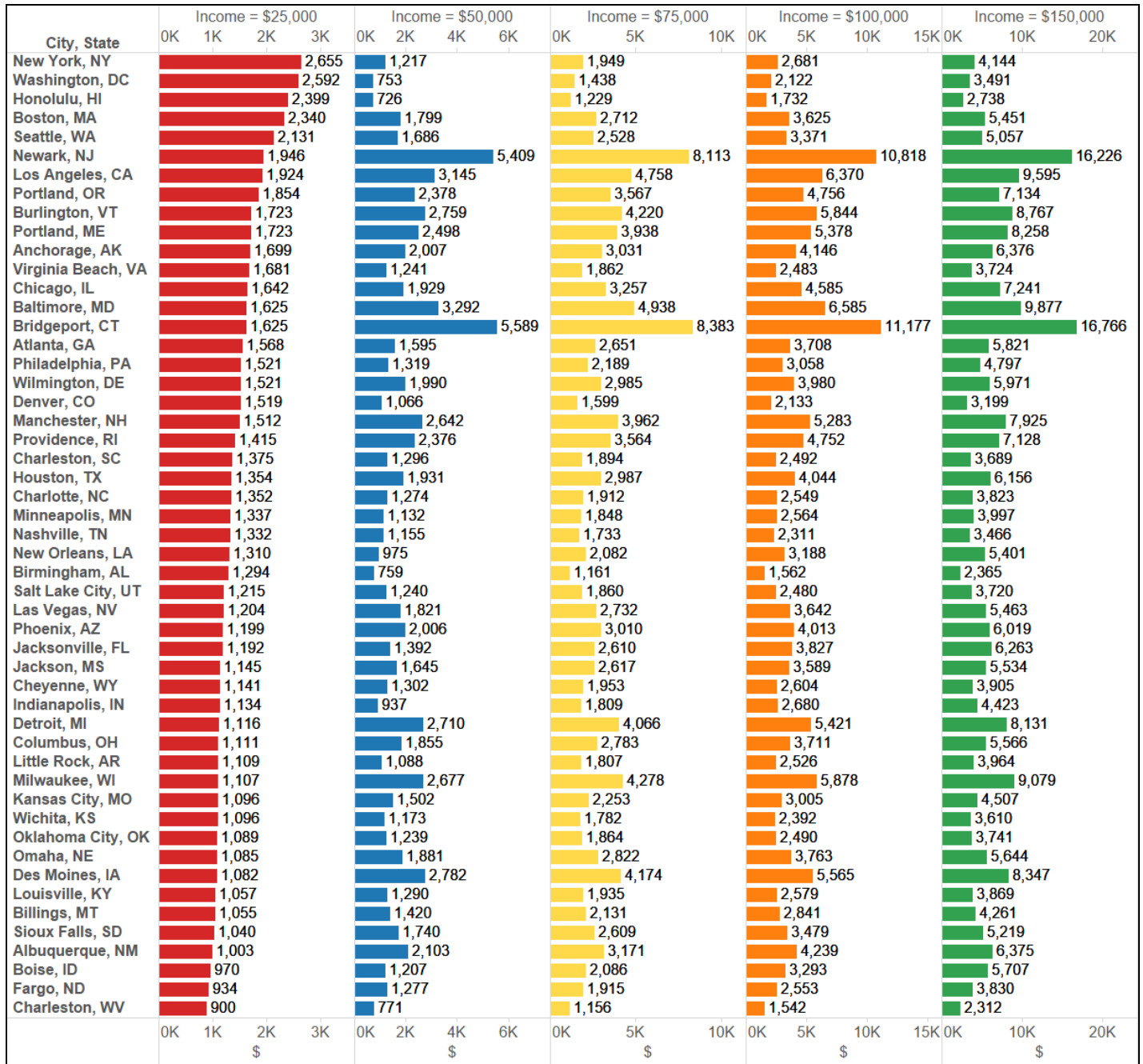
Table 6: Cities That Allow Exemptions or Reduced Rates in the Calculation of Real Estate Taxes for Homeowners, 2017

CITY	STATE	EXEMPTION OR TAX REDUCTION AMOUNT	BASIS OF TAX REDUCTION OR EXEMPTION
Anchorage	AK	10% up to \$20,000 maximum	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
Phoenix	AZ	47.19% Exemption on School Tax Rates up to \$600	Assessed Value
Los Angeles	CA	\$7,000 Exemption	Assessed Value
WASHINGTON 1/	DC	\$72,450 Exemption	Assessed Value-Homestead
Jacksonville	FL	1.First Homestead Exemption - \$25,000 2. Second Homestead exemption \$25,000	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	\$2,538 Homeowner Exemption	Assessed Value
Portland	ME	\$18,800 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 \$87.95 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	Tax reduction of \$0.20 per \$100 of home value, for rate of \$2.05/\$100 of 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 65% of all taxes exempted	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: -\$306.60 School Levy Credit; -\$142.16 Lottery Credit; -\$75.59 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 \$73,350 on October 1, 2017 (effective for D.C.'s Real Property Tax Year 2018).

Chart 4: 2017 Property Tax Burdens for All Income Levels, Sorted by Lowest Income Level



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

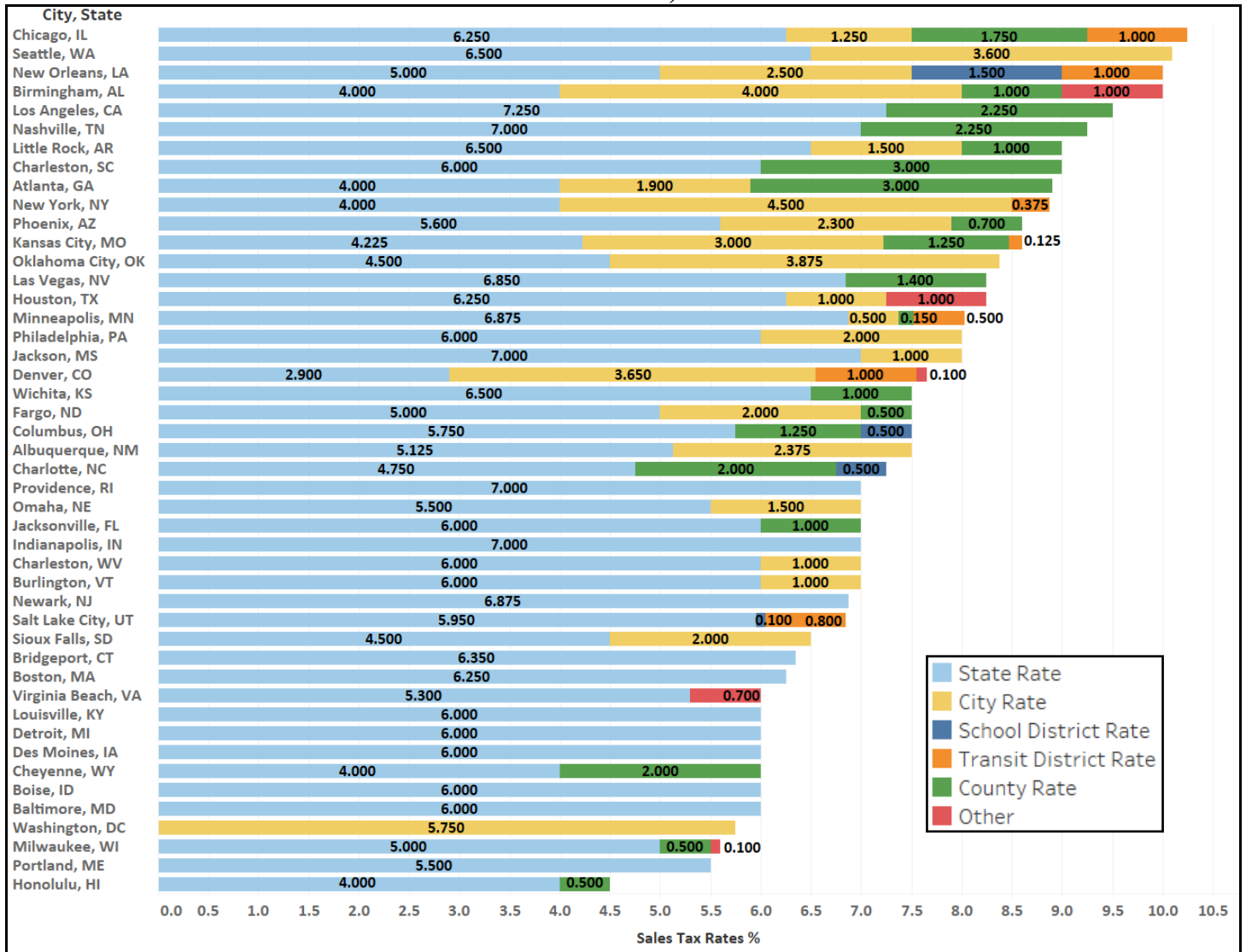
Residents of 46 of the 51 cities in this study are subject to some form of sales and use tax. The combined sales tax rates range from 10.25 percent in Chicago, Illinois to 4.5 percent in Honolulu, Hawaii, as illustrated in Chart 5, page 38, and presented in Table 7, page 39. The highest state sales tax 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 5.75 percent in Washington, D.C. (followed by 4.5 percent in New York City). The lowest city rate was 0.5 percent Minneapolis, Minnesota. Of the 19 counties levying a sales tax, the highest rate (3.0 percent) is in Fulton County (Atlanta, Georgia). Four school districts and seven transit districts also levy sales taxes, with transit district rates ranging from 0.125 percent in Kansas City, Missouri to 1.0 percent in Chicago, Illinois 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 across each of the income levels are in New Orleans, Louisiana (at each income level). Tax burdens for families in Birmingham, Alabama; Nashville, Tennessee; Kansas City, Missouri; Jackson, Mississippi; and Little Rock, Arkansas ranked behind those cities in various orders across the income groups. Seattle, Washington ranks among the top five sales tax burdens for the highest income group.

