Government of the District of Columbia


Muriel Bowser Mayor

Jeffrey DeWitt Chief Financial Officer

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


(This page intentionally left blank)

## Table of Contents

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

Table of Contents ..... iii
Listing of Charts, Tables, and Maps ..... iv
Executive Summary ..... vi
Acknowledgment ..... viii
Part I: Tax Burdens in Washington D.C. Compared with Those in the Largest City in EachState, 2016.1
Overview ..... 2
Why Do Tax Burdens Differ From One City to Another? ..... 3
Chapter I: How Tax Burdens are Computed for the Largest City in each State ..... 5
Individual Income Tax ..... 6
Real Property Tax ..... 8
Sales and Use Tax ..... 11
Automobile Taxes ..... 11
Chapter II: Overall Tax Burdens for Hypothetical Families in the Largest City in Each State ..... 12
Chapter III: Comparing Specific Tax Burdens for a Hypothetical Family of Three in the Largest City in Each State ..... 24
Individual Income Tax ..... 24
Real Property Tax ..... 30
Sales and Use Tax ..... 37
Automobile Taxes ..... 41
Chapter IV: How Do Tax Burdens in Washington D.C. Compare with Those in the Largest City in Each State? ..... 45
Individual Income Tax. ..... 45
Real Property Tax ..... 46
Sales Tax ..... 46
Automobile Taxes ..... 47
Summary. ..... 47
Part II: A Comparison of Selected Tax Rates in D.C. with Those in the 50 States ..... 50
Tax Rate Comparisons at a Glance ..... 51
Appendix ..... 70
Office Locations and Telephone Numbers ..... 78
Listing of Charts, Tables, and Maps
Charts
Charts 1a-e: 2016 Estimated Burdens of Major Taxes for 5 Hypothetical Families ..... 13-21
Chart 2: 2016 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, 2016 ..... 33
Chart 4: 2016 Property Tax Burdens for All Income Levels, Sorted by Lowest Income Level.. 36
Chart 5: State and Local General Sales Tax Rates in Each of The 51 Cities as of December 31, 2016. ..... 38
Chart 6: 2016 Auto Tax Burdens, Family Earning \$75,000/year ..... 44
Chart 7: Combined Tax Burdens at Each Income Level; Comparison of DC and the Average of the 51 Cities ..... 49
Tables
Tables 1a-e: 2016 Estimated Burdens of Major Taxes for 5 Hypothetical Families ..... 14-22
Table 2: States That Index Some Part of Their Individual Income Tax, 2016 ..... 28
Table 3: Income Tax Burden As Percent of Income in the Largest Cities by Type of Income Tax For a Hypothetical Family of Three, 2016 ..... 29
Table 4: Residential Property Tax Rates in the Largest City in Each State 2016. ..... 32
Table 5: Housing Value Assumptions, 2016 ..... 34
Table 6: Cities That Allow Exemptions or Reduced Rates in the Calculation of Real Estate Taxes for Homeowners, 2016 ..... 35
Table 7: State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31,2016.39
Table 8: Gasoline Tax Rates in the 51 Cities as of December 31, 2016 ..... 42
Table 9: Summary of Types of Automobile Registration Taxes 2016 ..... 43
Table 10: Automobile Tax Assumptions 2016 ..... 43
Table 11: Tax Burdens in Washington, D.C. for a Hypothetical Family Compared With theAverage for the Largest City in Each State by Income Level, 2016 ............................................. 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 District of Columbia ..... 53
Table 15: Characteristics of State Individual Income Taxes ..... 57
Table 16: State Corporation Income Tax Rates ..... 59
Table 17: State Gross Premiums Tax Rates on Foreign Life Insurers ..... 60
Table 18: State General Sales and Use Tax Rates ..... 61
Table 19: State Beer Tax Rates ..... 62
Table 20: State Light Wine Tax Rates ..... 63
Table 21: State Distilled Spirits Tax Rates ..... 64
Table 22: State Cigarette Tax Rates ..... 65
Table 23: Gasoline Excise Tax Rates ..... 66
Table 24: 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 ..... 75
Maps
Map 1: Total 2016 Tax Burdens (Income, Property, Sales, \& Auto) as a \% of Income. ..... 23
Map 2: 2016 Income Tax Burdens for Family Earning \$75,000/Year (\$) ..... 27
Map 3: 2016 Property Tax Burdens (\$) ..... 31
Map 4: 2016 Sales Tax Burdens, Family Earning \$75,000/Year. ..... 40
Maps 5-9: Combined 2016 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, 2016. ..... 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 not usually a combination of both rates that would be applicable to residents living in those locales. As such, this study aims to calculate the combined state and local tax burdens that would apply to a hypothetical family at five different income levels living in D.C. as well as the largest city in each state. The study includes four main tax types in its tax burden calculations: income, property, sales, and auto taxes. For these four tax types, tax burdens are calculated by applying the relevant state and local tax rates to economic data on average and median costs of various consumer goods and housing. The study assumes that the incidence of each tax is on the individual, and also makes other assumptions that affect the findings. These assumptions, the sources of data and the steps taken to arrive at the tax burdens are laid out in the following pages.

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

Income tax: Residents in 44 of the 51 cities in this study are subject to some type of individual income tax at the state and/or local levels (Table 3, page 27). There are several types of individual income tax systems, including graduated state and local rates, graduated state and flat local rates, flat state and local rates, graduated state tax rates, and flat state rates with exemptions. Income tax burdens in jurisdictions levying an income tax ranged from a low of negative $\$ 4,004$ in Burlington, Vermont, for a family earning $\$ 25,000$ (this negative amount represents an income tax refund due to refundable credits), to a high of $\$ 10,915$ for a family earning $\$ 150,000$ and living in New York City, New York.

The District's 2016 income tax structure included six rates, with the highest rate of 8.95 percent applying to income over $\$ 1,000,000$. The District's income tax burden was below the average for the 44 cities that levied an income tax for a family earning $\$ 25,000$, and slightly higher than the average for the other four income levels.

Property tax: All 51 cities in this study levy a tax on real property located within the city, and effective tax rates range from a high of $\$ 3.81$ per $\$ 100$ of assessed value in Bridgeport, Connecticut to $\$ 0.35$ per $\$ 100$ of assessed value in Honolulu, Hawaii (Table 4, page 32). In addition, several jurisdictions allow tax exemptions and credits in the calculation of the real property tax liability (Table 6, page 35). Property tax burdens range from a low of $\$ 698$ on a family earning $\$ 50,000$ a year and living in Honolulu, Hawaii to a high of $\$ 18,340$ on a family earning $\$ 150,000 /$ year and living in Bridgeport, Connecticut.

In 2016, the District taxed residential property at a rate of $\$ 0.85$ per $\$ 100$ of assessed value; and offered a $\$ 71,700$ homestead deduction for owner-occupied residences. D.C.'s property tax burdens were below the 51-city average for the top four income levels (all of those assumed to own homes). However, the District's property tax burden for those earning $\$ 25,000$ was the second highest of all the cities, due to the high cost of rental housing, and the assumption that a portion of rental payments goes toward the property tax.

Sales tax: As noted in Table 7, page 39, residents in 46 of the 51 cities studied are subject to some form of sales and use tax. In 2016, the highest combined (state + local) sales tax rates were in Chicago, Illinois; Birmingham, Alabama; and New Orleans, Louisiana, at 10.5 percent 10 percent, and 10 percent, respectively. Residents of Honolulu, Hawaii; Milwaukee, Wisconsin; Portland, Maine; and Washington, D.C.; have the lowest combined sales tax rates. These lowest rates range from 4.5 to 5.75 percent total. Sales tax burdens in jurisdictions levying a general sales tax ranged from a low of $\$ 534$ for a family earning $\$ 25,000$ in Des Moines, Iowa; to a high of $\$ 3,314$ for a family earning $\$ 150,000$ in Memphis, Tennessee.

The District's general sales tax of 5.75 percent is the fourth lowest of all 51 cities, when looking at total state and local sales tax rates combined. Consequently, sales tax burdens in D.C. were lower than the 51-city average at all five income levels.

Auto tax: Table 9, page 43, indicates that residents in all 51 cities in this study pay some type of automobile registration fee or tax -- usually either a flat rate per vehicle or by weight of the vehicle. In addition, personal property taxes on automobiles are levied in eleven of the cities. Auto tax burdens ranged from a low of $\$ 110$ for a family earning $\$ 25,000$ in New Orleans, Louisiana, to a high of $\$ 4,061$ for a family earning $\$ 150,000$ in Providence, Rhode Island.

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

There is no single pattern that characterizes either a high or low tax burden city. Details concerning the various taxes levied and why the tax burdens differ from one jurisdiction to another are presented in this publication. Part I compares selected tax burdens in D.C. with those of the most populous city in each state, through December 31, 2016. Part II contains tax rate tables for D.C. and the 50 states for 12 different types of taxes as of January 1, 2017.

## Acknowledgment

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

This publication contains two reports: (I) Tax Burdens in Washington, D.C. Compared with Those in the Largest City in Each State, 2016 and (II) A Comparison of Selected Tax Rates in the District of Columbia with Those in the 50 States as of January 1, 2017. This information is requested annually by committees of the U.S. Congress and the District of Columbia Council. It is provided pursuant to Public Law 93-407.

Correspondence concerning "Tax Rates and Tax Burdens in the District of Columbia - A Nationwide Comparison" should be addressed to: Lori Metcalf, Fiscal Analyst, Economic Affairs Administration, Office of Revenue Analysis, $11014^{\text {th }}$ Street, SW, Suite W770, Washington, D.C. 20024, telephone (202) 727-7775.

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

Fitzroy Lee,
Chief Economist \&
Deputy Chief Financial Officer
December 2017

## Part I

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

## 2016

## 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 taking into account its unique situation of having taxes that both a city and a state normally levy. Therefore, a primary goal of this study is to add the nominal state and local tax rates in a consistent way in order to provide a comparison of tax burdens across major taxes in the District and the largest city in each state. ${ }^{1}$ 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. ${ }^{2}$

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 would be represented by the tax burdens calculated 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

[^0]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 a given jurisdiction, as there are state and/or local taxes not captured in the calculations here. However, the report makes every effort to consistently capture and measure tax burdens across jurisdictions for the taxes we include, making comparisons of the relative tax burdens presented a key feature of the report.

## Why Do Tax Burdens Differ from One City to Another?

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

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

As a result, a city in which the private sector performs such functions may have a lower tax burden than one in which these functions are performed by the city. In these instances, the fees charged by the private sector represent payments by individuals for public services that are not reflected in tax burdens.
6) Certain taxes that are not discussed in this study may affect state and local tax burdens. Taxes which are levied on individuals, but not covered by the study, include liquor and cigarette taxes and taxes on public utility bills. Rates for some of these taxes are listed at the end of the report.

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

In addition to these factors which may apply to any jurisdiction, D.C.'s particular circumstances further set it apart from other state and local governments. The Government Accountability Office (GAO) has documented in the past that the District has had a structural imbalance, due primarily to two factors. First, the District has a higher service delivery cost than the average state fiscal system - due to the high rates of poverty and crime associated with an urban area, as well as a higher cost of living. ${ }^{3}$ Further, the District's revenue capacity is restricted by the federal presence - D.C. cannot tax non-residents who work in the city under its income tax, and as of Tax Year 2016 property assessments, 42 percent of the land value in the District is tax exempt. ${ }^{4}$ In spite of this restriction, GAO notes that the District has a high revenue capacity. The city's economic and fiscal situation has changed over the past decade; however, these factors remain relevant when considering the District's tax structure and its tax burdens.

[^1]
## CHAPTER

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

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

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

This report compares the major state and local tax burdens of hypothetical households in Washington, D.C., with the burden for the households in the largest city in each of the 50 states for 2016. 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 2016 study are based on data from the U.S. Census Bureau's American Community Survey (ACS) and adjusted using a linear multiplier for the different income levels. This involves dividing the median house value of each metropolitan statistical area (MSA) by the MSA's median household income of mortgage holders, and then multiplying that number by each income level for which home ownership is assumed ( $\$ 50,000, \$ 75,000, \$ 100,000$, and $\$ 150,000$ ).
- Mortgage Interest. The mortgage interest amount (for use as an itemized deduction in the income tax) in the 2016 study is derived by calculating an amortization schedule for the estimated home value for each income level in each city. Home values for the Mortgage Interest Deduction (MID) are calculated in the same manner as in the previous bullet, based on median house values and median incomes for mortgage holders for a house purchased in 2011.
- Renters versus Owners. The hypothetical family at the $\$ 25,000$ income level in this year's study is assumed to rent, rather than own a home. Given the real estate values in most areas of the country, the assumption that families earning $\$ 25,000$ per year rent is likely more realistic than the assumption that they own a home.


## Individual Income Tax

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

| Gross <br> Income: | $\mathbf{\$ 2 5 , 0 0 0}$ | $\underline{\$ 50,000}$ | $\underline{\$ 75,000}$ | $\underline{\$ 100,000}$ | $\underline{\$ 150,000}$ |
| :---: | ---: | ---: | ---: | ---: | :---: |
| Spouse 1: | $\$ 17,500$ | $\$ 35,000$ | $\$ 52,500$ | $\$ 70,000$ | $\$ 105,000$ |
| Spouse 2: | 7,500 | 15,000 |  |  |  |

Total itemized deductions used for calculating state and local income taxes, which were also used in the federal tax computation, are shown below. These amounts are based on actual average deduction amounts at each income level for Washington, D.C. taxpayers who were married filing jointly and itemizing deductions in tax year 2015.

Gross Income Level

| Deduction | $\mathbf{\$ 2 5 , 0 0 0}$ | $\mathbf{\$ 5 0 , 0 0 0}$ | $\mathbf{\$ 7 5 , 0 0 0}$ | $\mathbf{\$ 1 0 0 , 0 0 0}$ | $\mathbf{\$ 1 5 0 , 0 0 0}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Medical (Gross) | 3,993 | 6,101 | 7,982 | 10,276 | 15,225 |
| Nondeductible Medical 1/ | $\frac{-2,500}{1,493}$ | $\frac{-5,000}{1,101}$ | $\frac{-7,500}{482}$ | $\frac{-10,000}{276}$ | $\frac{-15,000}{225}$ |
| Net Medical Deduction | $2 /$ | $2 /$ | $2 /$ | $2 /$ | $2 /$ |
| Deductible Taxes | $3 /$ | $3 /$ | $3 /$ | $3 /$ | $3 / 19$, |
| Mortgage Interest | 2,154 | 2,828 | 3,566 | 3,198 | 2,804 |
| Contribution Deduction 4/ |  |  |  |  |  |
|  |  |  |  |  |  |
| Total Deductions-without taxes |  |  |  |  |  |
| And mortgage interest 5/ | $\mathbf{3 , 6 4 7}$ | $\mathbf{3 , 9 2 9}$ | $\mathbf{4 , 0 4 8}$ | $\mathbf{3 , 4 7 4}$ | $\mathbf{3 , 0 2 8}$ |

1/ Medical deductions allowed when the total is more than 10 percent of federal A.G.I. All or part of medical deduction may be allowed in some states.
2/ The tax deduction varies from city to city and is based on real and personal property taxes computed in the 2016 study and individual income taxes computed in the 2015 study for tax year 2015.
3/ Mortgage interest varies from city to city and is based on 5th year interest paid on a home purchased in 2011 at an interest rate of $4.46 \%$.
4/ Contribution Deduction represents charitable contributions claimed.
5/ Note: the current report does not include "miscellaneous deductions," which have been included in previous reports. 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 2016 federal individual income tax at each income level using the above assumptions. Many states in 2016 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 2016, the federal standard deduction was $\$ 12,600$; and the state level standard deduction varies by state (see Table 14 for more detail on state income tax parameters).

The 2016 deductible real and personal property taxes computed in the current year's 51city study are used for the 2016 property tax deduction. For the 2016 state and local individual income tax deduction, 2015 tax burdens from the previous year's study were used (unless the pre-calculated sales tax deduction in the tax calculator used was higher, which was often the case for the lower two income levels). Each of these figures was used in computing the 2016 federal income tax burden, which is the starting point for the state income tax burden calculations.

