

Government of the
District of Columbia



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

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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.....	ix
Part I: Tax Burdens in Washington DC Compared with Those in the Largest City in Each State, 2021.....	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.....	13
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 DC Compare with Those in the Largest City in Each State?.....	45
Individual Income Tax	45
Real Property Tax.....	46
Sales and Use Tax	46
Automobile Taxes	47
Summary	47
Part II: A Comparison of Selected Tax Rates in DC 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: 2021 Estimated Burdens of Major Taxes for 5 Hypothetical Families.....	13-21
Chart 2: 2021 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, 2021	33
Chart 4: 2021 Property Tax Burdens for All Income Levels, Sorted by Lowest Income Level..	36
Chart 5: Composition of State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31, 2021.....	38
Chart 6: 2021 Auto Tax Burdens, Family Earning \$75,000/year.....	44
Chart 7: Combined 2021 Tax Burdens at Each Income Level; Comparison of DC and the Average of the 50 Cities.....	49

Tables

Tables 1a-e: 2021 Estimated Burdens of Major Taxes for 5 Hypothetical Families.....	14-22
Table 2: States That Index Some Part of Their Individual Income Tax, 2021.....	28
Table 3: State and Local Income Tax Burden as a Percent of Income in the Largest Cities by Type of Income Tax for a Hypothetical Family of Three, 2021.....	29
Table 4: Residential Property Tax Rates in the Largest City in Each State 2021.....	32
Table 5: Housing Value Assumptions, 2021	34
Table 6: Cities That Allow Exemptions or Reduced Rates in the Calculation of Real Estate Taxes for Homeowners, 2021	35
Table 7: State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31, 2021.....	39
Table 8: Cumulative Tax Rates on Gasoline in the 51 Cities as of December 31, 2021.....	42
Table 9: Summary of Types of Automobile Registration Taxes 2021	43
Table 10: Automobile Tax Assumptions 2021	43

Table 11: Tax Burdens in Washington, DC for a Hypothetical Family Compared with the Average for the Largest City in Each State by Income Level, 2021	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 Corporate Income Tax Rates	59
Table 17: State Gross Premiums Tax Rates on Foreign (Out-of-State) 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

Maps

Map 1: Total 2021 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income (Family Earning \$75,000/Year)	23
Map 2: 2021 Income Tax Burdens (Family Earning \$75,000/Year).....	27
Map 3: 2021 Property Tax Burdens (\$) (Family Earning \$75,000/Year).....	31
Map 4: 2021 Sales Tax Burdens (Family Earning \$75,000/Year).....	40
Maps 5-9: Combined 2021 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, 2021	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 of three at five different income levels living in DC as well as the largest city in each state. The study includes four main tax types: 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, 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 Minneapolis, Minnesota, while the highest combined tax burden falls on a family earning \$150,000 and living in Bridgeport, Connecticut. Washington, DC's combined tax burdens are lower than the 50-city average for four of the five income levels in the study.

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). There are several types of individual income tax systems, including graduated state and local rates, graduated state and flat local rates, flat state and local rates (or fees), graduated state tax rates, and flat state rates with exemptions. Income tax burdens in jurisdictions levying an income tax ranged from a low of negative \$1,628 in Baltimore, Maryland, for a family earning \$25,000 (this negative amount represents an income tax refund due to a refundable Earned Income Tax Credit), to a high of \$11,176 for a family earning \$150,000 and living in New York, New York.

Executive Summary

The District's 2021 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 states that levied an income tax for three of the income levels in the report, and the sixth lowest overall at the \$25,000 income level due to a refundable Earned Income Tax Credit. The income tax burden in DC was higher than the 44-city average for the highest income level (\$150,000).

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 \$3.48 per \$100 of assessed value in Detroit, Michigan, to a low of \$0.35 per \$100 of assessed value in Honolulu, Hawaii (Table 4). In addition, several jurisdictions allow tax exemptions and credits in the calculation of the real property tax liability (Table 6). Property tax burdens range from a low of \$190 on a family earning \$50,000 a year and living in Boston, Massachusetts (which has a generous homestead exemption/credit), to a high of \$18,613 on a family earning \$150,000/year and living in Newark, New Jersey.

In 2021, the District taxed residential property at a rate of \$0.85 per \$100 of assessed value; and offered a \$75,700 homestead deduction for owner-occupied residences. DC's property tax burdens were below the 50-city average for the top four income levels (all of those assumed to own homes). However, the District's property tax burden for those earning \$25,000 (who are assumed to rent) was slightly higher than the 50-city average. This is due to the high cost of rental housing, and the assumption that a portion of rental payments goes toward the property tax; however, DC's rent burden is alleviated by a refundable property tax credit available to lower-income homeowners and renters, which is administered through the income tax and reflected in the property tax burdens in this report (it has been presented with the income tax in previous reports).

Sales tax: As shown in Table 7, residents in 46 of the 51 cities studied are subject to some form of sales and use tax. In 2021, the highest combined (state + local) sales tax rates were in Los Angeles, California (10.75 percent); Chicago, Illinois (10.25 percent); Seattle, Washington (10.25 percent); Birmingham, Alabama (10.0 percent); and New Orleans, Louisiana (9.45 percent). Residents of Honolulu, Hawaii; Milwaukee, Wisconsin; and Portland, Maine have the lowest combined sales tax rates. These lowest rates range from 4.5 to 5.5 percent total. Sales tax burdens in jurisdictions levying a general sales tax ranged from a low of \$782 for a family earning \$25,000 in Newark, New Jersey; to a high of \$3,011 for a family earning \$150,000 in Nashville, Tennessee.

The District's general sales tax of six percent is the fourth lowest of the rates in all 51 cities (seven other jurisdictions have the same combined rate), when looking at total state and local sales tax rates combined. Consequently, sales tax burdens in DC were lower than the 50-city average at all five income levels.

Auto tax: Table 9 indicates that residents in all 51 cities in this study pay some type of automobile registration fee or tax—usually either a flat rate per vehicle or by weight of the vehicle. In addition, either state or local personal property taxes on automobiles are levied in 10 of the cities. Auto tax burdens ranged from a low of \$108 for a family earning \$50,000 in New Orleans, Louisiana, to a high of \$2,791 for a family earning \$150,000 in Bridgeport, Connecticut.

Executive Summary

The District's annual auto registration fees range from \$72 to \$155, depending on vehicle weight, and are among the highest in the study; however, DC does not charge an annual excise tax or personal property tax on automobiles. District gas tax rates were 28.8 cents per gallon, and DC auto tax burdens were below the 50-city average for all five income levels.

There is no single pattern that characterizes either a high or low tax burden city. Details concerning the various taxes levied and why the tax burdens differ from one jurisdiction to another are presented in this publication. Part I compares selected tax burdens in DC with those of the most populous city in each state, through December 31, 2021. Part II contains tax rate tables for DC and the 50 states for 12 different types of taxes as of January 1, 2022.

ACKNOWLEDGMENT

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

This publication contains two reports: (I) Tax Burdens in Washington, DC Compared with Those in the Largest City in Each State, 2021 and (II) A Comparison of Selected Tax Rates in the District of Columbia with Those in the 50 States as of January 1, 2022. This information is requested annually by committees of the US Congress and the District of Columbia Council. It is provided pursuant to Public Law 93-407.

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Part I

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

2021

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 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.

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

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.

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, Las Vegas, New York City, and Washington, DC, can help reduce local tax burdens by increasing sales tax, gasoline tax, and parking tax revenues from non-residents, another form of tax exporting.
- 2) Service demands in each of the 51 cities may vary a great deal. Cold weather services, such as snow removal, in northern cities may increase costs. Furthermore, residents of some cities simply desire, or are accustomed to, more government services than residents of other cities.
- 3) The costs of providing services may differ substantially from one city to another. Wage levels, efficiency of the work force, and costs of overhead items, such as utilities, may be very different.
- 4) The tax base of each city is different. Cities that have a relatively large percentage of employed residents will normally have a broad tax base. This type of city can levy taxes at lower rates than can those with low levels of employment or high levels of exempt property. External forces, such as the federal presence in Washington, DC, can restrict the tax base. The tax base can also be defined by the scope of a tax. For example, it is desirable from a social point of view to exempt groceries from the sales tax; however, such an exemption can narrow the sales tax base and may require a higher sales tax rate to raise enough revenues.
- 5) The proportion of public versus private services may differ from one city to another. Some cities may provide services such as garbage collection and hospital care, while in other cities the private sector may perform these

services for a fee.

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

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

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

In addition to these factors which may apply to any jurisdiction, the District's circumstances further set it apart from other state and local governments. The Government Accountability Office (GAO) has documented in the past that the District has had a structural imbalance, due primarily to two factors. First, the District has a higher service delivery cost than the average state fiscal system—due to the higher rates of poverty and crime associated with an urban area, as well as a higher cost of living.² Further, the District's revenue capacity is restricted by the federal presence—the District cannot tax the income of non-residents who work in the city, and as of Tax Year 2021 property assessments, 31 percent of the land value in the District is tax exempt.³ In spite of these restrictions, GAO notes that the District has a high revenue capacity. The city's economic and fiscal situation has changed over the past two decades; however, these factors remain relevant when considering the District's tax structure and its tax burdens.

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

³ "DC Tax Facts 2021." 2020 Tax Exempt Land Value as a % of Total Taxable and Exempt Land Value. Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis. Washington, DC: 2021. p. 51.

CHAPTER I

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

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

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

This report compares the major state and local tax burdens of hypothetical households in Washington, DC, with the burden for the households in the largest city in each of the 50 states for 2021. 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 2021 study are based on data from the US Census Bureau’s American Community Survey (ACS) and adjusted using a linear multiplier for the different income levels. This involves dividing the median house value of each metropolitan statistical area (MSA) by the MSA’s median household income of mortgage holders, and then multiplying that number by each income level for which home ownership is assumed (\$50,000, \$75,000, \$100,000, and \$150,000).

- **Mortgage Interest.** The mortgage interest amount (for use as an itemized deduction in the income tax) in the 2021 study is derived by calculating an amortization schedule for the estimated home value for each income level in each city. Home values for calculating the Mortgage Interest Deduction (MID) at each income level are calculated based on median house values and median incomes for mortgage holders for a house purchased in 2015. A linear multiplier created from these two figures is used to derive a house value for each income level at which home ownership is assumed.
- **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 cities around the country, the assumption that families earning \$25,000 per year rent may be more realistic than the assumption that they own a home.

Individual Income Tax

The five income levels used in this study are divided between wage and salary income. In previous versions of this report, capital gains and interest income were included, as well as the assumptions of major itemized deductions on the following page. However, capital gains and interest income are *not* included in the current report to remove some of the variation that inconsistently changed the original income levels used, with little methodological benefit. (See the following page for more information on the itemized deductions that continue to be included in this report.) The following income levels are used for the income tax starting point in each state and the District of Columbia, where Spouse 1 is assumed to earn 70 percent of the total income and Spouse 2 is assumed to earn 30 percent.⁴

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

Total itemized deductions used for calculating state and local income taxes, which are also used in the federal tax computation, are shown below. The methodology for two of the itemized deductions—the medical and dental expenses deduction and the charitable contribution deduction—are consistent with the 2019 report, when the methodology changed from that used in prior reports. In the past, the amounts for these deductions were based on actual average deduction amounts for taxpayers within a range around each income level for Washington, DC, taxpayers who were married filing jointly and had itemized deductions. However, in recent years the pool of married taxpayers filing jointly that also itemized was insufficient at the lower income levels to produce representative deduction amounts (perhaps resulting from the Tax Cuts and Jobs Act of 2017 (TCJA) leading more taxpayers to take the standard deduction). Therefore, beginning in the 2019 report, Internal Revenue Service (IRS) data for all itemizers in tax year 2019 were used to calculate the average percent of AGI reflected by the medical deduction, which is eight percent of AGI. For charitable contributions, the level of four percent of AGI is

⁴ DC and various states allow married couples to file separately on the same return, even when filing jointly on the federal return. The tax software used for calculating income tax burdens for this report automatically selects the most advantageous filing status.

applied across incomes.⁵ These changes in the methodology make the inputs in the income tax calculations more consistent across incomes and conform more closely to the methodology across the other tax types (which do not rely on DC-specific data).

Gross Income Level					
Deduction	\$ 25,000	\$ 50,000	\$ 75,000	\$100,000	\$150,000
Medical (Gross) 1/	2,000	4,000	6,000	8,000	12,000
Nondeductible Medical 2/	-1,875	-3,750	-5,625	-7,500	-11,250
Net Medical Deduction	125	250	375	500	750
Deductible Taxes	3/	3/	3/	3/	3/
Mortgage Interest	4/	4/	4/	4/	4/
Contribution Deduction 2/, 5/	1,000	2,000	3,000	4,000	6,000
Total Deductions-without taxes And mortgage interest 6/	1,125	2,250	3,375	4,500	6,750

1/ Medical deductions above 7.5 percent of federal AGI are allowed. All or part of medical deduction may be allowed in some states.

2/ Beginning with the 2019 Study, a new methodology was used for assumptions of medical and contribution deductions. 8% of AGI for medical (minus the 7.5% of AGI limit); 4% for charitable contribution. Based on analysis of data from: IRS. Table 2.1. Returns with Itemized Deductions: Sources of Income, Adjustments, Itemized Deductions by Type, Exemptions, and Tax Items, by Size of Adjusted Gross Income, Tax Year 2019, and Tax Policy Center analysis of IRS data on charitable giving (average % of AGI for all returns used for all incomes in this study).

3/The tax deduction varies from city to city and is based on real and personal property taxes computed in the current 2020 Study and individual income taxes computed in the 2019 study for tax year 2019.

4/ Assumed mortgage interest varies from city to city and is based on 5th year interest paid on a home purchased in 2015 at an interest rate of 3.85%.

5/ Contribution Deduction represents charitable contributions claimed.

6/ Note: the current report does not include miscellaneous deductions, taxable interest income or capital gains which have been included in previous reports. Further, if all itemized deductions do not exceed the amount of the standard deduction, the standard deduction amount will be automatically used.

Because the Federal Earned Income Tax credit (EITC) at the \$25,000 income level in some states will determine the state's EITC, and because several states (such as Alabama, Iowa, Louisiana, Missouri, Montana, and Oregon) allow the deduction of all or part of an individual's federal income tax liability in computing the state income tax, it is necessary to compute the 2021 federal individual income tax at each income level using the above assumptions. Many states in 2021 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 2021, the federal standard deduction was \$25,100 for married taxpayers filing jointly; and state level standard deductions varies by state (see Table 14 for more detail on state income tax parameters). Because the federal standard deduction was significantly increased in the TCJA of 2017, more of the families included will now take the standard deduction. For the current study of tax year 2021, all families earning \$75,000 per year

⁵ Tax Policy Center analysis of IRS data on charitable giving (average % of AGI for all returns used for all incomes in this study)

and below, and most of the families earning \$100,000, would take the federal standard deduction as it was higher than the itemized deductions assumed for these income levels in the report.⁶

The 2021 deductible real and personal property taxes computed in the current year's 51-city study are used for the 2021 property tax deduction. For the 2021 state and local individual income tax deduction, 2020 income tax burdens from the previous year's study were used (unless the calculated sales tax burdens were higher, which was often the case for the lower two income levels). Each of these figures was used in computing the 2021 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 market values, assessed values and the ratio of the two, and the tax rate. Some jurisdictions allow certain deductions from the value of residential property before the tax is calculated while others allow credits against the calculated real estate tax. These deductions and/or credits are normally limited to owner-occupied properties.

The nominal property tax rates for each of the 51 cities, presented in Table 4 indicate a wide range in these rates. This information is based upon survey data received from various state agencies and/or local assessors and is intended to represent the total rate applicable to a homeowner in each city, inclusive of any state, city, and other local property taxes. In addition to tax rate differences, data presented in Table 5 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, the estimated house value at the \$75,000 income level ranges from a high of \$460,903 in Honolulu, Hawaii, to a low of \$119,244 in Charleston, West Virginia.

The housing values for each income level (except the \$25,000 income level) are reported in Table 5. Housing values are derived from Census ACS data, using a median house value and median household incomes of mortgage holders for each Metropolitan Statistical Area (MSA) within which the largest city in each state falls. These two figures were then used to create a multiplier to assign a house value for each of the income levels in the report which are assumed to own their own home (\$50,000, \$75,000, \$100,000, and \$150,000).

For the present 2021 Study, median sales ratio statistics have been included where available to derive an "effective assessment level."⁷ A sales ratio (or assessment sales ratio) is the ratio of the assessed value of the property to the sales price, or market value of the property; the median is the median ratio value of all the properties included in the study.⁸ Median sales ratios are a measure of the property valuation and assessment practices within a jurisdiction. If property assessments do not keep up with market value, residents' property taxes will be lower than they would otherwise be if taxed at the full market value of the property. Including the available median sales ratio statistic into the property tax burden calculations is an attempt to reflect how

⁶ In some states, taxpayers taking the federal standard deduction are required to take the state's standard deduction, even if itemizing would be more advantageous at the state level. For the purposes of this report taxpayers eligible to take the federal standard deduction are assumed to have done so.

⁷ For Vermont, the Common Level of Appraisal value that is used for school funding equalization is used in lieu of a sales ratio statistic. Similarly, an equalization statistic is used for Illinois.

⁸ "Glossary for Property Appraisal and Assessment," International Association of Assessing Officers. 2013. Page 150. https://www.iaao.org/media/Pubs/IAAO_GLOSSARY.pdf.

property tax systems in each jurisdiction are administered in practice.

In computing property tax burdens, it is also necessary to consider the various exemptions and credits noted in Table 6. The variety of real property tax exemptions, most of which apply only to residential real property, is very broad. Table 6 does not include widely available exemptions that are not available to all homeowners, such as senior citizen exemptions or credits for disabled persons, 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, which compares residential real estate tax rates for each city, does not reflect the various exemptions and credits noted in Table 6 (unless the homestead exemption is included in the assessment level or nominal rate, as is the case in a few states). Other exemptions and credits may be available, such as those mentioned above 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 Tables 1a-e of this study reflect the provisions in Table 6 applicable to families owning and residing in their homes. In certain jurisdictions, such as DC, MN, and VT, renter or property tax credits are provided as refunds through the income tax and in previous years’ reports they were accounted for within the income tax burdens. However, this year marks the first time this report has accounted for these refunds in the property tax burdens presented. Various states offer income tax deductions and nonrefundable credits for rent or property taxes paid; however, the distinguishing factor in our presentation is that those included in the property tax burdens are refundable, regardless of income tax owed.

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,⁹ 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 2021 50-State Property Tax Comparison report, the Lincoln Institute of Land Policy and the Minnesota Center for Fiscal Excellence note that states vary in how they tax rental properties in comparison to homesteads; on average, cities tax apartments 33 percent more than homesteads.¹⁰ Their report presents a table illustrating this information for the largest city in each state; Charleston, South Carolina, has the largest difference in effective rates between apartment buildings and homesteads, taxing apartments almost four times the effective rate of that levied on homesteads.¹¹ Conversely, in six of the largest cities in each state (and DC), apartments are given preferential treatment over homesteads with the most preference toward apartments given in Bridgeport, Connecticut.¹² In eight cities, apartments are given the same treatment as homesteads.

⁹ “[50-State Property Tax Comparison Study for Taxes Paid in 2020.](#)” The Lincoln Institute of Land Policy and the Minnesota Center for Fiscal Excellence. June 2021: pg. 4.

¹⁰ Ibid.

¹¹ Ibid, pg. 104-5.

¹² Ibid. The study found that in Washington, DC, the classification ratio between apartments and homesteads is 1.069, indicating that homesteads are treated slightly preferentially to rental buildings by the property tax rates (exclusive of credits) in DC.

To relieve the implicit tax burden on renters that exists in various locations, some states have a property tax circuit breaker program that offsets renters' tax burdens (often through the income tax since they do not pay property taxes directly). These programs must make assumptions of the PTER to calculate the amount that renters are paying in property taxes, and the amount of relief they will receive through the circuit breaker program. Of the states that offer circuit breaker programs, the PTER assumptions generally range from six to 25 percent (New Mexico has a low of six percent while Massachusetts uses a 25 percent assumption); on average, states assume that 17 percent of rent goes toward paying property taxes.¹³ DC's circuit breaker program assumes 20 percent.

Prior to the 2016 Tax Burden Study, a 20 percent assumption was used with some reservation given that it has a large impact on the calculated tax burdens of the families earning \$25,000 per year. The assumption often seemed unrealistic in cities with higher rental prices in which calculated PTERs would be the highest, especially given that rental buildings in more competitive markets may not be able to pass on all taxes paid since prices are set by the local market. And as the Lincoln report illustrates, the specific PTER level in a city is primarily based on the tax system in each jurisdiction. It is not clear whether states with higher PTER percentages in their circuit breakers have data leading to the choice of PTER percentage 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.¹⁴ In a January 2016 report, 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.¹⁵

Although several jurisdictions use 15 percent to determine PTER, this report will use the median of 20 percent for PTER in its methodology. The level of 20 percent for PTER in this Study attempts 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 US Department of Housing and Urban Development.¹⁶ This flat assumption means that any variation in the property tax burden for renters (families earning \$25,000) is driven by the housing market in each jurisdiction, and not the tax system in place.

Even with the lower assumption of PTER in the current study, this number still implies that the lowest income families in the report are spending on average, 45 percent of their incomes on rent, with that portion being as high as 87 percent in Boston and New York City and 76 percent in Washington, DC. However, viewed in the context of some DC metro area statistics it may not be that unrealistic. In 2017, of renters earning less than \$50,000/year, more than 80

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

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

15 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 2019.

16 US Department of Housing and Urban Development, "2019 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).

percent were spending over 30 percent of their income on rent.¹⁷ A 2017 DC Fiscal Policy Institute (DCFPI) analysis of 2014 Census data found that 42 percent of extremely low-income renters (earning between \$16,100 - \$32,100/year for a family of four) in DC paid 80 percent of their income or more in rent.¹⁸ Further, a 2018 DCFPI analysis of 2016 Census data found that 63 percent of renters at this income level paid more than half of their income in rent.¹⁹

Sales and Use Tax

The sales tax burdens included in this study are based on information from the 2020 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.²⁰

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.²¹ The state and local general sales tax rates in each city are reported in Table 7. 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 summarizes automobile ownership assumptions for each income level, including types of vehicles, weight, value, and annual gasoline consumption.

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

18 Zippel, Claire. "A Broken Foundation: Affordable Housing Crisis Threatens DC's Lowest-Income Residents."

DC Fiscal Policy Institute. December 8, 2016.

19 Zippel, Claire. "Building the Foundation: A Blueprint for Creating Affordable Housing for DC's Lowest-Income Residents."

DC Fiscal Policy Institute. April 4, 2018.

20 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.)

21 The consumer expenditure data between 2020 and 2019 shows more change in several categories than in previous years, presumably due to the 2020 pandemic and subsequent economic recession. For example, the most noticeable change is that families at all five income levels in the report spent considerably less in 2020 than in 2019 on food away from home, public transportation, and personal care products and services. While families at all incomes in our study spend less on food away from home, the lower two income levels also spent less on food at home in 2020 than in 2019, while the three highest income levels spent more on food at home in 2020 than in 2019. Similarly, the highest income family on average spent more in 2020 than 2019 on new cars and trucks and household furnishings, while the lowest income family spent less in both categories in 2020 than in 2019.

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. As reflected in Table 1, tax burdens across the 51 cities vary widely at all income levels. At the \$25,000 income level, the \$5,996 combined burden of all four taxes added together for Seattle, Washington, is significantly greater than the tax owed of \$1,669 of a similar taxpayer in Minneapolis, Minnesota. At the \$150,000 income level, the Bridgeport, Connecticut, tax burden of \$26,781 is almost four times the Cheyenne, Wyoming, tax burden of \$6,749. Differences in state and local tax structures, as well as housing markets and costs-of-living, contribute to the variation.