Cities and states that levy a general sales tax and have among the lowest sales tax burdens at all income levels include Boston, Massachusetts (lowest at all income levels); Cheyenne, Wyoming; and Detroit, Michigan. Other jurisdictions with low sales tax burdens in at least several income levels include Newark, New Jersey; Honolulu, Hawaii; Milwaukee, Wisconsin; and Virginia Beach, Virginia. (In Table 1, Billings, Montana, and Manchester, New Hampshire have lower sales tax burdens than these cities. However, the Billings and Manchester sales tax burdens are due to selective sales taxes that apply to certain consumption items that are included in the calculations for this report. However, these two jurisdictions do not have a general sales tax and are therefore excluded from any of the counts on this page, as well as Charts 4 and 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: State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31, 2017



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, 2017

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				
New Orleans	LA	10.000	5.000	2.500		1.500	1.000	
Birmingham	AL	10.000	4.000	4.000	1.000			1.000
Los Angeles	CA	9.500	7.250		2.250			
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	
Phoenix	AZ	8.600	5.600	2.300	0.700			
Kansas City	MO	8.600	4.225	3.000	1.250		0.125	
Oklahoma City	OK	8.375	4.500	3.875				
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
Wichita	KS	7.500	6.500		1.000			
Columbus	OH	7.500	5.750		1.250	0.500		
Albuquerque	NM	7.500	5.125	2.375				
Fargo	ND	7.500	5.000	2.000	0.500			
Charlotte	NC	7.250	4.750		2.000	0.500		
Providence	RI	7.000	7.000					
Jacksonville	FL	7.000	6.000		1.000			
Charleston	WV	7.000	6.000	1.000				
Indianapolis	IN	7.000	7.000					
Burlington	VT	7.000	6.000	1.000				
Omaha	NE	7.000	5.500	1.500				
Newark	NJ	6.875	6.875					
Salt Lake City	UT	6.850	5.950			0.100	0.800	
Sioux Falls	SD	6.500	4.500	2.000				
Bridgeport	CT	6.350	6.350					
Boston	MA	6.250	6.250					
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			
WASHINGTON	DC	5.750		5.750				
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		7.479	5.668	2.373	1.395	0.650	0.686	0.580
MEDIAN		7.375	6.000	2.000	1.250	0.500	0.800	0.700

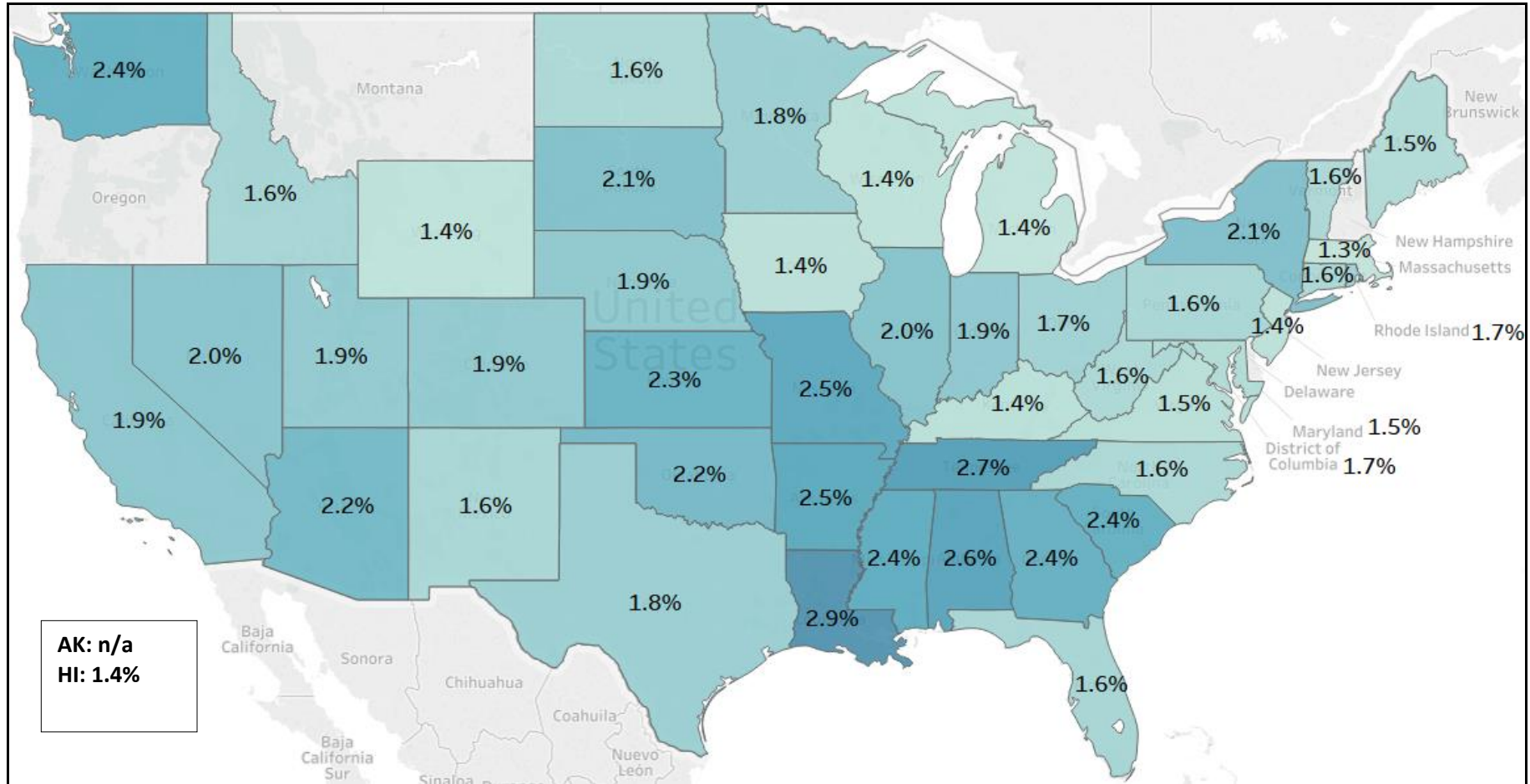
Source: Survey of State Revenue Department Officials.

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

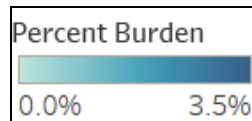
Note: Unweighted average includes only those jurisdictions with a sales tax.

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

Map 4: 2017 Sales Tax Burdens, Family Earning \$75,000/Year



Source: ORA Analysis. The lighter blue shading represents a lower tax burden. Anchorage, AK; Billings, MT; Manchester, NH; Portland, OR; and Wilmington, DE do not have a general sales tax. Delaware, Montana, and New Hampshire have selective sales taxes on some items included in the sales tax burden calculation, at 0.02%, 0.04%, and 0.06% respectively.



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, excise taxes, and personal property taxes. Eight of the cities levy a personal property tax based on the value of motor vehicles owned by a taxpayer, while another 15 states or cities levy another type of fee or tax with various names (e.g. wheel tax, use tax, uniform fee, county option tax, etc.), and four states levy an annual excise tax. Taxpayers in at least 11 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, 2017, are compared in Table 8, page 42. The total gasoline tax rates vary from a high of 59.3 cents per gallon in Philadelphia, Pennsylvania; 55.9 in Los Angeles, California; and 54.1 in Honolulu, Hawaii; to a low of 9.0 cents per gallon in Anchorage, Alaska. Nine states and five 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 lowest tax burdens for a specific tax at all income levels in this study are the automobile tax burdens (except in those states that offer refundable EITCs through the income tax at the \$25,000 income level). Providence, Rhode Island; Los Angeles, California; Kansas City, Missouri; and Charleston, South Carolina are the cities with the highest automobile tax burdens across all income levels. These cities levy either a personal property tax or an excise tax. New Orleans, Louisiana; Albuquerque, New Mexico; Anchorage, Alaska; and Birmingham, Alabama 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, and no personal property or excise tax (or a low rate as in Birmingham).

**Table 8: Gasoline Tax Rates in the 51 Cities, as of December 31, 2017
(State and Local Rates per Gallon)**

CITY	ST	TOTAL RATE	STATE RATE	LOCAL RATE
Philadelphia	PA	59.3	59.3	0.0
Los Angeles*+	CA	55.9	48.9	7.0
Honolulu*+	HI	54.1	36.1	18.0
Jacksonville*+	FL	50.2	41.6	8.6
Chicago*	IL	50.1	33.1	17.0
Seattle	WA	49.5	49.5	0.0
New York City*+	NY	45.0	33.7	11.3
Indianapolis*	IN	43.3	43.3	0.0
Bridgeport*	CT	42.0	42.0	0.0
Atlanta*+	GA	40.4	34.6	5.8
Detroit*	MI	40.0	40.0	0.0
Portland	OR	40.0	30.0	10.0
Newark	NJ	37.2	37.2	0.0
Charleston	WV	35.7	35.7	0.0
Charlotte	NC	34.6	34.6	0.0
Providence	RI	34.1	34.1	0.0
Baltimore	MD	33.8	33.8	0.0
Las Vegas	NV	33.6	23.8	9.8
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
Des Moines	IA	30.5	30.5	0.0
Burlington	VT	30.5	30.5	0.0
Salt Lake City	UT	30.1	30.1	0.0
Sioux Falls	SD	30.0	30.0	0.0
Minneapolis	MN	28.6	28.6	0.0
Omaha	NE	28.2	28.2	0.0
Columbus	OH	28.0	28.0	0.0
Boston	MA	26.7	26.7	0.0
Louisville	KY	26.0	26.0	0.0
Nashville	TN	25.4	25.4	0.0
Wichita	KS	25.0	25.0	0.0
Wilmington	DE	24.6	24.6	0.0
Cheyenne	WY	24.0	24.0	0.0
Manchester	NH	23.8	23.8	0.0
Birmingham	AL	23.7	21.8	1.9
WASHINGTON	DC	23.5	23.5	0.0
Fargo	ND	23.0	23.0	0.0
Denver	CO	22.0	22.0	0.0
Little Rock	AR	21.8	21.5	0.3
New Orleans	LA	20.1	20.1	0.0
Houston	TX	20.0	20.0	0.0
Virginia Beach	VA	19.3	16.8	2.5
Phoenix	AZ	19.0	19.0	0.0
Albuquerque	NM	18.9	18.9	0.0
Charleston	SC	18.8	18.8	0.0
Jackson	MS	18.4	18.4	0.0
Kansas City	MO	17.3	17.3	0.0
Oklahoma City	OK	17.0	17.0	0.0
Anchorage	AK	09.0	09.0	0.0
UNWEIGHTED AVERAGE		31.0	29.2	1.8
MEDIAN		30.0	28.6	0.0

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: Survey of State Revenue Department Officials and review of State Web pages; Wolters Kluwer/CCH 2018 State Tax Handbook; Federation of Tax Administrators, "State Motor Fuel Tax Rates, as of January 1, 2018;" Energy Information Administration (EIA), "Federal and State Motor Fuels Taxes" February 2017; and Joel Michael, House Research Department of the MN Legislature, "Survey of State and Local Gasoline Taxes," August 2016 Update.