## Real Property Tax

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

The property tax rates for each of the 51 cities, presented in Table 4 (page 32) indicate a wide range in these rates. This information is based upon survey data received from various state research agencies and/or local assessors, and is intended to represent the total rate applicable to a homeowner in each city, inclusive of any state, city, and other local property taxes. In addition to tax rate differences, data presented in Table 5 (page 34) indicate that the assumed market value of a residence for purposes of this study varies widely from one city to another at all income levels. For example, based on extrapolations of 2016 American Community Survey (ACS) data, the estimated house value at the $\$ 75,000$ income level ranges from a high of $\$ 419,243$ in Honolulu, Hawaii, to a low of $\$ 132,361$ in Charleston, West Virginia.

The housing values for each income level (except the $\$ 25,000$ income level) shown in Table 5 are derived from 2016 ACS data. A series of assumptions and calculations were made to estimate the median house value in each city, for each income level used in the report. First, data on median house values and median household incomes of mortgage holders were retrieved from the Census Bureau's American Community Survey 2016. Data were collected for the Metropolitan Statistical Area (MSA) within which the largest city in each state falls. ${ }^{5}$

Since the focus of this study is identifying the median house value at the $\$ 50,000$, $\$ 75,000, \$ 100,000$ and $\$ 150,000$ income levels, a linear multiplier was calculated based on the median house value in the MSA divided by the median household income of mortgage holders in that MSA. This multiplier was used to scale the house values to the various income levels in the report by multiplying them by each income level to determine the hypothetical house value at that level. This assumption serves as an input for both the property tax burden calculations and the mortgage interest deduction for the income tax burden. This method, which has been used in each of the Tax Burden Studies since 2012, assumes that house values increase in a linear fashion with income, which is the case up to near $\$ 100,000$ of annual income (all median household incomes in the 51 cities are below this level). A modification made in the 2014 Study and all subsequent reports is the use of median household income of mortgage holders, rather than the median income of all households, within an MSA to calculate the linear multiplier. This change results in a lower multiplier, in general, which moderates the increase in house values as incomes rise. This change generally leads to lower property tax burdens overall than in the 2012 and 2013 Studies. However, any analysis should focus on the relative rankings within a given year.

[^2]2016 Tax Rates and Tax Burdens in the District of Columbia: A Nationwide Comparison

The use of the above methodology is an attempt to reflect the different values of housing in different parts of the country and at different income levels. Data from the 2016 ACS were used for estimating house values because they are the latest data comparable for all the jurisdictions in this study. It is important to note that these are hypothetical values based on income levels and do not represent average values for a particular jurisdiction.

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

## Property Tax Equivalent of Rent

As previously noted, the study assumes that the family with an annual income of $\$ 25,000$ does not own a home (and as a result does not pay property tax directly), but instead rents. Because renters indirectly pay property taxes through their rent, ${ }^{6}$ this study computes a percentage of said rent constituting property taxes. This concept is called the property tax equivalent of rent (PTER) and is an important tool in comparing the incidence of the property tax on renters versus homeowners. In a 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. ${ }^{7}$ Their report presents a table illustrating this information for the largest city in each state; New York City has the largest difference in effective rates between apartment buildings and homesteads. For example, the effective tax rate on a $\$ 600,000$ rental building in New York City is five times higher than the rate on a median valued home, providing the most drastic example of a tax system that subsidizes homeowners at the expense of business and renters. ${ }^{8}$ The lowest ratio is in Chicago, Illinois, where apartments are given preferential treatment over homesteads. ${ }^{9}$

To relieve this implicit tax burden on renters, some states have property tax circuit breaker programs that offset renters' tax burdens in some way (often through the income tax since they do not pay property taxes directly). These programs must make assumptions of the PTER to calculate the amount that renters are paying in property taxes, and the amount of relief

[^3]they will receive through the circuit breaker program. Of the states that offer circuit breaker programs, the PTER assumptions generally range from 6 to 25 percent (NM has a low of 6 percent while MA uses a 25 percent assumption); on average, states assume that 18 percent of rent goes toward paying property taxes. ${ }^{10}$ D.C.'s circuit breaker program assumes 20 percent.

Previous Tax Burden Studies have used a 20 percent assumption 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, when rental buildings in more competitive markets may not be able to pass on all taxes paid, given that prices are set by the local market, and as the Lincoln report illustrates, the specific PTER level in a city is primarily based on the tax system in each jurisdiction. It is not clear whether states with higher PTER percentages in their circuit breakers have data backing up the percentage of PTER in their state, or if these states are using the circuit breaker to provide a subsidy to lower income renters hit hardest by higher rental markets. ${ }^{11}$ The only published evidence found of this calculation is from a January 2016 report in which the Minnesota Department of Revenue (MN DOR) used several techniques based on both ACS and internal tax data to assess the percentage of rent that constitutes property taxes throughout Minnesota. MN DOR found the statewide PTER hovered around 15 percent each year from 2009 to 2014, though in Minneapolis it was often up to 16.9 percent. ${ }^{12}$

There is a clear need for continued study on this issue; in the meantime, we have considered the available information and decided to use a level of 15 percent for PTER in the current Study to attempt to be more realistic in the property tax burden on renters, particularly in cities with more expensive rental markets. Future refinements may be made as new information and data become available. The PTER in each city was calculated as 15 percent of median rents in each MSA. These data were obtained from the U.S. Department of Housing and Urban Development. ${ }^{13}$ This flat assumption means that any variation in the property tax burden for renters (families earning $\$ 25,000$ ) is driven entirely by the housing market in each jurisdiction, and not the tax system in place.

Even with the lower assumption of PTER in the current study, this number still implies that the lowest income families are spending 62 percent of their incomes on rent. This figure is quite high for some jurisdictions, however, viewed in the context of some D.C. metro area statistics it may not be that unrealistic. In 2016, over 30 percent of all renters in the Washington, D.C. MSA spent more than 40 percent of their income in rent. ${ }^{14}$ Further, a 2016 D.C. Fiscal Policy Institute analysis of 2014 Census data found that 42 percent of extremely low-income renters (between $\$ 16,100-\$ 32,100 /$ year for a family of four) in D.C. paid 80 percent of their income or more in rent, while over half of renters at this income level paid more than half of their

[^4]income in rent. ${ }^{15}$

## Sales and Use Tax

The sales tax burdens included in this study are based on information from the 2016 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. For example, the CES data provide average annual expenditures on items such as food at home, food away from home, apparel and services, and transportation. The CES expenditure data and the specific state and local tax rates on each type of item are used to determine the sales tax that these expenditures would generate. The same CES categories have been included since the 2013 Study. The state and local general sales tax rates in each city are reported in Table 7, page 39.

## Automobile Taxes

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

[^5]
## Chapter II

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

The major state and local tax burdens by tax type for the five different income levels used in this study are presented in Tables 1a-e (pages 14-22). As reflected in Table 1, tax burdens across the 51 cities vary widely at all income levels. At the $\$ 25,000$ income level, the $\$ 4,367$ combined burden of all four taxes added together for Philadelphia, Pennsylvania, is significantly greater than the negative tax burden of $\$ 1,418$ that a similar taxpayer in Burlington, Vermont, would receive as a net refund. At the $\$ 150,000$ income level, the Bridgeport, Connecticut, burden of $\$ 30,241$ is more than five times the Anchorage, Alaska, burden of $\$ 5,751$. Differences in state and local tax structures, as well as housing markets and costs-of-living, contribute to the variation at each income level.

The highest combined tax burdens at the $\$ 25,000$ income level occur in Philadelphia, Pennsylvania; Honolulu, Hawaii; Birmingham, Alabama; Seattle, Washington; and Chicago, Illinois. Philadelphia's local wage tax adds to the state income tax to make it by far the highest income tax burden for a family at this income level. The high property tax burdens (which are assumed to be a portion of rent) due to expensive real estate markets in Honolulu put it at the top of this list, while Birmingham's high sales tax burden contributes to its ranking.

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

The highest combined tax burdens of all four taxes added together at the $\$ 150,000$ income level occur in Bridgeport, Connecticut; Newark, New Jersey; Detroit, Michigan; Baltimore, Maryland; and New York, New York. High property values drive the first four cities, while New York's progressive income tax puts it in the top five. The lowest combined tax burdens at this income level are Anchorage, Alaska; Cheyenne, Wyoming; Fargo, North Dakota; Sioux Falls, South Dakota; and Seattle, Washington. These lower tax burdens are primarily a result of the lack of an income tax in these jurisdictions. Map 1 (page 23) illustrates the combined burden of all four taxes for a family earning $\$ 75,000 /$ year. See the Appendix for maps showing the combined burdens by state for a family at each of the other income levels.

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

## Chart 1a: 2016 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$25,000/Year



Source: ORA analysis. Cities are ranked by total estimated tax burden as a percentage of income (highest at the top). Negative bars represent tax refunds due to state EITC (or other refundable credits). See Table 1a on the following page for tax burdens as a percent of income.

Table 1a: 2016 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$25,000/Year

| RANK | CITY | ST | TAXES |  |  |  | BURDEN |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | INCOME 2/ | PROPERTY 3/ | SALES 4/ | AUTO | AMOUNT | PERCENT |
| 1 | Philadelphia | PA | 1,743 | 1,494 | 837 | 293 | 4,367 | 17.5\% |
| 2 | Honolulu | HI | 473 | 2,401 | 781 | 315 | 3,970 | 15.9\% |
| 3 | Birmingham | AL | 958 | 1,103 | 1,478 | 132 | 3,672 | 14.7\% |
| 4 | Seattle | WA |  | 1,888 | 1,189 | 428 | 3,505 | 14.0\% |
| 5 | Chicago | IL | 376 | 1,548 | 1,108 | 443 | 3,475 | 13.9\% |
| 6 | Indianapolis | IN | 1,260 | 994 | 771 | 274 | 3,298 | 13.2\% |
| 7 | Louisville | KY | 1,315 | 992 | 747 | 151 | 3,205 | 12.8\% |
| 8 | Kansas City | MO | 410 | 1,012 | 1,286 | 442 | 3,150 | 12.6\% |
| 9 | Los Angeles | CA | 0 | 1,705 | 1,076 | 338 | 3,119 | 12.5\% |
| 10 | Little Rock | AR | 385 | 947 | 1,333 | 259 | 2,924 | 11.7\% |
| 11 | Detroit | MI | 963 | 958 | 727 | 233 | 2,881 | 11.5\% |
| 12 | Charleston | WV | 792 | 895 | 804 | 376 | 2,867 | 11.5\% |
| 13 | Memphis | TN |  | 1,084 | 1,551 | 224 | 2,859 | 11.4\% |
| 14 | New Orleans | LA | 194 | 1,204 | 1,318 | 110 | 2,826 | 11.3\% |
| 15 | Atlanta | GA | 439 | 1,375 | 765 | 178 | 2,756 | 11.0\% |
| 16 | Charlotte | NC | 364 | 1,175 | 825 | 381 | 2,746 | 11.0\% |
| 17 | Virginia Beach | VA | 0 | 1,705 | 643 | 388 | 2,736 | 10.9\% |
| 18 | Boston | MA | (138) | 1,901 | 728 | 243 | 2,735 | 10.9\% |
| 19 | Jackson | MS | 207 | 952 | 1,374 | 163 | 2,695 | 10.8\% |
| 20 | New York | NY | $(1,005)$ | 2,327 | 1,085 | 255 | 2,662 | 10.6\% |
| 21 | Columbus | OH | 625 | 958 | 871 | 195 | 2,648 | 10.6\% |
| 22 | Portland | OR | 732 | 1,595 | - | 237 | 2,563 | 10.3\% |
| 23 | Phoenix | AZ | 86 | 1,073 | 1,199 | 183 | 2,540 | 10.2\% |
| 24 | Las Vegas | NV |  | 1,138 | 989 | 371 | 2,498 | 10.0\% |
| 25 | Washington | DC | (813) | 2,353 | 684 | 190 | 2,413 | 9.7\% |
| 26 | Houston | TX |  | 1,231 | 936 | 215 | 2,382 | 9.5\% |
| 27 | Denver | CO | (248) | 1,395 | 963 | 261 | 2,371 | 9.5\% |
| 28 | Salt Lake City | UT | 0 | 1,085 | 975 | 304 | 2,364 | 9.5\% |
| 29 | Sioux Falls | SD |  | 837 | 1,269 | 222 | 2,328 | 9.3\% |
| 30 | Providence | RI | (396) | 1,179 | 862 | 666 | 2,310 | 9.2\% |
| 31 | Oklahoma City | OK | (120) | 976 | 1,203 | 181 | 2,239 | 9.0\% |
| 32 | Columbia | SC | 0 | 974 | 1,100 | 138 | 2,211 | 8.8\% |
| 33 | Portland | ME | (318) | 1,372 | 771 | 359 | 2,183 | 8.7\% |
| 34 | Jacksonville | FL |  | 1,109 | 872 | 177 | 2,158 | 8.6\% |
| 35 | Baltimore | MD | (371) | 1,532 | 586 | 235 | 1,982 | 7.9\% |
| 36 | Wilmington | DE | 313 | 1,494 |  | 160 | 1,966 | 7.9\% |
| 37 | Wichita | KS | (538) | 824 | 1,292 | 353 | 1,932 | 7.7\% |
| 38 | Milwaukee | WI | (127) | 1,073 | 713 | 260 | 1,918 | 7.7\% |
| 39 | Manchester | NH |  | 1,395 | 256 | 266 | 1,917 | 7.7\% |
| 40 | Newark | NJ | (569) | 1,494 | 735 | 232 | 1,892 | 7.6\% |
| 41 | Des Moines | IA | 17 | 1,039 | 534 | 265 | 1,854 | 7.4\% |
| 42 | Bridgeport | CT | (864) | 1,384 | 797 | 492 | 1,808 | 7.2\% |
| 43 | Anchorage | AK | - | 1,588 |  | 205 | 1,792 | 7.2\% |
| 44 | Omaha | NE | (317) | 929 | 928 | 252 | 1,791 | 7.2\% |
| 45 | Cheyenne | WY | - | 938 | 592 | 257 | 1,787 | 7.1\% |
| 46 | Fargo | ND | 0 | 880 | 688 | 188 | 1,756 | 7.0\% |
| 47 | Boise | ID | (286) | 877 | 924 | 222 | 1,736 | 6.9\% |
| 48 | Billings | MT | 380 | 922 | 17 | 395 | 1,713 | 6.9\% |
| 49 | Albuquerque | NM | (317) | 1,064 | 750 | 132 | 1,629 | 6.5\% |
| 50 | Minneapolis | MN | $(1,061)$ | 1,181 | 887 | 251 | 1,257 | 5.0\% |
| 51 | Burlington | VT | $(4,004)$ | 1,562 | 796 | 228 | $(1,418)$ | -5.7\% |
| AVERAGE |  | 1/ | 13 | 1,277 | 909 | 269 | 2,411 | 9.6\% |
| MEDIAN |  |  | 0 | 1,138 | 866 | 251 | 2,382 | 9.5\% |

1/ Based on jurisdictions levying tax.
2/ Amounts in parentheses represent refundable State Earned Income Tax Credits. VT's negative burden also includes a renter's rebate through the income tax. States with dashes do not have an income tax.
3/ Based on 15 percent of estimated annual rent.
4/ States with dashes do not have a sales tax. MT and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