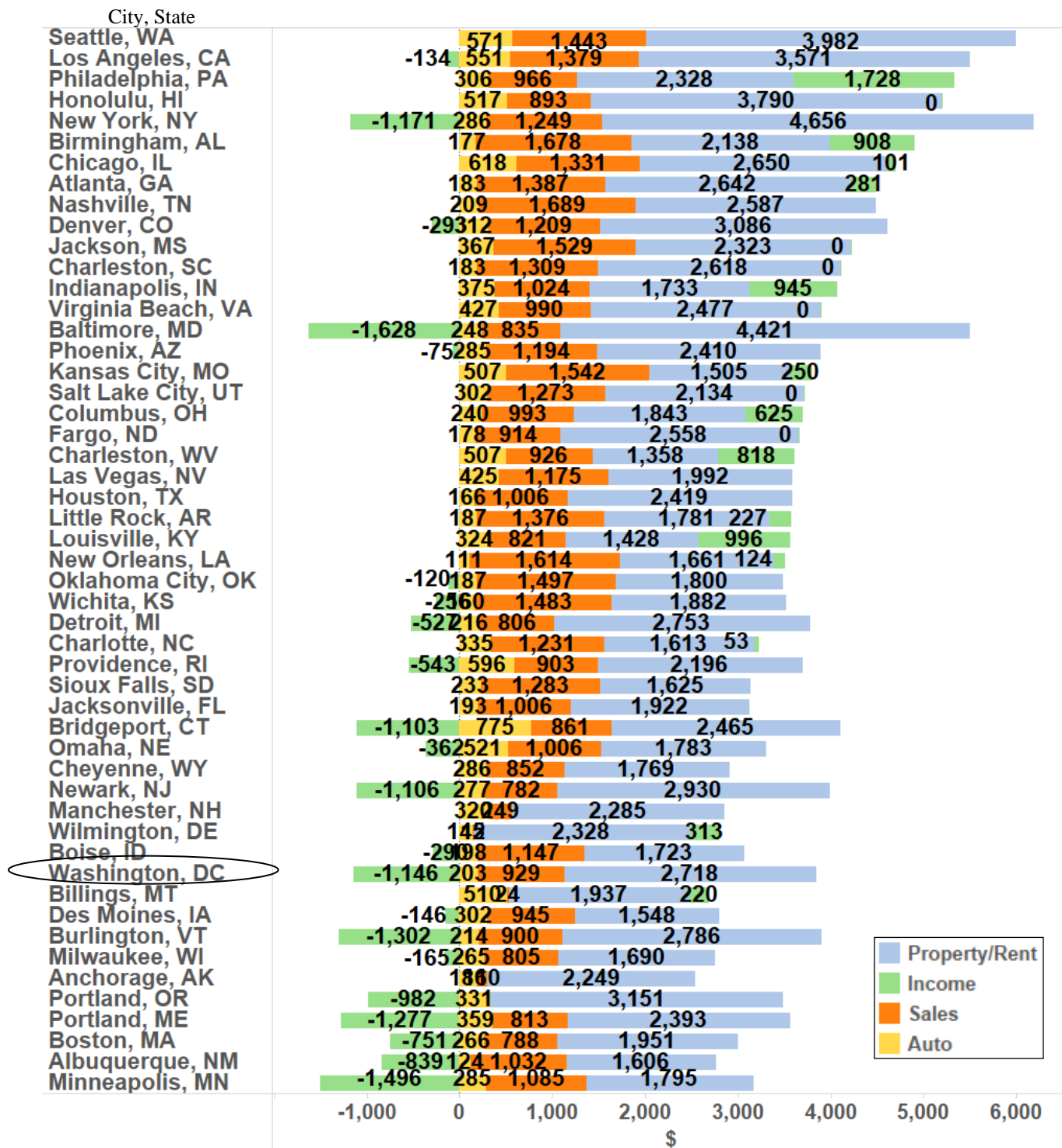
The highest combined tax burdens at the \$25,000 income level occur in Seattle, Washington; Los Angeles, California; Philadelphia, Pennsylvania; Honolulu, Hawaii; and New York, New York. Seattle and Los Angeles' high rental costs and sales taxes, coupled with a higher auto tax burden put them at the top of the list. Philadelphia's local wage tax adds to the state income tax to make it the highest income tax burden at this income level, with the third highest combined burden. The high property tax burdens (which are assumed to be a portion of rent) due to expensive real estate markets in Honolulu and New York also put them on this list. The lowest combined tax burdens of all four taxes added together at the \$25,000 income level occur in Minneapolis, Minnesota; Albuquerque, New Mexico; Boston, Massachusetts; Portland, Maine; and, Portland, Oregon. Each of these has a refundable EITC, and Minneapolis, Minnesota, offers a renter's refund through the income tax, which contributes to its low ranking.

The highest combined tax burdens of all four taxes added together at the \$150,000 income level occur in Bridgeport, Connecticut; Newark, New Jersey; Detroit, Michigan; Baltimore, Maryland; and Providence, Rhode Island. The lowest combined tax burdens at this income level are Cheyenne, Wyoming; Sioux Falls, South Dakota; Anchorage, Alaska; Nashville, Tennessee; and Fargo, North Dakota. These lower tax burdens are primarily a result of the lack of an income tax in all but one (ND) of these jurisdictions. Map 1 illustrates the combined burden of all four taxes for a family earning \$75,000/year.²²

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

²² See the Appendix for maps showing the combined burdens by state for the other income levels.

Chart 1a: 2021 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$25,000/Year



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

Note: Negative bars represent income tax refunds due to state EITC refunds (or refundable renter's credits). See Table 1a on the following page for totals and tax burdens as a percent of income and additional notes.

Table 1a: 2021 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	Seattle	WA	-	3,982	1,443	571	5,996	24.0%
2	Los Angeles	CA	-134	3,571	1,379	551	5,367	21.5%
3	Philadelphia	PA	1,728	2,328	966	306	5,327	21.3%
4	Honolulu	HI	0	3,790	893	517	5,199	20.8%
5	New York	NY	-1,171	4,656	1,249	286	5,020	20.1%
6	Birmingham	AL	908	2,138	1,678	177	4,902	19.6%
7	Chicago	IL	101	2,650	1,331	618	4,699	18.8%
8	Atlanta	GA	281	2,642	1,387	183	4,493	18.0%
9	Nashville	TN	-	2,587	1,689	209	4,484	17.9%
10	Denver	CO	-293	3,086	1,209	312	4,314	17.3%
11	Jackson	MS	0	2,323	1,529	367	4,219	16.9%
12	Charleston	SC	0	2,618	1,309	183	4,110	16.4%
13	Indianapolis	IN	945	1,733	1,024	375	4,076	16.3%
14	Virginia Beach	VA	0	2,477	990	427	3,894	15.6%
15	Baltimore	MD	-1,628	4,421	835	248	3,876	15.5%
16	Phoenix	AZ	-75	2,410	1,194	285	3,813	15.3%
17	Kansas City	MO	250	1,505	1,542	507	3,804	15.2%
18	Salt Lake City	UT	0	2,134	1,273	302	3,709	14.8%
19	Columbus	OH	625	1,843	993	240	3,700	14.8%
20	Fargo	ND	0	2,558	914	178	3,650	14.6%
21	Charleston	WV	818	1,358	926	507	3,610	14.4%
22	Las Vegas	NV	-	1,992	1,175	425	3,592	14.4%
23	Houston	TX	-	2,419	1,006	166	3,592	14.4%
24	Little Rock	AR	227	1,781	1,376	187	3,571	14.3%
25	Louisville	KY	996	1,428	821	324	3,569	14.3%
26	New Orleans	LA	124	1,661	1,614	111	3,509	14.0%
27	Oklahoma City	OK	-120	1,800	1,497	187	3,364	13.5%
28	Wichita	KS	-256	1,882	1,483	160	3,268	13.1%
29	Detroit	MI	-527	2,753	806	216	3,248	13.0%
30	Charlotte	NC	53	1,613	1,231	335	3,232	12.9%
31	Providence	RI	-543	2,196	903	596	3,152	12.6%
32	Sioux Falls	SD	-	1,625	1,283	233	3,141	12.6%
33	Jacksonville	FL	-	1,922	1,006	193	3,122	12.5%
34	Bridgeport	CT	-1,103	2,465	861	775	2,998	12.0%
35	Omaha	NE	-362	1,783	1,006	521	2,948	11.8%
36	Cheyenne	WY	-	1,769	852	286	2,907	11.6%
37	Newark	NJ	-1,106	2,930	782	277	2,884	11.5%
38	Manchester	NH	-	2,285	249	320	2,853	11.4%
39	Wilmington	DE	313	2,328	12	145	2,797	11.2%
40	Boise	ID	-290	1,723	1,147	198	2,778	11.1%
41	Washington	DC	-1,146	2,718	929	203	2,704	10.8%
42	Billings	MT	220	1,937	24	510	2,691	10.8%
43	Des Moines	IA	-146	1,548	945	302	2,649	10.6%
44	Burlington	VT	-1,302	2,786	900	214	2,599	10.4%
45	Milwaukee	WI	-165	1,690	805	265	2,595	10.4%
46	Anchorage	AK	-	2,249	110	186	2,545	10.2%
47	Portland	OR	-982	3,151	-	331	2,500	10.0%
48	Portland	ME	-1,277	2,393	813	359	2,288	9.2%
49	Boston	MA	-751	1,951	788	266	2,253	9.0%
50	Albuquerque	NM	-839	1,606	1032	124	1,923	7.7%
51	Minneapolis	MN	-1,496	1,795	1085	285	1,669	6.7%
AVERAGE		1/	(193)	2,333	1,046	315	3,514	14.1%
MEDIAN			(98)	2,249	1,006	285	3,509	14.0%

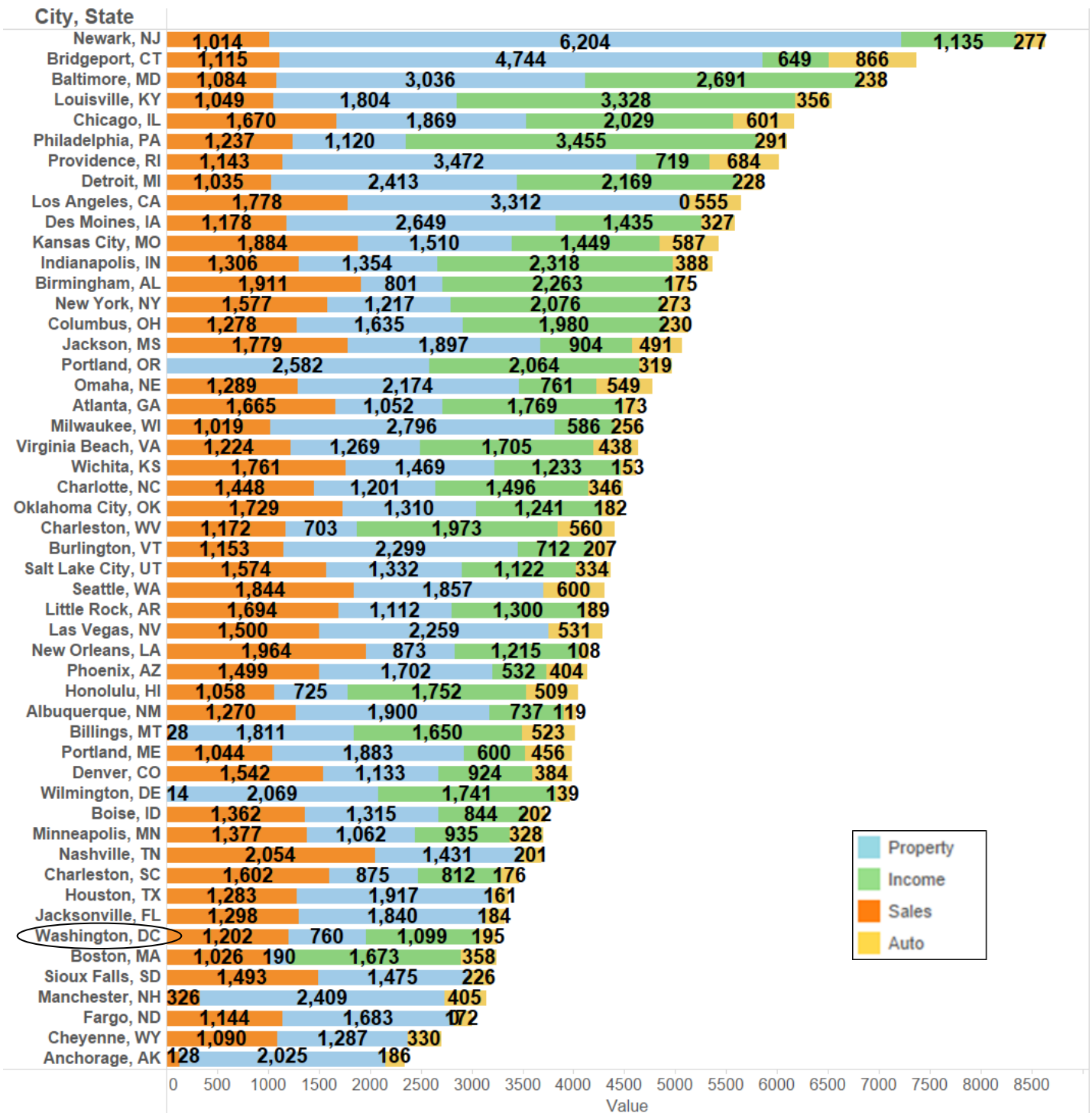
1/ Based on jurisdictions levying tax.

2/ Amounts in parentheses represent refundable State Earned Income Tax Credits. 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. For states with no state sales tax where there is a small sales tax burden listed, such as AK, DE, MT, and NH, some selective sales taxes apply to consumption items included.

Chart 1b: 2021 Estimated Burdens of Major Taxes for a Hypothetical Family Earning 50,000/Year



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

Table 1b: 2021 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$50,000/Year

RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY 3/	SALES 4/	AUTO	AMOUNT	PERCENT
1	Newark	NJ	1,135	6,204	1,014	277	8,630	17.3%
2	Bridgeport	CT	649	4,744	1,115	866	7,374	14.7%
3	Baltimore	MD	2,691	3,036	1,084	238	7,048	14.1%
4	Louisville	KY	3,328	1,804	1,049	356	6,537	13.1%
5	Chicago	IL	2,029	1,869	1,670	601	6,169	12.3%
6	Philadelphia	PA	3,455	1,120	1,237	291	6,102	12.2%
7	Providence	RI	719	3,472	1,143	684	6,017	12.0%
8	Detroit	MI	2,169	2,413	1,035	228	5,845	11.7%
9	Los Angeles	CA	0	3,312	1,778	555	5,645	11.3%
10	Des Moines	IA	1,435	2,649	1,178	327	5,589	11.2%
11	Kansas City	MO	1,449	1,510	1,884	587	5,429	10.9%
12	Indianapolis	IN	2,318	1,354	1,306	388	5,366	10.7%
13	Birmingham	AL	2,263	801	1,911	175	5,150	10.3%
14	New York	NY	2,076	1,217	1,577	273	5,144	10.3%
15	Columbus	OH	1,980	1,635	1,278	230	5,123	10.2%
16	Jackson	MS	904	1,897	1,779	491	5,071	10.1%
17	Portland	OR	2,064	2,582	-	319	4,965	9.9%
18	Omaha	NE	761	2,174	1,289	549	4,774	9.5%
19	Atlanta	GA	1,769	1,052	1,665	173	4,659	9.3%
20	Milwaukee	WI	586	2,796	1,019	256	4,657	9.3%
21	Virginia Beach	VA	1,705	1,269	1,224	438	4,636	9.3%
22	Wichita	KS	1,233	1,469	1,761	153	4,615	9.2%
23	Charlotte	NC	1,496	1,201	1,448	346	4,490	9.0%
24	Oklahoma City	OK	1,241	1,310	1,729	182	4,462	8.9%
25	Charleston	WV	1,973	703	1,172	560	4,408	8.8%
26	Burlington	VT	712	2,299	1,153	207	4,370	8.7%
27	Salt Lake City	UT	1,122	1,332	1,574	334	4,362	8.7%
28	Seattle	WA	-	1,857	1,844	600	4,301	8.6%
29	Little Rock	AR	1,300	1,112	1,694	189	4,295	8.6%
30	Las Vegas	NV	-	2,259	1,500	531	4,290	8.6%
31	New Orleans	LA	1,215	873	1,964	108	4,160	8.3%
32	Phoenix	AZ	532	1,702	1,499	404	4,137	8.3%
33	Honolulu	HI	1,752	725	1,058	509	4,045	8.1%
34	Albuquerque	NM	737	1,900	1,270	119	4,026	8.1%
35	Billings	MT	1,650	1,811	28	523	4,013	8.0%
36	Portland	ME	600	1,883	1,044	456	3,983	8.0%
37	Denver	CO	924	1,133	1,542	384	3,982	8.0%
38	Wilmington	DE	1,741	2,069	14	139	3,963	7.9%
39	Boise	ID	844	1,315	1,362	202	3,723	7.4%
40	Minneapolis	MN	935	1,062	1,377	328	3,703	7.4%
41	Nashville	TN	-	1,431	2,054	201	3,686	7.4%
42	Charleston	SC	812	875	1,602	176	3,465	6.9%
43	Houston	TX	-	1,917	1,283	161	3,361	6.7%
44	Jacksonville	FL	-	1,840	1,298	184	3,323	6.6%
45	Washington	DC	1,099	760	1,202	195	3,256	6.5%
46	Boston	MA	1,673	190	1,026	358	3,247	6.5%
47	Sioux Falls	SD	-	1,475	1,493	226	3,194	6.4%
48	Manchester	NH	-	2,409	326	405	3,140	6.3%
49	Fargo	ND	0	1,683	1,144	172	2,999	6.0%
50	Cheyenne	WY	-	1,287	1,090	330	2,706	5.4%
51	Anchorage	AK	-	2,025	128	186	2,339	4.7%
AVERAGE			1/	1,407	1,820	1,298	4,588	9.2%
MEDIAN				1,271	1,683	1,286	4,370	8.7%

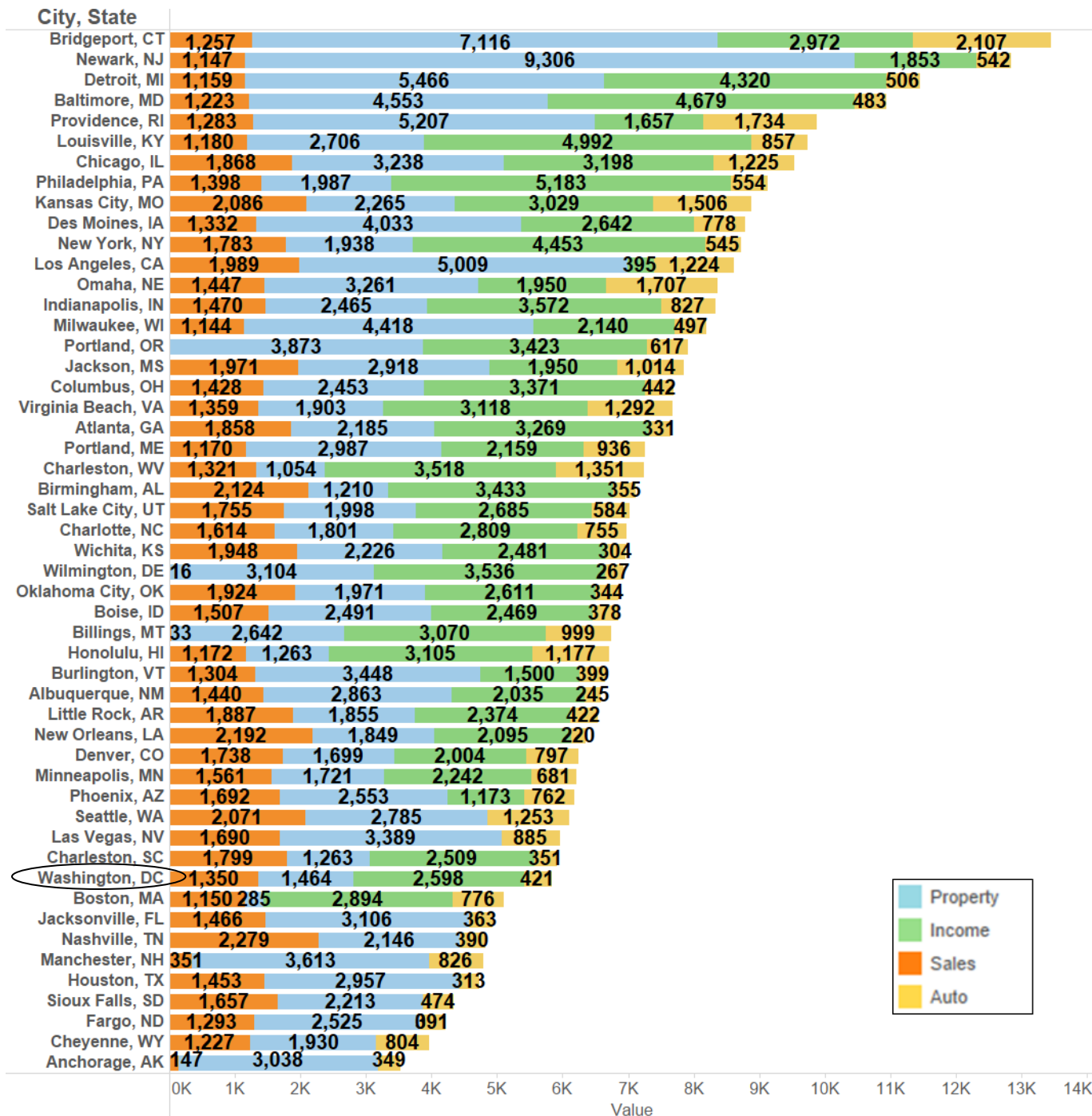
1/ Based on jurisdictions levying tax.

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/ Some jurisdictions, including MN and VT offer a property tax credit of property taxes paid through the income tax and those refunds are reflected in the income tax burdens.

4/ States with dashes do not have a sales tax. For states with no state sales tax where there is a small sales tax burden listed, such as AK, DE, MT, and NH, some selective sales taxes apply to consumption items included.

Chart 1c: 2021 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$75,000/Year



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

Table 1c: 2021 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$75,000/Year

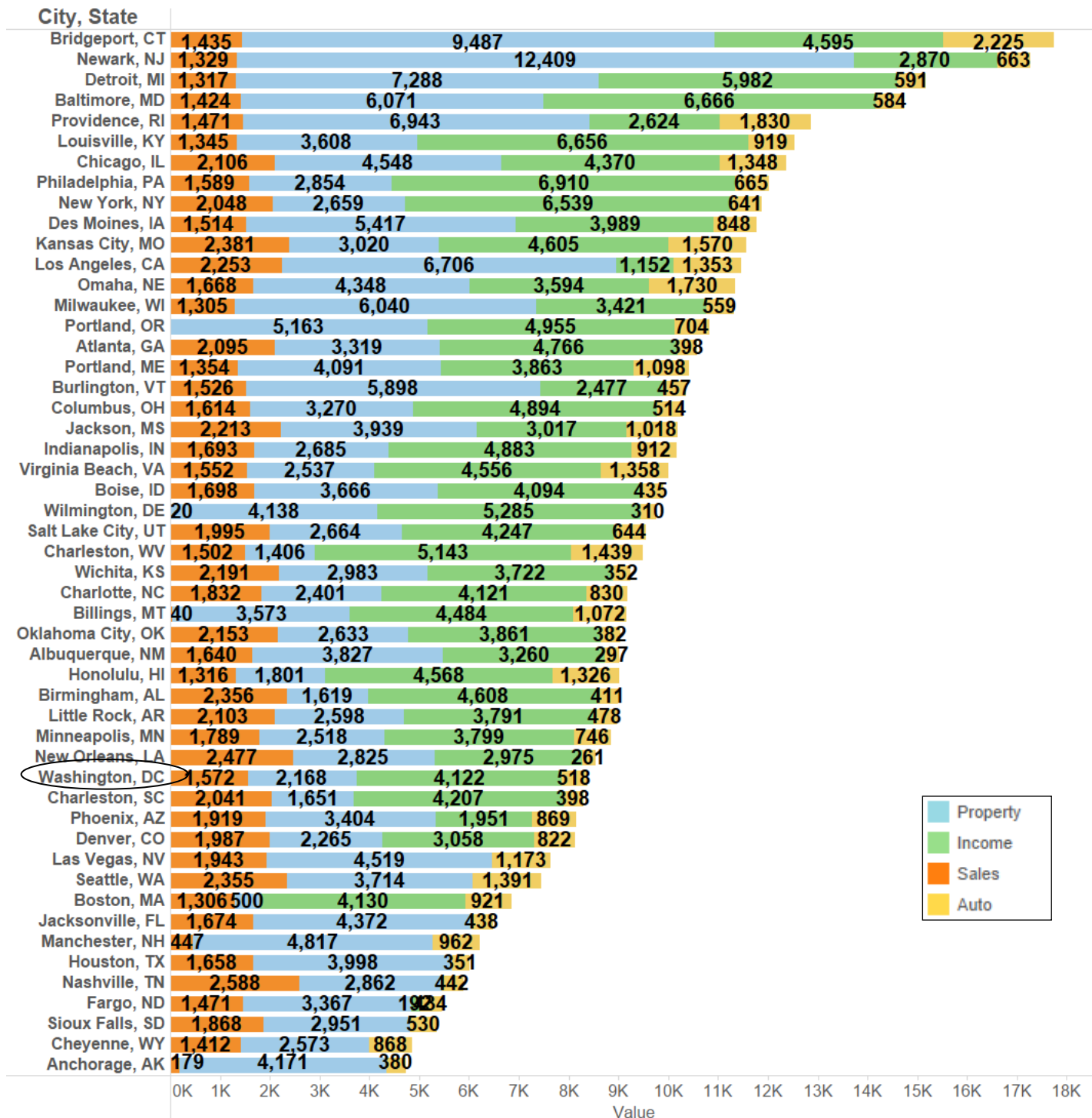
RANK	CITY	ST	TAXES				BURDEN	
			INCOME 2/	PROPERTY 3/	SALES 4/	AUTO	AMOUNT	PERCENT
1	Bridgeport	CT	2,972	7,116	1,257	2,107	13,451	17.9%
2	Newark	NJ	1,853	9,306	1,147	542	12,849	17.1%
3	Detroit	MI	4,320	5,466	1,159	506	11,451	15.3%
4	Baltimore	MD	4,679	4,553	1,223	483	10,939	14.6%
5	Providence	RI	1,657	5,207	1,283	1,734	9,881	13.2%
6	Louisville	KY	4,992	2,706	1,180	857	9,734	13.0%
7	Chicago	IL	3,198	3,238	1,868	1,225	9,530	12.7%
8	Philadelphia	PA	5,183	1,987	1,398	554	9,122	12.2%
9	Kansas City	MO	3,029	2,265	2,086	1,506	8,885	11.8%
10	Des Moines	IA	2,642	4,033	1,332	778	8,785	11.7%
11	New York	NY	4,453	1,938	1,783	545	8,719	11.6%
12	Los Angeles	CA	395	5,009	1,989	1,224	8,617	11.5%
13	Omaha	NE	1,950	3,261	1,447	1,707	8,365	11.2%
14	Indianapolis	IN	3,572	2,465	1,470	827	8,334	11.1%
15	Milwaukee	WI	2,140	4,418	1,144	497	8,200	10.9%
16	Portland	OR	3,423	3,873	-	617	7,913	10.6%
17	Jackson	MS	1,950	2,918	1,971	1,014	7,853	10.5%
18	Columbus	OH	3,371	2,453	1,428	442	7,694	10.3%
19	Virginia Beach	VA	3,118	1,903	1,359	1,292	7,671	10.2%
20	Atlanta	GA	3,269	2,185	1,858	331	7,642	10.2%
21	Portland	ME	2,159	2,987	1,170	936	7,252	9.7%
22	Charleston	WV	3,518	1,054	1,321	1,351	7,244	9.7%
23	Birmingham	AL	3,433	1,210	2,124	355	7,123	9.5%
24	Salt Lake City	UT	2,685	1,998	1,755	584	7,022	9.4%
25	Charlotte	NC	2,809	1,801	1,614	755	6,979	9.3%
26	Wichita	KS	2,481	2,226	1,948	304	6,959	9.3%
27	Wilmington	DE	3,536	3,104	16	267	6,922	9.2%
28	Oklahoma City	OK	2,611	1,971	1,924	344	6,850	9.1%
29	Boise	ID	2,469	2,491	1,507	378	6,845	9.1%
30	Billings	MT	3,070	2,642	33	999	6,744	9.0%
31	Honolulu	HI	3,105	1,263	1,172	1,177	6,717	9.0%
32	Burlington	VT	1,500	3,448	1,304	399	6,651	8.9%
33	Albuquerque	NM	2,035	2,863	1,440	245	6,583	8.8%
34	Little Rock	AR	2,374	1,855	1,887	422	6,538	8.7%
35	New Orleans	LA	2,095	1,849	2,192	220	6,356	8.5%
36	Denver	CO	2,004	1,699	1,738	797	6,238	8.3%
37	Minneapolis	MN	2,242	1,721	1,561	681	6,205	8.3%
38	Phoenix	AZ	1,173	2,553	1,692	762	6,181	8.2%
39	Seattle	WA	-	2,785	2,071	1,253	6,110	8.1%
40	Las Vegas	NV	-	3,389	1,690	885	5,963	8.0%
41	Charleston	SC	2,509	1,263	1,799	351	5,921	7.9%
42	Washington	DC	2,598	1,464	1,350	421	5,833	7.8%
43	Boston	MA	2,894	285	1,150	776	5,105	6.8%
44	Jacksonville	FL	-	3,106	1,466	363	4,934	6.6%
45	Nashville	TN	-	2,146	2,279	390	4,815	6.4%
46	Manchester	NH	-	3,613	351	826	4,790	6.4%
47	Houston	TX	-	2,957	1,453	313	4,723	6.3%
48	Sioux Falls	SD	-	2,213	1,657	474	4,344	5.8%
49	Fargo	ND	0	2,525	1,293	391	4,209	5.6%
50	Cheyenne	WY	-	1,930	1,227	804	3,960	5.3%
51	Anchorage	AK	-	3,038	147	349	3,534	4.7%
AVERAGE			2,749	2,858	1,454	733	7,280	9.7%
MEDIAN			2,664	2,525	1,450	584	6,959	9.3%

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/ Some jurisdictions, including MN and VT offer a property tax credit of property taxes paid through the income tax and those refunds are reflected in the income tax burdens.