**Table 9: Summary of Types of Automobile Registration Taxes 2017
(50 states + D.C.)**

<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	8
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 2017

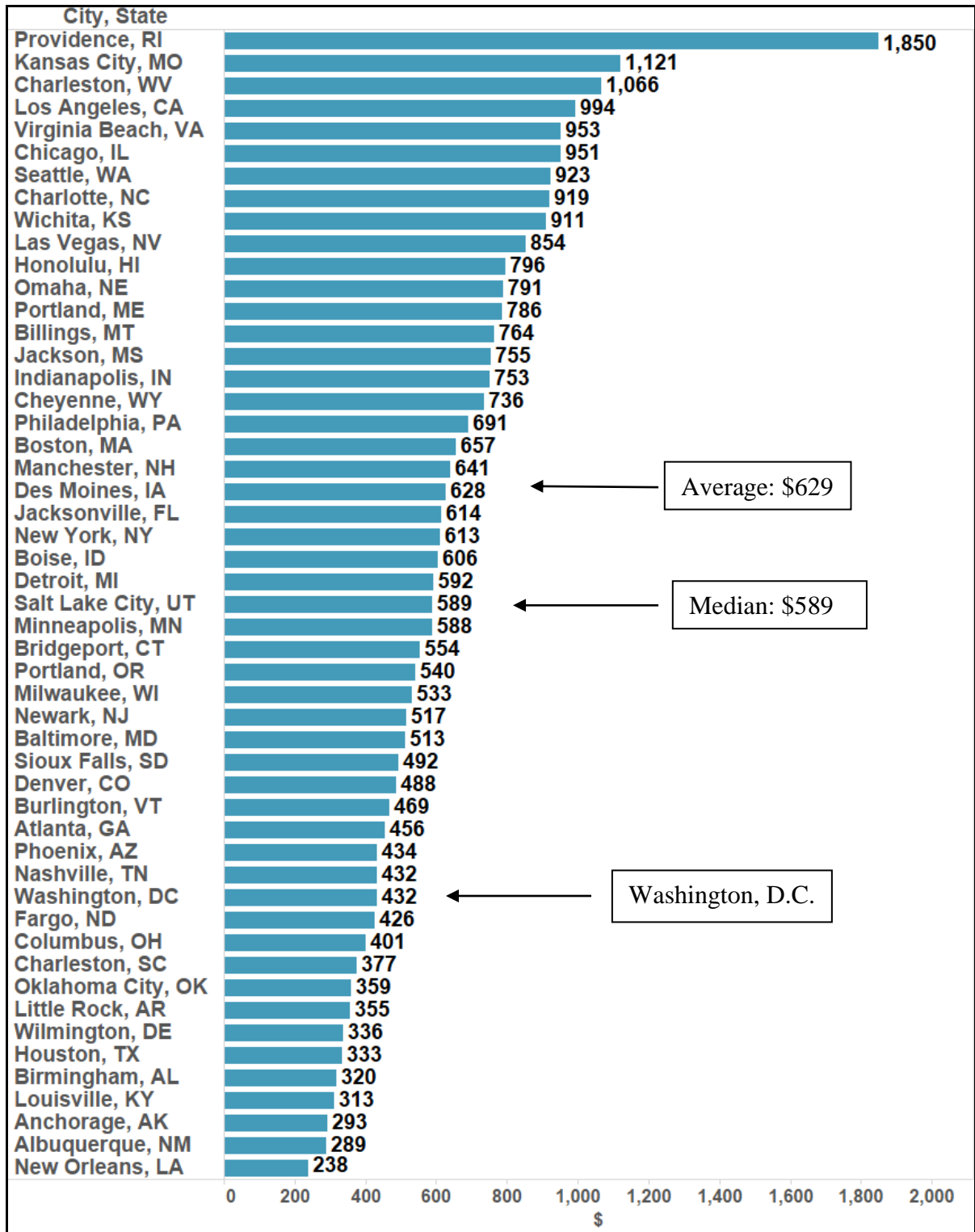
Income Level	Description of Auto	Engine Size Liters 1/	Weight 2/	Year	Market Values			Estimated Mileage Per Gallon 1/	Estimated Annual Gasoline Usage 3/
					Retail Price 2/	Trade-In Value 2/	Loan Value 2/		
\$ 25,000	Sedan, 4 Door 4-cylinder, Auto	1.8	2,857 lbs.	2014	\$12,475	\$9,050	\$12,350	30	500 gallons
\$ 50,000	Sedan, 4 Door 4 Cylinder, Manual	1.4	2,939 lbs.	2016	\$11,925	\$8,875	\$11,806	28	536 gallons
\$ 75,000	Sedan, 4 Door 4 Cylinder, Automatic	2.5	3,300 lbs.	2016	\$18,425	\$14,825	\$18,241	25	600 gallons
	4WD Utility, 4 Door 6 Cylinder, Automatic	3.5	4,266 lbs.	2011	\$16,675	\$13,200	\$16,508	17	441 gallons*
\$100,000	Sedan, 4 Door 6 Cylinder, Automatic	3.6	3,906 lbs.	2016	\$22,250	\$18,275	\$22,028	18	833 gallons
	4WD Utility, 4 Door 6 Cylinder, Automatic	3.5	4,732 lbs.	2011	\$16,125	\$12,600	\$15,964	17	441 gallons*
\$150,000	Sedan, 4 Door 6 Cylinder, Automatic	2.0	3,814 lbs.	2017	\$52,085	\$46,590	\$51,564	21	714 gallons
	AWD Utility, 4 Door 6 Cylinder, Automatic	3.5	4,234 lbs.	2013	\$18,275	\$15,050	\$18,092	18	417 gallons*

1/ Gas Mileage Guide, EPA fuel economy estimates for city driving, U.S. 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: 2017 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, D.C. Compare with Those in the Largest City in Each State?

The nation's capital, Washington, D.C., 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, D.C., 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 D.C.'s overall combined burden and the 51-city average at each income level.

Individual Income Tax

According to Table 11 and based on the assumptions made in this report, the individual income tax burden for Washington, D.C. is below the 51-city average at the \$25,000 level (the average is based on the cities and states that levy an income tax). The income tax burden at the \$50,000, \$75,000, \$100,000, and \$150,000 income levels is slightly higher in D.C. than for the average of the cities levying an income tax. This is due to the District's more progressive income tax. Washington, D.C. levied an individual income tax with six rates in tax year 2017: 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. For tax year 2017, personal exemptions of \$1,775 per dependent were allowed, as well as a \$1,775 exemption for the filer and spouse, respectively. A standard deduction of \$10,275 for joint married filers (\$5,650 for married-filing separately) and indexed to the Consumer Price Index was in effect for the period of this study. Itemized deductions are the same as those allowed in computing the federal income tax, but the District does not allow the deduction of its own individual income tax. Washington, D.C. 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 (though this is not considered for calculations in this study). The District's low-income credit eliminates the District income tax for taxpayers with no federal income tax liability.

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. The need to levy higher income tax rates on higher income levels is due in part to restrictions on the individual income tax base of the District. Federal law prohibits Washington, D.C. from taxing the earnings of non-residents working within the city, a restriction not imposed on any other city in the nation. Because of this, the District of Columbia taxes residents at a higher rate than would otherwise be the case since almost 60 percent of the wages and salaries earned in the District of Columbia are earned by non-residents.¹⁸

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, D.C. than the average for the 51 cities, which reflects the high cost of rental housing in the District. Although the District's house values are higher than the 51-city average at each income level, these rankings highlight the District's 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. The tax rate on residential owner-occupied property in the District is \$0.85 per \$100 of assessed value for 2017. D.C. homeowners may deduct a homestead exemption of \$72,450 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.

¹⁸ "District of Columbia Economic and Revenue Trends: September 2018." Data point for FY17. Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis. Washington, D.C.: 2018. p. 6.

Sales and Use Tax

According to 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 2017, the District levied a sales tax with five different rates. 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 2017. Items exempt from the District of Columbia sales tax include groceries and prescription drugs.

ITEMS	2017 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	5.75%
Medical marijuana	6.0%
Restaurant meals, liquor sold for consumption on and off the premises, rental vehicles, prepaid telephone cards, tickets sold for baseball games, merchandise sold at the baseball stadium, tickets sold for events at the Verizon Center and merchandise sold at the Verizon Center	10.0%
Hotels (transient accommodations)	14.8%
Parking motor vehicles in commercial lots	18.0%

Source: "D.C. Tax Facts 2018." Government of D.C., Office of the Chief Financial Officer, Office of Revenue Analysis, p. 67.

Automobile Taxes

Washington, D.C., 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, D.C. 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. One of the major reasons the District of Columbia income tax burden is above the average at the top four income levels is the restriction on the District's taxing authority mandated by Congress. Factors such as the prohibition on taxing non-resident income, plus the large percentage of tax-exempt properties (fifty-two percent of District acreage is tax exempt¹⁹), have combined to create difficult conditions under which to raise revenues to operate the city. Some of the positive factors, which tend to increase the District tax base, include substantial tourist activity as well as the large volume of business and lobbying activity generated by the federal presence.

¹⁹ "D.C. Tax Facts 2018." Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis, p. 42.