## Chart 1b: 2016 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$50,000/Year



[^6]Table 1b: 2016 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$50,000/Year

| RANK | CITY | ST | TAXES |  |  |  | BURDEN |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | INCOME 2/ | PROPERTY | SALES 3/ | AUTO | AMOUNT | PERCENT |
| 1 | Bridgeport | CT | 649 | 6,113 | 923 | 541 | 8,226 | 16.5\% |
| 2 | Newark | NJ | 1,147 | 5,432 | 854 | 282 | 7,715 | 15.4\% |
| 3 | Detroit | MI | 2,719 | 3,350 | 836 | 264 | 7,169 | 14.3\% |
| 4 | Baltimore | MD | 2,168 | 3,333 | 657 | 269 | 6,427 | 12.9\% |
| 5 | Philadelphia | PA | 3,485 | 1,371 | 967 | 344 | 6,168 | 12.3\% |
| 6 | Louisville | KY | 3,296 | 1,227 | 858 | 177 | 5,557 | 11.1\% |
| 7 | Columbus | OH | 2,253 | 2,017 | 1,001 | 223 | 5,493 | 11.0\% |
| 8 | Kansas City | MO | 2,083 | 1,495 | 1,425 | 441 | 5,444 | 10.9\% |
| 9 | Des Moines | IA | 1,906 | 2,641 | 590 | 300 | 5,437 | 10.9\% |
| 10 | Chicago | IIL | 1,533 | 1,936 | 1,293 | 494 | 5,257 | 10.5\% |
| 11 | Milwaukee | WI | 1,472 | 2,630 | 815 | 292 | 5,209 | 10.4\% |
| 12 | Portland | OR | 2,607 | 2,221 | - | 272 | 5,100 | 10.2\% |
| 13 | Jackson | MS | 1,200 | 1,984 | 1,509 | 365 | 5,059 | 10.1\% |
| 14 | Burlington | VT | 896 | 2,933 | 923 | 259 | 5,011 | 10.0\% |
| 15 | Boston | MA | 1,867 | 1,871 | 838 | 372 | 4,948 | 9.9\% |
| 16 | Providence | RI | 815 | 2,321 | 993 | 725 | 4,854 | 9.7\% |
| 17 | Portland | ME | 850 | 2,641 | 881 | 428 | 4,801 | 9.6\% |
| 18 | Birmingham | AL | 2,248 | 720 | 1,596 | 153 | 4,717 | 9.4\% |
| 19 | Los Angeles | CA | 0 | 3,026 | 1,244 | 394 | 4,664 | 9.3\% |
| 20 | New Orleans | LA | 1,225 | 1,771 | 1,504 | 130 | 4,630 | 9.3\% |
| 21 | Virginia Beach | VA | 2,112 | 1,401 | 703 | 396 | 4,612 | 9.2\% |
| 22 | Little Rock | AR | 1,686 | 1,067 | 1,502 | 287 | 4,541 | 9.1\% |
| 23 | Charlotte | NC | 1,826 | 1,343 | 931 | 408 | 4,507 | 9.0\% |
| 24 | Atlanta | GA | 1,939 | 1,510 | 846 | 209 | 4,504 | 9.0\% |
| 25 | Phoenix | AZ | 804 | 1,987 | 1,374 | 229 | 4,394 | 8.8\% |
| 26 | Indianapolis | IN | 2,323 | 851 | 859 | 336 | 4,368 | 8.7\% |
| 27 | Salt Lake City | UT | 1,486 | 1,225 | 1,094 | 374 | 4,180 | 8.4\% |
| 28 | New York | NY | 830 | 1,772 | 1,247 | 293 | 4,142 | 8.3\% |
| 29 | Wichita | KS | 1,073 | 1,191 | 1,420 | 387 | 4,071 | 8.1\% |
| 30 | Columbia | SC | 1,272 | 1,420 | 1,219 | 155 | 4,066 | 8.1\% |
| 31 | Omaha | NE | 866 | 1,818 | 1,064 | 306 | 4,054 | 8.1\% |
| 32 | Charleston | WV | 1,947 | 741 | 916 | 416 | 4,021 | 8.0\% |
| 33 | Wilmington | DE | 2,002 | 1,750 | - | 183 | 3,935 | 7.9\% |
| 34 | Oklahoma City | OK | 1,196 | 1,202 | 1,278 | 198 | 3,874 | 7.7\% |
| 35 | Memphis | TN | - | 1,919 | 1,707 | 245 | 3,872 | 7.7\% |
| 36 | Albuquerque | NM | 756 | 2,110 | 828 | 151 | 3,846 | 7.7\% |
| 37 | Minneapolis | MN | 1,287 | 1,124 | 1,013 | 310 | 3,734 | 7.5\% |
| 38 | Washington | DC | 1,980 | 736 | 772 | 213 | 3,701 | 7.4\% |
| 39 | Denver | CO | 1,076 | 1,179 | 1,104 | 307 | 3,666 | 7.3\% |
| 40 | Billings | MT | 1,674 | 1,435 | 21 | 435 | 3,565 | 7.1\% |
| 41 | Boise | ID | 1,079 | 1,173 | 1,024 | 267 | 3,543 | 7.1\% |
| 42 | Honolulu | HI | 1,586 | 698 | 855 | 359 | 3,498 | 7.0\% |
| 43 | Manchester | NH | - | 2,736 | 304 | 357 | 3,397 | 6.8\% |
| 44 | Las Vegas | NV | - | 1,778 | 1,136 | 438 | 3,353 | 6.7\% |
| 45 | Seattle | WA | - | 1,482 | 1,369 | 479 | 3,330 | 6.7\% |
| 46 | Sioux Falls | SD | - | 1,529 | 1,392 | 252 | 3,173 | 6.3\% |
| 47 | Houston | TX | - | 1,856 | 1,076 | 235 | 3,167 | 6.3\% |
| 48 | Jacksonville | FL | - | 1,520 | 1,004 | 208 | 2,733 | 5.5\% |
| 49 | Fargo | ND | 278 | 1,300 | 765 | 211 | 2,554 | 5.1\% |
| 50 | Cheyenne | WY | - | 1,195 | 659 | 350 | 2,204 | 4.4\% |
| 51 | Anchorage | AK | - | 1,668 | - | 234 | 1,902 | 3.8\% |
| AVERAGE 1/MEDIAN |  |  | 1,559 | 1,877 | 1,025 | 313 | 4,439 | 8.9\% |
|  |  |  | 1,510 | 1,668 | 997 | 293 | 4,368 | 8.7\% |

1/ Based on jurisdictions levying tax.
2/ States with dashes do not have an income tax.
3/ States with dashes do not have a sales tax. MT and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

## Chart 1c: 2016 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$75,000/Year



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

Table 1c: 2016 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$75,000/Year

| RANK | CITY | ST | TAXES |  |  |  | BURDEN |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | INCOME 2/ | PROPERTY | SALES 3/ | AUTO | AMOUNT | PERCENT |
| 1 | Bridgeport | CT | 2,844 | 9,170 | 1,173 | 1,216 | 14,403 | 19.2\% |
| 2 | Newark | NJ | 1,883 | 8,148 | 1,076 | 517 | 11,624 | 15.5\% |
| 3 | Detroit | MI | 4,478 | 5,025 | 1,025 | 527 | 11,055 | 14.7\% |
| 4 | Baltimore | MD | 3,709 | 4,999 | 851 | 510 | 10,069 | 13.4\% |
| 5 | Philadelphia | PA | 5,228 | 2,266 | 1,189 | 607 | 9,290 | 12.4\% |
| 6 | Milwaukee | WI | 3,201 | 4,207 | 1,013 | 533 | 8,954 | 11.9\% |
| 7 | New York | NY | 3,918 | 2,838 | 1,572 | 542 | 8,871 | 11.8\% |
| 8 | Des Moines | IA | 3,412 | 4,026 | 739 | 634 | 8,811 | 11.7\% |
| 9 | Kansas City | MO | 3,607 | 2,242 | 1,759 | 1,091 | 8,700 | 11.6\% |
| 10 | Columbus | OH | 3,745 | 3,026 | 1,248 | 401 | 8,420 | 11.2\% |
| 11 | Providence | RI | 1,752 | 3,481 | 1,233 | 1,858 | 8,323 | 11.1\% |
| 12 | Louisville | KY | 5,092 | 1,840 | 1,070 | 313 | 8,314 | 11.1\% |
| 13 | Portland | ME | 2,300 | 4,160 | 1,092 | 758 | 8,310 | 11.1\% |
| 14 | Portland | OR | 4,318 | 3,331 | - | 488 | 8,137 | 10.8\% |
| 15 | Indianapolis | IN | 4,766 | 1,658 | 1,099 | 605 | 8,128 | 10.8\% |
| 16 | Chicago | IL | 2,410 | 3,154 | 1,599 | 959 | 8,121 | 10.8\% |
| 17 | Jackson | MS | 2,239 | 3,057 | 1,860 | 666 | 7,822 | 10.4\% |
| 18 | Burlington | VT | 1,599 | 4,486 | 1,167 | 469 | 7,722 | 10.3\% |
| 19 | Boston | MA | 3,142 | 2,818 | 1,030 | 644 | 7,634 | 10.2\% |
| 20 | Los Angeles | CA | 590 | 4,579 | 1,530 | 728 | 7,427 | 9.9\% |
| 21 | Charlotte | NC | 3,264 | 2,014 | 1,172 | 862 | 7,312 | 9.7\% |
| 22 | Little Rock | AR | 2,958 | 1,775 | 1,852 | 660 | 7,246 | 9.7\% |
| 23 | Columbia | SC | 3,022 | 2,130 | 1,501 | 292 | 6,945 | 9.3\% |
| 24 | Virginia Beach | VA | 2,993 | 2,101 | 864 | 932 | 6,890 | 9.2\% |
| 25 | Omaha | NE | 2,177 | 2,728 | 1,335 | 606 | 6,846 | 9.1\% |
| 26 | New Orleans | LA | 1,965 | 2,713 | 1,888 | 236 | 6,802 | 9.1\% |
| 27 | Birmingham | AL | 3,408 | 1,102 | 1,968 | 281 | 6,758 | 9.0\% |
| 28 | Salt Lake City | UT | 2,900 | 1,837 | 1,353 | 631 | 6,721 | 9.0\% |
| 29 | Charleston | WV | 3,492 | 1,112 | 1,143 | 906 | 6,653 | 8.9\% |
| 30 | Atlanta | GA | 2,677 | 2,531 | 1,075 | 368 | 6,652 | 8.9\% |
| 31 | Wichita | KS | 2,221 | 1,803 | 1,735 | 885 | 6,643 | 8.9\% |
| 32 | Boise | ID | 2,836 | 2,013 | 1,258 | 470 | 6,576 | 8.8\% |
| 33 | Minneapolis | MN | 2,867 | 1,840 | 1,264 | 570 | 6,541 | 8.7\% |
| 34 | Phoenix | AZ | 1,406 | 2,982 | 1,724 | 428 | 6,539 | 8.7\% |
| 35 | Albuquerque | NM | 1,912 | 3,181 | 1,051 | 289 | 6,432 | 8.6\% |
| 36 | Oklahoma City | OK | 2,616 | 1,809 | 1,569 | 362 | 6,356 | 8.5\% |
| 37 | Wilmington | DE | 3,400 | 2,625 | - | 329 | 6,353 | 8.5\% |
| 38 | Washington | DC | 3,164 | 1,409 | 1,002 | 475 | 6,050 | 8.1\% |
| 39 | Billings | MT | 3,082 | 2,153 | 31 | 685 | 5,951 | 7.9\% |
| 40 | Denver | CO | 2,206 | 1,768 | 1,383 | 559 | 5,917 | 7.9\% |
| 41 | Honolulu | HI | 2,884 | 1,187 | 1,043 | 690 | 5,804 | 7.7\% |
| 42 | Memphis | TN | - | 2,879 | 2,100 | 457 | 5,436 | 7.2\% |
| 43 | Manchester | NH | - | 4,104 | 411 | 649 | 5,164 | 6.9\% |
| 44 | Las Vegas | NV | - | 2,668 | 1,424 | 837 | 4,929 | 6.6\% |
| 45 | Seattle | WA | - | 2,223 | 1,685 | 922 | 4,830 | 6.4\% |
| 46 | Houston | TX | - | 2,874 | 1,352 | 438 | 4,665 | 6.2\% |
| 47 | Sioux Falls | SD | - | 2,294 | 1,709 | 492 | 4,495 | 6.0\% |
| 48 | Jacksonville | FL | - | 2,660 | 1,258 | 387 | 4,305 | 5.7\% |
| 49 | Fargo | ND | 551 | 1,949 | 966 | 425 | 3,892 | 5.2\% |
| 50 | Cheyenne | WY | - | 1,792 | 846 | 654 | 3,292 | 4.4\% |
| 51 | Anchorage | AK | - | 2,509 | - | 393 | 2,902 | 3.9\% |
| AVERAGE |  | 1/ | 2,910 | 2,888 | 1,277 | 612 | 7,099 | 9.5\% |
| MEDIAN |  |  | 2,929 | 2,625 | 1,240 | 559 | 6,802 | 9.1\% |

1/ Based on jurisdictions levying tax.
2/ States with dashes do not have an income tax.
3/ States with dashes do not have a sales tax. MT and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

## Chart 1d: 2016 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$100,000/Year



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

Table 1d: 2016 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$100,000/Year

| RANK | CITY | ST | TAXES |  |  |  | BURDEN |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | INCOME 2/ | PROPERTY | SALES 3/ | AUTO | AMOUNT | PERCENT |
| 1 | Bridgeport | CT | 4,397 | 12,227 | 1,449 | 1,428 | 19,500 | 19.5\% |
| 2 | Newark | NJ | 3,006 | 10,865 | 1,336 | 679 | 15,886 | 15.9\% |
| 3 | Detroit | MI | 6,140 | 6,700 | 1,251 | 666 | 14,758 | 14.8\% |
| 4 | Baltimore | MD | 5,248 | 6,665 | 1,061 | 659 | 13,634 | 13.6\% |
| 5 | New York | NY | 5,955 | 3,904 | 1,948 | 694 | 12,501 | 12.5\% |
| 6 | Philadelphia | PA | 6,970 | 3,161 | 1,464 | 797 | 12,393 | 12.4\% |
| 7 | Milwaukee | WI | 4,238 | 5,784 | 1,241 | 654 | 11,917 | 11.9\% |
| 8 | Portland | ME | 3,964 | 5,679 | 1,336 | 935 | 11,915 | 11.9\% |
| 9 | Des Moines | IA | 4,179 | 5,412 | 909 | 782 | 11,282 | 11.3\% |
| 10 | Portland | OR | 6,206 | 4,442 | - | 618 | 11,265 | 11.3\% |
| 11 | Columbus | OH | 5,173 | 4,035 | 1,533 | 504 | 11,244 | 11.2\% |
| 12 | Kansas City | MO | 4,787 | 2,990 | 2,135 | 1,240 | 11,153 | 11.2\% |
| 13 | Louisville | KY | 6,973 | 2,453 | 1,314 | 409 | 11,149 | 11.1\% |
| 14 | Providence | RI | 2,798 | 4,641 | 1,519 | 2,147 | 11,105 | 11.1\% |
| 15 | Indianapolis | IN | 6,417 | 2,466 | 1,365 | 785 | 11,033 | 11.0\% |
| 16 | Chicago | IL | 3,286 | 4,372 | 1,966 | 1,147 | 10,771 | 10.8\% |
| 17 | Burlington | VT | 2,428 | 6,040 | 1,453 | 582 | 10,503 | 10.5\% |
| 18 | Los Angeles | CA | 1,568 | 6,133 | 1,863 | 898 | 10,462 | 10.5\% |
| 19 | Jackson | MS | 3,187 | 4,130 | 2,240 | 817 | 10,374 | 10.4\% |
| 20 | Boston | MA | 4,417 | 3,764 | 1,262 | 801 | 10,244 | 10.2\% |
| 21 | Charlotte | NC | 4,701 | 2,686 | 1,441 | 1,020 | 9,847 | 9.8\% |
| 22 | Omaha | NE | 3,721 | 3,637 | 1,642 | 828 | 9,828 | 9.8\% |
| 23 | Boise | ID | 4,423 | 3,186 | 1,517 | 591 | 9,718 | 9.7\% |
| 24 | Columbia | SC | 4,373 | 2,840 | 1,815 | 354 | 9,382 | 9.4\% |
| 25 | Atlanta | GA | 3,925 | 3,553 | 1,330 | 485 | 9,293 | 9.3\% |
| 26 | Little Rock | AR | 3,660 | 2,484 | 2,252 | 784 | 9,179 | 9.2\% |
| 27 | Minneapolis | MN | 4,289 | 2,555 | 1,556 | 719 | 9,119 | 9.1\% |
| 28 | Salt Lake City | UT | 4,270 | 2,450 | 1,645 | 742 | 9,107 | 9.1\% |
| 29 | Charleston | WV | 5,117 | 1,482 | 1,402 | 1,074 | 9,076 | 9.1\% |
| 30 | New Orleans | LA | 2,685 | 3,656 | 2,331 | 312 | 8,984 | 9.0\% |
| 31 | Albuquerque | NM | 2,961 | 4,252 | 1,298 | 374 | 8,885 | 8.9\% |
| 32 | Virginia Beach | VA | 3,971 | 2,801 | 1,044 | 1,063 | 8,880 | 8.9\% |
| 33 | Wichita | KS | 3,330 | 2,414 | 2,082 | 1,043 | 8,868 | 8.9\% |
| 34 | Birmingham | AL | 4,638 | 1,483 | 2,348 | 357 | 8,827 | 8.8\% |
| 35 | Phoenix | AZ | 2,130 | 3,976 | 2,095 | 529 | 8,730 | 8.7\% |
| 36 | Oklahoma City | OK | 3,754 | 2,417 | 1,879 | 425 | 8,474 | 8.5\% |
| 37 | Wilmington | DE | 4,433 | 3,500 | - | 417 | 8,350 | 8.4\% |
| 38 | Billings | MT | 4,574 | 2,870 | 42 | 804 | 8,290 | 8.3\% |
| 39 | Honolulu | HI | 4,358 | 1,676 | 1,250 | 870 | 8,154 | 8.2\% |
| 40 | Washington | DC | 4,222 | 2,082 | 1,243 | 561 | 8,108 | 8.1\% |
| 41 | Denver | CO | 3,169 | 2,358 | 1,705 | 692 | 7,924 | 7.9\% |
| 42 | Memphis | TN | - | 3,839 | 2,538 | 536 | 6,913 | 6.9\% |
| 43 | Manchester | NH | - | 5,472 | 511 | 795 | 6,779 | 6.8\% |
| 44 | Las Vegas | NV | - | 3,557 | 1,754 | 1,020 | 6,331 | 6.3\% |
| 45 | Seattle | WA | - | 2,964 | 2,063 | 1,138 | 6,165 | 6.2\% |
| 46 | Houston | TX |  | 3,893 | 1,667 | 512 | 6,072 | 6.1\% |
| 47 | Jacksonville | FL | - | 3,799 | 1,549 | 501 | 5,849 | 5.8\% |
| 48 | Sioux Falls | SD | - | 3,058 | 2,027 | 603 | 5,689 | 5.7\% |
| 49 | Fargo | ND | 887 | 2,599 | 1,191 | 528 | 5,205 | 5.2\% |
| 50 | Cheyenne | WY | - | 2,389 | 1,053 | 786 | 4,228 | 4.2\% |
| 51 | Anchorage | AK | - | 3,436 | - | 426 | 3,862 | 3.9\% |
| AVERAGE |  | 1/ | 4,165 | 3,906 | 1,561 | 748 | 9,553 | 9.6\% |
| MEDIAN |  |  | 4,254 | 3,553 | 1,518 | 694 | 9,179 | 9.2\% |