4/ States with dashes do not have a sales tax. For states with no state sales tax where there is a small sales tax burden listed, such as AK, DE, MT, and NH, some selective sales taxes apply to consumption items included.

Chart 1d: 2021 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$100,000/Year

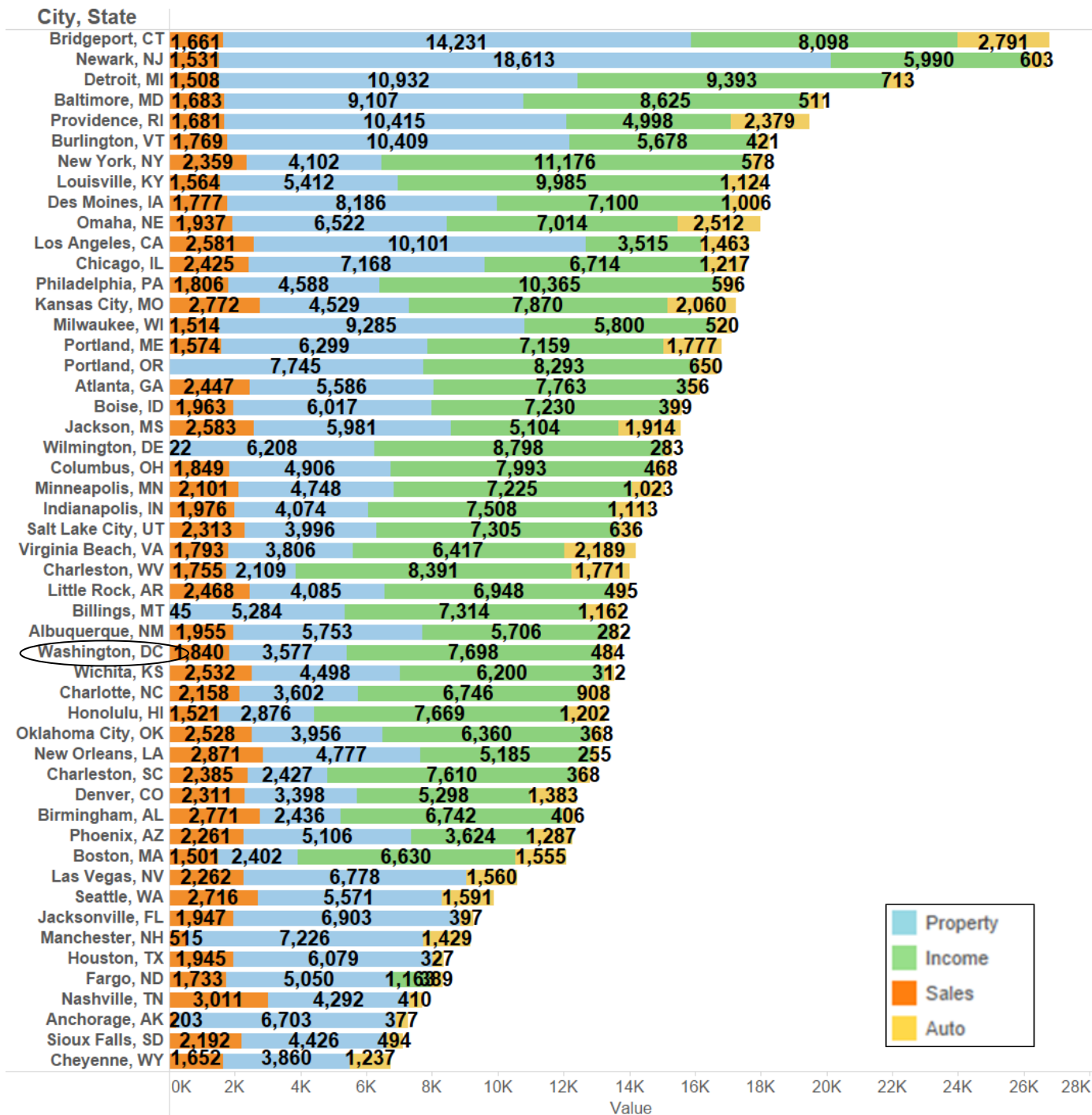


Source: ORA. See Table 1d on the following page for totals and tax burdens as a percent of income and additional notes.

Table 1d: 2021 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	4,595	9,487	1,435	2,225	17,743	17.7%
2	Newark	NJ	2,870	12,409	1,329	663	17,271	17.3%
3	Detroit	MI	5,982	7,288	1,317	591	15,178	15.2%
4	Baltimore	MD	6,666	6,071	1,424	584	14,745	14.7%
5	Providence	RI	2,624	6,943	1,471	1,830	12,868	12.9%
6	Louisville	KY	6,656	3,608	1,345	919	12,528	12.5%
7	Chicago	IL	4,370	4,548	2,106	1,348	12,372	12.4%
8	Philadelphia	PA	6,910	2,854	1,589	665	12,018	12.0%
9	New York	NY	6,539	2,659	2,048	641	11,887	11.9%
10	Des Moines	IA	3,989	5,417	1,514	848	11,768	11.8%
11	Kansas City	MO	4,605	3,020	2,381	1,570	11,576	11.6%
12	Los Angeles	CA	1,152	6,706	2,253	1,353	11,465	11.5%
13	Omaha	NE	3,594	4,348	1,668	1,730	11,340	11.3%
14	Milwaukee	WI	3,421	6,040	1,305	559	11,326	11.3%
15	Portland	OR	4,955	5,163	-	704	10,822	10.8%
16	Atlanta	GA	4,766	3,319	2,095	398	10,578	10.6%
17	Portland	ME	3,863	4,091	1,354	1,098	10,406	10.4%
18	Burlington	VT	2,477	5,898	1,526	457	10,357	10.4%
19	Columbus	OH	4,894	3,270	1,614	514	10,293	10.3%
20	Jackson	MS	3,017	3,939	2,213	1,018	10,187	10.2%
21	Indianapolis	IN	4,883	2,685	1,693	912	10,173	10.2%
22	Virginia Beach	VA	4,556	2,537	1,552	1,358	10,003	10.0%
23	Boise	ID	4,094	3,666	1,698	435	9,893	9.9%
24	Wilmington	DE	5,285	4,138	20	310	9,753	9.8%
25	Salt Lake City	UT	4,247	2,664	1,995	644	9,550	9.6%
26	Charleston	WV	5,143	1,406	1,502	1,439	9,490	9.5%
27	Wichita	KS	3,722	2,983	2,191	352	9,248	9.2%
28	Charlotte	NC	4,121	2,401	1,832	830	9,184	9.2%
29	Billings	MT	4,484	3,573	40	1,072	9,168	9.2%
30	Oklahoma City	OK	3,861	2,633	2,153	382	9,029	9.0%
31	Albuquerque	NM	3,260	3,827	1,640	297	9,023	9.0%
32	Honolulu	HI	4,568	1,801	1,316	1,326	9,011	9.0%
33	Birmingham	AL	4,608	1,619	2,356	411	8,994	9.0%
34	Little Rock	AR	3,791	2,598	2,103	478	8,970	9.0%
35	Minneapolis	MN	3,799	2,518	1,789	746	8,852	8.9%
36	New Orleans	LA	2,975	2,825	2,477	261	8,537	8.5%
37	Washington	DC	4,122	2,168	1,572	518	8,381	8.4%
38	Charleston	SC	4,207	1,651	2,041	398	8,297	8.3%
39	Phoenix	AZ	1,951	3,404	1,919	869	8,143	8.1%
40	Denver	CO	3,058	2,265	1,987	822	8,132	8.1%
41	Las Vegas	NV	-	4,519	1,943	1,173	7,635	7.6%
42	Seattle	WA	-	3,714	2,355	1,391	7,460	7.5%
43	Boston	MA	4,130	500	1,306	921	6,856	6.9%
44	Jacksonville	FL	-	4,372	1,674	438	6,484	6.5%
45	Manchester	NH	-	4,817	447	962	6,226	6.2%
46	Houston	TX	-	3,998	1,658	351	6,006	6.0%
47	Nashville	TN	-	2,862	2,588	442	5,892	5.9%
48	Fargo	ND	192	3,367	1,471	434	5,464	5.5%
49	Sioux Falls	SD	-	2,951	1,868	530	5,349	5.3%
50	Cheyenne	WY	-	2,573	1,412	868	4,853	4.9%
51	Anchorage	AK	-	4,171	179	380	4,730	4.7%
AVERAGE			4,119	3,888	1,655	813	9,716	9.7%
MEDIAN			4,126	3,404	1,663	665	9,490	9.5%
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. For states with no state sales tax where there is a small sales tax burden listed, such as AK, DE, MT, and NH, some selective sales taxes apply to consumption items included.								

Chart 1e: 2021 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$150,000/Year

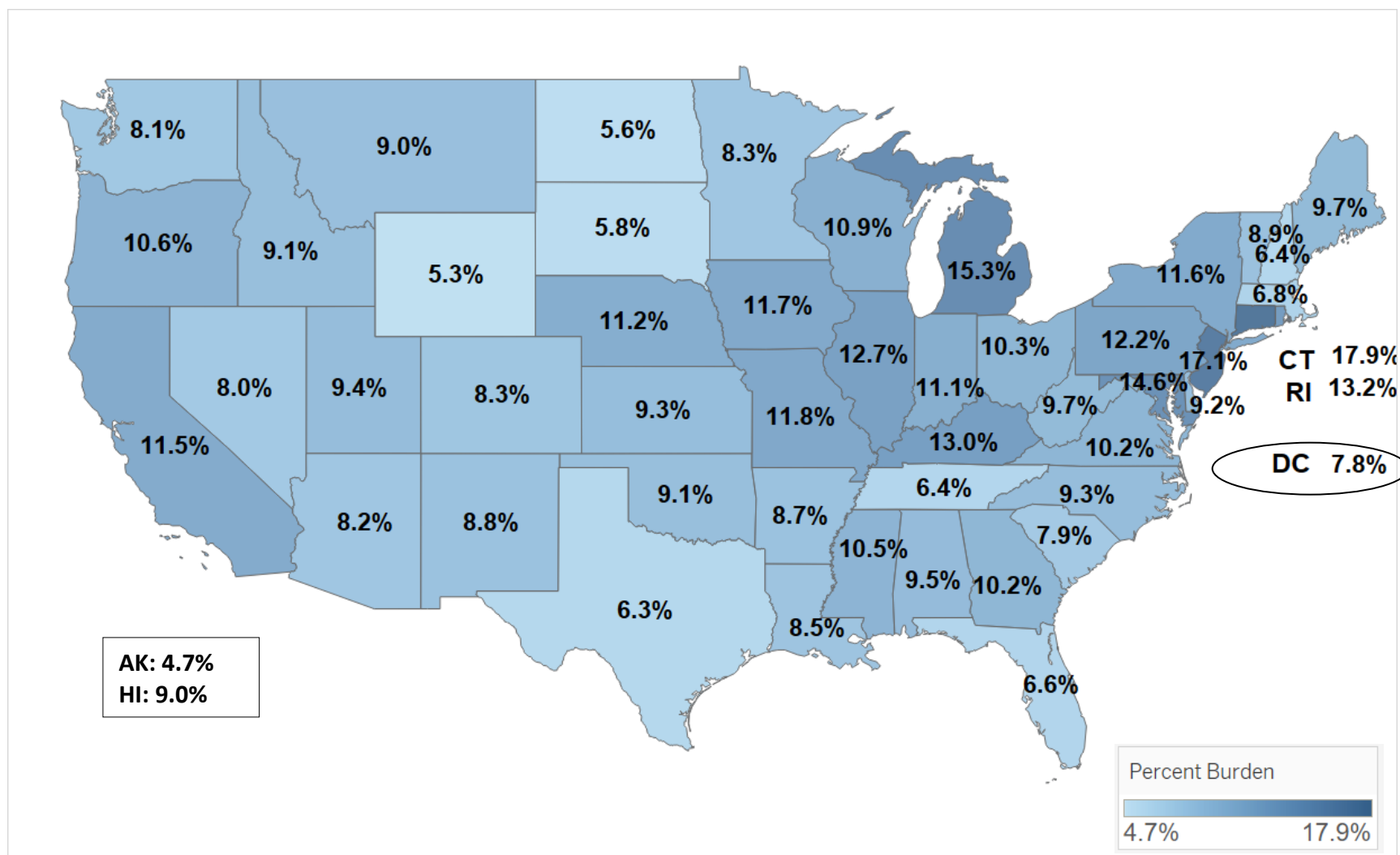


Source: ORA. See Table 1e on the following page for tax burdens as a percent of income and additional notes.

Table 1e: 2021 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	8,098	14,231	1,661	2,791	26,781	17.9%
2	Newark	NJ	5,990	18,613	1,531	603	26,737	17.8%
3	Detroit	MI	9,393	10,932	1,508	713	22,546	15.0%
4	Baltimore	MD	8,625	9,107	1,683	511	19,925	13.3%
5	Providence	RI	4,998	10,415	1,681	2,379	19,473	13.0%
6	Burlington	VT	5,678	10,409	1,769	421	18,277	12.2%
7	New York	NY	11,176	4,102	2,359	578	18,214	12.1%
8	Louisville	KY	9,985	5,412	1,564	1,124	18,085	12.1%
9	Des Moines	IA	7,100	8,186	1,777	1,006	18,068	12.0%
10	Omaha	NE	7,014	6,522	1,937	2,512	17,985	12.0%
11	Los Angeles	CA	3,515	10,101	2,581	1,463	17,659	11.8%
12	Chicago	IL	6,714	7,168	2,425	1,217	17,524	11.7%
13	Philadelphia	PA	10,365	4,588	1,806	596	17,354	11.6%
14	Kansas City	MO	7,870	4,529	2,772	2,060	17,231	11.5%
15	Milwaukee	WI	5,800	9,285	1,514	520	17,119	11.4%
16	Portland	ME	7,159	6,299	1,574	1,777	16,809	11.2%
17	Portland	OR	8,293	7,745	-	650	16,687	11.1%
18	Atlanta	GA	7,763	5,586	2,447	356	16,151	10.8%
19	Boise	ID	7,230	6,017	1,963	399	15,610	10.4%
20	Jackson	MS	5,104	5,981	2,583	1,914	15,581	10.4%
21	Wilmington	DE	8,798	6,208	22	283	15,311	10.2%
22	Columbus	OH	7,993	4,906	1,849	468	15,216	10.1%
23	Minneapolis	MN	7,225	4,748	2,101	1,023	15,097	10.1%
24	Indianapolis	IN	7,508	4,074	1,976	1,113	14,670	9.8%
25	Salt Lake City	UT	7,305	3,996	2,313	636	14,250	9.5%
26	Virginia Beach	VA	6,417	3,806	1,793	2,189	14,205	9.5%
27	Charleston	WV	8,391	2,109	1,755	1,771	14,026	9.4%
28	Little Rock	AR	6,948	4,085	2,468	495	13,996	9.3%
29	Billings	MT	7,314	5,284	45	1,162	13,805	9.2%
30	Albuquerque	NM	5,706	5,753	1,955	282	13,696	9.1%
31	Washington	DC	7,698	3,577	1,840	484	13,599	9.1%
32	Wichita	KS	6,200	4,498	2,532	312	13,542	9.0%
33	Charlotte	NC	6,746	3,602	2,158	908	13,415	8.9%
34	Honolulu	HI	7,669	2,876	1,521	1,202	13,269	8.8%
35	Oklahoma City	OK	6,360	3,956	2,528	368	13,212	8.8%
36	New Orleans	LA	5,185	4,777	2,871	255	13,088	8.7%
37	Charleston	SC	7,610	2,427	2,385	368	12,790	8.5%
38	Denver	CO	5,298	3,398	2,311	1,383	12,390	8.3%
39	Birmingham	AL	6,742	2,436	2,771	406	12,355	8.2%
40	Phoenix	AZ	3,624	5,106	2,261	1,287	12,278	8.2%
41	Boston	MA	6,630	2,402	1,501	1,555	12,088	8.1%
42	Las Vegas	NV	-	6,778	2,262	1,560	10,600	7.1%
43	Seattle	WA	-	5,571	2,716	1,591	9,877	6.6%
44	Jacksonville	FL	-	6,903	1,947	397	9,247	6.2%
45	Manchester	NH	-	7,226	515	1,429	9,170	6.1%
46	Houston	TX	-	6,079	1,945	327	8,351	5.6%
47	Fargo	ND	1,163	5,050	1,733	389	8,335	5.6%
48	Nashville	TN	-	4,292	3,011	410	7,713	5.1%
49	Anchorage	AK	-	6,703	203	377	7,283	4.9%
50	Sioux Falls	SD	-	4,426	2,192	494	7,113	4.7%
51	Cheyenne	WY	-	3,860	1,652	1,237	6,749	4.5%
AVERAGE			6,962	6,003	1,925	976	14,599	9.7%
MEDIAN			7,130	5,284	1,946	650	14,205	9.5%
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. For states with no state sales tax where there is a small sales tax burden listed, such as AK, DE, MT, and NH, some selective sales taxes apply to consumption items included.								

**Map 1: Total 2021 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$75,000/Year)**



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

CHAPTER III

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

Individual Income Tax

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

In thirty of the cities that are in states that levy an income tax, the percentage of income paid in individual income taxes by the family earning \$25,000 per year is zero percent (or less than zero due to refundable credits). Notably, residents of Baltimore, Maryland would receive a refund of \$1,628, making it the lowest income tax burden on a family earning \$25,000 per year.²³ The highest income tax burden at this lower income level is \$1,728, or 6.9 percent in Philadelphia, Pennsylvania, and next at \$996, or 4.0 percent in Louisville, Kentucky. At the \$150,000 income level, the burden ranges from a low of \$1,163, or 0.8 percent of income in Fargo, North Dakota, to \$11,176 or 7.5 percent in New York City, New York. (New Hampshire and Tennessee income taxes are applicable only to interest and dividend income and the exemptions are high enough to eliminate individual income taxes at all income levels used in the study).

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

Several state individual income tax systems are indexed for inflation either for their rate brackets or credits or both. Indexing allows dollar amounts imbedded in the tax code to retain their value and not erode. For example, a \$10,000 bracket, the level at which income is taxed at a certain rate, established in 2010 would have a “real” value of just over \$12,000 now and indexing would keep that value up to date. Absent indexing, a taxpayer would have more of their income—which presumably is growing with inflation—exposed to the next bracket and a higher rate. 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 lists the various portions that are indexed.

²³ For the current 2021 Study, a Vermont renters refund is included in the property tax burdens.

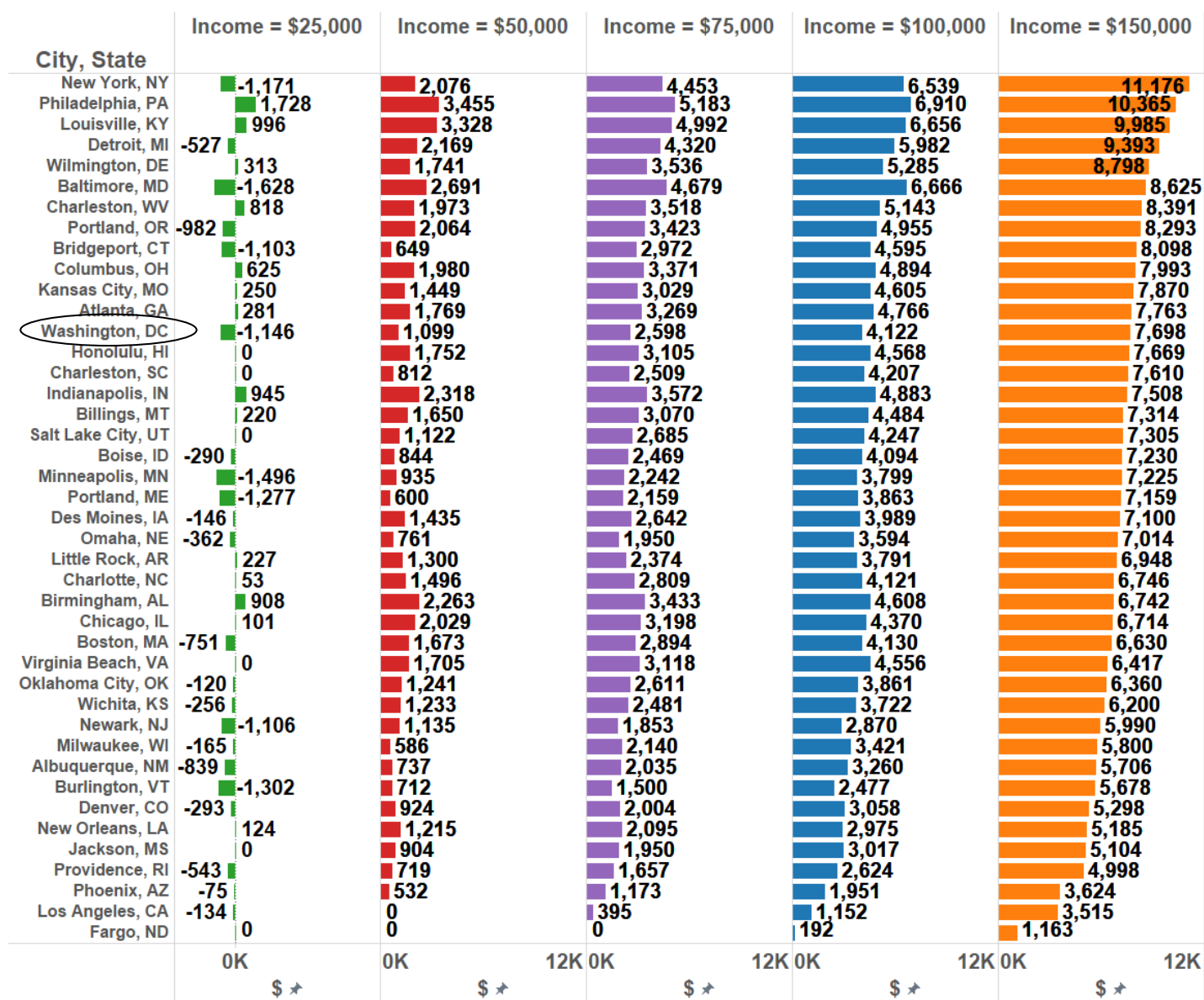
As Table 3 indicates, there are several types of individual income tax systems including graduated state and local rates, graduated state and flat local rates, flat state and local rates (or fees), graduated state tax rates and flat state rates with exemptions. The most common system is the graduated state tax rate, which applies to taxpayers in 24 of the cities (this count includes DC). Taxpayers in six cities are subject to a flat state tax rate with exemptions. Thirteen states have either graduated or flat state rates and flat local rates (or fees). New York City residents are subject to separate state and local income taxes, both of which are characterized by graduated rate schedules. Fourteen cities in the current study apply a local income tax or fee on wages (see table below).

Local Income Tax Rates, 2021

City	State	Tax	Rate
Birmingham	AL	Income Tax	1.0%
Denver	CO	Occupational Privilege Tax	\$5.75/month
Wilmington	DE	Income Tax	1.25%
Indianapolis	IN	(County) Income Tax	2.02%
Louisville	KY	Income Tax	2.2%
Baltimore	MD	Income Tax	3.2%
Detroit	MI	Income Tax	2.4%
Kansas City	MO	Earnings Tax	1.0%
Newark	NJ	Payroll Tax	1.0%
New York	NY	Income Tax	3.078 - 3.876% (graduated rates)
Columbus	OH	Income Tax	2.5%
Portland	OR	(Tri-Met Transit District) Payroll Tax	0.78%
Philadelphia	PA	Wage Tax	3.84%
Charleston	WV	City Service Fee	\$13/month

Sources: ORA analysis of City and State web pages.