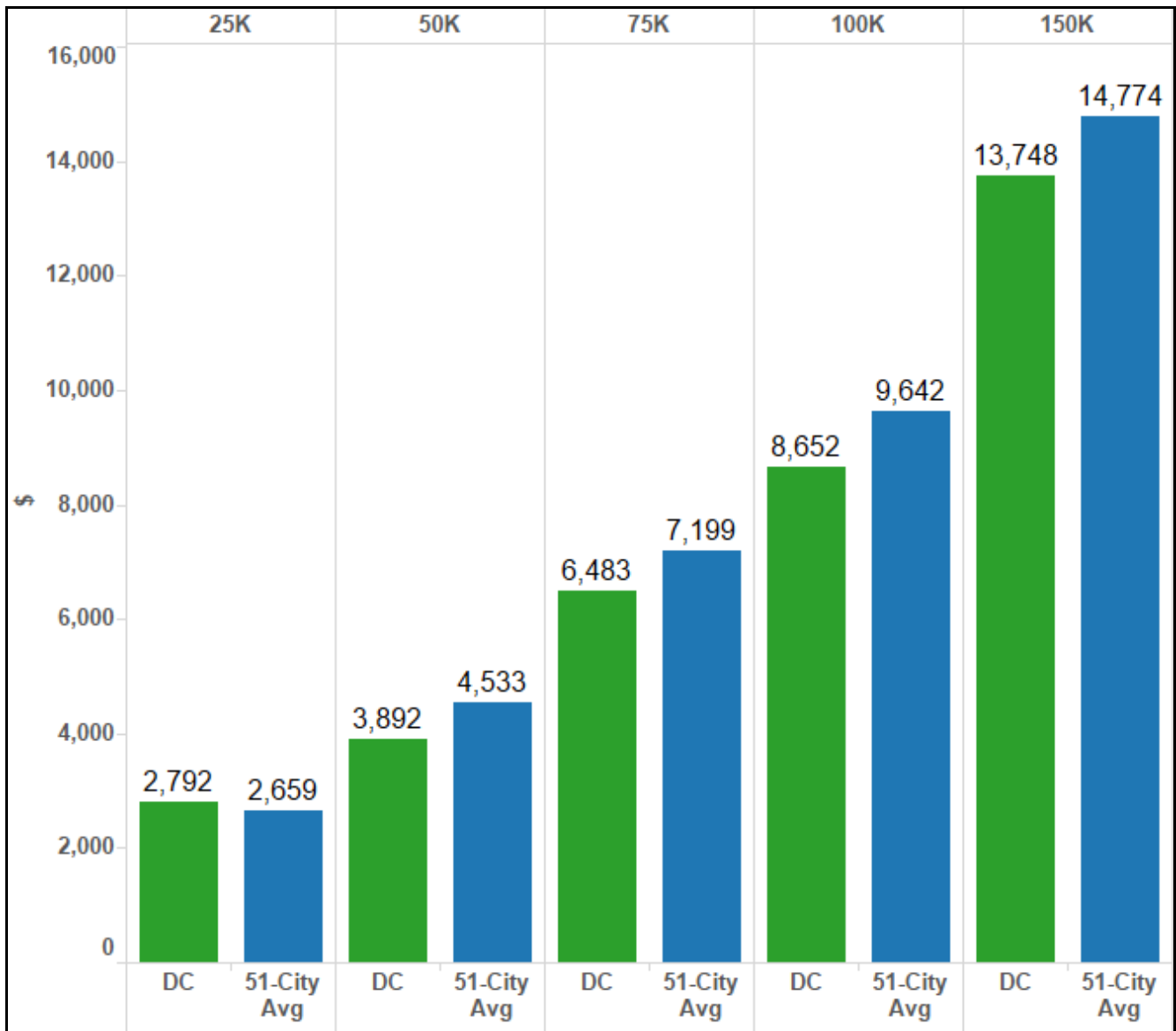
Table 11: Tax Burdens in Washington, D.C. for a Hypothetical Family Compared with the Average for the Largest City in Each State by Income Level, 2017

TAX	DISTRICT OF COLUMBIA	AVERAGE FOR CITIES LEVYING TAX ^{1/}	DIFFERENCE (D.C. Minus Average)
\$25,000 INCOME LEVEL			
Income	(\$912)	(\$7)	(\$905)
Property	2,592	1,432	\$1,160
Sales	923	996	(\$73)
Auto	190	275	(\$85)
TOTAL	\$2,792	\$2,659	\$133
\$50,000 INCOME LEVEL			
Income	\$1,866	\$1,617	\$249
Property	753	1,823	(\$1,070)
Sales	1,075	1,124	(\$49)
Auto	198	298	(\$100)
TOTAL	\$3,892	\$4,533	(\$641)
\$75,000 INCOME LEVEL			
Income	\$3,329	\$3,005	\$324
Property	1,438	2,822	(\$1,384)
Sales	1,285	1,326	(\$41)
Auto	432	628	(\$196)
TOTAL	\$6,483	\$7,199	(\$717)
\$100,000 INCOME LEVEL			
Income	\$4,359	\$4,210	\$149
Property	2,122	3,832	(\$1,709)
Sales	1,642	1,680	(\$38)
Auto	529	730	(\$201)
TOTAL	\$8,652	\$9,642	(\$990)
\$150,000 INCOME LEVEL			
Income	\$7,581	\$7,149	\$432
Property	3,491	5,845	(\$2,353)
Sales	2,180	2,187	(\$7)
Auto	496	940	(\$444)
TOTAL	\$13,748	\$14,774	(\$1,026)

^{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 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.

**Chart 7: Combined 2017 Tax Burdens at Each Income Level:
Comparison of D.C. 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.

Part II

**A Comparison of Selected
Tax Rates in the
District of Columbia
with Those in the 50 States
as of January 1, 2018**

Tax Rate Comparisons at a Glance

Below is a review of how D.C.'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 four tax categories – insurance premiums, beer, light wine, and distilled spirits -- the District has lower tax rates than most states. For gasoline, twenty-five states have higher excise taxes than the District and twenty-five states have lower taxes than the District. Similarly, twenty-six states have a higher sales tax than D.C. and eighteen states have a lower rate.

Table 12: Comparison of Selected State Tax Rates

TAX	LEVYING TAX 1/	NUMBER OF JURISDICTIONS		
		LOWER THAN D.C.	SAME AS D.C.	HIGHER THAN D.C.
Individual Income	43 2/	37 3/	0	6 3/
Corporate Income	44	33	1	10
Insurance	50	13	0	37
Sales and Use	45	18	1	26
Beer	50	7	1	42
Light Wine	47	4	4	39
Distilled Spirits	33	0	1	32
Cigarette	50	42	0	8
Gasoline	50	25	0	25
Motor Vehicle Excise (for cars >3,500 and <5,000 lbs.)	46	39	5	2
Motor Vehicle Registration (Fee)	50	47	0	3
Deed Recordation	36	36	0	0

1/ This count excludes D.C.

2/ Includes 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	1/		
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 2018." July 1, 2018. *2018 State Tax Handbook*, Wolters Kluwer/ CCH Group, 2017.

1/ As a result of the 2017 Tax Cuts and Jobs Act and D.C.'s federal conformity provisions, D.C. personal exemptions are reduced to zero and the federal standard deduction will apply for 2018 (married filing jointly - \$24,000; head of household - \$18,000, single - \$12,000). There is an additional standard deduction \$1,300 for age 65+ or blind taxpayers (and/or spouse/registered domestic partner).

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 \$2,000 (\$4,000 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							
\$2,200	\$4,400	\$2,300	S, M/S M/J, HH	2.59% 2.59%	\$10,346 20,690	4.54% 4.54%	\$155,159 310,317
ARKANSAS							
(\$26)	(\$52)	(\$26)	S, HH, M, M/J	0.9%	\$ 4,299	6.9%	\$ 35,100
CALIFORNIA ^{2/}							
(\$114)	(\$228)	(\$353)	S,M/S HH M/J	1.0% 1.0% 1.0%	\$ 8,223 16,457 16,446	12.3% 12.3% 12.3%	\$551,473 750,003 1,102,946
COLORADO ^{1/}							
\$0 ^{3/}	\$0 ^{3/}	\$0 ^{3/}	4.63% of federal taxable income with certain modifications.				
CONNECTICUT							
\$14,500	\$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	6.00% 6.00% 6.00%	\$ 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							
\$4,150	\$8,300	\$4,150	S,M/S HH,M/J	1.125% 1.125%	\$ 1,504 3,008	6.925% 6.925%	\$ 11,279 22,558
ILLINOIS							
\$2,000	\$4,000	\$2,000				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	0.36%	\$1,598	8.98%	\$ 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							
\$4,050	\$8,100	\$4,050	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				5.10% of taxable income.	
MICHIGAN 2/							
\$4,000	\$8,000	\$4,000				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%	\$ 25,890	9.85%	\$ 160,020	
			M/S	5.35%	18,930	9.85%	133,350	
			HH	5.35%	31,880	9.85%	213,360	
			M/J	5.35%	37,850	9.85%	266,700	
MISSISSIPPI								
\$6,000	\$12,000	\$1,500	S, M/J, HH	3.0% 1/	\$5,000	5.0%	\$ 10,000	
MISSOURI 2/								
\$2,100	\$4,200	\$1,200	S, M/J, HH, M/S	1.5%	\$ 1,028	5.9%	\$ 9,253	
MONTANA								
\$2,400	\$4,800	\$2,400	S, M/J, HH	1.0%	\$3,000	6.9%	\$ 17,900	
NEBRASKA								
(\$134)	(\$268)	(\$134)	M/S,S	2.46%	\$3,150	6.84%	\$ 30,420	
			HH	2.46%	5,870	6.84%	45,110	
			M/J	2.46%	6,290	6.84%	60,480	
NEW HAMPSHIRE								
\$2,400	\$4,800 5/	---	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	8.97%	\$ 500,000	
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								
---	---	---	5.499%					
NORTH DAKOTA								
\$0 3/	\$0 3/	\$0 3/	S	1.10%	\$ 38,700	2.90%	\$ 424,950	
			HH 4/	1.10%	50,800	2.90%	416,701	
			M/J	1.10%	64,650	2.90%	424,950	

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/ New York and North Dakota Head of Household thresholds are for 2017.

5/ 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/}								
\$2,300	\$4,600	\$2,300	S, M/J, M/S	0.495%	\$ 10,650	4.997%	\$213,350	
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/}								
(\$201)	(\$402)	(\$201)	S,M/S M/J	5.0% 5.0%	\$3,450 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								
\$4,000	\$8,000	\$4,000	S, HH, M/S, M/J	3.75%	\$ 62,550	5.99%	\$ 142,150	
SOUTH CAROLINA								
\$4,150	\$8,300	\$4,150	S,M/S,M/J	0.0%	\$ 2,970	7.0%	\$ 14,860	
TENNESSEE								
\$1,250	\$2,500	---	3.0% on interest and dividend income.					
UTAH ^{2/}								
						5.0% flat rate.		
VERMONT								
\$4,150	\$8,300	\$4,150	S	3.35%	\$38,700	8.75%	\$ 195,450	
			M/S	3.35%	32,300	8.75%	118,975	
			HH	3.35%	51,580	8.75%	216,700	
			M/J	3.35%	64,600	8.75%	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	4.0%	\$11,450	7.65%	\$ 252,150	
			M/J	4.0%	15,270		336,200	
			M/S	4.0%	7,630		168,100	

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, 2018;" and Tax Foundation, "State Individual Income Tax Rates and Brackets for 2017."

^{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).

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, 2018 and "State Individual Income Taxes;" July 1, 2018; Survey of State Revenue Department Officials; "2018 State Tax Handbook." Wolters Kluwer/CCH. 2017.