1/ Based on jurisdictions levying tax.
2/ States with dashes do not have an income tax.
3/ States with dashes do not have a sales tax. MT and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

## Chart 1e: 2016 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$150,000/Year



[^7]Table 1e: 2016 Estimated Burdens of Major Taxes for a Hypothetical Family Earning \$150,000/Year

| RANK | CITY | ST | TAXES |  |  |  | BURDEN |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | INCOME 2/ | PROPERTY | SALES 3/ | AUTO | AMOUNT | PERCENT |
| 1 | Bridgeport | CT | 7,749 | 18,340 | 1,910 | 2,241 | 30,241 | 20.2\% |
| 2 | Newark | NJ | 6,267 | 16,297 | 1,706 | 658 | 24,928 | 16.6\% |
| 3 | Detroit | MI | 9,465 | 10,051 | 1,596 | 841 | 21,953 | 14.6\% |
| 4 | Baltimore | MD | 8,492 | 9,998 | 1,500 | 641 | 20,631 | 13.8\% |
| 5 | New York | NY | 10,915 | 6,037 | 2,531 | 670 | 20,153 | 13.4\% |
| 6 | Portland | ME | 7,259 | 8,717 | 1,734 | 1,824 | 19,534 | 13.0\% |
| 7 | Milwaukee | WI | 7,182 | 8,937 | 1,612 | 636 | 18,367 | 12.2\% |
| 8 | Des Moines | IA | 7,677 | 8,183 | 1,256 | 1,086 | 18,202 | 12.1\% |
| 9 | Providence | RI | 5,172 | 6,962 | 1,965 | 4,061 | 18,160 | 12.1\% |
| 10 | Philadelphia | PA | 10,456 | 4,952 | 1,823 | 768 | 17,999 | 12.0\% |
| 11 | Portland | OR | 10,314 | 6,662 |  | 598 | 17,575 | 11.7\% |
| 12 | Kansas City | MO | 7,799 | 4,485 | 2,804 | 2,085 | 17,172 | 11.4\% |
| 13 | Columbus | OH | 8,543 | 6,052 | 1,997 | 488 | 17,081 | 11.4\% |
| 14 | Los Angeles | CA | 4,344 | 9,239 | 2,365 | 1,102 | 17,050 | 11.4\% |
| 15 | Indianapolis | IN | 9,800 | 4,081 | 1,926 | 1,127 | 16,934 | 11.3\% |
| 16 | Burlington | VT | 5,191 | 9,147 | 1,885 | 565 | 16,788 | 11.2\% |
| 17 | Louisville | KY | 10,763 | 3,680 | 1,712 | 394 | 16,549 | 11.0\% |
| 18 | Jackson | MS | 5,334 | 6,275 | 2,935 | 1,643 | 16,187 | 10.8\% |
| 19 | Boise | ID | 7,878 | 5,532 | 1,969 | 573 | 15,952 | 10.6\% |
| 20 | Boston | MA | 6,967 | 5,657 | 1,624 | 1,619 | 15,866 | 10.6\% |
| 21 | Omaha | NE | 6,734 | 5,455 | 2,162 | 1,473 | 15,824 | 10.5\% |
| 22 | Chicago | IL | 5,040 | 6,808 | 2,538 | 1,119 | 15,505 | 10.3\% |
| 23 | Little Rock | AR | 6,861 | 3,901 | 2,904 | 1,218 | 14,883 | 9.9\% |
| 24 | Charlotte | NC | 7,387 | 4,029 | 1,939 | 1,373 | 14,727 | 9.8\% |
| 25 | Columbia | SC | 7,484 | 4,260 | 2,385 | 345 | 14,474 | 9.6\% |
| 26 | Minneapolis | MN | 7,260 | 3,986 | 2,045 | 1,101 | 14,393 | 9.6\% |
| 27 | Atlanta | GA | 6,402 | 5,597 | 1,878 | 467 | 14,344 | 9.6\% |
| 28 | Charleston | WV | 8,365 | 2,224 | 1,850 | 1,594 | 14,032 | 9.4\% |
| 29 | Virginia Beach | VA | 6,396 | 4,202 | 1,405 | 1,676 | 13,679 | 9.1\% |
| 30 | Albuquerque | NM | 5,042 | 6,394 | 1,819 | 372 | 13,627 | 9.1\% |
| 31 | Salt Lake City | UT | 6,986 | 3,675 | 2,139 | 755 | 13,555 | 9.0\% |
| 32 | Wichita | KS | 5,519 | 3,636 | 2,680 | 1,666 | 13,502 | 9.0\% |
| 33 | Phoenix | AZ | 3,652 | 5,966 | 2,808 | 885 | 13,312 | 8.9\% |
| 34 | New Orleans | LA | 4,243 | 5,541 | 3,086 | 333 | 13,203 | 8.8\% |
| 35 | Wilmington | DE | 7,508 | 5,250 |  | 404 | 13,162 | 8.8\% |
| 36 | Billings | MT | 7,514 | 4,306 | 60 | 1,100 | 12,980 | 8.7\% |
| 37 | Washington | DC | 7,247 | 3,428 | 1,752 | 548 | 12,975 | 8.7\% |
| 38 | Oklahoma City | OK | 6,063 | 3,631 | 2,534 | 422 | 12,650 | 8.4\% |
| 39 | Honolulu | HI | 7,443 | 2,655 | 1,608 | 841 | 12,547 | 8.4\% |
| 40 | Birmingham | AL | 6,847 | 2,247 | 3,051 | 378 | 12,522 | 8.3\% |
| 41 | Denver | CO | 5,053 | 3,536 | 2,237 | 1,396 | 12,222 | 8.1\% |
| 42 | Manchester | NH | - | 8,208 | 731 | 1,440 | 10,379 | 6.9\% |
| 43 | Memphis | TN | - | 5,758 | 3,314 | 524 | 9,597 | 6.4\% |
| 44 | Las Vegas | NV | - | 5,335 | 2,304 | 1,627 | 9,265 | 6.2\% |
| 45 | Houston | TX | - | 5,930 | 2,207 | 501 | 8,638 | 5.8\% |
| 46 | Jacksonville | FL | - | 6,077 | 2,022 | 484 | 8,584 | 5.7\% |
| 47 | Seattle | WA |  | 4,446 | 2,642 | 1,490 | 8,579 | 5.7\% |
| 48 | Sioux Falls | SD | - | 4,588 | 2,657 | 587 | 7,832 | 5.2\% |
| 49 | Fargo | ND | 1,709 | 3,899 | 1,655 | 498 | 7,761 | 5.2\% |
| 50 | Cheyenne | WY |  | 3,584 | 1,490 | 1,295 | 6,369 | 4.2\% |
| 51 | Anchorage | AK | - | 5,289 |  | 461 | 5,751 | 3.8\% |
| AVERAGE |  | 1/ | 7,008 | 5,944 | 2,057 | 1,020 | 14,670 | 9.8\% |
| MEDIAN |  |  | 7,215 | 5,455 | 1,967 | 841 | 14,393 | 9.6\% |

1/ Based on jurisdictions levying tax.
2/ States with dashes do not have an income tax.
3/ States with dashes do not have a sales tax. MT and NH do not have a general sales tax, but some selective sales taxes apply to consumption items included.

Map 1: Total 2016 Tax Burdens (Income, Property, Sales, \& Auto) as a \% of Income (Family Earning \$75,000/Year)


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

| Burden Range |  |
| :--- | ---: |
|  |  |
| $3.9 \%$ | $19.2 \%$ |

## GHAPTER III

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

## Individual Income Tax

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

In twenty-two of the cities that are in states that levy an income tax, the percentage of income paid in individual income taxes by residents at the income level of $\$ 25,000$ is zero percent (or less than zero due to refundable credits). Notably, Burlington, Vermont residents would receive a refundable income tax credit of $\$ 4,004$, marking the lowest income tax burden on a family earning $\$ 25,000$ per year. The highest income tax burden is at 7.0 percent in Philadelphia, Pennsylvania, and next at 5.3 percent in Louisville, Kentucky. At the $\$ 150,000$ income level, the burden ranges from a low of 1.1 percent of income in Fargo, North Dakota, to 7.3 percent in New York City, New York. It should be noted that the New Hampshire and Tennessee income tax is applicable only to interest and dividend income and the exemptions are high enough to eliminate individual income taxes at all income levels used in the study.

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

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

As Table 3 indicates, there are several types of individual income tax systems including graduated state and local rates, graduated state and flat local rates, flat state and local rates, graduated state tax rates and flat state rates with exemptions. The most common system is the graduated state tax rate, which applies to taxpayers in 25 of the cities. Taxpayers in six cities are subject to a flat state tax rate with exemptions. Twelve states have either graduated or flat state rates and flat local rates. New York City residents are subject to separate state and local income
taxes, both of which are characterized by graduated rate schedules. Fourteen cities in the current study apply a local income tax or fee on wages (see table below). These were not all included in previous years; however, an attempt has been made to include any local income taxes that apply.

## Local Income Tax Rates, 2016

| City | State | Tax | $\underline{\text { Rate }}$ |
| :--- | :--- | :--- | :--- |
| Birmingham | AL | Income Tax | $1.0 \%$ |
| Denver | CO | Occupational Privilege Tax | $\$ 5.75 /$ month |
| Wilmington | DE | Income Tax | $1.25 \%$ |
| Indianapolis | IN | (County) Income Tax | $1.7 \%$ |
| Louisville | KY | Income Tax | $2.2 \%$ |
| Baltimore | MD | Income Tax | $3.2 \%$ |
| Detroit | MI | Income Tax | $2.4 \%$ |
| Kansas City | MO | Income Tax | $1.0 \%$ |
| Newark | NJ | Payroll Tax | $1.0 \%$ |
| New York | NY | Income Tax | $2.9-3.8676 \%$ (graduated rates) |
| Columbus | OH | Income Tax | $2.5 \%$ |
| Portland | OR | (Tri-Met Transit District) Income Tax | $0.73 \%$ |
| Philadelphia | PA | Income Tax | $3.9 \%$ |
| Charleston | WV | City Service Fee | $\$ 10.83 /$ month |

Sources: ORA analysis of City and State web pages; Tax Foundation, "Local Income Taxes: City- and County-Level Income and Wage Taxes Continue to Wane," August 31, 2011.

Chart 2: 2016 Income Tax Burdens for All Income Levels

| City, State | Income = \$25K/yr | Income=\$50K/yr | Income=\$75K/yr | Income=\$100K/yr | Income=\$150K/yr |
| :---: | :---: | :---: | :---: | :---: | :---: |
| New York, NY | -1,005 | 830 | 3,918 | 5,955 | 10,915 |
| Louisville, KY | 1,315 | 3,296 | 5,092 | 6,973 | 10,763 |
| Philadelphia, PA | 1,743 | 3,485 | 5,228 | 6,970 | 10,456 |
| Portland, OR | 732 | 2,607 | 4,318 | 6,206 | 10,314 |
| Indianapolis, IN | 1,260 | 2,323 | 4,766 | 6,417 | 9,800 |
| Detroit, MI | 963 | 2,719 | 4,478 | 6,140 | 9,465 |
| Columbus, OH | 625 | 2,253 | 3,745 | 5,173 | 8,543 |
| Baltimore, MD | -371 | 2,168 | 3,709 | 5,248 | 8,492 |
| Charleston, WV | 792 | 1,947 | 3,492 | 5,117 | 8,365 |
| Boise, ID | -286 | 1,079 | 2,836 | 4,423 | 7,878 |
| Kansas City, MO | 410 | 2,083 | 3,607 | 4,787 | 7,799 |
| Bridgeport, CT | -864 | 649 | 2,844 | 4,397 | 7,749 |
| Des Moines, IA | 17 | 1,906 | 3,412 | 4,179 | 7,677 |
| Billings, MT | 380 | 1,674 | 3,082 | 4,574 | 7,514 |
| Wilmington, DE | 313 | 2,002 | 3,400 | 4,433 | 7,508 |
| Columbia, SC | 0 | 1,272 | 3,022 | 4,373 | 7,484 |
| Honolulu, HI | 473 | 1,586 | 2,884 | 4,358 | 7,443 |
| Charlotte, NC | 364 | 1,826 | 3,264 | 4,701 | 7,387 |
| Minneapolis, MN | -1,061 | 1,287 | 2,867 | 4,289 | 7,260 |
| Portland, ME | -318 | 850 | 2,300 | 3,964 | 7,259 |
| Washington, DC | -813 | 1,980 | 3,164 | 4,222 | 7,247 |
| Milwaukee, WI | -127 | 1,472 | 3,201 | 4,238 | 7,182 |
| Salt Lake City, UT | 0 | 1,486 | 2,900 | 4,270 | 6,986 |
| Boston, MA | -138 | 1,867 | 3,142 | 4,417 | 6,967 |
| Little Rock, AR | 385 | 1,686 | 2,958 | 3,660 | 6,861 |
| Birmingham, AL | 958 | 2,248 | 3,408 | 4,638 | 6,847 |
| Omaha, NE | -317 | 866 | 2,177 | 3,721 | 6,734 |
| Atlanta, GA | 439 | 1,939 | 2,677 | 3,925 | 6,402 |
| Virginia Beach, VA | 0 | 2,112 | 2,993 | 3,971 | 6,396 |
| Newark, NJ | -569 | 1,147 | 1,883 | 3,006 | 6,267 |
| Oklahoma City, OK | -120 | 1,196 | 2,616 | 3,754 | 6,063 |
| Wichita, KS | -538 | 1,073 | 2,221 | 3,330 | 5,519 |
| Jackson, MS | 207 | 1,200 | 2,239 | 3,187 | 5,334 |
| Burlington, VT | 4,004 | 896 | 1,599 | 2,428 | 5,191 |
| Providence, RI | -396 | 815 | 1,752 | 2,798 | 5,172 |
| Denver, CO | -248 | 1,076 | 2,206 | 3,169 | 5,053 |
| Albuquerque, NM | -317 | 756 | 1,912 | 2,961 | 5,042 |
| Chicago, IL | 376 | 1,533 | 2,410 | 3,286 | 5,040 |
| Los Angeles, CA | 0 | 0 | 590 | 1,568 | 4,344 |
| New Orleans, LA | 194 | 1,225 | 1,965 | 2,685 | 4,243 |
| Phoenix, AZ | 86 | 804 | 1,406 | 2,130 | 3,652 |
| Fargo, ND | 0 | 278 | 551 | 887 | 1,709 |
|  | -5,000 0 , 0,000 | 2,000 4,000 | 6,000 | O 5,000 10,000 | 15,000 |
|  | \$ | \$ | \$ | \$ | \$ |

Source: ORA analysis; see description on page 6-7 for data sources and methodology.
Note: All data are sorted by the $\$ 150,000 /$ year income level. Negative bars under the $\$ 25,000 /$ year category represent tax refunds due to state EITC or other refundable credits. Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming do not have an income tax. Tennessee and New Hampshire tax interest and dividend income but the exemptions are high enough to eliminate individual income taxes at all income levels used in the study.