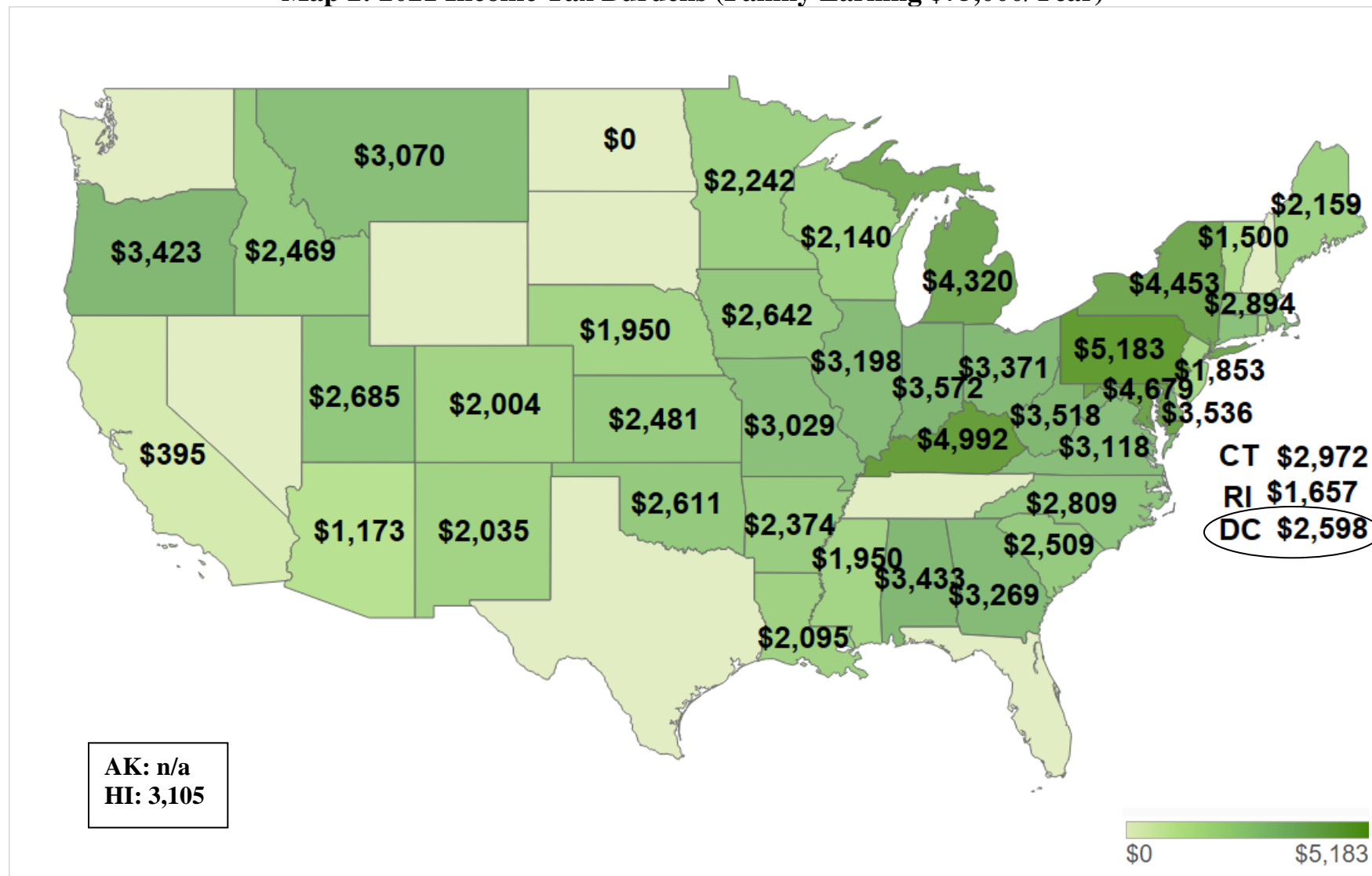
Chart 2: 2021 Income Tax Burdens for All Income Levels



Source: ORA; see description on page 6-8 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: 2021 Income Tax Burdens (Family Earning \$75,000/Year)



Source: ORA Analysis.

Note: The lighter green shading represents a lower tax burden. States with no label do not have an income tax. North Dakota had a \$700 rebate credit given in 2021, and the effect stretched through the tax brackets effectively lowering all tax burdens for 2021 income, and negating taxes owed up to \$75,000 in this hypothetical scenario.

Table 2: States That Index Some Part of Their Individual Income Tax, 2021

STATE	INDEXED PORTION
Arizona	Tax brackets, standard deduction, personal exemption
Arkansas	Tax brackets, personal exemption
California	Tax brackets (partial), exemption (credit), standard deduction
Colorado	Standard deduction
Idaho	Tax brackets, standard deduction,
Illinois	Tax brackets, standard deduction, personal exemption
Iowa	Tax brackets, standard deduction
Kentucky	Standard deduction
Maine	Tax brackets, standard deduction
Michigan	Personal exemption
Minnesota	Tax brackets, exemptions, standard deduction
Missouri	Tax brackets, standard deduction
Montana	Tax brackets, exemptions, standard deduction
Nebraska	Tax brackets, Personal exemption, standard deduction
New Mexico	Standard deduction
New York	Tax brackets, standard deduction, personal exemption
North Dakota	Tax brackets, standard deduction
Ohio	Tax brackets (temporary freeze until 2022), personal exemption
Oregon	Tax brackets (up to \$125,000), standard deduction credit, personal exemption
Rhode Island	Tax brackets, standard deduction, personal exemption
South Carolina	Tax brackets, standard deduction, personal exemption
Utah	Standard deduction
Vermont	Tax brackets, standard deduction, personal exemption
Washington, DC	Standard deduction
Wisconsin	Tax brackets, standard deduction

Sources: State Web Pages; Federation of Tax Administrators, "State Individual Income Tax Rates (as of January 1, 2021)"; Federation of Tax Administrators, "State Individual Income Taxes: Federal Starting Points (as of July 1, 2021)." Tax Foundation, "Inflation Adjusting State Tax Codes: A Primer," October 29, 2019. Tax Foundation, "State Individual Income Tax Rates and Brackets for 2021." February 17, 2021.

Table 3: State and Local Income Tax Burden as a Percent of Income in the Largest Cities by Type of Income Tax for a Hypothetical Family of Three, 2021

CITIES WITH:	ST	INCOME LEVELS:				
		\$25,000	\$50,000	\$75,000	\$100,000	\$150,000
GRADUATED STATE AND LOCAL TAX RATES						
New York City	NY	-4.7%	4.2%	5.9%	6.5%	7.5%
GRADUATED STATE AND FLAT LOCAL RATES						
Birmingham	AL	3.6%	4.5%	4.6%	4.6%	4.5%
Wilmington	DE	1.3%	3.5%	4.7%	5.3%	5.9%
Baltimore	MD	-6.5%	5.4%	6.2%	6.7%	5.8%
Kansas City	MO	1.0%	2.9%	4.0%	4.6%	5.2%
Newark 1/	NJ	-4.4%	2.3%	2.5%	2.9%	4.0%
Columbus	OH	2.5%	4.0%	4.5%	4.9%	5.3%
Portland 1/	OR	-3.9%	4.1%	4.6%	5.0%	5.5%
GRADUATED STATE RATE AND LOCAL FLAT FEE						
Charleston 1/	WV	3.3%	3.9%	4.7%	5.1%	5.6%
FLAT STATE AND LOCAL TAX RATES 5/						
Indianapolis 6/	IN	3.8%	4.6%	4.8%	4.9%	5.0%
Louisville	KY	4.0%	6.7%	6.7%	6.7%	6.7%
Detroit	MI	-2.1%	4.3%	5.8%	6.0%	6.3%
Philadelphia	PA	6.9%	6.9%	6.9%	6.9%	6.9%
FLAT STATE RATE AND LOCAL FLAT FEE						
Denver	CO	-1.2%	1.8%	2.7%	3.1%	3.5%
GRADUATED STATE TAX RATE						
Little Rock	AR	0.9%	2.6%	3.2%	3.8%	4.6%
Phoenix	AZ	-0.3%	1.1%	1.6%	2.0%	2.4%
Los Angeles	CA	-0.5%	0.0%	0.5%	1.2%	2.3%
Bridgeport	CT	-4.4%	1.3%	4.0%	4.6%	5.4%
WASHINGTON	DC	-4.6%	2.2%	3.5%	4.1%	5.1%
Atlanta	GA	1.1%	3.5%	4.4%	4.8%	5.2%
Honolulu	HI	0.0%	3.5%	4.1%	4.6%	5.1%
Des Moines	IA	-0.6%	2.9%	3.5%	4.0%	4.7%
Boise	ID	-1.2%	1.7%	3.3%	4.1%	4.8%
Wichita	KS	-1.0%	2.5%	3.3%	3.7%	4.1%
New Orleans	LA	0.5%	2.4%	2.8%	3.0%	3.5%
Portland	ME	-5.1%	1.2%	2.9%	3.9%	4.8%
Minneapolis	MN	-6.0%	1.9%	3.0%	3.8%	4.8%
Jackson	MS	0.0%	1.8%	2.6%	3.0%	3.4%
Billings	MT	0.9%	3.3%	4.1%	4.5%	4.9%
Fargo	ND	0.0%	0.0%	0.0%	0.2%	0.8%
Omaha	NE	-1.4%	1.5%	2.6%	3.6%	4.7%
Albuquerque	NM	-3.4%	1.5%	2.7%	3.3%	3.8%
Oklahoma City	OK	-0.5%	2.5%	3.5%	3.9%	4.2%
Providence	RI	-2.2%	1.4%	2.2%	2.6%	3.3%
Charleston	SC	0.0%	1.6%	3.3%	4.2%	5.1%
Virginia Beach	VA	0.0%	3.4%	4.2%	4.6%	4.3%
Burlington	VT	-5.2%	1.4%	2.0%	2.5%	3.8%
Milwaukee	WI	-0.7%	1.2%	2.9%	3.4%	3.9%
FLAT STATE TAX RATE WITH EXEMPTIONS						
Chicago	IL	0.4%	4.1%	4.3%	4.4%	4.5%
Boston	MA	-3.0%	3.3%	3.9%	4.1%	4.4%
Charlotte 2/	NC	0.2%	3.0%	3.7%	4.1%	4.5%
Manchester 3/	NH	0.0%	0.0%	0.0%	0.0%	0.0%
Nashville 3/	TN	0.0%	0.0%	0.0%	0.0%	0.0%
Salt Lake City	UT	0.0%	2.2%	3.6%	4.2%	4.9%
AVERAGE	4/	-0.7%	2.7%	3.5%	3.9%	4.4%

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

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

1/ Imposed on employers.

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

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

4/ Based on jurisdictions levying tax and presented here.

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

6/ Indiana allows for personal exemptions.

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 practice, homeowner exemptions, and credits. Nominal rates used in Table 4 represent the “announced” rates levied by the jurisdiction, while effective rates consider how the assessed value differs from market value in each city. Effective rates range from a high of \$3.48 per \$100 of assessed value in Detroit, Michigan to \$0.35 per \$100 of assessed value in Honolulu, Hawaii. Statutory assessment levels vary dramatically from 1.35 percent of assessed value in Billings, Montana, to 105.32 percent of assessed value in Burlington, Vermont.

As previously mentioned, the current 2021 report includes median sales ratio statistics where available to derive an “effective assessment level” that results from multiplying the statutory assessment level times the median sales ratio statistic (see Table 4).

Local assessors, state tax and county officials provided the nominal rates, assessment levels, and median sales ratios of each city and state. Research of government web sites was performed to fill in any gaps to present the most accurate and updated information. The District’s effective property tax rate (net of assessment value and median sales ratio) is among the lowest of the 51 cities, ranking 43rd. Chart 3 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. 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.²⁴ 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. This study does not consider the impact of property tax caps that are available in some jurisdictions.

At all four of the income levels for which home ownership is assumed (\$50,000 to \$150,000), Newark, New Jersey;²⁵ Bridgeport, Connecticut; and Los Angeles, California consistently are among those with the highest property tax burdens for each income level. Other locations that show up in the top five across the income levels include: Baltimore, Maryland, Detroit, Michigan, and Providence, Rhode Island. For these cities, high property tax burdens primarily result from a combination of high real estate tax rates and high housing values, as can be seen in Table 4 and Table 5.

At all four income levels, the lowest property tax burdens can be found in Boston, Massachusetts; Charleston, West Virginia; Birmingham, Alabama; and, Charleston, South Carolina. These low real estate tax burdens result from a combination of low effective real estate tax rates, below average housing values, or an exemption program (as is the case with Boston, Massachusetts). At the \$50,000 level, Washington, DC is also among the lowest five tax burdens due to a refundable property tax credit at this income level.

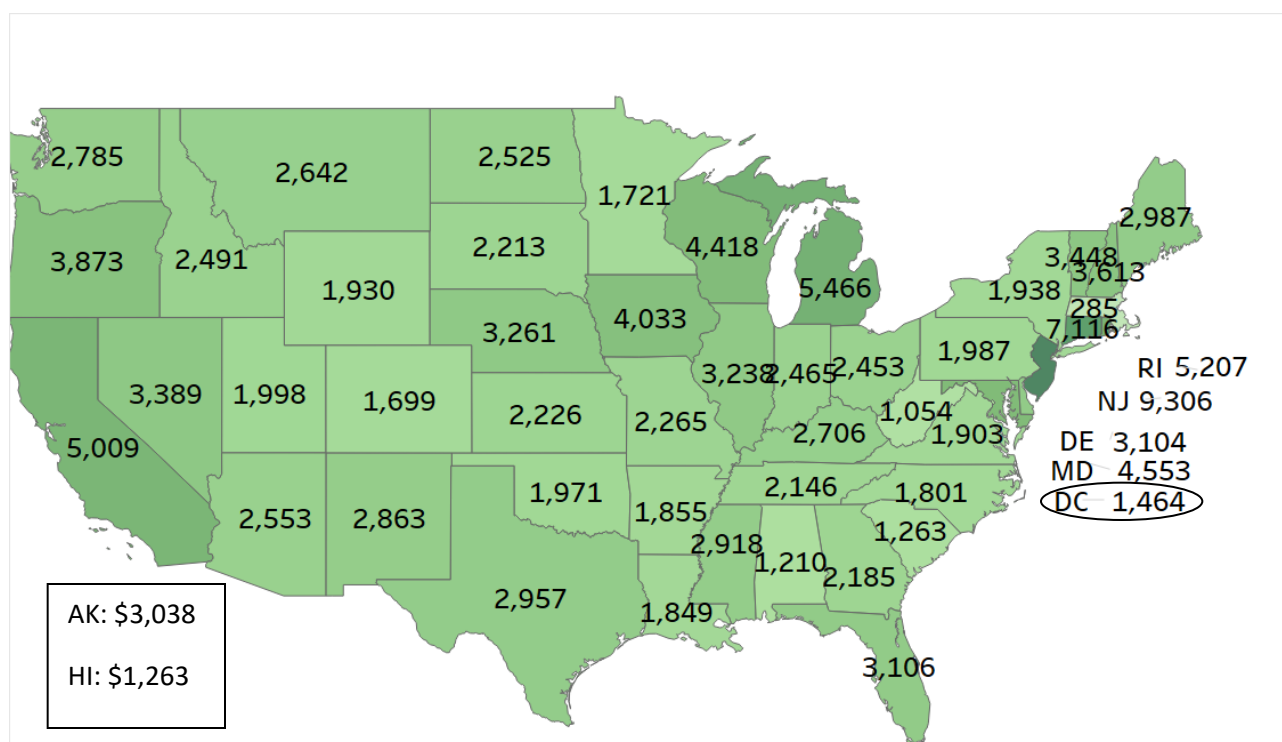
²⁴ See Chapter 1: How Tax Burdens are Calculated for notes on methodology used for this year.

²⁵ Newark, NJ, is in the New York City Metropolitan Statistical Area, thus the data used for Newark are the same as for NYC. See page 55 of the 2013 Tax Rates and Tax Burdens Study for a sensitivity analysis of how several cities’ (including Newark’s) property tax burdens would change using city-level data.

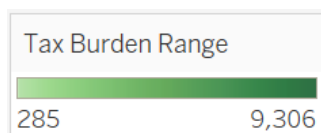
At the \$25,000-income level, it is assumed that the families rent rather than own a home. At this income level, New York, New York; Baltimore, Maryland; Seattle, Washington; Honolulu, Hawaii; and Los Angeles, CA, have the highest property tax burdens (assumed as a portion of rent). This trend is solely 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, 20 percent of the annual rent is assumed to go toward paying the property tax). A refundable tax credit for renters in Washington, DC offsets this high tax burden to move the renters' burden at this level down to 21st among all the jurisdictions included. (Massachusetts does offer an income tax deduction for 50 percent of rent paid).

Map 3 below illustrates the range of property tax burdens for a family earning \$75,000 a year. The darker the green shading in a state, the higher the tax burden. Chart 4 presents property tax burdens at each income level on one chart, sorted by the (rental) tax burden on the family earning \$25,000 per year. Viewing the data this way illustrates the differing burdens on renters versus homeowners (however, as noted, 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: 2021 Property Tax Burdens (\$)
(Family earning \$75,000/year)**



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



**Table 4: Residential Property Tax Rates in the Largest City in Each State
2021**

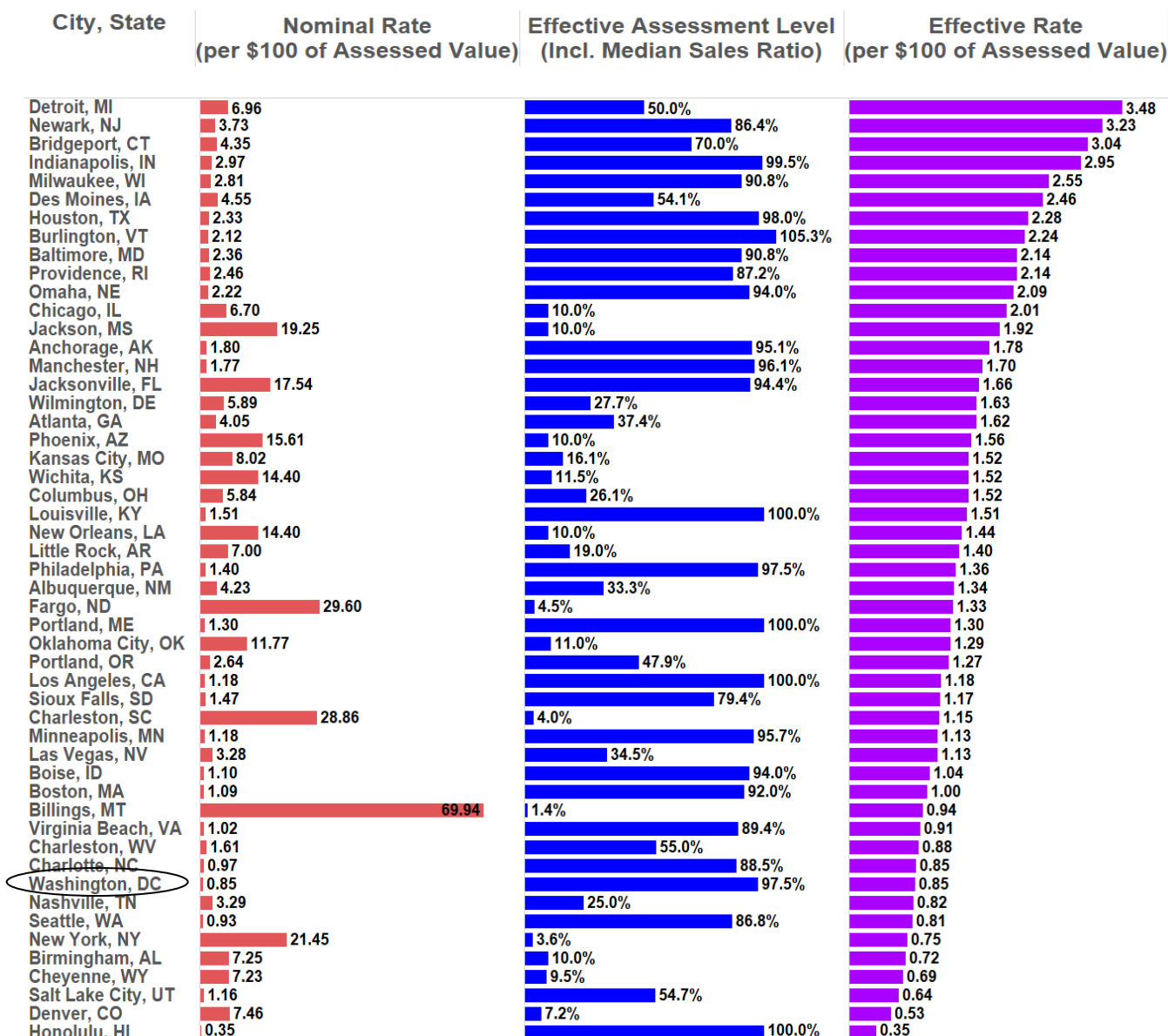
RANK	CITY	ST	NOMINAL RATE PER \$100 of Assessed Value	EFFECTIVE ASSESSMENT LEVEL (Incl. Median Sales Ratio) *	EFFECTIVE RATE PER \$100 of Assessed Value
1	Detroit	MI	6.96	50.00%	3.48
2	Newark	NJ	3.73	86.41%	3.23
3	Bridgeport	CT	4.35	70.00%	3.04
4	Indianapolis	IN	2.97	99.50%	2.95
5	Milwaukee	WI	2.81	90.75%	2.55
6	Des Moines	IA	4.55	54.13%	2.46
7	Houston	TX	2.33	98.00%	2.28
8	Burlington	VT	2.12	105.32%	2.24
9	Baltimore	MD	2.36	90.80%	2.14
10	Providence	RI	2.46	87.22%	2.14
11	Omaha	NE	2.22	94.00%	2.09
12	Chicago	IL	6.70	10.00%	2.01
13	Jackson	MS	19.25	10.00%	1.92
14	Anchorage	AK	1.80	95.13%	1.78
15	Manchester	NH	1.77	96.10%	1.70
16	Jacksonville	FL	17.54	94.40%	1.66
17	Wilmington	DE	5.89	27.66%	1.63
18	Atlanta	GA	4.05	37.42%	1.62
19	Phoenix	AZ	15.61	10.00%	1.56
20	Kansas City	MO	8.02	16.13%	1.52
21	Wichita	KS	14.40	11.50%	1.52
22	Columbus	OH	5.84	26.11%	1.52
23	Louisville	KY	1.51	100.00%	1.51
24	New Orleans	LA	14.40	10.00%	1.44
25	Little Rock	AR	7.00	19.00%	1.40
26	Philadelphia	PA	1.40	97.50%	1.36
27	Albuquerque	NM	4.23	33.30%	1.34
28	Fargo	ND	29.60	4.50%	1.33
29	Portland	ME	1.30	100.00%	1.30
30	Oklahoma City	OK	11.77	11.00%	1.29
31	Portland	OR	2.64	47.90%	1.27
32	Los Angeles	CA	1.18	100.00%	1.18
33	Sioux Falls	SD	1.47	79.39%	1.17
34	Charleston	SC	28.86	4.00%	1.15
35	Minneapolis	MN	1.18	95.65%	1.13
36	Las Vegas	NV	3.28	34.50%	1.13
37	Boise	ID	1.10	93.96%	1.04
38	Boston	MA	1.09	92.00%	1.00
39	Billings	MT	69.94	1.35%	0.94
40	Virginia Beach	VA	1.02	89.42%	0.91
41	Charleston	WV	1.61	55.00%	0.88
42	Charlotte	NC	0.97	88.49%	0.85
43	Washington	DC	0.85	97.50%	0.85
44	Nashville	TN	3.29	25.00%	0.82
45	Seattle	WA	0.93	86.80%	0.81
46	New York	NY	21.45	3.58%	0.75
47	Birmingham	AL	7.25	9.95%	0.72
48	Cheyenne	WY	7.23	9.50%	0.69
49	Salt Lake City	UT	1.16	54.73%	0.64
50	Denver	CO	7.46	7.15%	0.53
51	Honolulu	HI	0.35	100.00%	0.35
UNWEIGHTED AVERAGE			7.32	57.09%	1.51
MEDIAN			3.28	55.00%	1.36

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

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

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

**Chart 3: Residential Property Tax Rates in the Largest City in Each State
2021**



Source: ORA Analysis of data from State and Local Revenue Officials and state and local web sites. See notes on Table 4 above.

Notes: Rates include state and local property taxes levied by multiple taxing authorities as identified by survey respondents and from jurisdictions' web sites. For Milwaukee, WI, the nominal tax rate takes the assessment sales ratio statistic into account. For Chicago, IL the state equalizer of 3.2 is reflected in the effective rate. For Burlington, VT, the Common Level of Appraisal value for school funding equalization is used in lieu of a sales ratio statistic.