* '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% ^{1/}

LOWER THAN THE DISTRICT 33 STATES			
North Carolina	3.00%	Alabama	6.50%
North Dakota	4.31%	Arkansas	6.50%
Colorado	4.63%	New York	6.50%
Arizona	4.90%	Tennessee	6.50%
Mississippi	5.00%	West Virginia	6.50%
South Carolina	5.00%	Montana ^{3/}	6.75%
Utah	5.00%	Idaho	6.93%
Florida	5.50%	Kansas ^{4/}	7.00%
New Mexico	5.90%	Rhode Island ^{10/}	7.00%
Georgia	6.00%	Connecticut ^{5/}	7.50%
Kentucky	6.00%	Oregon	7.60%
Michigan	6.00%	Nebraska	7.81%
Oklahoma	6.00%	Wisconsin	7.90%
Virginia	6.00%	Louisiana	8.00%
Indiana ^{2/}	6.00%	Massachusetts	8.00%
Missouri	6.25%	New Hampshire ^{7/}	8.20%
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	12.00%
NO TAX 6 STATES			
Ohio ^{8/}		Texas	
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, 2018."

1/ D.C.'s rate decreased to 8.25% (from 9.0%) on January 1, 2018.

2/ Indiana's rate is scheduled to decrease to 5.75% on July 1, 2018.

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

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

5/ There is a 10% surtax for 2018, for corporations with gross income over \$100 million.

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

7/ Does not include a Business Enterprise Tax of 0.72% on the enterprise base (total compensation, interest and dividends paid) for businesses with gross income over \$150,000 or base over \$75,000.

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/ In Rhode Island a rate of 9.0% applies to financial institutions; neither public service corporations nor insurance companies are subject to the state corporate income tax.

**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 ^{1/}	0.50%	Indiana	1.30%
New York ^{2/}	0.70%	Ohio	1.40%
South Carolina	0.75%	Idaho	1.50%
Wyoming	0.75%	Kentucky	1.50%
Iowa	1.00%	Minnesota	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%
North Carolina ^{3/}	1.90%	Oklahoma	2.25%
Arizona	1.90%	Utah	2.25%
Colorado	2.00%	Virginia	2.25%
Delaware	2.00%	Alabama	2.30%
Kansas	2.00%	California	2.00%
Maine	2.00%	Arkansas	2.50%
Maryland	2.00%	South Dakota	2.50%
Massachusetts	2.00%	Alaska	2.70%
Missouri	2.00%	Hawaii	2.75%
New Hampshire	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 ^{4/}	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 2018 State Tax Handbook.

1/ An additional 1% premium tax for fire or fire related insurance policies.

2/ 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.

3/ An additional 6.5% insurance regulatory charge applied to premium tax liability for 2017.

4/ Additional fire and casualty insurance premium tax of 1 percent for municipal pensions and 0.55 percent surcharge for volunteer fire departments.

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

DISTRICT OF COLUMBIA: 5.75% 1/

LOWER THAN THE DISTRICT 18 STATES			
Colorado (8.3%)	2.900%	North Dakota (3.5%)	5.000%
Alabama (7.5%)	4.000%	Louisiana (7.0%)	5.000%
Georgia (4.9%)	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 (5.39%)	4.225%	Nebraska (2.0%)	5.500%
Oklahoma (6.5%)	4.500%	Arizona (5.3%)	5.600%
South Dakota (4.5%)	4.500%		
North Carolina (2.75%)	4.750%		
SAME AS THE DISTRICT 1 STATE			
Ohio (2.25%)	5.75%		
HIGHER THAN THE DISTRICT 26 STATES			
Utah (2.65%) 2/	5.950%	Connecticut	6.350%
Florida (2.0%)	6.000%	Arkansas (5.13%)	6.500%
Idaho (3.0%)	6.000%	Kansas (4.0%)	6.500%
Iowa (1.0%)	6.000%	Washington (3.90%)	6.500%
Kentucky	6.000%	New Jersey (3.31%)	6.625%
Maryland	6.000%	Nevada (1.42%)	6.850%
Michigan	6.000%	Minnesota (2.0%)	6.875%
Pennsylvania (2.0%)	6.000%	Indiana	7.000%
South Carolina (3.0%)	6.000%	Mississippi (1.0%)	7.000%
Vermont (1.0%)	6.000%	Rhode Island	7.000%
West Virginia (1.0%)	6.000%	Tennessee (2.75%)	7.000%
Illinois (4.75%)	6.250%	California (2.50%) 2/	7.250%
Massachusetts	6.250%		
Texas (2.0%)	6.250%		
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, 2018."

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	.198	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, 2018)."

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	\$.20	Wisconsin	\$.25
Texas	.204	Colorado	.28
SAME AS THE DISTRICT 4 STATES			
Kansas	\$.30	New Hampshire	\$.30
Minnesota	.30	New York	.30
HIGHER THAN THE DISTRICT 39 STATES			
Ohio	\$.32	New Jersey	\$.875
Mississippi	.35	South Dakota	.93
Maryland	.40	Nebraska	.95
Missouri	.42	Delaware	1.63
Idaho	.45	North Carolina	1.00
Indiana	.47	West Virginia	1.00
Kentucky	.50	Montana ^{2/}	1.02
North Dakota	.50	South Carolina	1.08
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, 2018)."

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		Ohio	
Idaho		Oregon	
Iowa 1/		Pennsylvania 4/	
Maine		Utah 5/	
Michigan		Vermont	
Mississippi		Virginia 6/	
Montana 2/		West Virginia	
New Hampshire		Wyoming	
North Carolina 3/			
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, 2018)."

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: \$2.94 ^{1/}

LOWER THAN THE DISTRICT 42 STATES			
Missouri	\$.17	Oregon	\$1.32
Virginia	.30	Florida	1.339
Georgia	.37	Iowa	1.36
North Dakota	.44	Texas	1.41
North Carolina	.45	South Dakota	1.53
Idaho	.57	Ohio	1.60
South Carolina	.57	New Mexico	1.66
Kentucky	.60	Montana	1.70
Wyoming	.60	Utah	1.70
Tennessee	.62	New Hampshire	1.78
Nebraska	.64	Nevada	1.80
Alabama	.675	Illinois	1.98
Mississippi	.68	Alaska	2.00
Colorado	.84	Arizona	2.00
Indiana	.995	Maine	2.00
Oklahoma	1.03	Maryland	2.00
Louisiana	1.08	Michigan	2.00
Arkansas	1.15	Delaware	2.10
West Virginia	1.20	Wisconsin	2.52
Kansas	1.29	Pennsylvania ^{2/}	2.60
		New Jersey	2.70
		California	2.87
HIGHER THAN THE DISTRICT 8 STATES			
Washington	3.025	Minnesota ^{3/}	3.614
Vermont	3.08	Rhode Island	4.25
Hawaii	3.20	Connecticut	4.35
Massachusetts	3.51	New York	4.35

Source: Survey of State Revenue Department Officials; Federation of Tax Administrators, "State Excise Tax Rates on Cigarettes, (January 1, 2018)."

^{1/} Includes an in lieu cigarette sales tax currently at \$0.44. On October 1, 2018, tax increased to \$4.94/pack of 20.

^{2/} Additional \$2.00 tax in Philadelphia.

^{3/} Includes an in lieu cigarette sales tax currently at \$0.574.

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

DISTRICT OF COLUMBIA: \$.235

LOWER THAN THE DISTRICT 25 STATES			
Alaska	\$.0895	Illinois	\$.19
New Jersey 2/	.105	Louisiana	.20
Vermont	.121	Tennessee	.20
Hawaii	.16	Texas	.20
		Arkansas	.215
Oklahoma	.16		
South Carolina	.16	Colorado	.22
Virginia	.162	New Hampshire	.222
Missouri	.17	Delaware	.23
New Mexico	.17	Nevada	.23
		North Dakota	.23
Florida 1/	.17725		
Alabama	.18	Wyoming	.23
Arizona	.18		
Indiana	.28		
Mississippi	.18		
HIGHER THAN THE DISTRICT 25 STATES			
Kansas	.24	Maine	.30
Massachusetts	.24	Oregon	.30
Kentucky	.246	Iowa	.305
New York 2/	.2495	Wisconsin	.309
Connecticut	.25	Idaho	.32
Michigan	.263	West Virginia 4/	.357
Georgia	.268	Rhode Island	.33
Nebraska	.282	Maryland	.338
Montana	.315	North Carolina	.351
California 3/	.417	Washington	.494
Ohio	.28	Pennsylvania	.582
South Dakota	.28		
Minnesota	.285		
Utah	.294		

Source: Survey of State Revenue Department officials. Federation of Tax Administrators, "State Motor Fuel Rates, (January 1, 2018)."

Note: Tax rates do not include local option taxes (see Table 8). Additional inspection or environmental cleanup fees may apply (these are included in Table 8).

1/ FL includes a statewide local tax and other fees.

2/ NY includes a petroleum business tax and fee of \$0.169. NJ does not include petroleum fee of \$0.266.

3/ CA includes a pre-paid sales tax.

4/ WV includes a flat rate of \$0.205 + a variable rate floor of \$0.152.

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

46 States and D.C.

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%
New Mexico	3.00%	Pennsylvania 7/	6.00%
North Carolina 2/	3.00%	Vermont	6.00%
Oklahoma	3.25%	West Virginia 7/	6.00%
Hawaii	4.00%	Illinois	6.25%
New York	4.00%	Massachusetts 3/	6.25%
South Dakota	4.00%	Texas 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%
Utah	4.70%	Washington 3/	6.50%
Iowa 5/	5.00%	New Jersey 3/	6.875%
Louisiana 3/	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 47 STATES			
Arizona	\$9.50	Utah ^{6/}	\$44.00
Mississippi	15.00	Hawaii	45.00
Nebraska	15.00	Florida	45.60
Georgia	20.00	California	46.00
Kentucky	21.00	Rhode Island	46.50
Missouri ^{2/}	21.00	North Dakota ^{7/}	49.00
Alabama	23.00	Alaska	50.00
Tennessee	24.00	Colorado ^{8/}	50.00
Arkansas	25.00	Texas	50.75
New York ^{3/}	27.04	West Virginia	51.50
Louisiana ^{4/}	27.90	Washington ^{5/}	55.00
Massachusetts	30.00	Michigan ^{8/}	56.50
Wyoming	30.00	New Mexico ^{9/}	62.00
Nevada	33.00	Oregon	62.00
Ohio	34.50	Maryland	67.50
Maine	35.00	Idaho	69.00
North Carolina	36.00	South Dakota	72.00
Indiana ^{13/}	36.35	Wisconsin	75.00
Pennsylvania	37.00	Vermont	76.00
Kansas	37.25	New Jersey	84.00
Connecticut	40.00	Oklahoma	96.00
Delaware	40.00	Illinois	101.00
South Carolina	40.00		
Virginia	40.75		
New Hampshire	43.20		
HIGHER THAN THE DISTRICT 3 STATES			
Montana ^{10/}	217.00	Iowa ^{11/}	293.00
		Minnesota ^{12/}	359.00

Source: Survey of State Revenue Department Officials; Review of State Motor Vehicle Registration Web Sites; and National Conference of State Legislators, "Vehicle Registration Fees 2017."