Map 2: 2016 Income Tax Burdens for Family Earning \$75,000/Year (\$)


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


Table 2: States That Index Some Part of Their Individual Income Tax, 2016

|  |  |
| :--- | :--- |
|  |  | STATE $\quad$ INDEXED PORTION

Sources: Federation of Tax Administrators, "State Individual Income Tax Rates (as of January 1, 2017)"; Federation of Tax Administrators, "State Personal Income Taxes: Federal Starting Points (as of January 1, 2017)." Wolters Kluwer/CCH 2017 State Tax Handbook; Urban Brookings Tax Policy Center, "State Income Tax Standard Deductions 2003, 2006-2012; 2015." February 7, 2017; Tax Foundation, "2017 Business Tax Climate Index." pg. 67; and Wisconsin Legislative Fiscal Bureau, "Individual Income Tax Provisions in the States, Informational Paper 4." January 2017.

* Colorado, Idaho, Maine, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Oklahoma, South Carolina, Utah, and Vermont use the federal standard deduction, which is indexed to inflation. Washington, D.C. amounts are increased annually by a cost-of-living adjustment.

Table 3: Income Tax Burden as Percent of Income in the Largest Cities by Type of Income Tax for a Hypothetical Family of Three, 2016

| 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 | -4.0\% | 1.7\% | 5.2\% | 6.0\% | 7.3\% |
| GRADUATED STATE AND FLAT LOCAL RATES |  |  |  |  |  |  |
| Birmingham | AL | 3.8\% | 4.5\% | 4.5\% | 4.6\% | 4.6\% |
| Wilmington | DE | 1.3\% | 4.0\% | 4.5\% | 4.4\% | 5.0\% |
| Louisville | KY | 5.3\% | 6.6\% | 6.8\% | 7.0\% | 7.2\% |
| Baltimore | MD | -1.5\% | 4.3\% | 4.9\% | 5.2\% | 5.7\% |
| Kansas City | MO | 1.6\% | 4.2\% | 4.8\% | 4.8\% | 5.2\% |
| Newark 1/ | NJ | -2.3\% | 2.3\% | 2.5\% | 3.0\% | 4.2\% |
| Columbus | OH | 2.5\% | 4.5\% | 5.0\% | 5.2\% | 5.7\% |
| Portland 1/ | OR | 2.9\% | 5.2\% | 5.8\% | 6.2\% | 6.9\% |
| FLAT STATE AND LOCAL TAX RATES |  |  |  |  |  |  |
| Denver | CO | -1.0\% | 2.2\% | 2.9\% | 3.2\% | 3.4\% |
| Indianapolis | IN | 5.0\% | 4.6\% | 6.4\% | 6.4\% | 6.5\% |
| Detroit | MI | 3.9\% | 5.4\% | 6.0\% | 6.1\% | 6.3\% |
| Philadelphia | PA | 7.0\% | 7.0\% | 7.0\% | 7.0\% | 7.0\% |
| GRADUATED STATE TAX RATE |  |  |  |  |  |  |
| Little Rock | AR | 1.5\% | 3.4\% | 3.9\% | 3.7\% | 4.6\% |
| Phoenix | AZ | 0.3\% | 1.6\% | 1.9\% | 2.1\% | 2.4\% |
| Los Angeles | CA | 0.0\% | 0.0\% | 0.8\% | 1.6\% | 2.9\% |
| Bridgeport | CT | -3.5\% | 1.3\% | 3.8\% | 4.4\% | 5.2\% |
| WASHINGTON | DC | -3.3\% | 4.0\% | 4.2\% | 4.2\% | 4.8\% |
| Atlanta | GA | 1.8\% | 3.9\% | 3.6\% | 3.9\% | 4.3\% |
| Honolulu | HI | 1.9\% | 3.2\% | 3.8\% | 4.4\% | 5.0\% |
| Des Moines | IA | 0.1\% | 3.8\% | 4.5\% | 4.2\% | 5.1\% |
| Boise | ID | -1.1\% | 2.2\% | 3.8\% | 4.4\% | 5.3\% |
| Wichita | KS | -2.2\% | 2.1\% | 3.0\% | 3.3\% | 3.7\% |
| New Orleans | LA | 0.8\% | 2.5\% | 2.6\% | 2.7\% | 2.8\% |
| Portland | ME | -1.3\% | 1.7\% | $3.1 \%$ | 4.0\% | 4.8\% |
| Minneapolis | MN | -4.2\% | 2.6\% | 3.8\% | 4.3\% | 4.8\% |
| Jackson | MS | 0.8\% | 2.4\% | 3.0\% | 3.2\% | 3.6\% |
| Billings | MT | 1.5\% | 3.3\% | 4.1\% | 4.6\% | 5.0\% |
| Fargo | ND | 0.0\% | 0.6\% | 0.7\% | 0.9\% | 1.1\% |
| Omaha | NE | -1.3\% | 1.7\% | 2.9\% | 3.7\% | 4.5\% |
| Albuquerque | NM | -1.3\% | 1.5\% | 2.5\% | 3.0\% | 3.4\% |
| Oklahoma City | OK | -0.5\% | 2.4\% | 3.5\% | 3.8\% | 4.0\% |
| Providence | RI | -1.6\% | 1.6\% | 2.3\% | 2.8\% | 3.4\% |
| Columbia | SC | 0.0\% | 2.5\% | 4.0\% | 4.4\% | 5.0\% |
| Virginia Beach | VA | 0.0\% | 4.2\% | 4.0\% | 4.0\% | 4.3\% |
| Burlington | VT | -16.0\% | 1.8\% | 2.1\% | 2.4\% | 3.5\% |
| Milwaukee | WI | -0.5\% | 2.9\% | 4.3\% | 4.2\% | 4.8\% |
| Charleston 1/ | WV | 3.2\% | 3.9\% | 4.7\% | 5.1\% | 5.6\% |
| FLAT STATE TAX RATE WITH EXEMPTIONS |  |  |  |  |  |  |
| Chicago | IL | 1.5\% | 3.1\% | 3.2\% | 3.3\% | 3.4\% |
| Boston | MA | -0.6\% | 3.7\% | 4.2\% | 4.4\% | 4.6\% |
| Charlotte | NC 2/ | 1.5\% | 3.7\% | 4.4\% | 4.7\% | 4.9\% |
| Manchester | NH3/ | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Memphis | TN 3/ | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Salt Lake City | UT | 0.0\% | 3.0\% | 3.9\% | 4.3\% | 4.7\% |
| AVERAGE | 4/ | 0.1\% | 3.1\% | 3.9\% | 4.2\% | 4.7\% |

No income tax: Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming.
Note: Negative numbers result from refundable state credits.
Source for classifications: Survey of State Revenue Department Officials; State Department of Revenue web sites; FTA, "State Individual Income Tax Rates as of January 1, 2017"; percentages at each income level are effective tax rates calculated by ORA using the assumptions and methodologies specific to this report.
1/ Imposed on employers.
2/ North Carolina has a flat rate, but no personal exemption.
3/ New Hampshire and Tennessee have a flat 5 percent income tax on dividends and interest income only.
3/ Based on jurisdictions levying tax.

## Real Property Tax

All 51 cities in the study levy a property tax on residential property located within the city. The real property tax is a function of housing values, real estate tax rates, assessment levels, homeowner exemptions, and credits. Nominal rates used in Table 4 (page 32); represent the "announced" rates levied by the jurisdiction, while effective rates consider the various assessment levels in the cities. Effective rates range from a high of $\$ 3.81$ per $\$ 100$ of assessed value in Bridgeport, Connecticut to $\$ 0.35$ per $\$ 100$ of assessed value in Honolulu, Hawaii. Assessment levels vary dramatically from 1.35 percent of assessed value in Billings, Montana, to 100 percent assessment in thirteen cities, including the District of Columbia. Local assessors, state tax and county officials, and state and local websites provided the assessment level and nominal rates used in the cities. The District's effective property tax rate (net of assessment value) is among the lowest of the 51 cities, ranking 45th. Chart 3 (page 33) provides a graphic of these rates.

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

Table 1 indicates that, based on the assumptions used in this report, the property tax is generally the highest of the four taxes at each income level (though not always the case). However, it is important to note that the main purpose of this report is to make comparisons across the 51 cities within a specific type of tax. As previously noted, these are hypothetical tax burdens based on various assumptions made in the report, and comparisons across tax types should be made with caution.

At all four of the income levels for which home ownership is assumed (\$50,000 to $\$ 150,000$ ), Bridgeport, Connecticut; Newark, New Jersey; ${ }^{16}$ Detroit, Michigan; and Baltimore, Maryland; and Los Angeles, California, have the highest property tax burdens, in that order for each income level. For these cities, this is due primarily to a combination of high real estate tax rates and high housing values, as can be seen in Table 4 (page 32) and Table 5 (page 34).

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

[^8]At the $\$ 25,000$ income level, it is assumed that the families rent rather than own a home. At this level, Honolulu, Hawaii; Washington, D.C.; New York, New York; and Boston, Massachusetts have the highest property tax burdens (assumed as a portion of rent). This trend is solely due to the high cost of housing in these metropolitan areas, as actual property tax rates are not applied in the case of rental housing (as previously mentioned, 15 percent of the annual rent is assumed to go toward paying the property tax).

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

Map 3: 2016 Property Tax Burdens (\$)
(Family earning \$75,000/year)


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

| Burden Range |  |
| :--- | ---: |
|  |  |
| 1,102 | 9,170 |

Table 4: Residential Property Tax Rates in the Largest City in Each State 2016

| RANK | CITY | ST | $\begin{aligned} & \hline \text { NOMINAL } \\ & \text { RATE } \\ & \text { PER \$100 } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { ASSESSMENT } \\ \text { LEVEL } \end{gathered}$ | $\begin{gathered} \hline \text { EFFECTIVE } \\ \text { RATE } \\ \text { PER \$100 } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Bridgeport | CT | 5.44 | 70.00\% | 3.81 |
| 2 | Detroit | MI | 6.91 | 50.00\% | 3.46 |
| 3 | Newark | NJ | 3.44 | 88.86\% | 3.06 |
| 4 | Milwaukee | WI | 2.76 | 100.00\% | 2.76 |
| 5 | Des Moines | IA | 4.74 | 56.94\% | 2.70 |
| 6 | Indianapolis | IN | 2.61 | 100.00\% | 2.61 |
| 7 | Houston | TX | 2.53 | 100.00\% | 2.53 |
| 8 | Baltimore | MD | 2.25 | 100.00\% | 2.25 |
| 9 | Columbus | OH | 7.47 | 30.00\% | 2.24 |
| 10 | Manchester | NH | 2.34 | 93.90\% | 2.20 |
| 11 | Burlington | VT | 2.57 | 84.52\% | 2.17 |
| 12 | Columbia | SC | 53.67 | 4.00\% | 2.15 |
| 13 | Jackson | MS | 21.44 | 10.00\% | 2.14 |
| 14 | Portland | ME | 2.24 | 94.00\% | 2.11 |
| 15 | Omaha | NE | 2.24 | 94.00\% | 2.10 |
| 16 | Chicago | IL | 7.15 | 28.00\%* | 2.00 |
| 17 | Memphis | TN | 7.78 | 25.00\% | 1.95 |
| 18 | Jacksonville | FL | 1.86 | 100.00\% | 1.86 |
| 19 | Atlanta | GA | 4.45 | 40.00\% | 1.78 |
| 20 | Providence | RI | 1.88 | 90.00\% | 1.69 |
| 21 | Albuquerque | NM | 4.80 | 33.30\% | 1.60 |
| 22 | Boise | ID | 1.64 | 97.03\% | 1.59 |
| 23 | New Orleans | LA | 15.18 | 10.00\% | 1.52 |
| 24 | Kansas City | MO | 7.80 | 19.00\% | 1.48 |
| 25 | Sioux Falls | SD | 1.74 | 85.00\% | 1.47 |
| 26 | Little Rock | AR | 7.00 | 20.00\% | 1.40 |
| 27 | Philadelphia | PA | 1.40 | 100.00\% | 1.40 |
| 28 | Wilmington | DE | 4.46 | 30.67\% | 1.37 |
| 29 | Phoenix | AZ | 13.56 | 10.00\% | 1.36 |
| 30 | Anchorage | AK | 1.36 | 100.00\% | 1.36 |
| 31 | Wichita | KS | 11.72 | 11.50\% | 1.35 |
| 32 | Minneapolis | MN | 1.37 | 94.88\% | 1.30 |
| 33 | Portland | OR | 2.09 | 60.35\% | 1.26 |
| 34 | Oklahoma City | OK | 11.34 | 11.00\% | 1.25 |
| 35 | New York City | NY | 19.99 | 6.00\% | 1.20 |
| 36 | Louisville | KY | 1.18 | 100.00\% | 1.18 |
| 37 | Fargo | ND | 29.75 | 3.90\% | 1.16 |
| 38 | Charlotte | NC | 1.34 | 86.28\% | 1.15 |
| 39 | Las Vegas | NV | 3.28 | 35.00\% | 1.15 |
| 40 | Los Angeles | CA | 1.14 | 100.00\% | 1.14 |
| 41 | Boston | MA | 1.10 | 100.00\% | 1.10 |
| 42 | Virginia Beach | VA | 0.99 | 100.00\% | 0.99 |
| 43 | Billings | MT | 68.57 | 1.35\% | 0.93 |
| 44 | Cheyenne | WY | 9.32 | 9.50\% | 0.89 |
| 45 | WASHINGTON | DC | 0.85 | 100.00\% | 0.85 |
| 46 | Charleston | WV | 1.40 | 60.00\% | 0.84 |
| 47 | Seattle | WA | 0.92 | 90.60\% | 0.83 |
| 48 | Salt Lake City | UT | 1.50 | 55.00\% | 0.83 |
| 49 | Birmingham | AL | 7.25 | 10.00\% | 0.73 |
| 50 | Denver | CO | 8.32 | 7.96\% | 0.66 |
| 51 | Honolulu | HI | 0.35 | 100.00\% | 0.35 |
|  |  |  |  |  |  |
| UNWEIGHTED AVERAGE MEDIAN |  |  | 7.62 | 58.97\% | 1.63 |
|  |  |  | 2.76 | 60.35\% | 1.40 |

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

Source: Data collected from surveys to State Revenue Department officials, and state web sites.
*For Chicago, IL, the state equalizer of $2.8 \%$ was applied to the assessment level of $10 \%$ to reflect the equalizer's impact on the final rate.

## Chart 3: Residential Property Tax Rates in the Largest City in Each State 2016



Source: ORA Analysis of data from State Revenue Officials and State Department of Revenue Web sites.
Note: Rates include state and local property taxes levied by multiple taxing authorities as identified by state survey respondents.