Table 5: Housing Value Assumptions, 2021

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	2,249	141,913	212,869	283,826	425,739
Birmingham	AL	2,138	113,284	169,926	226,567	339,851
Little Rock	AR	1,781	106,190	159,285	212,380	318,570
Phoenix	AZ	2,410	183,018	274,527	366,036	549,054
Los Angeles	CA	3,571	288,824	433,235	577,647	866,471
Denver	CO	3,086	212,295	318,442	424,590	636,884
Bridgeport	CT	2,465	155,966	233,948	311,931	467,897
WASHINGTON	DC	2,718	165,720	248,580	331,440	497,160
Wilmington	DE	2,328	127,051	190,576	254,102	381,153
Jacksonville	FL	1,922	152,884	229,326	305,768	458,652
Atlanta	GA	2,642	139,906	209,859	279,812	419,717
Honolulu	HI	3,790	307,269	460,903	614,538	921,807
Des Moines	IA	1,548	112,311	168,466	224,621	336,932
Boise	ID	1,723	227,038	340,557	454,076	681,115
Chicago	IL	2,650	126,239	189,359	252,479	378,718
Indianapolis	IN	1,733	115,220	172,830	230,440	345,661
Wichita	KS	1,882	99,633	149,449	199,265	298,898
Louisville	KY	1,428	119,659	179,488	239,318	358,976
New Orleans	LA	1,661	135,616	203,425	271,233	406,849
Boston	MA	1,951	190,054	285,081	380,108	570,163
Baltimore	MD	4,421	141,657	212,486	283,315	424,972
Portland	ME	2,393	169,965	254,947	339,929	509,894
Detroit	MI	2,753	111,660	167,491	223,321	334,981
Minneapolis	MN	1,795	139,702	209,552	279,403	419,105
Kansas City	MO	1,505	116,705	175,058	233,411	350,116
Jackson	MS	2,323	106,070	159,105	212,140	318,210
Billings	MT	1,937	165,375	248,062	330,750	496,125
Charlotte	NC	1,613	140,609	210,913	281,217	421,826
Fargo	ND	2,558	126,371	189,556	252,742	379,113
Omaha	NE	1,783	109,624	164,436	219,247	328,871
Manchester	NH	2,285	141,770	212,655	283,540	425,310
Newark	NJ	2,930	192,290	288,435	384,579	576,869
Albuquerque	NM	1,606	143,624	215,437	287,249	430,873
Las Vegas	NV	1,992	199,766	299,649	399,533	599,299
New York City	NY	4,656	192,290	288,435	384,579	576,869
Columbus	OH	1,843	121,128	181,692	242,255	363,383
Oklahoma City	OK	1,800	102,176	153,265	204,353	306,529
Portland	OR	3,151	204,156	306,234	408,312	612,467
Philadelphia	PA	2,328	127,051	190,576	254,102	381,153
Providence	RI	2,196	162,064	243,097	324,129	486,193
Charleston	SC	2,618	157,505	236,257	315,009	472,514
Sioux Falls	SD	1,625	126,513	189,770	253,026	379,539
Nashville	TN	2,587	174,067	261,101	348,134	522,201
Houston	TX	2,419	113,280	169,920	226,560	339,841
Salt Lake City	UT	2,134	209,149	313,724	418,299	627,448
Virginia Beach	VA	2,477	139,444	209,166	278,888	418,331
Burlington	VT	2,786	155,131	232,697	310,262	465,393
Seattle	WA	3,982	229,759	344,639	459,519	689,278
Milwaukee	WI	1,690	127,239	190,859	254,479	381,718
Charleston	WV	1,358	79,496	119,244	158,991	238,487
Cheyenne	WY	1,769	187,208	280,812	374,416	561,623
AVERAGE		2,333	1,820	2,858	3,888	6,003
MEDIAN		2,249	1,683	2,525	3,404	5,284

Source for "Tax on Rent": Rental price data are from the US Department of Housing and Urban Development, for 2020 median fair market rents by MSA for studio apartments. The property tax equivalent of rent is assumed to be 15 percent of annual rent. Tax on Rent in DC, MN, and VT includes a renters' refunds calculated through the income tax and applied here in the property tax burden presentation.

Source for all other columns: 2021 American Community Survey, Census. Newark, NJ is in the same MSA as NYC, so the same house value and income data are used for both. Similarly, Wilmington, DE, is in the same MSA as Philadelphia, and the same house value and income data are used for both.

Table 6: Cities That Allow Exemptions or Reduced Rates in the Calculation of Real Estate Taxes for Homeowners, 2021

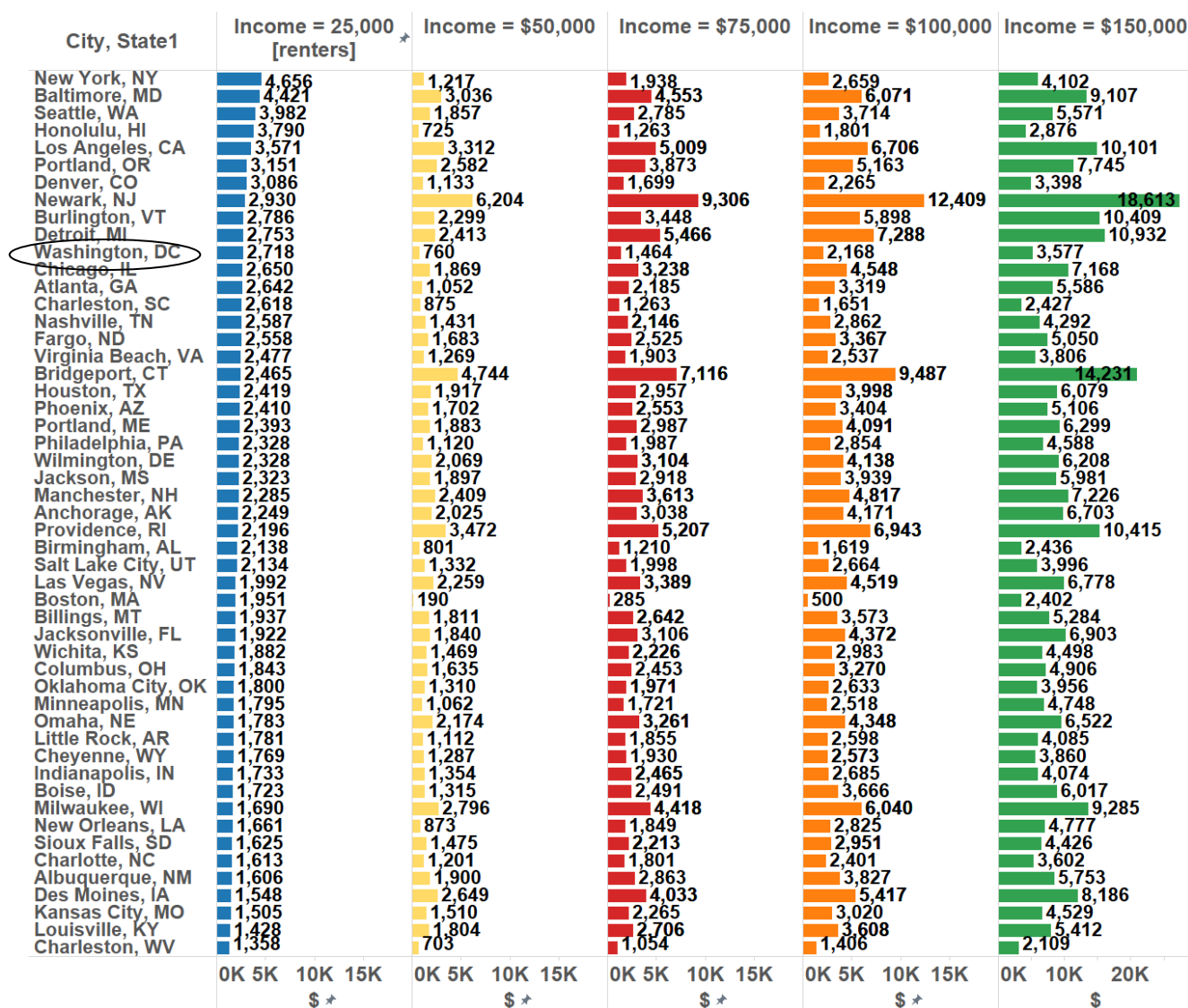
CITY	STATE	EXEMPTION OR TAX REDUCTION AMOUNT	BASIS OF TAX REDUCTION OR EXEMPTION
Anchorage	AK	The lesser of 20% of the property value or \$50,000	Assessed Value
Birmingham	AL	Up to \$4,000 (local option to exempt \$2,000 to \$4,000)	Assessed Value-Homestead
Little Rock	AR	Up to \$375 Credit for Homeowners	Tax Credit
Los Angeles	CA	\$7,000 Exemption	Assessed Value
WASHINGTON 1/	DC	\$75,700 Exemption	Assessed Value-Homestead
Jacksonville	FL	1.First Homestead Exemption - \$25,000 exempt from all levies 2. Second Homestead exemption on value between \$25,000 - \$50,00, non-school levies	Assessed Value
Atlanta	GA	\$30,000 Exemption	Assessed Value
Honolulu	HI	\$100,000 Exemption	Assessed Value
Des Moines	IA	The actual levy on the first \$4,850 of actual value	Actual Value
Boise	ID	50% of Assessed Value, up to \$100,000 Exemption	Assessed Value and Homestead up to one 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	Residential school levy exemption on first \$20,000 of appraised value; 20 mill Statewide School levy	Assessed Value
New Orleans	LA	\$75,000 Exemption	Assessed Value
Boston	MA	Up to \$3,153 Homeowner Exemption (Credit)	Assessed Value
Portland	ME	\$20,000 Homestead Exemption	Assessed Value
Detroit	MI	Homestead Property Exempt from up to 18 mills of Local School Operating Millage Tax	Taxable Value
Minneapolis	MN	Market Value Homestead Exclusion = (40%*MV of first \$76,000) minus (9%*MV of the value over \$76,000)	Market Value
Jackson	MS	Exemption of \$7,500 of assessed value, up to \$300 maximum tax savings.	Assessed Value
Omaha	NE	Real property tax credit = reduction in tax bill of \$102.21 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 rate reduction of \$0.17/\$100 of assessed value	Assessed Value
Oklahoma City	OK	\$1,000 Exemption	Assessed Value-Homestead
Philadelphia	PA	\$45,000 Exemption	Assessed Value-Homestead
Providence	RI	40% reduction in assessment for homesteads	Assessed Value-Homestead
Charleston	SC	Owner occupied residential exempt from all school operating taxes (a 50 percent reduction in taxes); County and Municipal Local Option Sales Tax (LOST) Credit	Property Tax Relief Fund
Sioux Falls	SD	Lower School General Levy is appr. 50% reduced	Assessed Value
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 Assessment reduction	Taxable Value
Burlington	VT	Homestead reduction/property tax credit for income eligible residence (available through income tax)	Household Income
Milwaukee	WI	School Levy Credit; Lottery and Gaming Credit; First Dollar Credit	Equalized Assessed Value

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

Note: Many states and Washington, DC have assessment limitations, and these are not included.

1/ DC's exemption amount increased to \$76,350 on October 1, 2020 (effective for DC's Real Property Tax Year 2021).

**Chart 4: 2021 Property Tax Burdens for All Income Levels,
Sorted by \$25,000 Income Level (Renters)**



Source: ORA analysis; see description on page 8-11 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 at various levels of government. The combined sales tax rates range from 10.75 percent in Los Angeles, California, to 4.5 percent in Honolulu, Hawaii, as illustrated in Chart 5, and presented in Table 7. 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 24 of the 51 cities (in addition to state sales taxes) with the highest city rate at 6.0 percent in Washington, DC (and the only sales tax levied in DC), followed by 4.81 percent in Denver. The lowest city rate was 0.5 percent Minneapolis, Minnesota. Of the 21 counties levying a sales tax, the highest rate (3.0 percent) is in Fulton County (Atlanta, GA) and Charleston County (Charleston, SC). One school district and eight transit districts also levy sales taxes, with transit district rates ranging from 0.375 percent in New York, New York, to 1.0 percent in Chicago, Illinois; Denver, Colorado; and New Orleans, Louisiana.

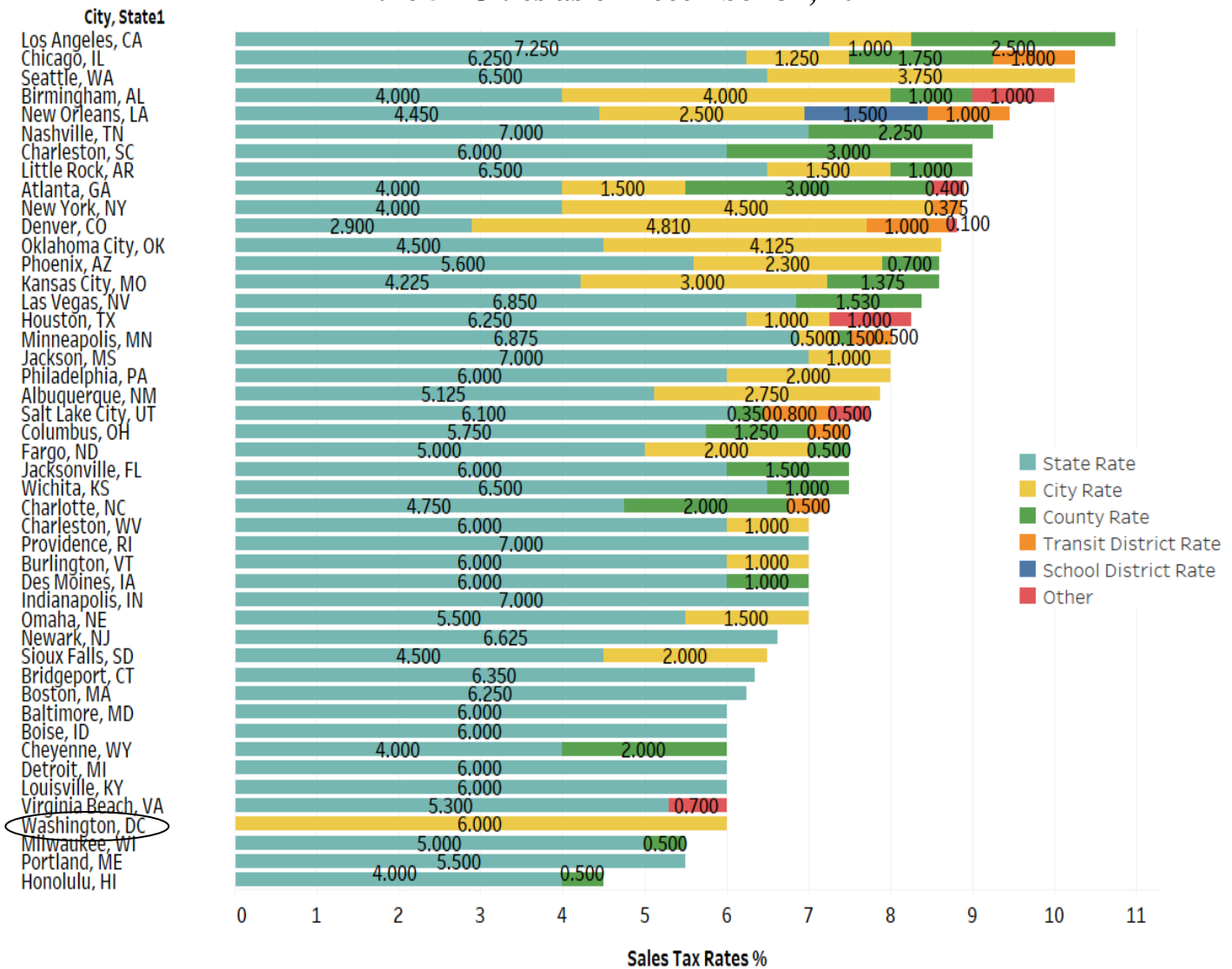
Based on the results in Table 1, the average sales tax burden is the second highest of the four major tax types at the \$25,000 income level (after the property tax). For families subject to a general sales tax, the highest sales tax burdens are in Nashville, Tennessee. Other jurisdictions ranking in the top five sales tax burdens are Birmingham, Alabama; New Orleans, Louisiana; Kansas City, Missouri; and Jackson, Mississippi.

Cities and states that levy a general sales tax and have among the lowest sales tax burdens at all income levels include Boston, Massachusetts; Newark, New Jersey; Milwaukee, Wisconsin; Detroit, Michigan; and Honolulu, Hawaii. (In Table 1, Wilmington, Delaware; Billings, Montana; Anchorage, Alaska;²⁶ and Manchester, New Hampshire have the lowest sales tax burdens; however, these tax burdens are due to selective sales taxes that apply to rental car expenses and are included in the calculations for this report. These jurisdictions do not have a general sales tax and are therefore excluded from the counts on this page, as well as Chart 5 and Table 7.)

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

²⁶ Alaska allows local governments to levy a general sales tax, however, Anchorage does not levy one.

Chart 5: Composition of State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31, 2021



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, 2021

CITY	STATE	TOTAL RATE (%)	STATE RATE (%)	CITY RATE (%)	COUNTY RATE (%)	SCHOOL RATE (%)	TRANSIT RATE (%)	OTHER RATE (%)
Los Angeles	CA	10.750	7.250	1.000	2.500			
Chicago	IL	10.250	6.250	1.250	1.750		1.000	
Seattle	WA	10.250	6.500	3.750				
Birmingham	AL	10.000	4.000	4.000	1.000			1.000
New Orleans	LA	9.450	4.450	2.500		1.500	1.000	
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	1.500	3.000			0.400
New York City	NY	8.875	4.000	4.500			0.375	
Denver	CO	8.810	2.900	4.810			1.000	0.100
Oklahoma City	OK	8.625	4.500	4.125				
Phoenix	AZ	8.600	5.600	2.300	0.700			
Kansas City	MO	8.600	4.225	3.000	1.375			
Las Vegas	NV	8.380	6.850		1.530			
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				
Albuquerque	NM	7.875	5.125	2.750				
Salt Lake City	UT	7.750	6.100		0.350		0.800	0.500
Jacksonville	FL	7.500	6.000		1.500			
Wichita	KS	7.500	6.500		1.000			
Fargo	ND	7.500	5.000	2.000	0.500			
Columbus	OH	7.500	5.750		1.250		0.500	
Charlotte	NC	7.250	4.750		2.000		0.500	
Providence	RI	7.000	7.000					
Charleston	WV	7.000	6.000	1.000				
Des Moines	IA	7.000	6.000		1.000			
Indianapolis	IN	7.000	7.000					
Omaha	NE	7.000	5.500	1.500				
Burlington	VT	7.000	6.000	1.000				
Newark	NJ	6.625	6.625					
Sioux Falls	SD	6.500	4.500	2.000				
Bridgeport	CT	6.350	6.350					
Boston	MA	6.250	6.250					
WASHINGTON	DC	6.000		6.000				
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			
Portland	ME	5.500	5.500					
Milwaukee	WI	5.500	5.000		0.500			
Honolulu	HI	4.500	4.000		0.500			
UNWEIGHTED AVERAGE		7.589	5.645	2.541	1.374	1.500	0.709	0.617
MEDIAN		7.500	6.000	2.000	1.250	1.500	0.650	0.600

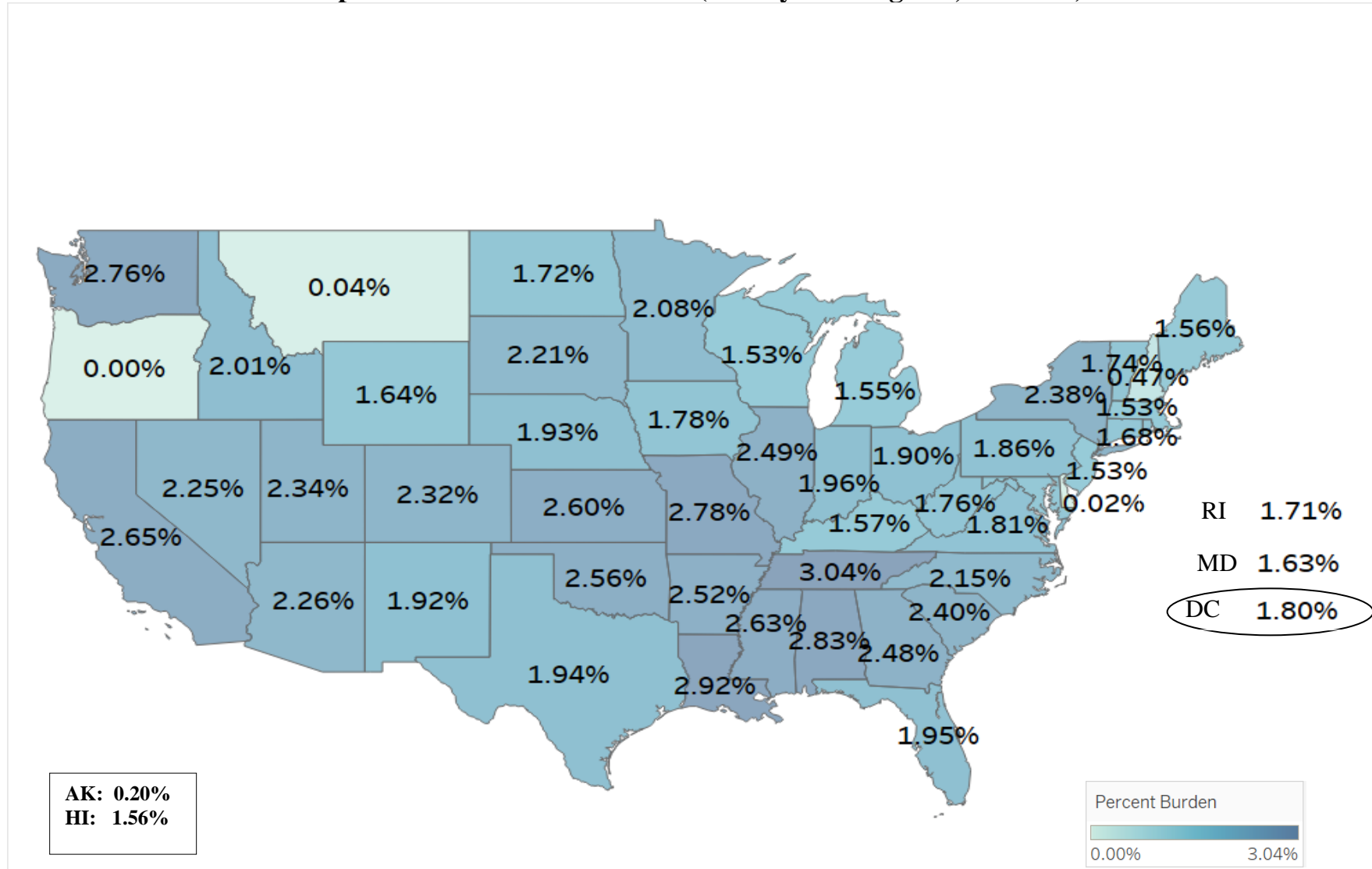
Source: Survey of State Revenue Department Officials, and state web sites.

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

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

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

Map 4: 2021 Sales Tax Burdens (Family Earning \$75,000/Year)



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

Automobile Taxes

Residents of all 51 cities in this study are subject to gasoline taxes and some type of automobile registration fee or tax. The automobile taxes included in this study are gasoline taxes, state and local motor vehicle registration fees, annual excise taxes, and personal property taxes. Residents in 10 of the cities in this study are subject to a personal property tax based on the value of motor vehicles owned by a taxpayer, while another 27 states or local jurisdictions levy some type of fee or tax with various names (e.g., wheel tax, use tax, uniform fee, county option tax, etc.). Taxpayers in at least 18 cities covered are subject to both state and local fees. 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.

Gasoline tax rates in each of the 51 cities as of December 31, 2021, are compared in Table 8. The total state and local gasoline tax rates vary from a high of 65.27 cents per gallon in Los Angeles, California; 65.05 in Chicago, Illinois; 58.70 in Philadelphia, Pennsylvania; and 52.21 in Seattle, Washington; to a low of 17.42 cents per gallon in Kansas City, Missouri. Eleven 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.

The automobile tax burdens are generally the lowest of the tax burdens (by tax) at all income levels in this study (except in those states that offer refundable tax credits through the income tax at the \$25,000 income level). Bridgeport, Connecticut has the highest auto tax burden at every income level. Seattle, Washington; Providence, Rhode Island; and Virginia Beach, VA, are also among the highest automobile tax burdens at each level. Other cities that show up in the top five for at least two of the income levels include Chicago, Illinois; Los Angeles, California; Kansas City, Missouri; and Charleston, West Virginia. These cities generally levy a personal property tax, excise tax, or other type of annual tax, and several have among the highest gas tax rates.

New Orleans, Louisiana, has the lowest automobile tax burdens at all income levels, followed by Albuquerque, New Mexico. Other jurisdictions with low auto tax burdens at all income levels include Wilmington, Delaware; Wichita, Kansas; and Houston, Texas. Each of these cities has flat registration rates or registration by weight, moderate gasoline tax rates, or no personal property or excise tax.

**Table 8: Cumulative Tax Rates on Gasoline in the 51 Cities,
as of December 31, 2021
(State and Local Rates per Gallon)**

CITY	ST	TOTAL RATE	STATE RATE	LOCAL RATE
Los Angeles*+	CA	65.27	57.66	7.62
Chicago*	IL	65.05	50.80	14.25
Philadelphia	PA	58.70	58.70	
Seattle	WA	52.21	52.21	
Newark	NJ	50.75	50.75	
New York City*+	NY	48.98	33.73	15.25
Honolulu*+	HI	47.96	31.46	16.50
Portland	OR	46.00	36.00	10.00
Bridgeport*	CT	45.11	45.11	
Indianapolis*	IN	42.20	42.20	
Baltimore*	MD	39.69	39.69	
Columbus	OH	38.50	38.50	
Detroit*	MI	37.20	37.20	
Charlotte	NC	36.35	36.35	
Atlanta+	GA	35.80	29.45	6.35
Charleston*	WV	35.70	35.70	
Providence	RI	35.12	35.12	
Jacksonville*	FL	34.70	34.70	
Las Vegas	NV	33.81	23.81	10.00
Billings	MT	33.25	33.25	
Boise	ID	33.00	33.00	
Milwaukee	WI	32.90	32.90	
Salt Lake City	UT	32.05	32.05	
Portland	ME	31.40	31.40	
Minneapolis	MN	30.60	30.60	
Burlington	VT	30.46	30.46	
Sioux Falls	SD	30.00	30.00	
Des Moines	IA	30.00	30.00	
Omaha	NE	29.60	29.60	
Virginia Beach+	VA	29.40	21.80	7.60
Birmingham	AL	29.00	29.00	
WASHINGTON+	DC	28.80	28.80	
Little Rock*	AR	27.80	27.80	
Nashville	TN	27.40	27.40	
Boston	MA	26.90	26.90	
Louisville	KY	26.00	26.00	
Wichita	KS	25.03	25.03	
Charleston	SC	24.75	24.75	
Cheyenne	WY	24.00	24.00	
Manchester	NH	23.83	23.83	
Denver	CO	23.56	23.56	
Fargo	ND	23.03	23.03	
Wilmington 1/	DE	23.00	23.00	
New Orleans	LA	20.93	20.93	
Oklahoma City	OK	20.00	20.00	
Houston	TX	20.00	20.00	
Phoenix	AZ	19.00	19.00	
Anchorage	AK	18.95	8.95	10.00
Albuquerque	NM	18.88	18.88	
Jackson	MS	18.40	18.40	
Kansas City	MO	17.42	17.42	
UNWEIGHTED AVERAGE		32.91	31.00	10.84
MEDIAN		30.46	30.00	10.00

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

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

Source: ORA Survey of State Revenue Department Officials and review of State Web pages; Federation of Tax Administrators, "State Motor Fuel Tax Rates, as of January 1, 2021; US Energy Information Administration, "Federal and State Motor Fuels Taxes," Updated January 2021.