- 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.
- 12/ Initial registration. Thereafter, fees range from \$27.00 to \$62.00 for a one (1) year registration.
- 13/ Includes an infrastructure improvement fee.

**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 35 STATES			
Colorado	\$.05	West Virginia 6/	\$1.65
Alabama	.50	South Carolina	1.85
Georgia 2/	.50	Tennessee	1.85
Hawaii 3/	.50	Arizona 7/	2.00
Illinois	.50	New York	2.00
Kansas 4/	.50	Maine	2.20
Kentucky	.50	Massachusetts	2.28
Ohio	.50	Rhode Island 9/	2.30
South Dakota	.50	Maryland 10/	2.50
Oklahoma	.75	New Jersey 8/	2.90
Iowa	.80	Florida	3.50
North Carolina	1.00	Michigan	3.75
Nebraska	1.125	New Hampshire	3.75
Virginia	1.25	Connecticut 11/	3.75
Nevada 5/	1.30	Pennsylvania	5.00
Wisconsin	1.50	Vermont 12/	6.25
Arkansas	1.65	Washington	6.40
Minnesota	1.65		
HIGHER THAN THE DISTRICT 1 STATE			
Delaware	\$15.00		
NO TAX 14 STATES			
Alaska	Louisiana	Montana	Texas
California 13/	Mississippi	New Mexico	Utah
Idaho	Missouri	North Dakota	Wyoming
Indiana		Oregon	

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

1/ For D.C., \$11.00 represents the deed recordation tax + the deed transfer tax per \$500 (\$5.50/\$500 for each). In D.C. 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/ County transfer tax is \$0.65/\$500 if population under 700,000; \$1.25/\$500 if population over 700,000.

6/ State rate is \$1.10, county rate is \$0.55

7/ Flat fee per deed or contract.

8/ Based on value, from \$2/\$500 to \$6.05/\$500 of consideration.

9/ State rate is \$0.90; local rate is \$1.10.

10/ Rate is 0.75% for up to \$800,000 and 1.25% over \$800,000.

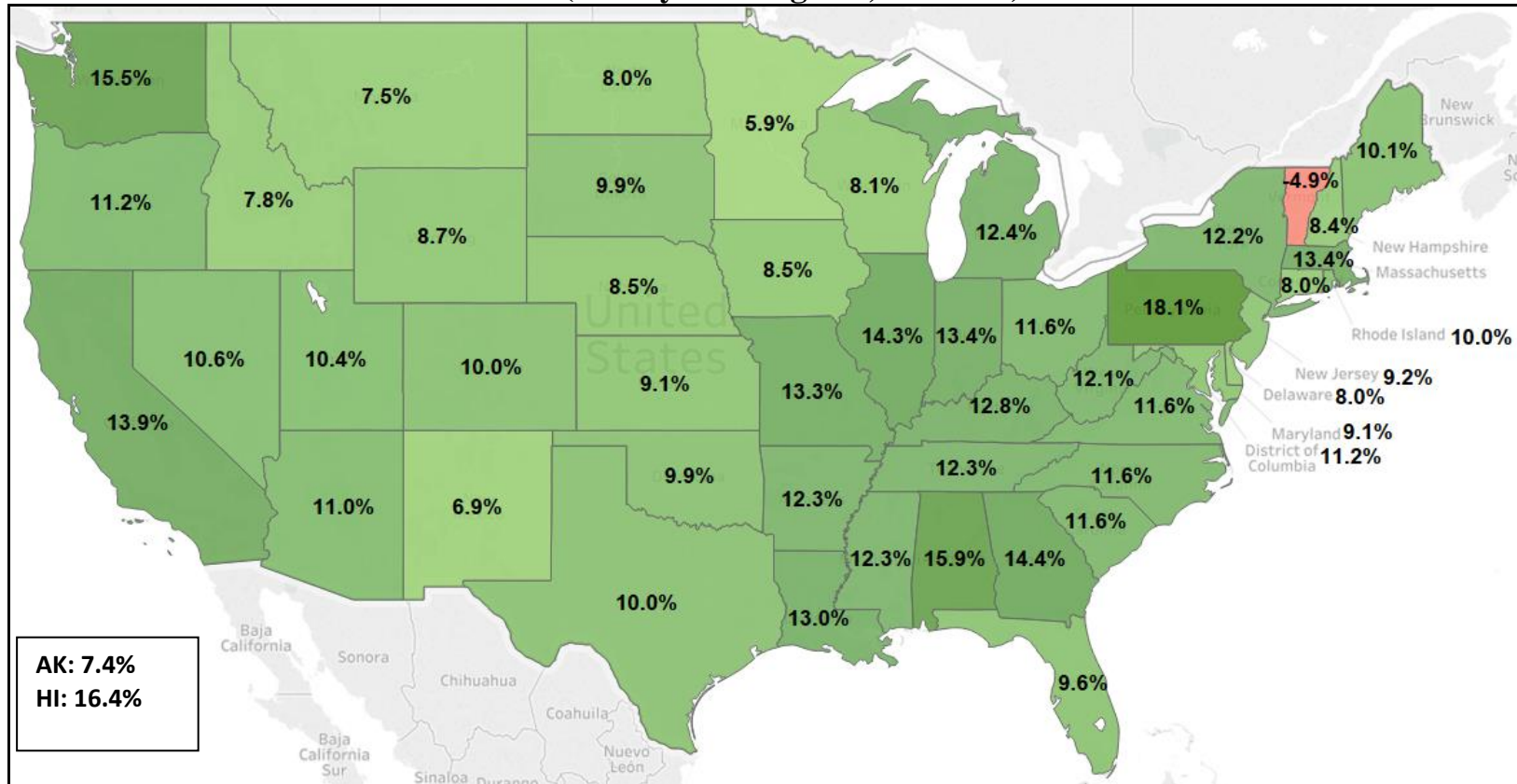
11/ State transfer tax rate only. State recordation tax varies by county and is not reflected in this number.

12/ Unless property is owner-occupied, in which case \$2.50/ \$500 on first \$100,000 in value and \$6.25/\$500 on value over \$100,000.

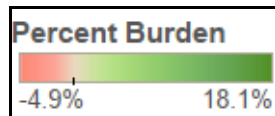
13/ Local option transfer tax \$.55/\$500 for counties.

Appendix

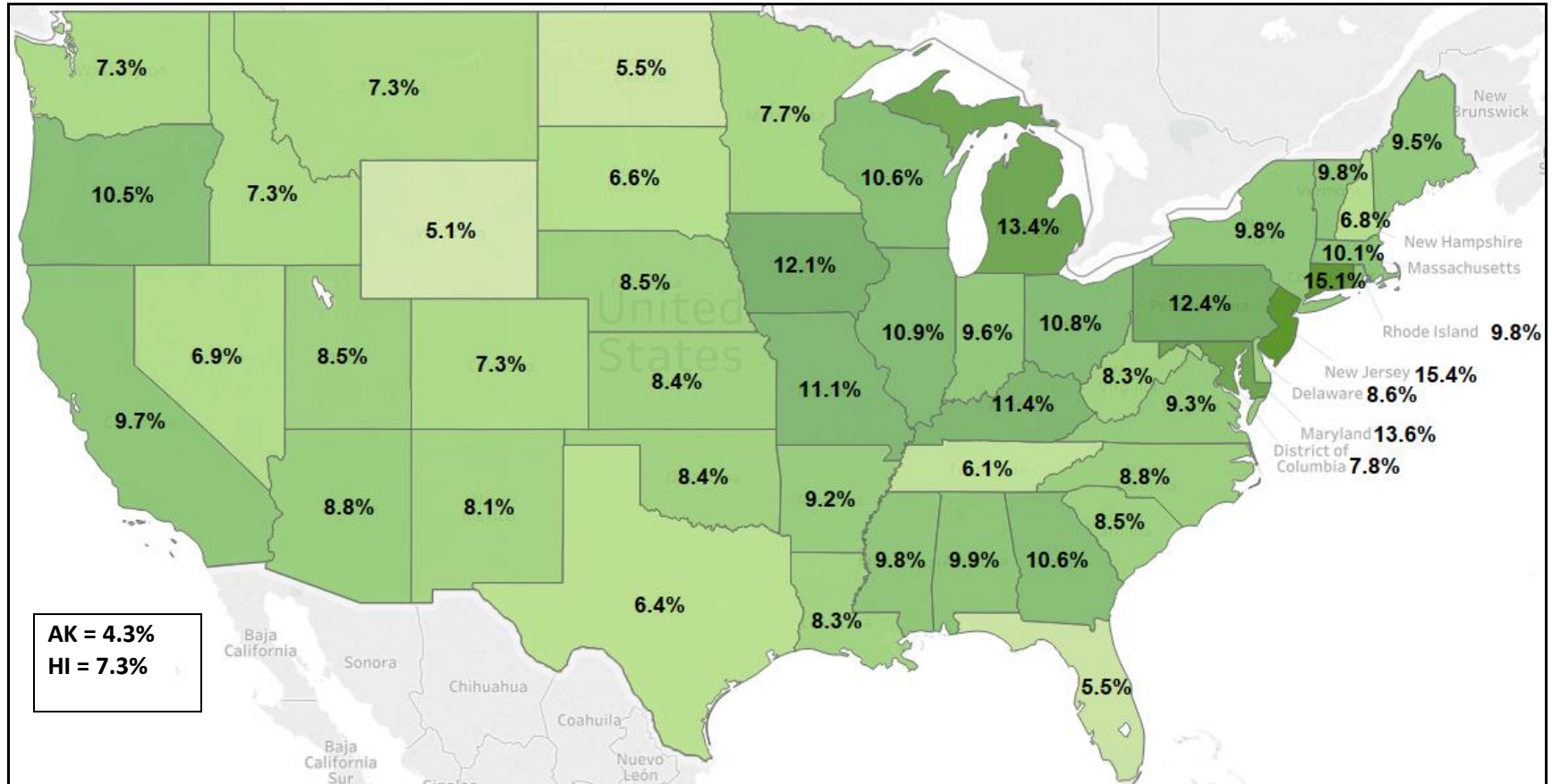
Map 5: Combined 2017 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income (Family Earning \$25,000/Year)



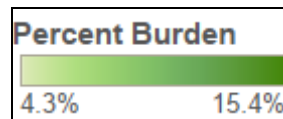
Source: ORA Analysis. The lighter the green in the map, the lower the tax burden as a percentage of income. Red Indicates a negative burden (a refund).