Table 5: Housing Value Assumptions, 2016

|  |  | HOUSING ASSUMPTIONS AT INDICATED INCOME LEVELS: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | TAX ON RENT | HOUSE VALUE |  |  |  |
| CITY | ST | \$25,000 | \$50,000 | \$75,000 | \$100,000 | \$150,000 |
| Anchorage | AK | 1,588 | 136,787 | 205,181 | 273,574 | 410,361 |
| Birmingham | AL | 1,103 | 105,293 | 157,940 | 210,587 | 315,880 |
| Little Rock | AR | 947 | 101,207 | 151,811 | 202,415 | 303,622 |
| Phoenix | AZ | 1,073 | 146,430 | 219,645 | 292,860 | 439,289 |
| Los Angeles | CA | 1,705 | 272,003 | 408,004 | 544,006 | 816,009 |
| Denver | CO | 1,395 | 177,984 | 266,976 | 355,968 | 533,952 |
| Bridgeport | CT | 1,384 | 160,630 | 240,946 | 321,261 | 481,891 |
| WASHINGTON | DC | 2,353 | 158,333 | 237,500 | 316,667 | 475,000 |
| Wilmington | DE | 1,494 | 127,926 | 191,889 | 255,852 | 383,777 |
| Jacksonville | FL | 1,109 | 122,738 | 184,107 | 245,476 | 368,215 |
| Atlanta | GA | 1,375 | 114,804 | 172,206 | 229,608 | 344,412 |
| Honolulu | HI | 2,401 | 279,495 | 419,243 | 558,991 | 838,486 |
| Des Moines | IA | 1,039 | 102,758 | 154,137 | 205,516 | 308,274 |
| Boise | ID | 877 | 147,644 | 221,467 | 295,289 | 442,933 |
| Chicago | IL | 1,548 | 121,622 | 182,434 | 243,245 | 364,867 |
| Indianapolis | IN | 994 | 95,097 | 142,646 | 190,194 | 285,291 |
| Wichita | KS | 824 | 90,549 | 135,823 | 181,098 | 271,647 |
| Louisville | KY | 992 | 103,603 | 155,405 | 207,206 | 310,809 |
| New Orleans | LA | 1,204 | 124,185 | 186,278 | 248,370 | 372,556 |
| Boston | MA | 1,901 | 172,066 | 258,099 | 344,133 | 516,199 |
| Baltimore | MD | 1,532 | 141,218 | 211,827 | 282,436 | 423,655 |
| Portland | ME | 1,372 | 143,976 | 215,965 | 287,953 | 431,929 |
| Detroit | MI | 958 | 102,249 | 153,374 | 204,499 | 306,748 |
| Minneapolis | MN | 1,181 | 120,832 | 181,248 | 241,664 | 362,497 |
| Kansas City | MO | 1,012 | 101,007 | 151,510 | 202,014 | 303,020 |
| Jackson | MS | 952 | 100,034 | 150,050 | 200,067 | 300,101 |
| Billings | MT | 922 | 155,042 | 232,564 | 310,085 | 465,127 |
| Charlotte | NC | 1,175 | 116,779 | 175,168 | 233,557 | 350,336 |
| Fargo | ND | 880 | 112,032 | 168,047 | 224,063 | 336,095 |
| Omaha | NE | 929 | 90,391 | 135,587 | 180,783 | 271,174 |
| Manchester | NH | 1,395 | 124,362 | 186,542 | 248,723 | 373,085 |
| Newark | NJ | 1,494 | 177,758 | 266,637 | 355,517 | 533,275 |
| Albuquerque | NM | 1,064 | 133,914 | 200,871 | 267,828 | 401,742 |
| Las Vegas | NV | 1,138 | 154,994 | 232,490 | 309,987 | 464,981 |
| New York City | NY | 2,327 | 177,758 | 266,637 | 355,517 | 533,275 |
| Columbus | OH | 958 | 100,066 | 150,098 | 200,131 | 300,197 |
| Oklahoma City | OK | 976 | 97,341 | 146,011 | 194,681 | 292,022 |
| Portland | OR | 1,595 | 176,256 | 264,385 | 352,513 | 528,769 |
| Philadelphia | PA | 1,494 | 127,926 | 191,889 | 255,852 | 383,777 |
| Providence | RI | 1,179 | 137,151 | 205,726 | 274,301 | 411,452 |
| Columbia | SC | 974 | 103,890 | 155,835 | 207,780 | 311,669 |
| Sioux Falls | SD | 837 | 103,690 | 155,535 | 207,380 | 311,070 |
| Memphis | TN | 1,084 | 98,684 | 148,026 | 197,368 | 296,053 |
| Houston | TX | 1,231 | 100,197 | 150,296 | 200,394 | 300,592 |
| Salt Lake City | UT | 1,085 | 148,459 | 222,689 | 296,919 | 445,378 |
| Virginia Beach | VA | 1,705 | 141,486 | 212,230 | 282,973 | 424,459 |
| Burlington | VT | 1,562 | 143,082 | 214,623 | 286,163 | 429,245 |
| Seattle | WA | 1,888 | 177,814 | 266,721 | 355,628 | 533,442 |
| Milwaukee | WI | 1,073 | 114,393 | 171,589 | 228,785 | 343,178 |
| Charleston | WV | 895 | 88,241 | 132,361 | 176,481 | 264,722 |
| Cheyenne | WY | 938 | 134,917 | 202,375 | 269,834 | 404,750 |
| AVERAGE <br> MEDIAN |  | 1,277 | 133,472 | 200,209 | 266,945 | 400,417 |
|  |  | 1,138 | 124,362 | 186,542 | 248,723 | 373,085 |

Source for "Tax on Rent": Rental cost data are from the U.S. Department of Housing and Urban Development, for median fair market rents by MSA. Rents for studio apartments were selected. The property tax equivalent of rent is assumed to be 15 percent of annual rent (Note: this is a change from previous years when the PTER was assumed to be 20 percent of rent).

Source for all other columns: ORA Calculations. Data on MSA median household incomes and MSA median house values of mortgage holders for 2016 were retrieved from the Census Bureau's ACS 2016. A multiplier was applied to each income based on the relationship of median income to median home value. Newark, NJ is in the same MSA as NYC, thus the same house value and income data are used for both. Similarly,
Wilmington, DE, is in the same MSA as Philadelphia, thus the same house value and income data are used for both.

Table 6: Cities That Allow Exemptions or Reduced Rates in the Calculation of Real Estate Taxes for Homeowners, 2016

| CITY | STATE | EXEMPTION OR TAX REDUCTION AMOUNT | BASIS OF TAX REDUCTION OR EXEMPTION |
| :---: | :---: | :---: | :---: |
| Anchorage | AK | 10\% up to \$20,000 maximum | Assessed Value |
| Birmingham | AL | Up to \$4,000 (local option to exempt \$2,000 to \$4,000) | Assessed Value-Homestead |
| Little Rock | AR | \$350 Credit against Homestead for Homeowners | Tax Credit |
| Phoenix | AZ | 47.19\% Exemption on School Tax Rates up to $\$ 600$ | Assessed Value |
| Los Angeles | CA | \$7,000 Exemption | Assessed Value |
| WASHINGTON 1/ | DC | \$71,700 Exemption | Assessed Value-Homestead |
| Jacksonville | FL | 1.First Homestead Exemption - $\$ 25,000$ 2. Second Homestead exemption $\$ 25,000$ | Assessed Value |
| Atlanta | GA | \$30,000 Exemption | Assessed Value |
| Honolulu | HI | \$80,000 Exemption | Assessed Value |
| Des Moines | IA | \$4,850 Exemption | Assessed Value |
| Boise | ID | 50\% of Assessed Value, up to \$94,745 Exemption | Assessed Value and Homestead up to 1 acre |
| Chicago | IL | Up to \$7,000 Exemption | Assessed Value- Homestead |
| Indianapolis | IN | $60 \%$ Deduction (maximum of $\$ 45,000$ ) <br> Supplemental deduction of $35 \%$ deduction of AV less than $\$ 600,000 ; 25 \%$ deduction of AV greater than $\$ 600,000$. | Assessed Value-Homestead |
| Wichita | KS | $\$ 20,000$ on Appraised Value; $\$ 2,300$ on Assessed Value; up to a maximum tax exempted of $\$ 46$ | Assessed Value |
| New Orleans | LA | \$7,500 Exemption | Assessed Value |
| Boston | MA | \$1,961.58 Homeowner Exemption | Assessed Value |
| Portland | ME | \$18,800 Homestead Exemption | Assessed Value |
| Detroit | MI | Homestead Property Exempt from Up to 18 mills of Local School Operating Millage Tax | Taxable Value |
| Minneapolis | MN | Market Value Homestead Exclusion $=(40 \% *$ MV of first $\$ 76,000$ ) minus $(9 \% *$ MV of the value over $\$ 76,000)$ | Market Value |
| Jackson | MS | \$7,500 Exemption, limit of \$300 of actual exempted tax dollars | Assessed Value |
| Omaha | NE | Real property tax credit = reduction in tax bill of $\$ 89.57$ per 100,000 assessed value | Assessed Value |
| Albuquerque | NM | \$2,000 Household Head Exemption | Taxable Value |
| New York City | NY | \$30,000 Exemption on Primary Residence (STAR) | Equalized Assessed Value |
| Columbus | OH | 10\% Credit | Assessed Value |
| Oklahoma City | OK | \$1,000 Exemption | Assessed Value-Homestead |
| Philadelphia | PA | \$30,000 Exemption | Assessed Value-Homestead |
| Columbia | SC | Owner occupied residential exempt from all school operating taxes, approximately $47 \%$ of all taxes exempted | Property Tax Relief Fund |
| Houston | TX | 20\% County Exemption on Value <br> -Plus $\$ 15,000$ Exemption on School District Taxes Only <br> -Plus, various exemptions on local levies, between 10\%-20\% of assessed value | Assessed Value |
| Salt Lake City | UT | 45\% Residential (included in 55\% assessment in Table 4) | Taxable Value |
| Burlington | VT | Up to \$8,000 reduction for those with incomes up to \$137,500 | Household Income |
| Milwaukee | WI | $\begin{aligned} & \text { For } \$ 150,000 \text { home: } \\ & \text { - } \$ 306.60 \text { School Levy Credit; } \\ & \text { - } \$ 742.16 \text { Lottery Credit; } \\ & \text { - } 75.59 \text { 1st Dollar Credit } \end{aligned}$ | Equalized Assessed Value Equalized Assessed Value Equalized Assessed Value |

Source: Data collected from surveys to State Revenue Department officials and review of State, and City, Revenue Department Web Sites.
1/ DC's exemption amount increased to $\$ 72,450$ on October 1, 2016 (effective for D.C.'s Real Property Tax Year 2017).

## Chart 4: 2016 Property Tax Burdens for All Income Levels, Sorted by Lowest Income Level



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

## Sales and Use Tax

Residents of 46 of the 51 cities in this study are subject to some form of sales and use tax. The combined sales tax rates range from 10.5 percent in Chicago, Illinois to 4.5 percent in Honolulu, Hawaii, as illustrated in Chart 5, page 38, and presented in Table 7, page 39. The highest state sales tax rate is 7.5 percent in Los Angeles, California; while the lowest state rate of 2.9 percent is found in Colorado. Sales taxes are levied by 26 of the 51 cities (in addition to state sales taxes) with the highest city rate at 5.75 percent in Washington, D.C. (followed by 4.5 percent in New York City). The lowest city rate was 0.5 percent Minneapolis, Minnesota. Of the 19 counties levying a sales tax, the highest rate ( 3.0 percent) is in Fulton County (Atlanta, Georgia). Five school districts and nine transit districts also levy sales taxes, with transit district rates ranging from 0.125 percent in Kansas City, Missouri to 1.25 percent in Chicago, Illinois.

Based on the results in Table 1, the average sales tax burden is the second highest of the four major tax types at the $\$ 25,000$ income level. For families subject to a general sales tax, the highest sales tax burdens across each of the income levels are in Memphis, Tennessee (highest at each income level); Birmingham, Alabama; New Orleans, Louisiana; Little Rock, Arkansas; and Jackson, Mississippi.

Cities and states that levy a general sales tax and that have the lowest sales tax burdens at all income levels include Cheyenne, Wyoming; Baltimore, Maryland; Des Moines, Iowa; and Virginia Beach, Virginia. (In Table 1, Billings, Montana, and Manchester, New Hampshire have lower sales tax burdens than these four cities. However, the Billings and Manchester sales tax burdens are due to selective sales taxes that apply to certain consumption items that are included in the calculations for this report. However, these two jurisdictions do not have a general sales tax and are therefore excluded from any of the counts on this page, as well as Charts 4 and 5, and Table 7.)

## Chart 5: State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31, 2016



[^9]Table 7: State and Local General Sales Tax Rates in Each of the 51 Cities as of December 31, 2016

| CITY | STATE | $\begin{gathered} \text { TOTAL } \\ \text { RATE } \\ (\%) \\ \hline \end{gathered}$ | STATE RATE (\%) | $\begin{aligned} & \text { CITY RATE } \\ & (\%) \end{aligned}$ | $\begin{gathered} \text { COUNTY } \\ \text { RATE } \\ (\%) \\ \hline \end{gathered}$ | SCHOOL/ OTHER RATE (\%) | $\begin{gathered} \text { TRANSIT } \\ \text { RATE } \\ (\%) \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chicago | IL | 10.500 | 6.250 | 1.250 | 1.750 |  | 1.250 |
| New Orleans | LA | 10.000 | 5.000 | 2.500 |  | 1.500 | 1.000 |
| Birmingham | AL | 10.000 | 4.000 | 4.000 | 2.000 |  |  |
| Seattle | WA | 9.600 | 6.500 | 3.100 |  |  |  |
| Memphis | TN | 9.250 | 7.000 | 2.250 |  |  |  |
| Los Angeles | CA | 9.000 | 7.500* | 1.500 |  |  |  |
| Little Rock | AR | 9.000 | 6.500 | 1.500 | 1.000 |  |  |
| New York City | NY | 8.875 | 4.000 | 4.500 |  |  | 0.375 |
| Phoenix | AZ | 8.600 | 5.600 | 2.300 | 0.700 |  |  |
| Kansas City | MO | 8.475 | 4.225 | 2.875 | 1.250 |  | 0.125 |
|  |  |  |  |  |  |  |  |
| Oklahoma City | OK | 8.375 | 4.500 | 3.875 |  |  |  |
| Houston | TX | 8.250 | 6.250 | 1.000 |  |  | 1.000 |
| Las Vegas | NV | 8.150 | 6.850 |  | 1.300 |  |  |
| Jackson | MS | 8.000 | 7.000 | 1.000 |  |  |  |
| Philadelphia | PA | 8.000 | 6.000 | 2.000 |  |  |  |
| Columbia | SC | 8.000 | 6.000 |  | 2.000 |  |  |
| Atlanta | GA | 8.000 | 4.000 | 1.000 | 3.000 |  |  |
| Minneapolis | MN | 7.775 | 6.875 | 0.500 | 0.150 |  | 0.250 |
| Denver | CO | 7.650 | 2.900 | 3.650 |  | 0.100 | 1.000 |
| Wichita | KS | 7.500 | 6.500 |  | 1.000 |  |  |
|  |  |  |  |  |  |  |  |
| Columbus | OH | 7.500 | 5.750 |  | 1.250 | 0.500 |  |
| Fargo | ND | 7.500 | 5.000 | 2.000 | 0.500 |  |  |
| Albuquerque | NM | 7.313 | 5.125 | 1.188 | 1.000 |  |  |
| Charlotte | NC | 7.250 | 4.750 |  | 2.000 | 0.500 |  |
| Newark | NJ | 7.000 | 7.000 |  |  |  |  |
| Charleston | WV | 7.000 | 6.000 | 1.000 |  |  |  |
| Omaha | NE | 7.000 | 5.500 | 1.500 |  |  |  |
| Indianapolis | IN | 7.000 | 7.000 |  |  |  |  |
| Providence | RI | 7.000 | 7.000 |  |  |  |  |
| Jacksonville | FL | 7.000 | 6.000 |  | 1.000 |  |  |
|  |  |  |  |  |  |  |  |
| Burlington | VT | 7.000 | 6.000 | 1.000 |  |  |  |
| Salt Lake City | UT | 6.850 | 5.950* |  |  | 0.10 | 0.800 |
| Sioux Falls | SD | 6.500 | 4.500 | 2.000 |  |  |  |
| Bridgeport | CT | 6.350 | 6.350 |  |  |  |  |
| Boston | MA | 6.250 | 6.250 |  |  |  |  |
| Des Moines | IA | 6.000 | 6.000 |  |  |  |  |
| Boise | ID | 6.000 | 6.000 |  |  |  |  |
| Louisville | KY | 6.000 | 6.000 |  |  |  |  |
| Baltimore | MD | 6.000 | 6.000 |  |  |  |  |
| Detroit | MI | 6.000 | 6.000 |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Virginia Beach | VA | 6.000 | 5.300* |  |  |  | 0.700 |
| Cheyenne | WY | 6.000 | 4.000 |  | 2.000 |  |  |
| WASHINGTON | DC | 5.750 |  | 5.750 |  |  |  |
| Milwaukee | WI | 5.600 | 5.000 |  | 0.500 | 0.100 |  |
| Portland | ME | 5.500 | 5.500 |  |  |  |  |
| Honolulu | HI | 4.500 | 4.000 |  | 0.500 |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| UNWEIGHTED AVERAGE |  | 7.341 | 5.541 | 2.130 | 1.266 | 0.700 | 0.625 |
| MEDIAN |  | 7.250 | 6.000 | 2.000 | 1.000 | 0.500 | 0.625 |

[^10]Map 4: 2016 Sales Tax Burdens, Family Earning \$75,000/Year

 Hampshire have select sales taxes on some items included in the sales tax burden calculation, thus they both have small sales tax burdens while the others are labeled ' $\mathrm{n} / \mathrm{a}$.'

| Burden Range  <br>   <br> $0.0 \%$ $2.8 \%$${ }^{\|l\|}$ |
| :--- | ---: |

## 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, motor vehicle registration fees, excise taxes, and personal property taxes. Eleven of the cities levy a personal property tax based on the value of motor vehicles owned by a taxpayer. Gasoline tax rates in each of the 51 cities as of December 31, 2016, are compared in Table 8, page 42. The total gasoline tax rates vary from a high of 51.4 cents per gallon in Philadelphia, Pennsylvania; 51.1 in Chicago, Illinois; and 49.4 in Seattle, Washington; to a low of 8.95 cents per gallon in Anchorage, Alaska. Seven states apply a sales tax to gasoline, and those rates are included in the rates in the table.