1/ Delaware has a 1.04% hazardous substance gross receipts tax applied at the wholesale level which is not included (0.9% as of January 1, 2021).

**Table 9: Summary of Types of Automobile Registration Taxes 2021
(50 states + DC)**

<u>TYPE OF REGISTRATION</u>	<u>NUMBER OF STATES (& DC)</u>
Flat Rate Only	22
Weight Only	13
Weight and Age	5
Horsepower Only	1
Age Only	3
Value Only	2
Value and Age	3
Value, Age, and Weight	2
	51
<u>OTHER AUTO TAXES (INCLUDING LOCAL) *</u>	
Personal Property	10
Excise	4
Other fees or taxes (incl. local registration)	27

*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 2021

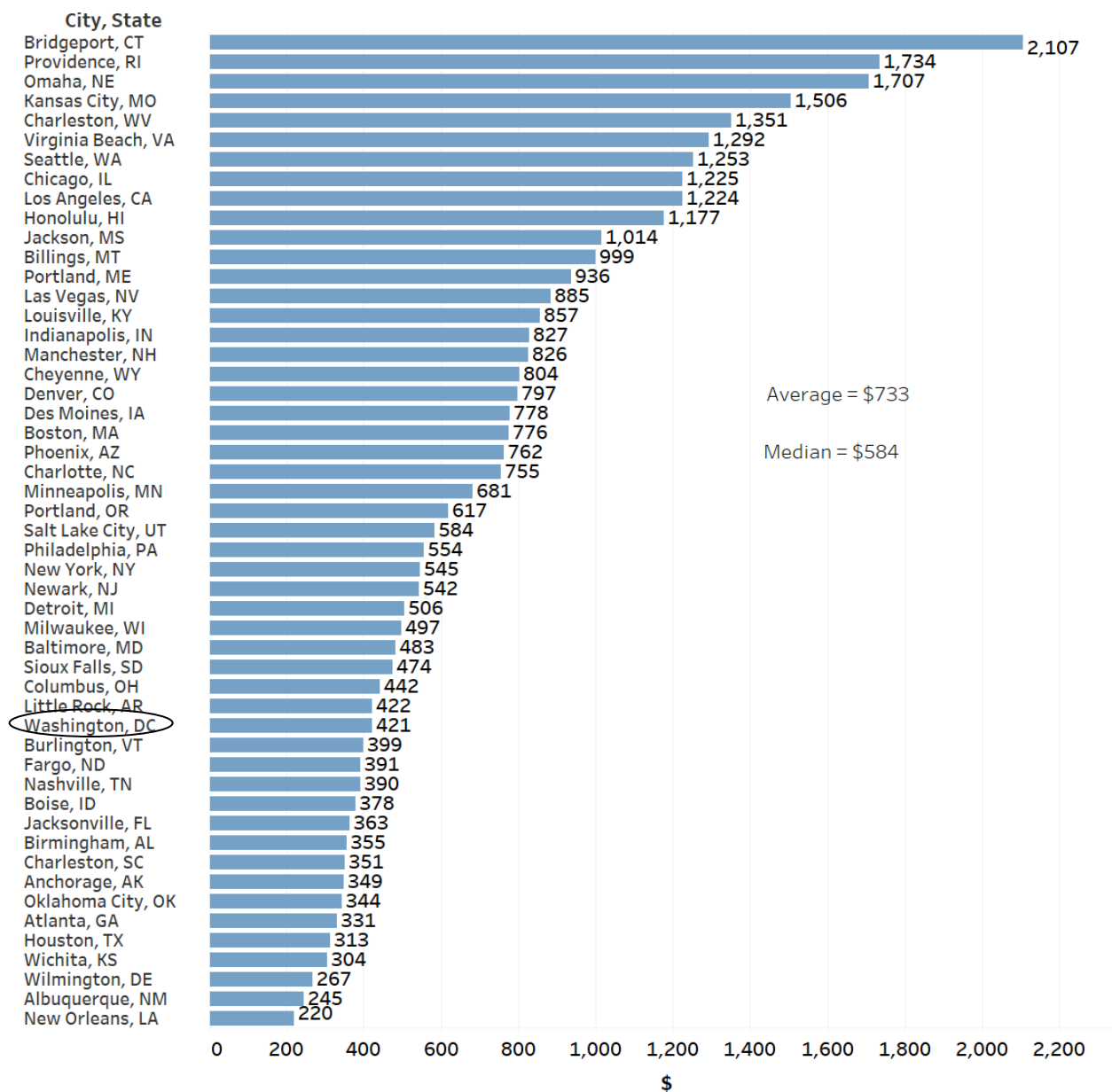
Income Level	Description of Auto	Engine Size Liters 1/	Weight 2/	Year	Market Values			Estimated Mileage Per Gallon 1/	Estimated Annual Gasoline Usage 3/
					Retail Price 2/	Trade-In Value 2/	Loan Value 2/		
\$ 25,000	Sedan, 4 Door 4-cylinder, Auto	1.8	2,904 lbs.	2018	\$18,150	\$15,400	\$17,969	33	455 gallons
\$ 50,000	Sedan, 4 Door 4 Cylinder, Manual	1.4	2,959 lbs.	2019	\$21,250	\$18,650	\$21,038	35	429 gallons
\$ 75,000	Sedan, 4 Door 4 Cylinder, Automatic	2.5	3,340 lbs.	2020	\$28,550	\$25,600	\$28,265	33	455 gallons
	4WD Utility, 4 Door 6 Cylinder, Automatic	3.5	4,508 lbs.	2015	\$27,850	\$24,675	\$27,572	21	357 gallons*
\$100,000	Sedan, 4 Door 6 Cylinder, Automatic	2.5	3,900 lbs.	2019	\$35,775	\$32,425	\$35,417	24	625 gallons
	4WD Utility, 4 Door 6 Cylinder, Automatic	3.5	4,610 lbs.	2015	\$22,100	\$18,925	\$21,879	20	375 gallons*
\$150,000	Sedan, 4 Door 6 Cylinder, Automatic	2.0	3,663 lbs.	2021	\$53,347	\$50,327	\$52,814	27	556 gallons
	AWD Utility, 4 Door 6 Cylinder, Automatic	2.0	4,095 lbs.	2017	\$23,025	\$20,675	\$22,795	23	326 gallons*

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

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

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

Chart 6: 2021 Auto Tax Burdens, Family Earning \$75,000/year



Source: ORA. See pages 41-44 for methodology and assumptions.

CHAPTER IV

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

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

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

The burden of each of the four major taxes for Washington, DC, is compared with the 50-city average at all income levels in Table 11 and the individual tax comparisons are described in more detail in the following sections. Further, Chart 7 illustrates the comparisons between DC's overall combined burden and the 50-city average at each income level. These two visuals show that DC's combined tax burdens are lower than the 50-city average for all five income levels in the study.

Individual Income Tax

As shown in Table 11 and based on the assumptions made in this report, the individual income tax burden for Washington, DC is below the 50-city average at the first three income levels and above the average at the \$100,000- and \$150,000-income levels (the average is based on the cities and states that levy an income tax). This is due to the District's more progressive income tax. Washington, DC levied an individual income tax with six rates in tax year 2021: 4.0 percent on the first \$10,000 of taxable income; 6.0 percent on the next \$30,000 of taxable income; 6.5 percent on taxable income over \$40,000 up to \$60,000; 8.5 percent on taxable income over \$60,000 up to \$350,000; 8.75 percent on taxable income greater than \$350,000 and less than \$1,000,000, and 8.95 percent on taxable income over \$1,000,000.

As a result of the 2017 Tax Cuts and Jobs Act (TCJA) and DC's federal conformity

provisions, DC personal exemptions are reduced to zero for 2021, and the federal standard deduction will apply. Thus, a standard deduction of \$25,100 for joint married filers (\$12,550 for married filing separately) was in effect for the period of this study. Itemized deductions are the same as those allowed in computing the federal income tax (with a limit of \$10,000 on state and local deductions that can be itemized on the federal schedule A), and the District does not allow the deduction of its own individual income tax. Washington, DC also has “circuit-breaker” property tax relief programs for both elderly and non-elderly qualified homeowners and renters, through which a credit can be claimed against a taxpayer’s income tax liability (the Schedule H renters’ credit is refundable through the income tax and is included for the first time in the property tax burden presentation in the current report).

The District’s income tax rates have changed and become more progressive in recent years, with slightly decreasing rates on income between \$40,000 and \$60,000 and between \$350,000 and \$1,000,000, while rates slightly increased on income over \$1,000,000. Federal law prohibits Washington, DC from taxing the earnings of non-residents working within the city, a restriction not imposed on any other city in the nation. Partly because of this, the District of Columbia taxes residents at a higher rate than it might otherwise since about 59 percent of the income earned in the District of Columbia is earned by non-residents.²⁷

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 50-city average at the \$50,000-, \$75,000-, \$100,000- and \$150,000-income levels. The property tax burden, as calculated in this study, is higher at the \$25,000-income level in Washington, DC, than the average for the 50 cities, which reflects the high cost of rental housing in the District. A \$1,200 refundable property tax credit administered through the income tax was applied to the renter’s property tax burden this year and places DC just above the 50-city average at this income level. Although the District’s house values are higher than the 50-city average at each income level, these rankings for assumed homeowners highlight the District’s relatively low property tax burdens 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.²⁸ The tax rate on residential owner-occupied property in the District is \$0.85 per \$100 of assessed value for 2021. DC homeowners may deduct a homestead exemption of \$75,700 from the assessed base before calculation of the property tax for all owner-occupied dwellings. The District also has capped the growth of property assessments at 10 percent for all homesteads, when calculating the tax due. The calculations in this study do not adjust for capped growth.

Sales and Use Tax

As shown in Table 11, the sales tax burden in the District of Columbia is lower than the 50-city average at all five income levels (averages are based on cities levying tax). In 2021, the

²⁷ “District of Columbia Economic and Revenue Trends: November 2021.” Data point for FY20. Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis. Washington, DC: 2021. p. 6.

²⁸ As detailed on page 9, median sales ratios were included where available to represent the actual level of assessment compared to market values. DC’s most recent median assessment sales ratio is 97.5%.

District levied a sales tax with six 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 2021. Items exempt from the District of Columbia sales tax include groceries and prescription drugs.

ITEMS	2021 SALES TAX RATE
Retail rate for sales of certain tangible personal property and selected services, food or drinks sold in vending machines, tickets to legitimate theaters and entertainment venues, and medical marijuana	6.0%
Soft drinks. A "soft drink" is defined as a beverage with a natural or artificial sweetener that contains less than 100% juice; or a beverage that is less than 50% milk, soy, or other milk substitutes; or coffee, coffee substitutes, cocoa, or tea.	8.0%
Restaurant meals, drinks prepared for immediate consumption on the premises where sold, off-premises alcohol sold by certain alcoholic beverage licensees, and prepaid telephone cards	10.0%
Rental vehicles, tickets sold for games and events at the ballpark, merchandise sold at the baseball stadium, tickets sold for games and events at the Capital One Center and merchandise sold at the Capital One Center, and alcoholic beverages for off-premises consumption unless the seller has a specified liquor license	10.25%
Hotels (transient accommodations)	14.95%
Parking of motor vehicles in commercial lots	18.0%

Source: "DC Tax Facts 2022." Government of DC, Office of the Chief Financial Officer, Office of Revenue Analysis, p. 36.

Automobile Taxes

Washington, DC, automobile tax burdens are below the 50-city average for all income levels, as shown in Table 11, indicating the District's competitive auto tax rates. Washington, DC taxes gasoline at 28.8 cents per gallon. DC requires registration fees for automobile owners but does not impose an annual excise tax or personal property tax on automobiles. Registration 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.

Summary

As noted above, tax burdens in DC are influenced by many factors. The District of Columbia is restricted by the federal government from taxing non-resident income; further a large percentage of DC land is tax-exempt (fifty-five percent of District acreage is tax exempt²⁹). These factors limit the District's revenue raising capacity and some of the available tax bases from which the city must fund a range of government operations that are typically funded by both states and cities. There are positive factors that increase District tax bases, however, including substantial tourist activity as well as the large volume of business and lobbying activity generated by the federal presence.

29 "DC Tax Facts 2020." Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis, p. 49.

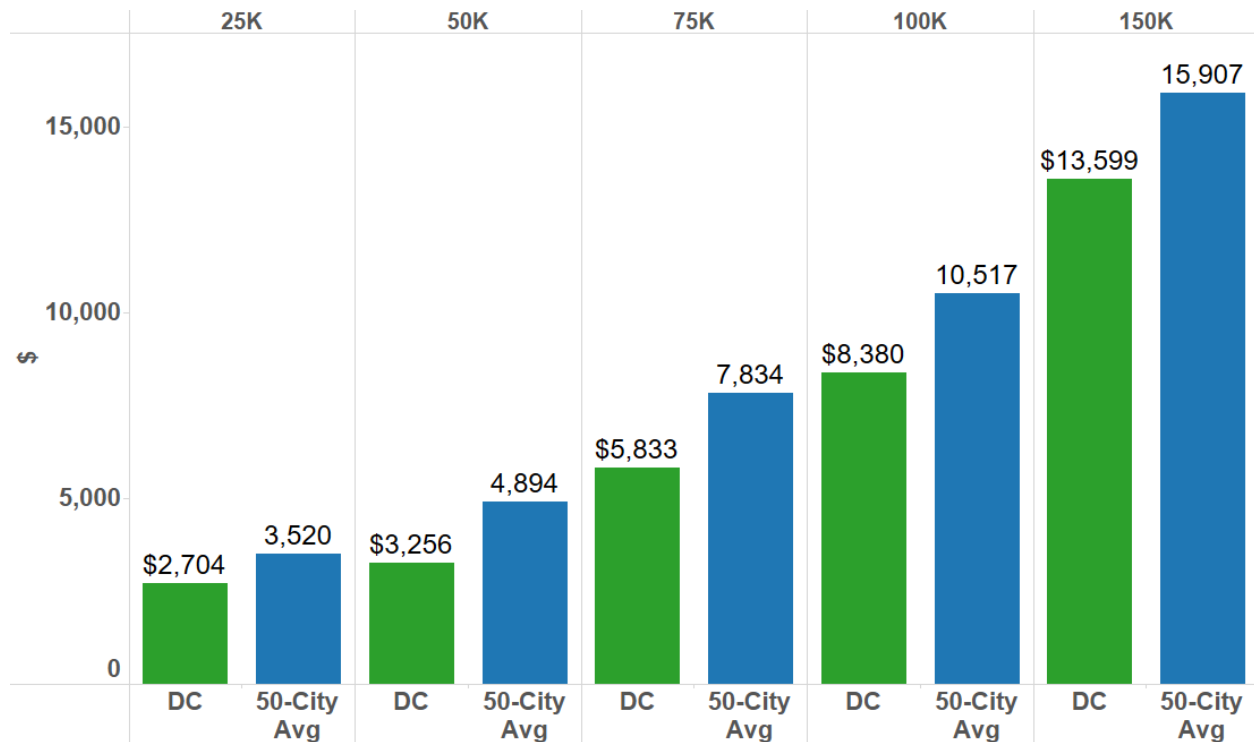
Table 11: Tax Burdens in Washington, DC for a Hypothetical Family Compared with the Average for the Largest City in Each State by Income Level, 2021

TAX	DISTRICT OF COLUMBIA	AVERAGE FOR 50 CITIES LEVYING TAX ^{1/}	DIFFERENCE (DC Minus 50-City Average)
\$25,000 INCOME LEVEL			
Income	(\$1,146)	(-170)	(\$976)
Property	\$2,718	2,325	\$393
Sales	\$929	1,048	(\$119)
Auto	\$203	317	(\$114)
TOTAL	\$2,704	3,520	(\$816)
\$50,000 INCOME LEVEL			
Income	\$1,099	1,414	(\$315)
Property	\$760	1,841	(\$1,082)
Sales	\$1,202	1,300	(\$98)
Auto	\$195	339	(\$144)
TOTAL	\$3,256	4,894	(\$1,639)
\$75,000 INCOME LEVEL			
Income	\$2,598	2,753	(\$155)
Property	\$1,464	2,886	(\$1,422)
Sales	\$1,350	1,456	(\$106)
Auto	\$421	739	(\$318)
TOTAL	\$5,833	7,834	(\$2,001)
\$100,000 INCOME LEVEL			
Income	\$4,122	4,119	\$3
Property	\$2,168	3,922	(\$1,754)
Sales	\$1,572	1,657	(\$85)
Auto	\$518	819	(\$301)
TOTAL	\$8,380	10,517	(\$2,137)
\$150,000 INCOME LEVEL			
Income	\$7,698	6,944	\$754
Property	\$3,577	6,051	(\$2,474)
Sales	\$1,840	1,927	(\$87)
Auto	\$484	985	(\$501)
TOTAL	\$13,599	15,907	(\$2,308)

^{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 50 cities results in slightly different dollar amounts, the results are the similar in that DC's overall burden is lower than the 50-city median at every income level.

**Chart 7: Combined 2021 Tax Burdens at Each Income Level:
Comparison of DC and the Average of the 50 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 50 cities results in slightly different dollar amounts, the results are the same in that DC's overall burden is lower than the 50-city median at all five income levels. See Footnote 1 in Table 11 above for more detail.

Part II

A Comparison of Selected Tax Rates in the District of Columbia with Those in the 50 States as of January 1, 2022

Tax Rate Comparisons at a Glance

Below is a review of how DC's tax rates compare to the other jurisdictions in the report that levy each tax. Of the 12 taxes compared, tax categories for which District rates are higher than in most of the states include: cigarette; corporate income; individual income; deed recordation; and motor vehicle registration fees. In five tax categories—insurance premiums, beer, light wine, distilled spirits, and gasoline—the District has lower tax rates than most states. For cigarettes, all 50 states have lower excise taxes than the District and ten states now have the same sales tax rate as DC, while 16 are higher and 19 are lower.

Table 12: Comparison of Selected State Tax Rates

TAX	LEVYING TAX (excluding DC)	NUMBER OF JURISDICTIONS		
		LOWER THAN DC	SAME AS DC	HIGHER THAN DC
Individual Income	41 1/	36 2/	0	5 2/
Corporate Income	44	33	1	10
Insurance	50	13	0	37
Sales and Use	45	19	10	16
Beer	50	7	1	42
Light Wine	47	4	4	39
Distilled Spirits	33	0	1	32
Cigarette	50	50	0	0
Gasoline	50	21	0	29
Motor Vehicle Excise (for cars >3,500 and <5,000 lbs.)	46	22	9 3/	15
Motor Vehicle Registration (Fee)	50	45	0	5
Deed Recordation	35	34	0	1

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

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

3/ DC's rate structure changed for FY21 and is now based on vehicle weight and MPG, however, for the purposes of this table and in sales tax calculations in the report an average rate of 6% was used.

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	\$25,100 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: DC Tax Facts, 2021, and state web sites.

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

2/ Maryland rates do not include local rates that may be as low as 2.25% 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 \$2,300 (\$4,600 for joint and head of household returns and those filing as qualifying widow(er) with dependent child). The minimum is \$1,550 for single, married filing separately and dependent taxpayers. All others are allowed a minimum of \$3,100.

4/ Single - \$4,500; married persons filing jointly or combined separate - \$9,000.

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/S M/J	2.0% 2.0%	\$ 500 1,000	5.0% 5.0%	\$ 3,000 6,000
ARIZONA							
\$0 3/	\$0 3/	\$100 3/	S, M/S M/J, HH	2.59% 2.59%	\$27,272 54,544	4.50% 4.50%	\$163,633 327,264
ARKANSAS 5/							
(\$26)	(\$52)	(\$26)	S, HH, M, M/J	2.0%	\$ 4,000	5.9%	\$ 79,300
CALIFORNIA 2/							
(\$124)	(\$248)	(\$383)	S, M/S HH M/J	1.0% 1.0% 1.0%	\$ 8,932 18,663 17,864	12.3% 12.3% 12.3%	\$599,012 850,503 1,000,000
COLORADO 1/							
\$0 3/	\$0 3/	\$0 3/	4.55% of federal taxable income with certain modifications.				
CONNECTICUT							
\$15,000	\$24,000	\$0 4/	S,M/S HH M/J	3.0% 3.0% 3.0%	\$ 10,000 16,000 20,000	6.99% 6.99% 6.99%	\$ 500,000 800,000 1,000,000
DELAWARE 1/							
(\$110)	(\$220)	(\$110)	S, M/S, M/J	0.0%	\$ 2,000	6.60%	\$ 60,000
DISTRICT OF COLUMBIA							
\$0 3/	\$0 3/	\$0 3/	S,M/S, M/J, HH	4.00%	\$ 10,000	8.95%	\$1,000,000
GEORGIA							
\$2,700	\$7,400	\$3,000	M/S S HH, M/J	1.0% 1.0% 1.0%	\$ 500 750 1,000	5.75% 5.75% 5.75%	\$ 5,000 7,000 10,000
HAWAII							
\$1,144	\$2,288	\$1,144	M/S,S HH M/J, SS	1.40% 1.40% 1.40%	\$ 2,400 3,600 4,800	11.0% 11.0% 11.0%	\$200,000 300,000 400,000

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

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

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

4/ Connecticut's personal exemption incorporates a standard deduction and decreases as AGI increases.

5/ Arkansas' rates are dependent on income levels beginning Jan. 1, 2020. The brackets shown include the lowest and highest but would not apply to the same taxpayer.

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

PERSONAL EXEMPTIONS (CREDITS)			RATES AND TAXABLE INCOME BRACKETS				
SINGLE	MARRIED FILING JOINT	DEPENDENTS	TYPE OF RETURN	MINIMUM		MAXIMUM	
				RATE	UP TO	RATE	OVER
IDAHO							
\$0 3/	\$0 3/	\$0 3/	S,M/S HH,M/J	1.125% 1.125%	\$ 1,568 3,136	6.925% 6.925%	\$ 11,760 23,520
ILLINOIS							
\$2,325	\$4,650	\$2,325	4.95% of taxable net income. 1/				
INDIANA 2/ 5/							
\$1,000	\$2,000	\$1,000	3.23% of federal adjusted gross income.				
IOWA							
(\$40)	(\$80)	(\$40)	S, M/J	0.33%	\$1,676	8.53%	\$ 75,420
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							
\$4,300	\$8,600	\$4,300	S, M/S HH M/J	5.80% 5.80% 5.80%	\$ 22,450 33,650 44,950	7.15% 7.15% 7.15%	\$ 53,150 79,750 106,350
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	5.0% of taxable income.				
MICHIGAN 2/							
\$4,750	\$9,500	\$4,750	4.25% of taxable income.				

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

^{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 decreased the federal personal exemptions to \$0.

^{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.

^{5/} Indiana allows an additional \$1,500 exemption for dependent children meeting certain conditions.

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							
\$0 3/	\$0 3/	\$0 3/	S	5.35%	\$ 27,230	9.85%	\$ 166,041
			M/S	5.35%	19,905	9.85%	138,100
			HH	5.35%	33,520	9.85%	220,730
			M/J	5.35%	39,810	9.85%	276,200
MISSISSIPPI							
\$6,000	\$12,000	\$1,500	S, M/J, HH	3.0% 1/	\$5,000	5.0%	\$ 10,000
MISSOURI 2/							
\$0 3/	\$0 3/	\$0 3/	S, M/J, HH, M/S	1.5%	\$ 1,088	5.4%	\$ 8,704
MONTANA							
\$2,580	\$5,160	\$2,580	S, M/J, HH	1.0%	\$3,100	6.9%	\$ 18,800
NEBRASKA							
(\$142)	(\$284)	(\$142)	M/S, S	2.46%	\$3,340	6.84%	\$ 32,210
			HH	2.46%	6,220	6.84%	47,760
			M/J	2.46%	6,660	6.84%	64,430
NEW HAMPSHIRE							
\$2,400	\$4,800 4/	---	5.0% on dividend and interest income over personal exemption.				
NEW JERSEY							
\$1,000	\$2,000	\$1,500	S, M/S, HH, M/J	1.4%	\$ 20,000	10.75%	\$ 5,000,000
NEW MEXICO							
\$0 3/	\$0 3/	\$0 3/	M/S	1.7%	\$4,000	5.9%	\$ 157,000
			S,	1.7%	5,500	5.9%	210,000
			HH, M/J	1.7%	8,000	5.9%	315,000
NEW YORK 2/ 5/							
---	---	\$1,000	M/S, S	4.0%	\$ 8,500	8.82%	\$1,077,550
			HH 4/	4.0%	12,800	8.82%	1,616,400
			M/J	4.0%	17,150	8.82%	2,155,350
NORTH CAROLINA							
---	---	---	5.25%				
NORTH DAKOTA							
\$0 3/	\$0 3/	\$0 3/	S	1.10%	\$ 40,525	2.90%	\$ 445,000
			HH	1.10%	54,400	2.90%	445,000
			M/J	1.10%	67,700	2.90%	445,000

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

2/ Does not include various local income taxes.