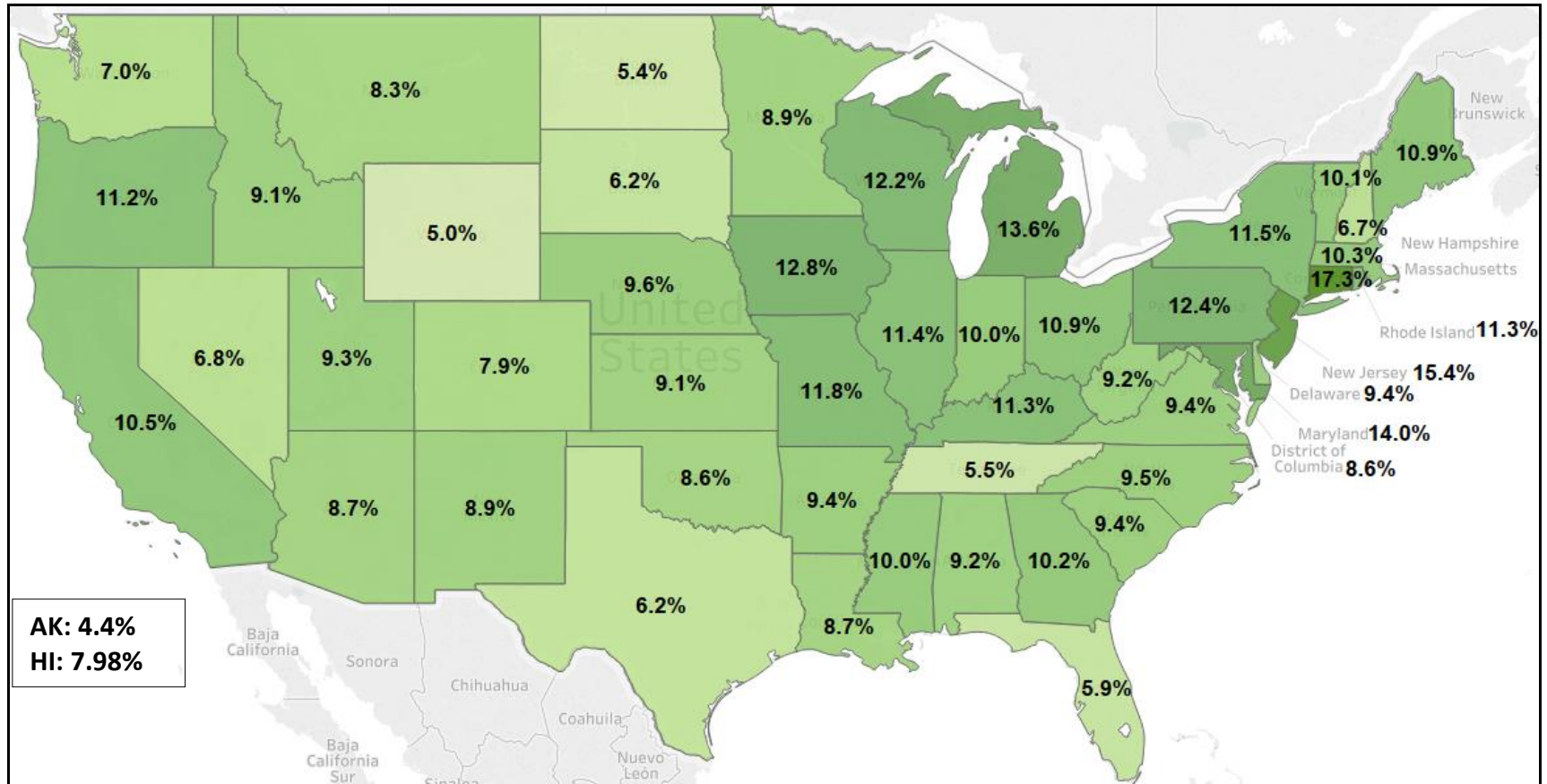
**Map 6: Combined 2017 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$50,000/Year)**



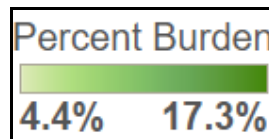
Source: ORA Analysis. The lighter the green in the map, the lower the tax burden as a percentage of income.



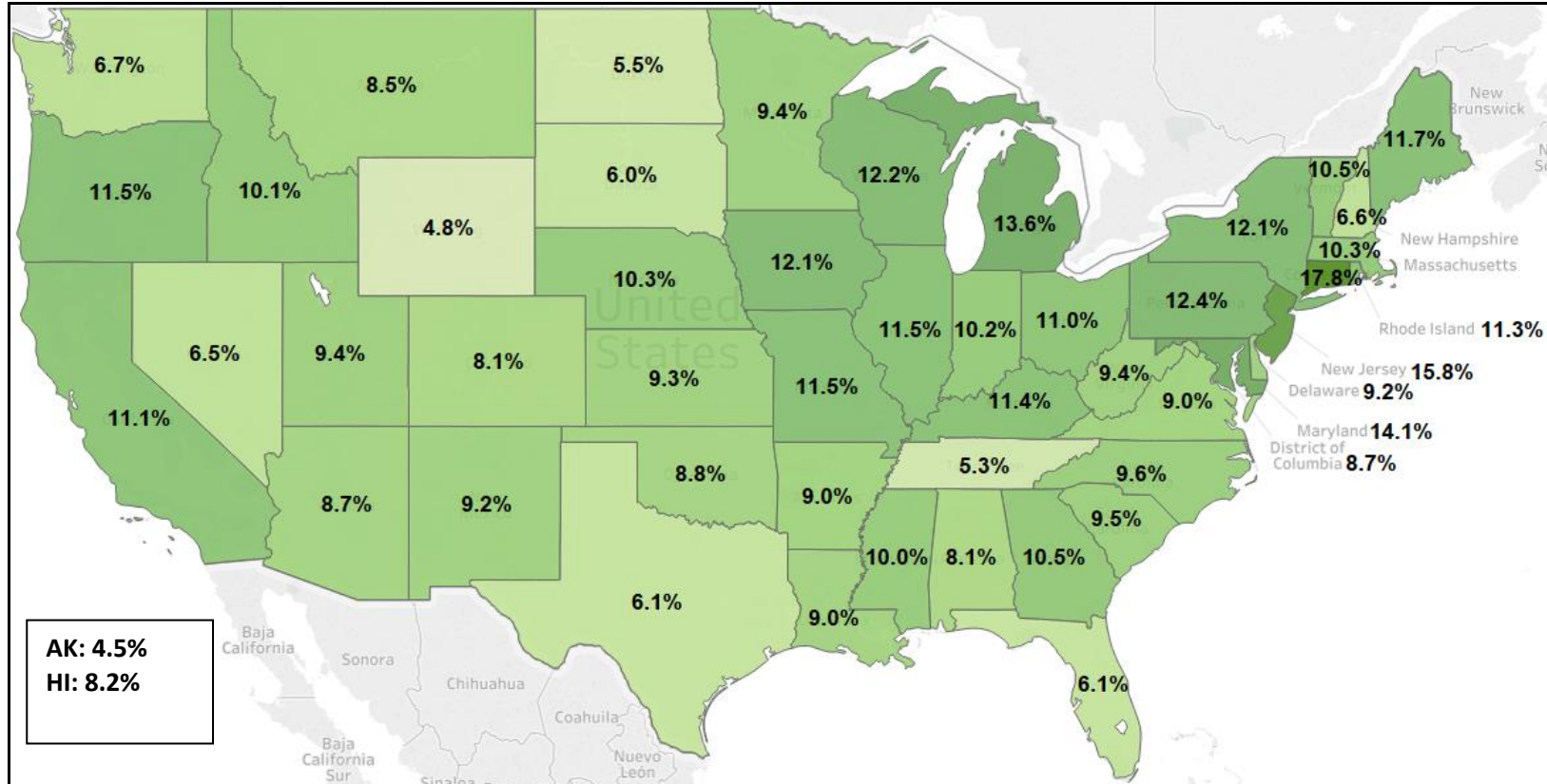
Map 7: Combined 2017 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income (Family Earning \$75,000/Year)



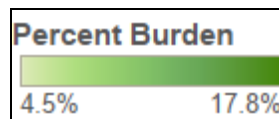
Source: ORA Analysis. The lighter green shading represents a lower tax burden.