Automobile registration fees and taxes are usually either flat per-vehicle rates or excise taxes based on either vehicle weight or value. The types of registration and other automobile taxes to which residents of the 51 cities are subject are summarized in Table 9, page 43.

The eleven cities that levy personal property taxes on automobiles use various methods. Some cities use a combination of assessment levels and tax rates, which may or may not be the same as is used for other personal property or for real property. Others use the same assessment system and property tax rate for automobiles as they do for personal residences.

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

The lowest tax burdens for a specific tax at all income levels in this study are the automobile tax burdens (except in those states that offer refundable EITCs through the income tax at the $\$ 25,000$ income level). Providence, Rhode Island; Bridgeport, Connecticut; and Kansas City, Missouri are the cities with the highest automobile tax burdens across all income levels. These cities levy either a personal property tax or a high excise tax. Albuquerque, New Mexico; New Orleans, Louisiana; and Birmingham, Alabama have the lowest automobile tax burdens at each income level. Each of these cities has flat registration rates or registration by weight, moderate gasoline tax rates, and no personal property or excise tax (or a low rate as in Birmingham).

# Table 8: Gasoline Tax Rates in the 51 Cities, as of December 31, 2016 (State and Local Rates per Gallon) 

| CITY | ST | TOTAL RATE | STATE RATE | LOCAL RATE |
| :---: | :---: | :---: | :---: | :---: |
| Philadelphia | PA | 51.40 | 51.40 | 00.00 |
| Chicago | IL | 51.10 | 33.10 | 18.00 |
| Seattle | WA | 49.40 | 49.40 | 00.00 |
| Honolulu | HI | 44.35 | 27.70 | 16.65 |
| Los Angeles | CA | 40.69 | 40.00 | 00.69 |
| Bridgeport | CT | 38.30 | 38.30 | 00.00 |
| New York City | NY | 38.30 | 33.80 | 04.50 |
| Newark | NJ | 37.10 | 37.10 | 00.00 |
| Portland | OR | 35.00 | 30.00 | 05.00 |
| Charlotte | NC | 34.25 | 34.25 | 00.00 |
| Providence | RI | 34.00 | 34.00 | 00.00 |
| Las Vegas | NV | 33.81 | 23.81 | 10.00 |
| Baltimore | MD | 33.50 | 33.50 | 00.00 |
| Charleston | WV | 33.20 | 33.20 | 00.00 |
| Boise | ID | 33.00 | 33.00 | 00.00 |
| Milwaukee | WI | 32.90 | 32.90 | 00.00 |
| Des Moines | IA | 31.70 | 31.70 | 00.00 |
| Atlanta | GA | 31.54 | 26.05 | 05.49 |
| Detroit | MI | 31.38 | 31.38 | 00.00 |
| Jacksonville | FL | 30.93 | 24.93 | 06.00 |
| Minneapolis | MN | 30.60 | 30.60 | 00.00 |
| Burlington | VT | 30.46 | 30.46 | 00.00 |
| Indianapolis | IN | 30.40 | 30.40 | 00.00 |
| Salt Lake City | UT | 30.05 | 30.05 | 00.00 |
| Sioux Falls | SD | 30.00 | 30.00 | 00.00 |
| Portland | ME | 30.00 | 30.00 | 00.00 |
| Columbus | OH | 28.00 | 28.00 | 00.00 |
| Billings | MT | 27.75 | 27.75 | 00.00 |
| Omaha | NE | 26.70 | 26.70 | 00.00 |
| Boston | MA | 26.60 | 26.60 | 00.00 |
| Louisville | KY | 26.00 | 26.00 | 00.00 |
| Wichita | KS | 25.03 | 25.03 | 00.00 |
| Cheyenne | WY | 24.00 | 24.00 | 00.00 |
| Wilmington | DE | 23.90 | 23.90 | 00.00 |
| Manchester | NH | 23.83 | 23.83 | 00.00 |
| WASHINGTON | DC | 23.50 | 23.50 | 00.00 |
| Fargo | ND | 23.00 | 23.00 | 00.00 |
| Denver | CO | 22.00 | 22.00 | 00.00 |
| Little Rock | AR | 21.80 | 21.80 | 00.00 |
| Memphis | TN | 21.40 | 21.40 | 00.00 |
| Jackson | MS | 21.40 | 18.40 | 03.00 |
| Virginia Beach | VA | 20.80 | 16.80 | 04.00 |
| New Orleans | LA | 20.13 | 20.13 | 00.00 |
| Houston | TX | 20.00 | 20.00 | 00.00 |
| Birmingham | AL | 20.00 | 19.00 | 01.00 |
| Phoenix | AZ | 19.00 | 19.00 | 00.00 |
| Albuquerque | NM | 18.80 | 18.80 | 00.00 |
| Kansas City | MO | 17.32 | 17.32 | 00.00 |
| Oklahoma City | OK | 17.00 | 17.00 | 00.00 |
| Columbia | SC | 16.75 | 16.75 | 00.00 |
| Anchorage | AK | 08.95 | 08.95 | 00.00 |
|  |  |  |  |  |
| UNWEIGHTED AVERAGE |  | 28.84 | 27.39 | 1.46 |
| MEDIAN |  | 30.00 | 26.70 | 0.00 |

Note: Rates include state and local sales taxes applicable to gasoline and other fees (such as environmental or inspection fees).
Source: Survey of State Revenue Department Officials; Wolters Kluwer/CCH 2017 State Tax Handbook; Federation of Tax Administrators, "State Motor Fuel Tax Rates, as of January 1, 2017; "Energy Information Administration (EIA), "Federal and State Motor Fuels Taxes" February 2017; and Joel Michael, House Research Department of the MN Legislature, "Survey of State and Local Gasoline Taxes," August 2016 Update.

# Table 9: Summary of Types of Automobile Registration Taxes 2016 (50 states + D.C.) 

```
TYPE OF REGISTRATION
Flat Rate Only
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
OTHER AUTO TAXES (INCLUDING LOCAL) *
Personal Property 11
Excise:
Value Based 
```

*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 2016

| Income Level | Description of Auto | Engine Size Liters 1/ | Weight 2/ | Year | Market Values |  |  | Estimated <br> Mileage Per Gallon 1/ | Estimated <br> Annual <br> Gasoline <br> Usage 3/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Retail Price 2/ | $\begin{aligned} & \text { Trade-In } \\ & \text { Value 2/ } \end{aligned}$ | Loan Value 2/ |  |  |
| \$ 25,000 | Sedan, 4 Door 4-cylinder, Auto | 1.8 | 2,851 lbs. | 2013 | \$12,875 | \$9,500 | \$12,746 | 30 | 500 gallons |
| \$ 50,000 | Sedan, 4 Door <br> 4 Cylinder, Manual | 2.0 | 2,859 lbs. | 2015 | \$12,175 | \$9,925 | \$12,053 | 25 | 600 gallons |
| \$ 75,000 | Sedan, 4 Door <br> 4 Cylinder, Automatic | 2.5 | 3,300 lbs. | 2015 | \$17,925 | \$14,900 | \$17,746 | 25 | 600 gallons |
|  | 4WD Utility, 4 Door 6 Cylinder, Automatic | 3.5 | 4,178 lbs. | 2010 | \$15,375 | \$12,475 | \$15,221 | 17 | 441 gallons* |
| \$100,000 | Sedan, 4 Door <br> 6 Cylinder, Automatic | 3.6 | $3,770 \mathrm{lbs}$. | 2015 | \$22,050 | \$19,175 | \$21,830 | 18 | 833 gallons |
|  | 4WD Utility, 4 Door 6 Cylinder, Automatic | 4.0 | 4,628 lbs. | 2010 | \$14,075 | \$10,925 | \$13,934 | 13 | 577 gallons* |
| \$150,000 | Sedan, 4 Door <br> 6 Cylinder, Automatic | 3.6 | 3,990 lbs. | 2016 | \$51,250 | \$47,400 | \$50,738 | 16 | 938 gallons |
|  | AWD Utility, 4 Door 6 Cylinder, Automatic | 3.5 | $4,234 \mathrm{lbs}$. | 2012 | \$18,075 | \$14,925 | \$17,894 | 18 | 417 gallons* |

[^11]
## Chart 6: 2016 Auto Tax Burdens, Family Earning \$75,000/year



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

## GHAPTER IV

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

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

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

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

## Individual Income Tax

According to Table 11 and based on the assumptions made in this report, the individual income tax burden for Washington, D.C. is below the 51-city average at the $\$ 25,000$ level (the average is based on the cities and states that levy an income tax). The income tax burden at the $\$ 50,000, \$ 75,000, \$ 100,000$, and $\$ 150,000$ income levels is slightly higher in D.C. than for the average of the cities levying an income tax. This is due to the District's more progressive income tax. Washington, D.C. levied an individual income tax with six rates in tax year 2016: 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 8.95 percent on taxable income over $\$ 1,000,000$. For tax year 2016, personal exemptions of $\$ 1,775$ per dependent were allowed, as well as a $\$ 1,775$ exemption for the filer and spouse, respectively. A standard deduction of $\$ 8,350$ for joint married filers ( $\$ 5,200$ for married-filing separately), and indexed to the Consumer Price Index was in effect for the period of this study. Itemized deductions are the same as those allowed in computing the federal income tax, but the District does not allow the deduction of its own individual income tax. Washington, D.C. also has "circuit-breaker" property tax relief programs for both elderly and non-elderly qualified homeowners and renters, through which a credit can be claimed against a taxpayer's income tax liability (though this is not considered for calculations in this study). The District's low-income credit eliminates the District income tax for taxpayers with no federal income tax liability.

The District's income tax rates have changed and become more progressive in recent years, with slightly decreasing rates on income between $\$ 40,000$ and $\$ 60,000$ and between $\$ 350,000$ and $\$ 1,000,000$, while rates slightly increased on income over $\$ 1,000,000$. The need to levy higher income tax rates on higher income levels is due in part to restrictions on the individual income tax base of the District. Federal law prohibits Washington, D.C. from taxing the earnings of non-residents working within the city, a restriction not imposed on any other city in the nation. Because of this, the District of Columbia taxes residents at a higher rate than would otherwise be the case since more than 60 percent of the wages and salaries earned in the District of Columbia are earned by non-residents. ${ }^{17}$

## Real Property Tax

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

The tax on residential property in the District of Columbia is based on the assessed value of the property, which is assessed at a statutory level of 100 percent of its estimated market value. The tax rate on residential owner-occupied property in the District is $\$ 0.85$ per $\$ 100$ of assessed value for 2016. D.C. homeowners may deduct a homestead exemption of $\$ 71,700$ from the assessed base before calculation of the property tax for all owner-occupied dwellings. The District has capped the growth of property assessments at 10 percent, when calculating the tax due. The calculations in this study do not adjust for capped growth.

## Sales and Use Tax

According to Table 11, the sales tax burden in the District of Columbia is lower than the 51-city average at the all five income levels (averages are based on cities levying tax). In 2016,

[^12]2016 Tax Rates and Tax Burdens in the District of Columbia: A Nationwide Comparison
the District levied a sales tax with five different rates. This rate structure is used, in part, to take advantage of the District's special status as a tourist center and to increase the contribution of non-residents working in the city. These differential rates illustrate the concept of tax exporting. The following table details the sales tax rates in effect at the end of 2016. Items exempt from the District of Columbia sales tax include groceries and prescription drugs.

| ITEMS | 2016 SALES <br> TAX RATE |
| :--- | :---: |
| Retail rate for sales of certain tangible personal property and selected services, non- <br> alcoholic soft drinks, food, or drinks sold in vending machines | $5.75 \%$ |
| Medical marijuana | $6.0 \%$ |
| Restaurant meals, liquor sold for consumption on and off the premises, rental <br> vehicles, prepaid telephone cards, tickets sold for baseball games, merchandise sold at <br> the baseball stadium, tickets sold for events at the Verizon Center and merchandise <br> sold at the Verizon Center | $10.0 \%$ |
| Hotels (transient accommodations) | $14.5 \%$ |
| Parking motor vehicles in commercial lots | $18.0 \%$ |

Source: "D.C. Tax Facts 2016." Government of D.C., Office of the Chief Financial Officer, Office of Revenue Analysis, p. 28.

## Automobile Taxes

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

## Summary

As noted above, the tax burden of the District of Columbia is influenced by many factors. One of the major reasons the District of Columbia income tax burden is above the average at the top four income levels is the restriction on the District's taxing authority mandated by Congress. Factors such as the prohibition on taxing non-resident income, plus the large percentage of taxexempt properties (fifty-three percent of District acreage is tax exempt ${ }^{18}$ ), have combined to create difficult conditions under which to raise revenues to operate the city. Some of the positive factors, which tend to increase the District tax base, include substantial tourist activity as well as the large volume of business and lobbying activity generated by the federal presence.

[^13]Table 11: Tax Burdens in Washington, D.C. for a Hypothetical Family Compared with the Average for the Largest City in Each State By Income Level, 2016


1/ Income and sales averages are based on cities levying tax. As a result, the overall average is not equal to the sum of the averages for each separate tax type. Averages for Income and Sales taxes do not include cities/states with no income or sales tax.
Note: While using the median of the 51 cities results in slightly different dollar amounts, the results are the same in that DC's overall burden is slightly higher than the 51-city median at the $\$ 25,000$ income level, and lower than the median at the other four income levels.

## Chart 7: Combined 2016 Tax Burdens at Each Income Level: Comparison of D.C. and the Average of the 51 Cities



[^14]
## Part II

## A Comparison of Selected Tax Rates in the District of Columbia with Those in the 50 States as of January 1, 2017

## Tax Rate Comparisons at a Glance

Below is a review of how D.C.'s tax rates compare to the other jurisdictions in the report that levy each tax. Of the 12 taxes compared, tax categories for which District rates are higher than in most of the states include: cigarette; corporate income; individual income; deed recordation; and motor vehicle registration fees. In four tax categories - insurance premiums, beer, light wine, and distilled spirits -- the District has lower tax rates than most states. For gasoline, twenty-five states have higher excise taxes than the District and twenty-five states have lower taxes than the District. Similarly, twenty-six states have a higher sales tax than D.C. and eighteen states have a lower rate.