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

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

5/ For years 2021 through 2027 a recent law raised the highest marginal rate on income between \$2,155,350 to \$5 million to 9.65%, 10.3% on income between \$5 and 25 million, and 10.9% on income over \$25 million.

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/							
\$2,400	\$4,800	\$2,400	S, M/J, M/S	0.0%	\$ 22,150	4.797%	\$221,300
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/							
(\$210)	(\$420)	(\$210)	S,M/S M/J, HH	4.75% 4.75%	\$3,650 7,300	9.9% 9.9%	\$125,000 250,000
PENNSYLVANIA 1/							
---	---	---	3.07% of specified classes of taxable income is effective rate.				
RHODE ISLAND							
\$4,250	\$8,500	\$4,250	S, HH, M/S, M/J	3.75%	\$ 66,200	5.99%	\$ 150,500
SOUTH CAROLINA							
\$0 3/	\$0 3/	\$0 3/	S, M/S, M/J	0.0%	\$ 3,110	7.0%	\$ 15,560
TENNESSEE							
\$1,250	\$2,500	---	1.0% on interest and dividend income.				
UTAH 2/							
			4.95% flat rate.				
VERMONT							
\$4,250	\$8,500	\$4,250	S M/S HH M/J	3.35% 3.35% 3.35% 3.35%	\$40,350 32,300 51,580 67,450	8.75% 8.75% 8.75% 8.75%	\$ 204,000 118,975 216,700 248,350
VIRGINIA							
\$930	\$1,860	\$930	S, M/J	2.0%	\$ 3,000	5.75%	\$ 17,000
WEST VIRGINIA 1/							
\$2,000	\$4,000	\$2,000	S, M/J	3.0%	\$ 10,000	6.5%	\$ 60,000
WISCONSIN							
\$700	\$1,400	\$700	S, HH M/J M/S	3.54% 3.54% 3.54%	\$12,120 16,160 8,080	7.65%	\$ 266,930 355,910 177,960

Source: Survey of State Revenue Department Officials; State Department of Revenue web sites; and Federation of Tax Administrators, "State Individual Income Tax Rates as of July 1, 2021."

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

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

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

Table 15: Characteristics of State Individual Income Taxes

JURISDICTION	FEDERAL INCOME TAX DEDUCTIBLE	NO INCOME TAX	FEDERAL DEFINITION OF INCOME FOR STATE TAX BASE	STATE DEFINITION OF INCOME FOR STATE TAX BASE
ALABAMA	AL			AL
ALASKA		AK		
ARIZONA			AZ	
ARKANSAS				AR
CALIFORNIA			CA	
COLORADO			CO*	
CONNECTICUT			CT	
DELAWARE			DE	
DISTRICT OF COLUMBIA			DC	
FLORIDA		FL		
GEORGIA			GA	
HAWAII			HI	
IDAHO			ID*	
ILLINOIS			IL	
INDIANA			IN	
IOWA	IA		IA	
KANSAS			KS	
KENTUCKY			KY	
LOUISIANA	LA 4/		LA	
MAINE			ME	
MARYLAND			MD	
MASSACHUSETTS			MA	
MICHIGAN			MI	
MINNESOTA			MN	
MISSISSIPPI				MS
MISSOURI 1/	MO		MO	

Table 15 (Continued)
Characteristics of State Individual Income Taxes

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

Source: Federation of Tax Administrators, "State Personal Income Taxes: Federal Starting Points;" January 1, 2021 and "State Individual Income Taxes;" January 1, 2022; and Survey of State Revenue Department Officials

* '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 \$7,050 for all filers.

4/ Beginning for tax year January 1, 2022, Louisiana has repealed the federal income tax deduction.

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

DISTRICT OF COLUMBIA: 8.25%

LOWER THAN THE DISTRICT 33 STATES			
North Carolina	2.50%	Alabama	6.50%
Florida	3.54%	New York	6.50%
Missouri	4.00%	Tennessee	6.50%
North Dakota 1/	4.31%	West Virginia	6.50%
Colorado	4.55%	Idaho 13/	6.50%
Arizona	4.90%	Montana 2/	6.75%
Utah	4.95%	Kansas 3/	7.00%
Kentucky	5.00%	Rhode Island 4/	7.00%
Mississippi	5.00%	Connecticut	7.50%
South Carolina	5.00%	Oregon	7.60%
Indiana 11/	5.25%	New Hampshire 5/	7.70%
Georgia	5.75%	Nebraska	7.81%
New Mexico	5.90%	Wisconsin	7.90%
Michigan	6.00%	Louisiana	8.00%
Oklahoma 12/	6.00%	Massachusetts	8.00%
Virginia	6.00%		
Arkansas	6.20%		
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 7/	9.80%
NO TAX 6 STATES			
Ohio 8/		Texas 10/	
Nevada		Washington	
South Dakota 9/		Wyoming	

Source: Survey of State Revenue Department Officials; State web pages; and Federation of Tax Administrators, "Range of State Corporate Income Tax Rates, January 1, 2021."

1/ North Dakota imposes a 3.5% surtax for filers electing to use the water's edge method to apportion income

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

3/ Kansas' rate includes a 3.0% surtax on taxable income more than \$50,000.

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

5/ Rate is applied to income over \$50,000. Does not include a Business Enterprise Tax of 0.60%.

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

7/ 50% federal deductibility.

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

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

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

11/ Indiana's corporate tax rate decreased to 4.9% on July 1, 2021.

12/ Oklahoma's corporate tax rate decreased to 4.0% on January 1, 2022.

13/ Idaho's corporate tax rate decreased to 6.5% on May 10, 2021 under HB380, which was retroactive to January 1, 2021.

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

DISTRICT OF COLUMBIA: 1.7%

LOWER THAN THE DISTRICT 13 STATES			
Illinois	0.50%	New Hampshire	1.25%
New York ^{1/}	0.70%	Indiana	1.30%
South Carolina	0.75%	Ohio	1.40%
Wyoming	0.75%	Idaho	1.50%
Iowa	1.00%	Kentucky	1.50%
Nebraska	1.00%	Connecticut	1.50%
Michigan	1.25%		
HIGHER THAN THE DISTRICT 37 STATES			
Arizona	1.70%	New Jersey	2.10%
Florida	1.75%	Georgia	2.25%
Tennessee	1.75%	Louisiana	2.25%
Texas	1.75%	Oklahoma	2.25%
North Carolina	1.90%	Utah	2.25%
Colorado	2.00%	Virginia	2.25%
Delaware	2.00%	Alabama	2.30%
Kansas	2.00%	California	2.35%
Maine	2.00%	Arkansas	2.50%
Maryland	2.00%	South Dakota	2.50%
Massachusetts	2.00%	Alaska	2.70%
Minnesota	2.00%	Hawaii	2.75%
Missouri	2.00%	Montana	2.75%
North Dakota	2.00%	Mississippi	3.00%
Oregon	2.00%	New Mexico	3.00%
Pennsylvania	2.00%	West Virginia	3.00%
Rhode Island	2.00%	Nevada	3.50%
Vermont	2.00%		
Washington	2.00%		
Wisconsin	2.00%		

Source: Survey of State Revenue Department Officials; state statutes; and National Association of Insurance Commissioners., "Retaliation Guide, Volume 1, 2022."

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

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

DISTRICT OF COLUMBIA: 6.0%

LOWER THAN THE DISTRICT 19 STATES			
Colorado (5.91%)	2.900%	North Carolina (2.5%)	4.750%
Alabama (6.0%)	4.000%	North Dakota (2.5%)	5.000%
Georgia (4.9%)	4.000%	Wisconsin (0.5%)	5.000%
Hawaii (0.50%)	4.000%	New Mexico (2.75%)	5.125%
New York (4.875%)	4.000%	Virginia (0.70%) 1/	5.300%
Wyoming (2.0%)	4.000%	Maine	5.500%
Missouri (4.375%)	4.225%	Nebraska (1.5%)	5.500%
Louisiana (5.0%)	4.450%	Arizona (3.0%)	5.600%
Oklahoma (4.125%)	4.500%	Ohio (1.75%)	5.750%
South Dakota (2.0%)	4.500%		
SAME AS THE DISTRICT 10 STATES			
Florida (1.5%)	6.000%	Michigan	6.000%
Idaho	6.000%	Pennsylvania (2.0%)	6.000%
Iowa (1.0%)	6.000%	South Carolina (3.0%)	6.000%
Kentucky	6.000%	Vermont (1.0%)	6.000%
Maryland	6.000%	West Virginia (1.0%)	6.000%
HIGHER THAN THE DISTRICT 16 STATES			
Utah (1.65%) 1/	6.100%	Minnesota (1.15%)	6.875%
Illinois (4.00%)	6.250%	Indiana	7.000%
Massachusetts	6.250%	Mississippi (1.0%)	7.000%
Texas (2.0%)	6.250%	Rhode Island	7.000%
Connecticut	6.350%	Tennessee (2.25%)	7.000%
Arkansas (2.5%)	6.500%	California (3.50%) 1/	7.250%
Kansas (1.0%)	6.500%		
Washington (3.75%)	6.500%		
New Jersey	6.625%		
Nevada (1.53%)	6.850%		
NO TAX 5 STATES			
Alaska (7.5%)		New Hampshire	
Delaware		Oregon	
Montana 2/			

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, 2021."

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

2/ 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/	.26
Indiana	.115	Delaware	.26
New Jersey	.12	Vermont	.265
Montana 1/	.14	South Dakota	.27
New York	.14	New Hampshire	.30
Minnesota 2/	.148	Nebraska	.31
Idaho	.15	Georgia	.32
Arizona	.16	Maine	.35
Nevada	.16	Louisiana	.40
North Dakota 3/	.16	Oklahoma	.40
Kansas	.18	New Mexico 5/	.41
Ohio	.18	Utah 6/	.4226
West Virginia	.18	Mississippi	.4268
Iowa	.19	Florida	.48
Texas	.194	Alabama	.53
California	.20	North Carolina	.6171
Michigan	.20	South Carolina	.77
Illinois	.231	Hawaii 7/	.93
Arkansas	.23	Alaska	1.07
Connecticut	.24	Tennessee 8/	1.29

Source: Survey of State Revenue Department Officials; and Federation of Tax Administrators, "State Tax Rates on Beer. (January 1, 2022)."

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.

8/ In addition, Tennessee has a barreillage tax of .138/gal.

**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	\$.30	New Jersey	\$.875
Mississippi	.35	South Carolina	.90
Maryland	.40	South Dakota	.93
Missouri	.42	Nebraska	.95
Idaho	.45	North Carolina	1.00
Indiana	.47	West Virginia	1.00
Kentucky	.50	Montana 2/	1.02
North Dakota	.50	Tennessee	1.21
Michigan	.51	Hawaii	1.38
Massachusetts	.55	Illinois	1.39
Vermont	.55	Rhode Island	1.40
Maine	.60	Georgia	1.51
Oregon	.67	Virginia	1.51
Nevada	.70	Delaware	1.63
Oklahoma	.72	Alabama	1.70
Arkansas	.75	New Mexico	1.70
Louisiana	.76	Iowa	1.75
Connecticut	.79	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, 2021)."

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

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

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

DISTRICT OF COLUMBIA: \$1.50

CONTROL BOARD STATES 17 STATES			
Alabama Idaho Iowa 1/ Maine Michigan Mississippi Montana 2/ New Hampshire North Carolina 3/		Ohio Oregon Pennsylvania 4/ Utah 5/ Vermont Virginia 6/ West Virginia Wyoming	
SAME AS THE DISTRICT 1 STATE			
Maryland		\$ 1.50	
HIGHER THAN THE DISTRICT 32 STATES			
Kentucky	\$1.92	Georgia	\$3.79
Missouri	2.00	South Dakota	3.93
Colorado	2.28	Massachusetts	4.05
Texas	2.40	Tennessee	4.40
		Delaware 9/	4.50
Arkansas 7/	2.50		
Kansas	2.50	Minnesota	5.03
North Dakota	2.50	Rhode Island	5.40
Indiana	2.68	New Jersey	5.50
South Carolina 8/	2.72	Oklahoma	5.56
		Connecticut	5.94
Arizona	3.00		
Louisiana	3.03	Hawaii	5.98
Wisconsin	3.25	New Mexico	6.06
California	3.30	New York	6.44
Nevada	3.60	Florida	6.50
Nebraska	3.75	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, 2022)."

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 \$3.00 per gallon.

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

DISTRICT OF COLUMBIA: \$5.00 ^{1/}

LOWER THAN THE DISTRICT 50 STATES			
Missouri*	\$.17	New Hampshire	1.78
Georgia	.37	Nevada	1.80
North Dakota	.44	Colorado	1.94
North Carolina	.45	Alaska	2.00
Idaho	.57	Arizona	2.00
South Carolina	.57	Maine	2.00
Virginia*	.60	Michigan	2.00
Wyoming	.60	New Mexico	2.00
Tennessee*	.62	Oklahoma	2.03
Nebraska	.64		
Alabama*	.675	Delaware	2.10
Mississippi	.68	Wisconsin	2.52
Indiana	.995	Pennsylvania*	2.60
Louisiana	1.08	New Jersey	2.70
Kentucky	1.10	California	2.87
		Illinois*	2.98
Arkansas	1.15	Washington	3.025
West Virginia	1.20	Vermont	3.08
Kansas	1.29	Hawaii	3.20
Florida	1.339	Oregon	3.33
Iowa	1.36		
Texas	1.41	Massachusetts	3.51
South Dakota	1.53	Minnesota ^{3/}	3.673
Ohio	1.60	Maryland	3.75
Montana	1.70	Rhode Island	4.25
Utah	1.70	Connecticut	4.35
		New York*	4.35

Source: Survey of State Revenue Department Officials; Federation of Tax Administrators, "State Excise Tax Rates on Cigarettes, (January 1, 2022)."

*Counties and cities may impose an additional tax on a pack of cigarettes.

^{1/} Includes an in-lieu cigarette sales tax at \$0.50 for 2021. On October 1, 2021, the in-lieu cigarette sales tax increase to \$0.51.

^{2/} Additional \$2.00 tax in Philadelphia and \$1.50 in New York City.

^{3/} Includes a cigarette sales tax of \$0.633 per pack. On January 1, 2023, the tax for a pack of 20 decreases to \$3.04.

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

DISTRICT OF COLUMBIA: \$0.288 1/

LOWER THAN THE DISTRICT 21 STATES			
Alaska	\$.090	North Dakota	.230
Missouri	.174	Colorado	.236
Mississippi	.184	Nevada	.238
New Mexico	.188	New Hampshire	.238
Arizona	.190	Wyoming	.240
Oklahoma	.200	South Carolina*	.248
Texas	.200	Kansas	.250
Louisiana	.209	Kentucky	.260
Virginia*	.218	Massachusetts	.269
Delaware 2/	.230	Tennessee	.274
		Arkansas	.278
HIGHER THAN THE DISTRICT 29 STATES			
Alabama*	.290	West Virginia	.357
Georgia	.295	Oregon	.360
Nebraska	.296	North Carolina	.364
Iowa	.300	Michigan	.372
South Dakota	.300	Ohio	.385
Vermont	.305	Maryland	.397
Minnesota	.306	Indiana	.422
Maine	.314	Connecticut	.451
Hawaii	.315	New Jersey	.508
Utah	.321	Illinois	.508
Wisconsin	.329	Washington	.522
Idaho	.330	California	.577
Montana*	.333	Pennsylvania	.587
New York	.337		
Florida 3/	.347		
Rhode Island	.351		

Source: ORA Survey of State Revenue Department officials; State Web Sites; and Federation of Tax Administrators, "State Motor Fuel Rates, (January 1, 2021)."

Note: Tax rates do not include local taxes (see Table 8). Rates do include inspection or environmental cleanup fees and applicable state sales taxes (also included in Table 8), and therefore this table differs from the same one presented in some prior editions of this report (2017 and before).

* Rates increased on July 1, 2021, or October 1, 2021.

1/ As of October 1, 2020, the District of Columbia levied a surcharge of \$0.053 on the sale of motor fuel, gasoline, and gasohol. Rate increased to \$0.338 on October 1, 2021

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

3/ Includes a minimum statewide local tax.

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

46 States and DC

DISTRICT OF COLUMBIA: 1/ 1 - 8.1% of fair market value, based on MPG - 3,499 pounds or less 2 - 9.1% of fair market value, based on MPG - 3,500 pounds and less than 5,000 pounds 3 - 10.1% of fair market value, based on MPG – 5,000 pounds or more			
Alabama	2.00%	Maryland	6.00%
Colorado	2.90%	Michigan 7/	6.00%
North Carolina 2/	3.00%	Pennsylvania 7/	6.00%
Oklahoma	3.25%	South Carolina 6/	6.00%
Hawaii	4.00%	Vermont	6.00%
New Mexico	4.00%	West Virginia 7/	6.00%
New York 3/	4.00%	Illinois 3/	6.25%
South Dakota	4.00%	Massachusetts 3/	6.25%
Wyoming 3/	4.00%	Texas 3/ 7/	6.25%
Virginia	4.15%	Connecticut 3/	6.35%
Missouri 3/	4.225%	Arkansas 3/, 9/	6.50%
Delaware 4/	4.25%	Kansas	6.50%
Louisiana 3/	4.45%	Minnesota	6.50%
Utah	4.85%	Washington 3/	6.50%
Iowa 5/	5.00%	Georgia 10/	6.60%
Mississippi 3/	5.00%	New Jersey 3/	6.625%
North Dakota	5.00%	Indiana 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	7.25%
Arizona	5.60%	Nevada 3/	8.38%
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. Rates are now based on weight and Miles Per Gallon (MPG), with highest rates on vehicles with 20 MPG or less, and decreasing at 5 MPG intervals from there, to the lowest rate applying to vehicles getting 40 MPG or more. Exemption for electric vehicles.
- 2/ Tax on sales price less trade-in allowance. The maximum tax is \$250 on non-commercial vehicles.
- 3/ No excise tax; vehicles charged sales tax at time of purchase.
- 4/ Called a document fee.
- 5/ This is a statewide levy, but it is collected by the counties.
- 6/ Maximum tax is \$500.
- 7/ Tax on sales price less trade-in allowance.
- 8/ Rate listed is a sales tax; Maine's excise tax is an annual tax between .4% and 2.4% depending on the age of the vehicle.
- 9/ Local sales taxes are capped at \$25 per 1% of tax on a single transaction, maximum of \$62.50. Used cars below \$4,000 are exempt.
- 10/ Title Ad Valorem Tax collected at time of title application.
- 11/ A 0.5% tax (part vehicle dealer privilege tax and part consumer use tax) applies to vehicles <26,000 lbs. and < 7,500 miles.

Table 25: State Motor Vehicle Annual Registration Fees

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

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

LOWER THAN THE DISTRICT 45 STATES			
Arizona ^{6/}	\$13.50	New Hampshire	\$43.20
Mississippi	15.00	Hawaii	45.00
Nebraska	15.00	Florida	45.60
Georgia	20.00	Kansas	45.75
Kentucky	21.00	Utah ^{6/}	46.75
		Alaska	50.00
Alabama	23.00		
Arkansas	25.00	West Virginia	51.50
Missouri ^{2/}	27.25	Texas	51.75
Louisiana ^{4/}	27.90	California ^{12/}	60.00
New York ^{3/}	28.25	New Mexico ^{9/}	62.00
		Oregon	66.00
Tennessee	29.00		
Massachusetts	30.00	Washington ^{5/}	68.25
Wyoming	30.00	Colorado ^{8/}	67.33
Virginia	30.75	Maryland	67.50
Rhode Island	32.50	South Dakota	72.00
		Idaho	73.00
Nevada	33.00		
Ohio	34.50	Vermont	76.00
Maine	35.00	New Jersey	84.00
Indiana	36.35	Wisconsin	85.00
		Connecticut ^{12/}	85.00
North Carolina	38.75	North Dakota ^{7/}	93.00
Pennsylvania	39.00		
Delaware	40.00	Oklahoma	96.00
South Carolina	40.00		
HIGHER THAN THE DISTRICT 5 STATES			
Illinois	151.00	Iowa ^{11/}	264.78
Michigan ^{8/}	166.00	Minnesota	359.00
Montana ^{10/}	217.00		

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

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

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

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

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

5/ Includes vehicle weight fee of \$25, additional local taxes and fees apply.

6/ AZ includes \$1.50 Air Quality Research Fee. UT includes \$1 insurance database fee.

7/ Fees range from \$49 to \$274 based on weight and number of years vehicle has been registered. Rate declines after first 6 years.

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/ CA includes \$3 alternative fuel/technology registration fee. CT includes \$10 Clean Air Act 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 34 STATES			
Colorado ^{4/}	\$.05	South Carolina ^{4/}	\$1.30
Alabama	.50	Tennessee	1.85
Georgia ^{2/}	.50	Nevada ^{4/}	1.95
Hawaii ^{3/}	.50	New York ^{10/}	2.00
Illinois	.50	Maine	2.20
Kentucky	.50	Massachusetts	2.28
Ohio	.50	Rhode Island ^{6/}	2.30
South Dakota	.50	Maryland ^{9/}	2.50
California ^{4/ 11/}	.55	New Jersey ^{4/ 5/}	2.90
Oklahoma	.75	Florida	3.50
Iowa	.80	Michigan	3.75
North Carolina	1.00	New Hampshire	3.75
West Virginia ^{4/}	1.10	Connecticut ^{4/}	3.75
Nebraska	1.125	Pennsylvania	5.00
Virginia	1.25	Washington ^{9/}	5.50
Wisconsin	1.50	Vermont ^{8/}	7.25
Arkansas	1.65		
Minnesota	1.65		
HIGHER THAN THE DISTRICT 1 STATE			
Delaware \$15.00 ^{4/}			
NO TAX 15 STATES			
Alaska	Louisiana	Montana	Texas
Arizona	Mississippi	New Mexico	Utah
Idaho	Missouri	North Dakota	Wyoming
Indiana		Oregon	
Kansas			

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

1/ For DC, \$11.00 represents the deed recordation tax + the deed transfer tax per \$500 (\$5.50/\$500 for each) for residential property. The rate is 1.1% of consideration or fair market value for residential property transfers <\$400,000; 1.45% of consideration of fair market value on the entire amount if transfer is >\$400,000. Total transfer + recordation rate is 2.2 and 2.9 percent, respectively.

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/ Additional local/County rates/fees apply. In DE, state + local rate may not exceed 4% of value of property.

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

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

7/ Local transfer tax and recordation fees additional; rates vary by locality. State rate is \$1.25/\$500 for first-time homebuyers.

8/ Rate varies. For principal residence, the rate is \$2.50/ \$500 on first \$100,000 in value and \$7.25/\$500 on value over \$100,000.

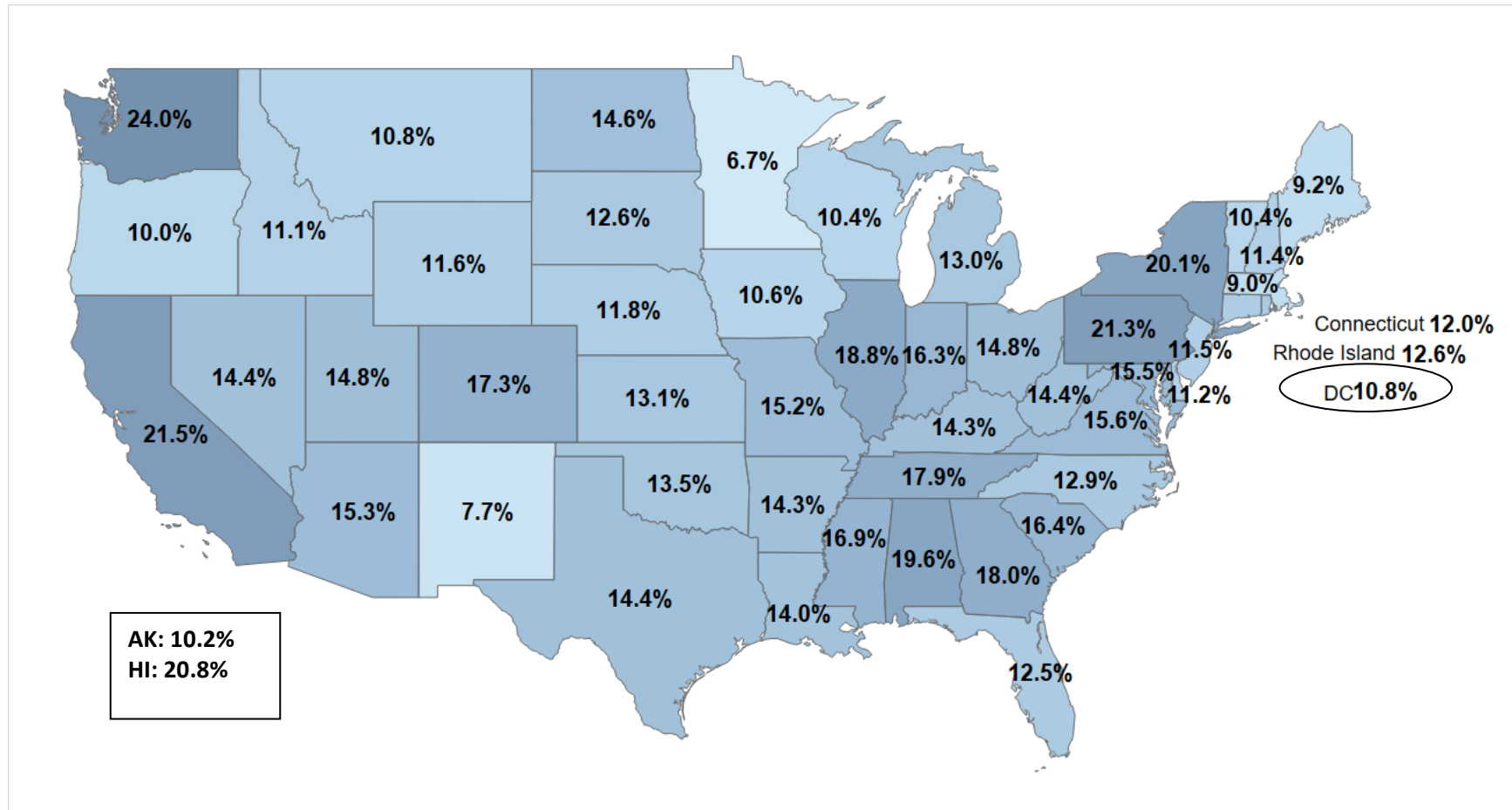
9/ For value of \$500.00 or less.