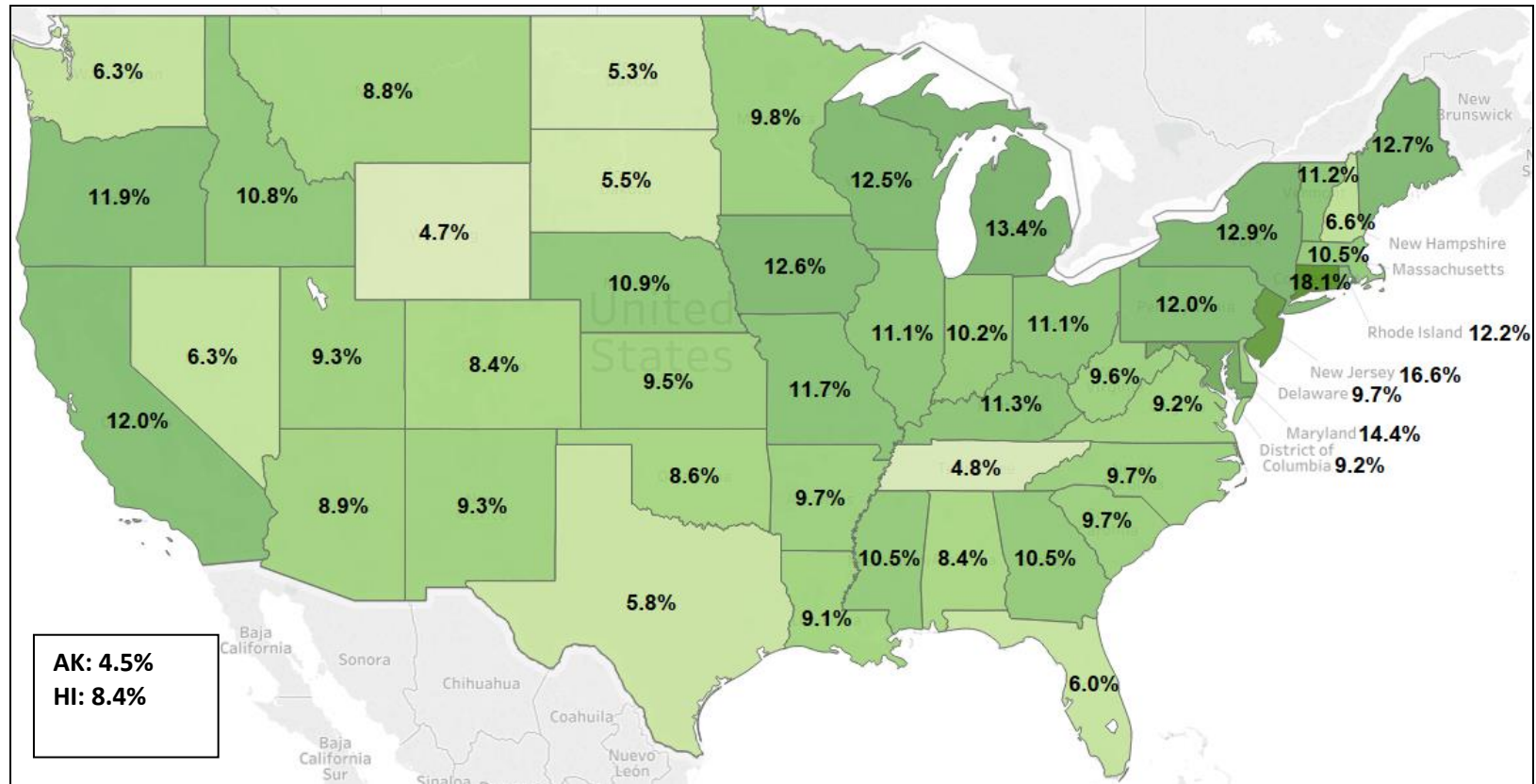
**Map 8: Combined 2017 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$100,000/Year)**



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



Map 9: Combined 2017 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income (Family Earning \$150,000/Year)



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

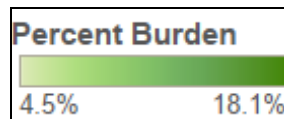


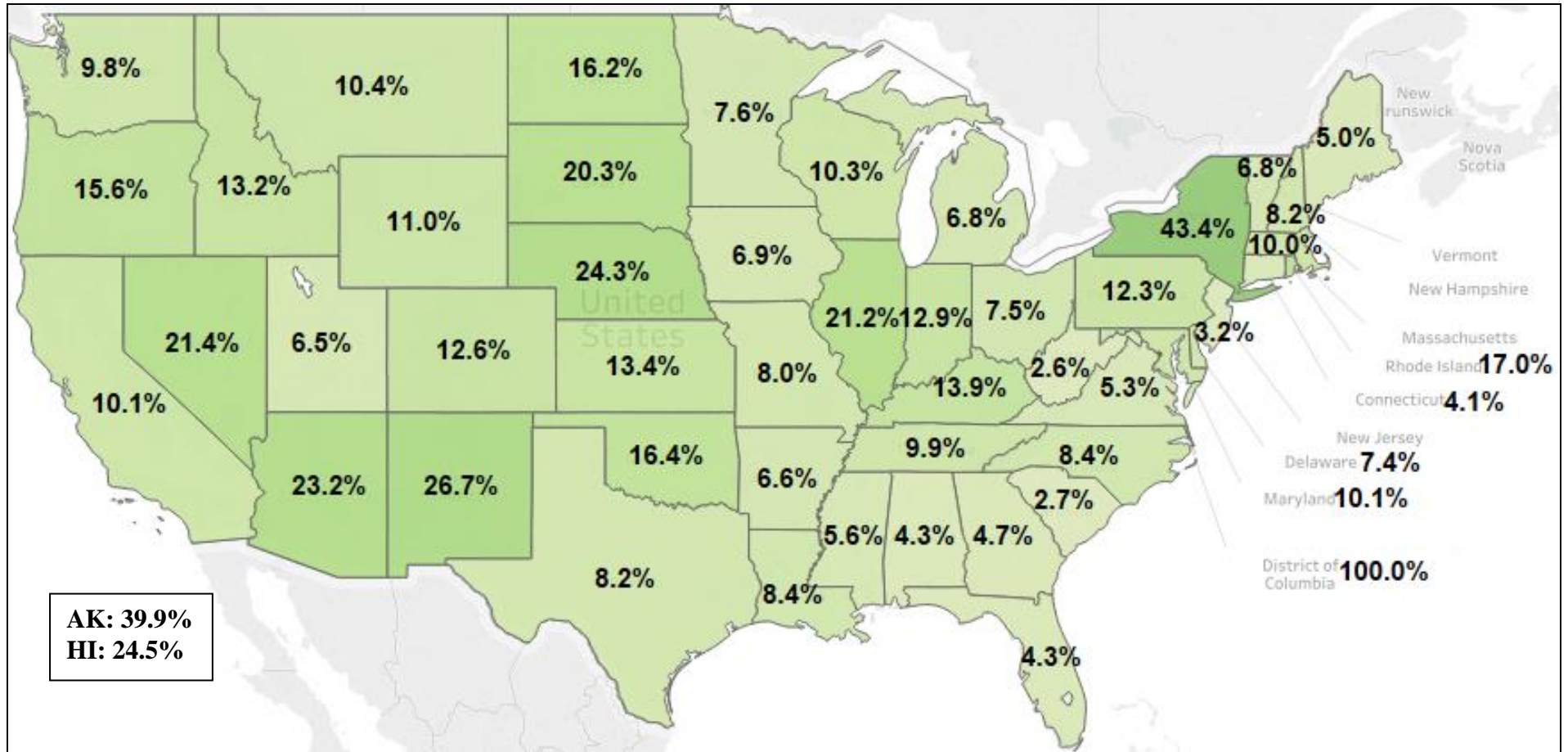
Table 27: Population Changes of the Largest City in Each State

City	State	2000 Population	2010 Population	2017 Population	% Difference 2010 to 2017
Birmingham	Alabama	242,820	212,026	210,710	-0.6%
Anchorage	Alaska	260,283	293,405	294,356	0.3%
Phoenix	Arizona	1,321,045	1,450,267	1,626,078	12.1%
Little Rock	Arkansas	183,133	194,003	198,606	2.4%
Los Angeles	California	3,694,820	3,796,575	3,999,759	5.4%
Denver	Colorado	554,636	603,300	704,621	16.8%
Bridgeport	Connecticut	139,529	144,911	146,579	1.2%
Wilmington	Delaware	72,664	70,787	71,106	0.5%
Jacksonville	Florida	735,617	823,280	892,062	8.4%
Atlanta	Georgia	416,474	422,753	486,290	15.0%
Honolulu	Hawaii	371,657	338,680	350,395	3.5%
Boise	Idaho	185,787	206,355	226,570	9.8%
Chicago	Illinois	2,896,016	2,697,650	2,716,450	0.7%
Indianapolis	Indiana	791,926	821,632	863,002	5.0%
Des Moines	Iowa	198,682	204,573	217,521	6.3%
Wichita	Kansas	344,284	382,872	390,591	2.0%
Louisville	Kentucky	256,231	597,738	621,349	4.0%
New Orleans	Louisiana	484,674	347,900	393,292	13.0%
Portland	Maine	64,249	66,087	66,882	1.2%
Baltimore	Maryland	651,154	621,180	611,648	-1.5%
Boston	Massachusetts	589,141	620,623	685,094	10.4%
Detroit	Michigan	951,270	711,049	673,104	-5.3%
Minneapolis	Minnesota	382,618	383,083	422,331	10.2%
Jackson	Mississippi	184,256	173,750	166,965	-3.9%
Kansas City	Missouri	441,545	460,732	488,943	6.1%
Billings	Montana	89,847	104,539	109,642	4.9%
Omaha	Nebraska	390,007	432,672	466,893	7.9%
Las Vegas	Nevada	478,434	584,780	641,676	9.7%
Manchester	New Hampshire	107,006	109,611	109,642	0.0%
Newark	New Jersey	273,546	277,347	285,154	2.8%
Albuquerque	New Mexico	448,607	547,092	558,545	2.1%
New York City	New York	8,008,278	8,192,426	8,622,698	5.3%
Charlotte	North Carolina	540,828	738,678	859,035	16.3%
Fargo	North Dakota	90,599	105,928	122,359	15.5%
Columbus	Ohio	711,470	790,694	879,170	11.2%
Oklahoma City	Oklahoma	506,132	582,118	643,648	10.6%
Portland	Oregon	529,121	585,427	647,805	10.7%
Philadelphia	Pennsylvania	1,517,550	1,528,338	1,580,863	3.4%
Providence	Rhode Island	173,618	178,114	180,393	1.3%
Charleston*	South Carolina	309,969	350,209	134,875	3.4%
Sioux Falls	South Dakota	123,975	154,594	176,888	14.4%
Nashville*	Tennessee	569,891	601,222	667,560	2.3%
Houston	Texas	1,953,631	2,114,761	2,312,717	9.4%
Salt Lake City	Utah	181,743	186,564	200,544	7.5%
Burlington	Vermont	38,889	42,417	42,239	-0.4%
Virginia Beach	Virginia	425,257	439,038	450,435	2.6%
Seattle	Washington	563,374	610,383	724,745	18.7%
Charleston	West Virginia	53,421	51,400	47,929	-6.8%
Milwaukee	Wisconsin	596,974	595,120	595,351	0.0%
Cheyenne	Wyoming	53,011	59,901	63,624	6.2%
WASHINGTON, DC		572,059	605,126	693,972	14.7%

Source: U.S. Census Bureau. 2000 & 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. 2017 Estimates for Burlington, VT; Portland, ME; Wilmington, DE; Cheyenne, WI; and Charleston, WV: Census Quick Facts, accessed January 8, 2019.

*For the first time in the current 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, 2017



Source: ORA Analysis of data from Table 27 and the U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017.

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