10/ Plus additional 1% of value on residential conveyances when consideration is greater than \$1 million.

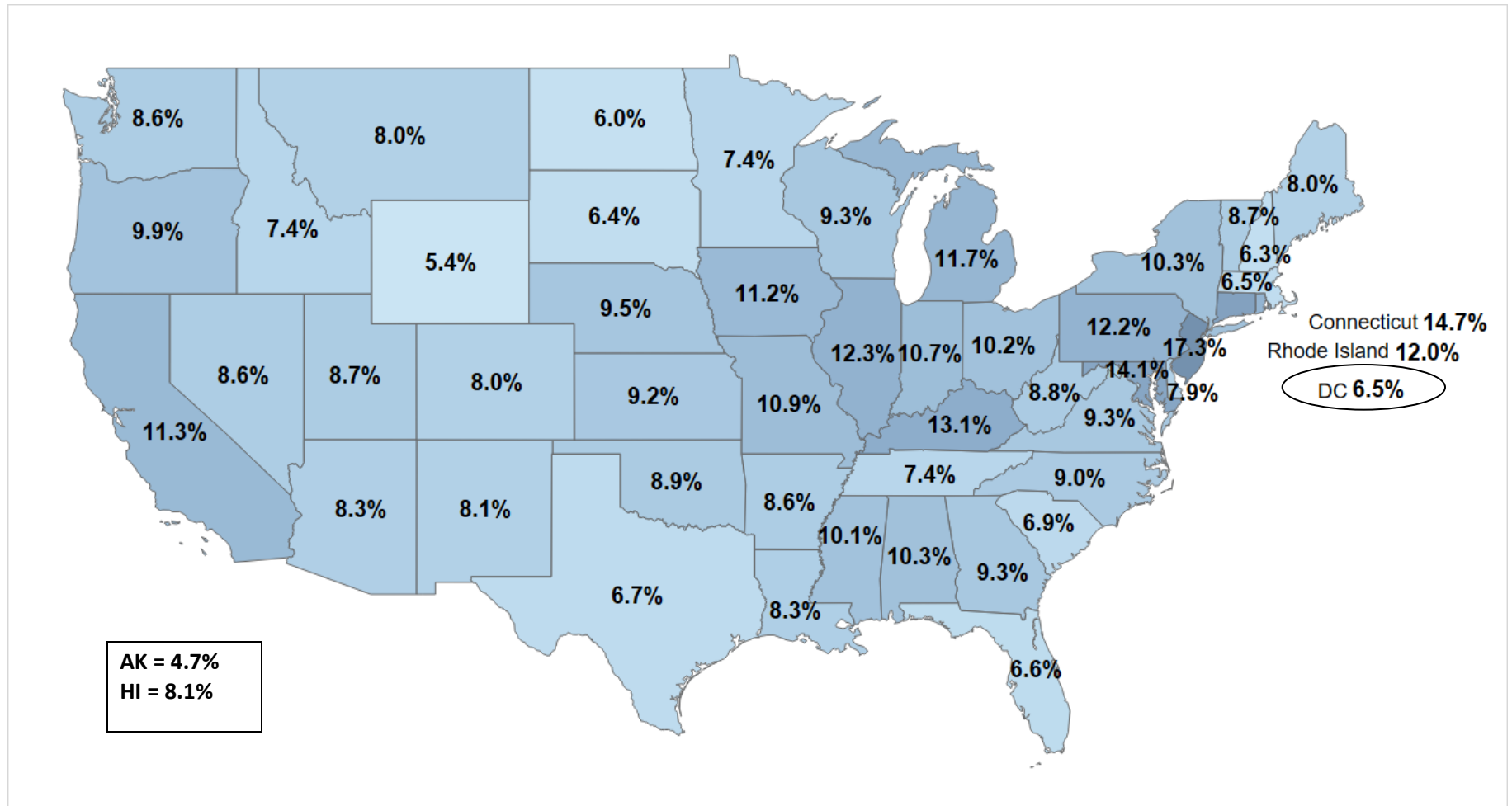
11/ This is the County Transfer Tax rate set throughout the state; cities within those counties may also levy a transfer tax

Appendix

**Map 5: Combined 2021 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$25,000/Year)**

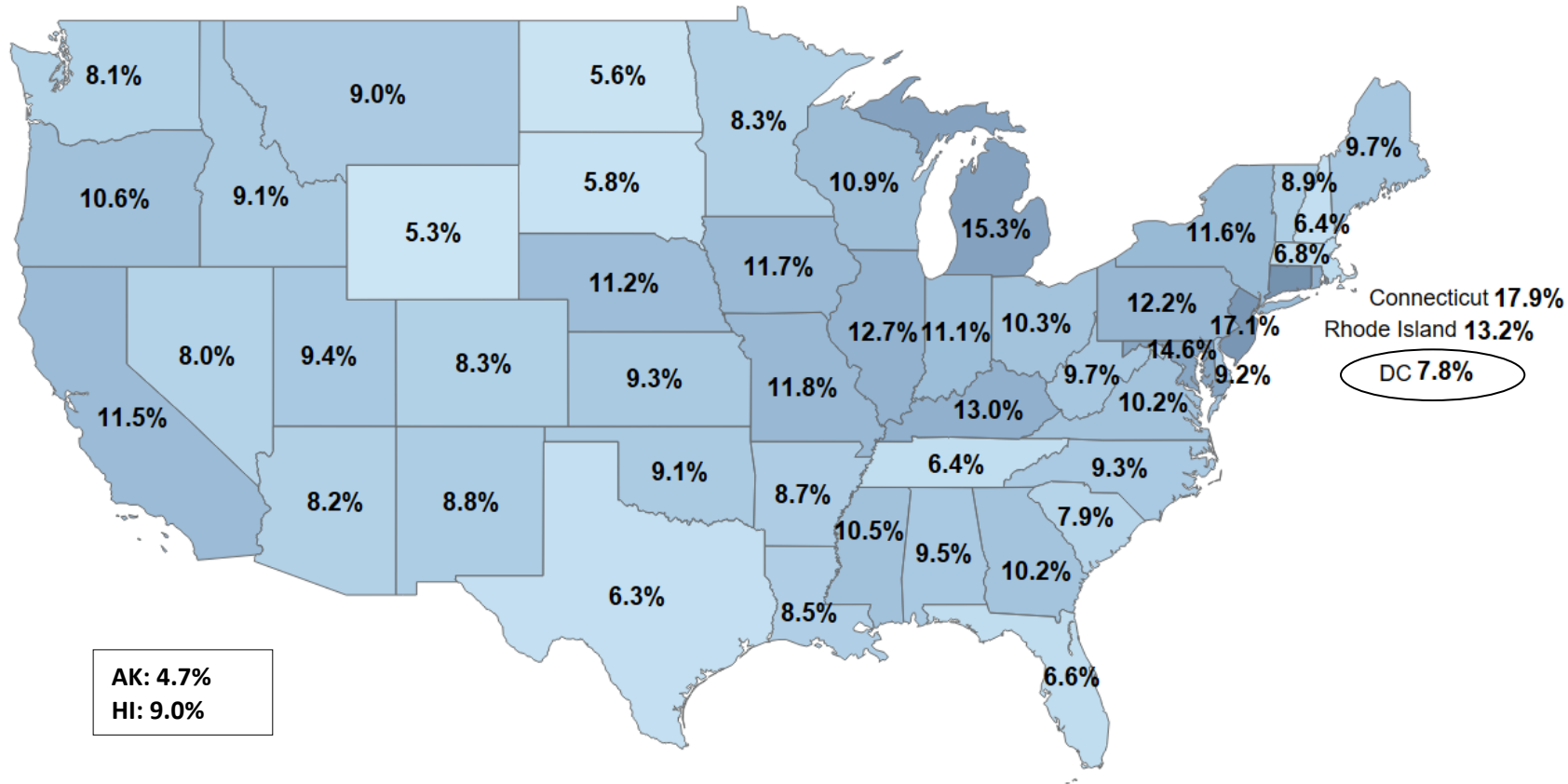


**Map 6: Combined 2021 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$50,000/Year)**

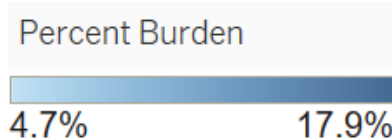


Source: ORA. The lighter the blue in the map, the lower the tax burden as a percentage of income.

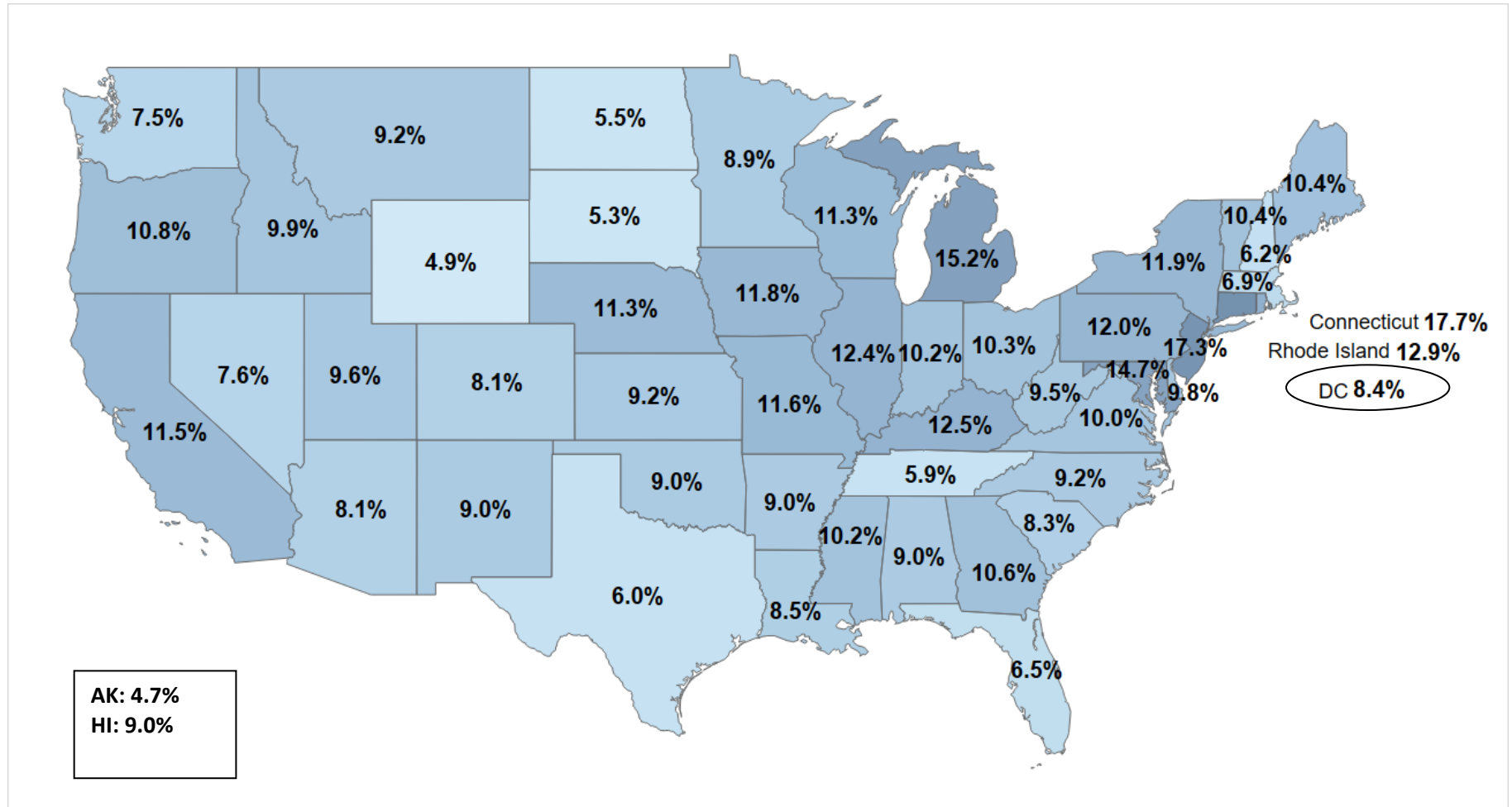
**Map 7: Total 2021 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$75,000/Year)**



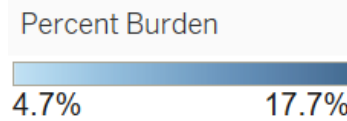
Source: ORA. The lighter blue shading represents a lower tax burden.



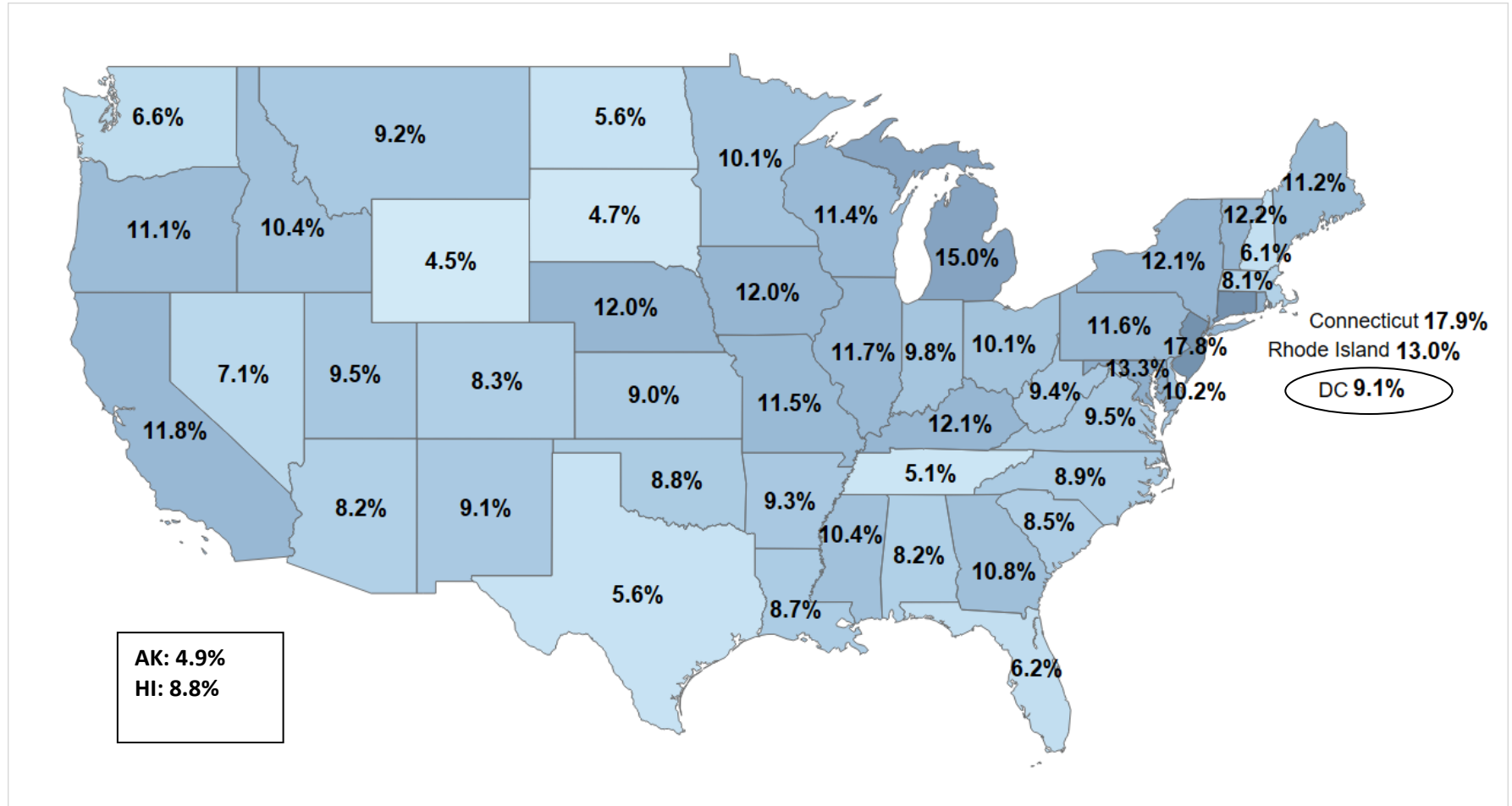
**Map 8: Combined 2021 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$100,000/Year)**



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



**Map 9: Combined 2021 Tax Burdens (Income, Property, Sales, & Auto) as a % of Income
(Family Earning \$150,000/Year)**



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

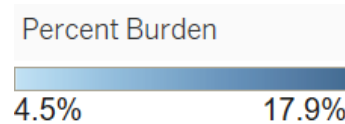


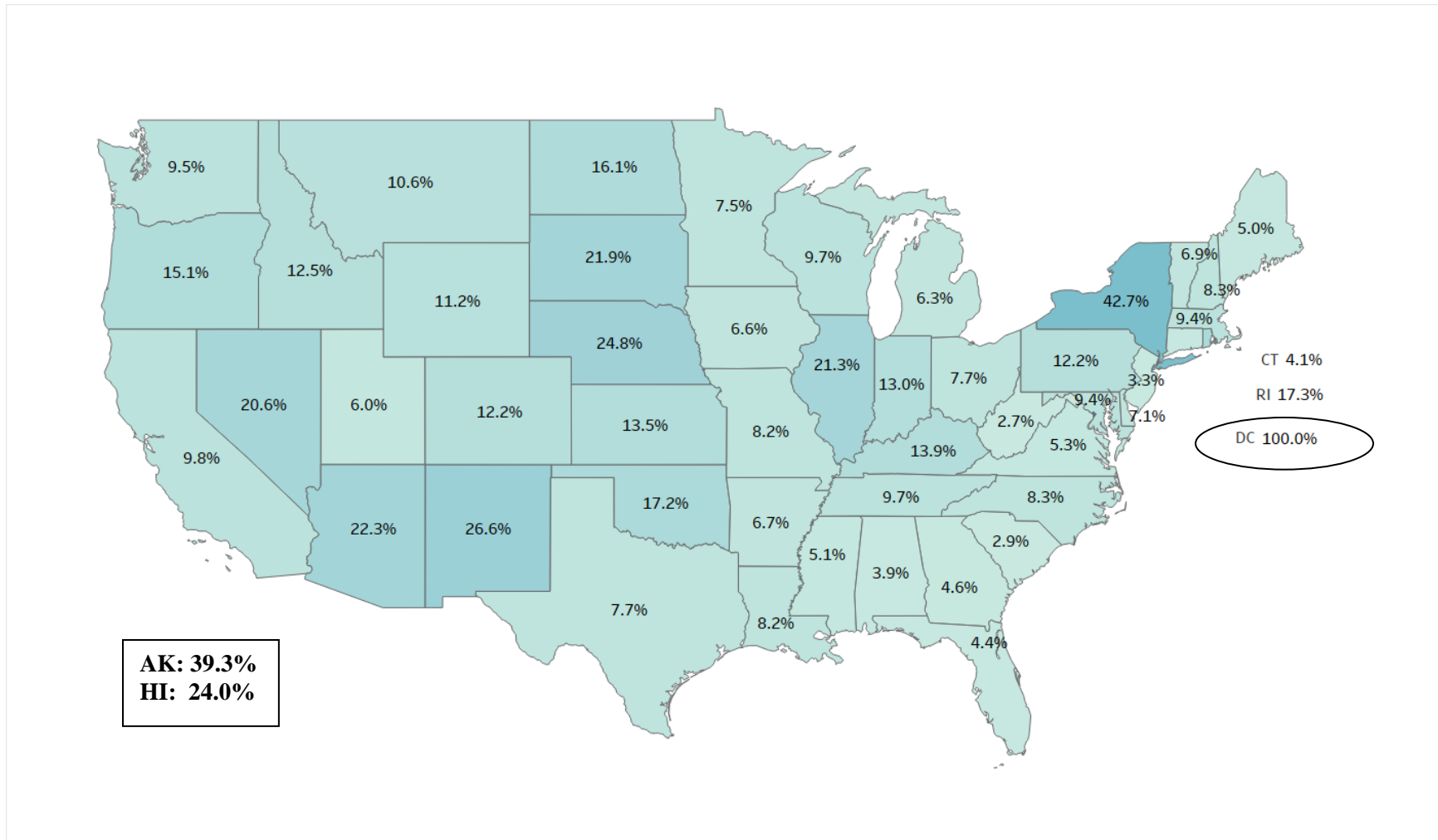
Table 27: Population Changes of the Largest City in Each State

City	State	2010 Population	2019 Population	2020 Population	2021 Population	% Difference 2010 to 2021
Birmingham	Alabama	212,026	209,403	206,950	196,410	-7.37%
Anchorage	Alaska	293,405	288,000	287,095	288,121	-1.80%
Phoenix	Arizona	1,450,267	1,680,992	1,708,127	1,624,539	12.02%
Little Rock	Arkansas	194,003	197,312	197,866	201,984	4.11%
Los Angeles	California	3,796,575	3,979,576	3,970,219	3,849,306	1.39%
Denver	Colorado	603,300	727,211	735,538	711,463	17.93%
Bridgeport	Connecticut	144,911	144,399	143,525	148,345	2.37%
Wilmington	Delaware	70,787	70,166	70,376	70,750	-0.05%
Jacksonville	Florida	823,280	911,507	920,570	954,624	15.95%
Atlanta	Georgia	422,753	506,811	512,550	496,480	17.44%
Honolulu	Hawaii	338,680	345,064	341,555	345,532	2.02%
Boise	Idaho	206,355	228,959	229,776	237,457	15.07%
Chicago	Illinois	2,697,650	2,693,976	2,677,643	2,696,561	-0.04%
Indianapolis	Indiana	821,632	876,384	877,903	882,327	7.39%
Des Moines	Iowa	204,573	214,237	212,312	212,333	3.79%
Wichita	Kansas	382,872	389,938	391,731	395,707	3.35%
Louisville	Kentucky	597,738	617,638	618,338	628,577	5.16%
New Orleans	Louisiana	347,900	390,144	389,476	376,971	8.36%
Portland	Maine	66,087	66,215	66,803	68,329	3.39%
Baltimore	Maryland	621,180	593,490	586,131	576,498	-7.19%
Boston	Massachusetts	620,623	692,600	691,531	654,281	5.42%
Detroit	Michigan	711,049	670,031	665,369	632,589	-11.03%
Minneapolis	Minnesota	383,083	429,606	433,111	425,338	11.03%
Jackson	Mississippi	173,750	160,628	157,821	149,813	-13.78%
Kansas City	Missouri	460,732	495,327	497,159	508,415	10.35%
Billings	Montana	104,539	109,577	109,736	117,453	12.35%
Omaha	Nebraska	432,672	478,192	478,393	487,299	12.63%
Las Vegas	Nevada	584,780	651,319	662,368	646,776	10.60%
Manchester	New Hampshire	109,611	112,673	112,546	115,470	5.35%
Newark	New Jersey	277,347	282,011	282,520	307,216	10.77%
Albuquerque	New Mexico	547,092	560,513	562,540	562,591	2.83%
New York	New York	8,192,426	8,336,817	8,253,213	8,467,513	3.36%
Charlotte	North Carolina	738,678	885,708	900,350	879,697	19.09%
Fargo	North Dakota	105,928	124,662	125,209	124,843	17.86%
Columbus	Ohio	790,694	898,553	903,852	907,310	14.75%
Oklahoma City	Oklahoma	582,118	655,057	662,314	687,691	18.14%
Portland	Oregon	585,427	654,741	656,751	642,218	9.70%
Philadelphia	Pennsylvania	1,528,338	1,584,064	1,578,487	1,576,251	3.13%
Providence	Rhode Island	178,114	179,883	179,270	189,697	6.50%
Charleston*	South Carolina	350,209	137,566	139,714	152,046	16.57%
Sioux Falls	South Dakota	154,594	183,793	187,809	196,528	27.13%
Nashville*	Tennessee	601,222	670,820	671,295	678,845	4.04%
Houston	Texas	2,114,761	2,320,268	2,316,120	2,287,047	8.15%
Salt Lake City	Utah	186,564	200,567	204,087	200,475	7.46%
Burlington	Vermont	42,417	42,819	42,899	44,783	5.58%
Virginia Beach	Virginia	439,038	449,974	451,231	457,672	4.24%
Seattle	Washington	610,383	753,675	769,714	733,904	20.24%
Charleston	West Virginia	51,400	46,536	45,879	48,021	-6.57%
Milwaukee	Wisconsin	595,120	590,157	589,067	569,326	-4.33%
Cheyenne	Wyoming	59,901	64,235	64,742	65,048	8.59%
WASHINGTON, DC		605,126	702,455	705,749	670,050	10.73%

Source: US Census Bureau. 2010 data: Table DP-1. Profile of General Demographic Characteristics: 2010. 2019 Data: Annual Estimates of the Resident Population for Incorporated Places of 50,000 or More, Ranked by July 1, 2019 Population: April 1, 2010 to July 1, 2019 Release Date: May 2020. 2020 Data: Subcounty Resident Population Estimates: April 1, 2010 to July 1, 2019; April 1, 2020; and July 1, 2020 (SUB-EST2020). 2021 Data: Subcounty Resident Population Estimates: April 1, 2010 to July 1, 2020; April 1, 2021; and July 1, 2021 (SUB-EST2020)

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

Map 10: Population of the Largest Cities as a % of the State's Total Population, 2021



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DC Lottery

Economic Development and Regulation

EventsDC

Government Operations

Government Services

Human Support Services

Not-for-Profit Hospital Corporation

Primary and Secondary Education

Public Safety and Justice

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Henry Mosley, Agency Chief Financial Officer

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