Table 12: Comparison of Selected State Tax Rates

| TAX | LEVYING TAX | NUMBER OF JURISDICTIONS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { LOWER } \\ & \text { THAN D.C. } \end{aligned}$ | $\begin{gathered} \text { SAME } \\ \text { AS D.C. } \end{gathered}$ | $\begin{gathered} \text { HIGHER } \\ \text { THAN D.C. } \end{gathered}$ |
| Individual Income | $\begin{gathered} 43 \\ 2 / \end{gathered}$ | $\begin{array}{r} 37 \\ 3 / \\ \hline \end{array}$ | 1 | $\begin{aligned} & 5 \\ & 3 / \\ & \hline \end{aligned}$ |
| Corporate Income | 44 | 39 | 1 | 4 |
| Insurance | 50 | 17 | 0 | 33 |
| Sales and Use | 45 | 18 | 1 | 26 |
| Beer | 50 | 7 | 1 | 42 |
| Light Wine | 47 | 4 | 4 | 39 |
| Distilled Spirits | 33 | 0 | 1 | 32 |
| Cigarette | 50 | 42 | 0 | 8 |
| Gasoline | 50 | 25 | 0 | 25 |
| Motor Vehicle Excise Cars < 3,500 lbs. | 46 | 23 | 7 | 16 |
| Motor Vehicle Registration (Fee) | 50 | 47 | 0 | 3 |
| Deed Recordation | 36 | 36 | 0 | 0 |

[^15]Part II: A Comparison of Selected Tax Rates in the District of Columbia With Those in the 50 States as of January 1, 2017
Table 13: Individual Income Tax Washington Metropolitan Area

| PERSONAL EXEMPTIONS | EXEMPTIONS | TAXABLE INCOME 5/ | RATES |
| :---: | :---: | :---: | :---: |
| DISTRICT OF COLUMBIA |  |  |  |
| Single | \$1,775 | $\$ 0-\$ 10,000$$\$ 10,001-\$ 40,000$$\$ 40,001-\$ 60,000$$\$ 60,001-\$ 350,000$$\$ 350,000-\$ 1,000,000$Over $\$ 1,000,000$ | $4.0 \%$ <br> $\$ 400+6.0 \%$ of excess $>\$ 10,000$ <br> $\$ 2,200+6.5 \%$ of excess $>\$ 40,000$ <br> $\$ 3,500+8.5 \%$ of excess $>\$ 60,000$ <br> $\$ 28,150+8.75 \%$ of excess $>\$ 350,000$ <br> $\$ 85,025$, plus $8.95 \%$ of the excess above <br> $\$ 1,000,000$ |
| Married Filing Separately | \$3,550 |  |  |
| Married Filing Jointly | \$3,550 |  |  |
| Head of Household | \$1,775 |  |  |
| Dependent (additional) | \$1,775 |  |  |
| Blind (additional) | \$1,775 |  |  |
| Age 65 and over (additional) | \$1,775 |  |  |
| Standard Deduction | 1/ |  |  |
| MARYLAND $2 /$ |  |  |  |
| Single | \$3,200 | $\$ 0-\$ 1,000$$\$ 1,001-\$ 2,000$$\$ 2,001-\$ 3,000$$\$ 3,001-\$ 150,000$$\$ 150,001-\$ 175,000$$\$ 175,001-\$ 225,000$$\$ 225,001-300,000$Over $\$ 300,000$ | 2.0\%$\$ 20+3.00 \%$ of excess $>\$ 1,000$$\$ 50+4.00 \%$ of excess $>\$ 2,000$$\$ 90+4.75 \%$ of excess $>\$ 3,000$$\$ 7,072.50+5 \%$ of excess $>\$ 150,000$$\$ 8,322.50+5.25 \%$ of excess $>\$ 175,000$$\$ 10,947.50+5.5 \%$ of excess $>\$ 225,000$$\$ 15,072.50+5.75 \%$ of excess $>\$ 300,000$ |
| Married Filing Separately | \$6,400 |  |  |
| Married Filing Jointly | \$6,400 |  |  |
| Head of Household | \$3,200 |  |  |
| Dependent (additional) | \$3,200 |  |  |
| Blind (additional) | \$1,000 |  |  |
| Age 65 and over (additional) | \$1,000 |  |  |
| Standard Deduction | $3 /$ |  |  |
| VIRGINIA |  |  |  |
| Single | \$ 930 | $\$ 0-\$ 3,000$$\$ 3,001-\$ 5,000$$\$ 5,001-\$ 17,000$Over $\$ 17,000$ | $\begin{aligned} & \hline 2.0 \% \\ & \$ 60+3.00 \% \text { of excess }>\$ 3,000 \\ & \$ 120+5.00 \% \text { of excess }>\$ 5,000 \\ & \$ 720+5.75 \% \text { of excess }>\$ 17,000 \end{aligned}$ |
| Married Filing Separately | \$ 930 |  |  |
| Married Filing Jointly | \$1,860 |  |  |
| Head of Household | \$ 930 |  |  |
| Dependent (additional) | \$ 930 |  |  |
| Blind (additional) | \$ 800 |  |  |
| Age 65 and over (additional) | \$ 800 |  |  |
| Standard Deduction | 4/ |  |  |

Source: Survey of State Revenue Department Officials; State Web Sites; and 2017 State Tax Handbook, Wolters Kluwer/ CCH Group, 2016.
1/ Married persons filing separately - $\$ 5,650$; Married filing jointly - $\$ 10,275$; Head of household - $\$ 7,800$.
2/ Maryland rates do not include local rates that may be as low as $1.75 \%$ in Worcester County and as much as $3.20 \%$ in Howard, Montgomery and Prince George's Counties, among others. Baltimore City, which is used in this study, has a local rate of $3.20 \%$.
3/ The standard deduction for an individual is $15 \%$ of Maryland AGI not to exceed $\$ 2,000$ ( $\$ 4,000$ for joint and head of household returns and those filing as qualifying widow(er) with dependent child). The minimum is $\$ 1,500$ for single, married filing separately and dependent taxpayers. All others are allowed a minimum of $\$ 3,000$.
4/ Single - $\$ 3,000$; married persons filing separately $-\$ 3,000$; and married persons filing jointly or combined separate $-\$ 6,000$.
5/ Brackets and rates are for married filing jointly.

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


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 over $\$ 20,000$, and for taxpayers with incomes over $\$ 100,000$ 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/ California Head of Household thresholds are for 2016.
4/ Connecticut's personal exemption incorporates a standard deduction.

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

| PERSONAL EXEMPTIONS (CREDITS) |  |  | RATES AND TAXABLE INCOME BRACKETS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SINGLE | MARRIED <br> FILING <br> JOINT | DEPENDENTS | TYPEOFRETURN | MINIMUM |  | MAXIMUM |  |
|  |  |  |  | RATE | UP TO | RATE | OVER |
| IDAHO |  |  |  |  |  |  |  |
| \$4,050 | \$8,100 | \$4,050 | $\begin{array}{r} \mathrm{S}, \mathrm{M} / \mathrm{S} \\ \mathrm{HH}, \mathrm{M} / \mathrm{J} \end{array}$ | $\begin{aligned} & 1.60 \% \\ & 1.60 \% \end{aligned}$ | $\begin{array}{ll} \hline \$ & 1,454 \\ & 2,908 \end{array}$ | $\begin{aligned} & 7.40 \% \\ & 7.40 \% \end{aligned}$ | $\begin{array}{r} \$ 10,905 \\ 21,810 \end{array}$ |
| ILLINOIS $1 /$ |  |  |  |  |  |  |  |
| \$2,000 | \$4,000 | \$2,000 |  |  |  | of taxable | income. 2/ |
| INDIANA 3/4/ |  |  |  |  |  |  |  |
| \$1,000 | \$2,000 | \$1,000 |  |  | 3.23\% | adjust | oss income. |
| IOWA |  |  |  |  |  |  |  |
| (\$40) | (\$80) | (\$40) | S, M/J | 0.36\% | \$ 1,554 | 8.98\% | \$ 70,785 |
| KANSAS |  |  |  |  |  |  |  |
| \$2,250 | \$4,500 | \$2,250 | $\begin{array}{r} \hline \mathrm{S}, \mathrm{M} / \mathrm{S} \\ \mathrm{M} / \mathrm{J} \end{array}$ | $\begin{aligned} & \hline 2.9 \% \\ & 2.9 \% \end{aligned}$ | $\begin{array}{r} \hline \$ 15,000 \\ 30,000 \end{array}$ | $\begin{aligned} & \hline 5.2 \% \\ & 5.2 \% \end{aligned}$ | $\begin{aligned} & \hline \$ 30,000 \\ & 60,000 \end{aligned}$ |
| KENTUCKY |  |  |  |  |  |  |  |
| (\$20) | (\$40) | (\$20) |  | 2.0\% | \$ 3,000 | 6.0\% | \$ 75,000 |
| LOUISIANA |  |  |  |  |  |  |  |
| \$4,500 | \$9,000 | \$1,000 | $\begin{array}{r} \hline \mathrm{S}, \mathrm{M} / \mathrm{S}, \mathrm{HH} \\ \mathrm{M} / \mathrm{J} \end{array}$ | $\begin{aligned} & \hline 2.0 \% \\ & 2.0 \% \end{aligned}$ | $\begin{array}{r} \hline \$ 12,500 \\ 25,000 \end{array}$ | $\begin{aligned} & \hline 6.0 \% \\ & 6.0 \% \end{aligned}$ | $\begin{aligned} & \hline \$ 50,000 \\ & \$ 100,000 \end{aligned}$ |
| MAINE |  |  |  |  |  |  |  |
| \$4,050 | \$8,100 | \$4,050 | $\begin{array}{r} \hline \mathrm{S}, \mathrm{M} / \mathrm{S} \\ \mathrm{HH} \\ \mathrm{M} / \mathrm{J} \\ \hline \end{array}$ | $\begin{aligned} & \hline 5.80 \% \\ & 5.80 \% \\ & 5.80 \% \end{aligned}$ | $\begin{array}{rr} \hline \$ 21,050 \\ 31,550 \\ 42,100 \\ \hline \end{array}$ | $\begin{aligned} & \hline 7.15 \% \\ & 7.15 \% \\ & 7.15 \% \end{aligned}$ | $\begin{array}{r} \hline 50,000 \\ 56,250 \\ 75,000 \end{array}$ |
| MARYLAND 3/ |  |  |  |  |  |  |  |
| \$3,200 | \$6,400 | \$3,200 | $\begin{array}{r} \mathrm{S}, \mathrm{M} / \mathrm{S} \\ \mathrm{M} / \mathrm{J}, \mathrm{HH} \end{array}$ | $\begin{aligned} & \hline 2.0 \% \\ & 2.0 \% \end{aligned}$ | $\begin{array}{r} \hline \$ 1,000 \\ 1,000 \end{array}$ | $\begin{aligned} & \hline 5.75 \% \\ & 5.75 \% \end{aligned}$ | $\begin{array}{r} \hline \$ 250,000 \\ 300,000 \end{array}$ |
| MASSACHUSETTS |  |  |  |  |  |  |  |
| \$4,400 | \$8,800 | \$1,000 |  |  |  | .10\% of | ble income. |
| MICHIGAN 3/ |  |  |  |  |  |  |  |
| \$4,000 | \$8,000 | n/a |  |  |  | .25\% of | ble income. |

1/ Illinois' rate increased to 4.95\% effective July 1, 2017.
$2 /$ Does not include filing fee of $\$ 10$.
3/ Does not include various local income taxes.
4/ 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 | $\begin{aligned} & \text { MARRIED } \\ & \text { FILING } \\ & \text { JOINT } \end{aligned}$ | DEPENDENTS | TYPEOFRETURN | MINIMUM |  | MAXIMUM |  |
|  |  |  |  | RATE | UP TO | RATE | OVER |
| MINNESOTA |  |  |  |  |  |  |  |
| \$4,050 | \$8,100 | \$4,050 | S | 5.35\% | \$ 25,390 | 9.85\% | \$ 156,911 |
|  |  |  | M/S | 5.35\% | 18,560 | 9.85\% | 130,760 |
|  |  |  | HH | 5.35\% | 31,260 | 9.85\% | 209,200 |
|  |  |  | M/J | 5.35\% | 37,110 | 9.85\% | 261,510 |
| MISSISSIPPI |  |  |  |  |  |  |  |
| \$6,000 | \$12,000 | \$1,500 | S, M/J, HH | 3.0\% | \$ 5,000 | 5.0\% | \$ 10,000 |
| MISSOURI $1 /$ |  |  |  |  |  |  |  |
| \$2,100 | \$4,200 | \$1,200 | $\begin{array}{r} \hline \mathrm{S}, \mathrm{M} / \mathrm{J}, \mathrm{HH}, \\ \mathrm{M} / \mathrm{S} \end{array}$ | 1.5\% | \$ 1,008 | 6.0\% | \$ 9,072 |
| MONTANA |  |  |  |  |  |  |  |
| \$2,400 | \$4,800 | \$2,400 | S, M/J, HH | 1.0\% | \$ 2,900 | 6.9\% | \$ 17,600 |
| NEBRASKA |  |  |  |  |  |  |  |
| (\$132) | (\$264) | (\$132) | M/S,S | 2.46\% | \$ 3,090 | 6.84\% | \$ 29,830 |
|  |  |  | HH $2 /$ | 2.46\% | 5,710 | 6.84\% | 43,880 |
|  |  |  | M/J | 2.46\% | 6,170 | 6.84\% | 59,660 |
| NEW HAMPSHIRE |  |  |  |  |  |  |  |
| \$2,400 | \$4,800 | --- |  | n dividen | d interest in | ver perso | exemption. |
| NEW JERSEY |  |  |  |  |  |  |  |
| \$1,000 | \$2,000 | \$1,500 | $\begin{gathered} \text { S,M/S, } \\ \text { HH,M/J } \end{gathered}$ | 1.4\% | \$ 20,000 | 8.97\% | \$ 500,000 |
| NEW MEXICO |  |  |  |  |  |  |  |
| \$4,050 | \$8,100 | \$4,050 | $\overline{\mathrm{S}, \mathrm{M} / \mathrm{S}}$ | $\begin{aligned} & 1.7 \% \\ & 1.7 \% \end{aligned}$ | $\begin{array}{ll} \hline \$ & 5,500 \\ 8000 \end{array}$ | $\begin{aligned} & \hline 4.9 \% \\ & 4.9 \% \end{aligned}$ | $\begin{array}{ll} \hline 16,000 \\ 24,000 \end{array}$ |
| NEW YORK |  |  |  |  |  |  |  |
| --- | --- | \$1,000 | M/S,S | 4.0\% | \$ 8,500 | 8.82\% | \$1,077,550 |
|  |  |  | HH $2 /$ | 4.0\% | 12,750 | 8.82\% | 1,605,650 |
|  |  |  | M/J | 4.0\% | 17,150 | 8.82\% | 2,155,350 |
| NORTH CAROLINA |  |  |  |  |  |  |  |
| --- | --- | --- |  |  |  |  | 5.499\% |
| NORTH DAKOTA |  |  |  |  |  |  |  |
| \$4,050 | \$8,100 | \$4,050 | S | 1.10\% | \$ 37,950 | 2.90\% | \$ 416,700 |
|  |  |  | HH $2 /$ | 1.10\% | 50,400 | 2.90\% | 413,350 |
|  |  |  |  | 1.10\% | 63,400 | 2.90\% | 416,700 |

[^16]
## Table 14 (Continued) Individual Income Tax 43 States and the District of Columbia

| PERSONAL EXEMPTIONS (CREDITS) |  |  | RATES AND TAXABLE INCOME BRACKETS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SINGLE | $\begin{array}{\|l} \hline \text { MARRIED } \\ \text { FILING } \\ \text { JOINT } \\ \hline \end{array}$ | DEPENDENTS | TYPE OF RETURN | MINIMUM |  | MAXIMUM |  |
|  |  |  |  | RATE | UP TO | RATE | OVER |
| OHIO 1/ |  |  |  |  |  |  |  |
| \$2,250 | \$4,500 | \$2,250 | S,M/J,M/S | 0.495\% | \$ 5,250 | 4.997\% | \$210,600 |
| OKLAHOMA |  |  |  |  |  |  |  |
| \$1,000 | \$2,000 | \$1,000 | $\begin{array}{r} \mathrm{S}, \mathrm{M} / \mathrm{S} \\ \mathrm{HH}, \mathrm{M} / \mathrm{J} \end{array}$ | $\begin{aligned} & \hline 0.5 \% \\ & 0.5 \% \end{aligned}$ | $\begin{array}{ll} \hline \$ & 1,000 \\ 2,000 \end{array}$ | $\begin{aligned} & \hline 5.00 \% \\ & 5.00 \% \end{aligned}$ | $\begin{array}{r} 7,200 \\ 12,200 \end{array}$ |
| OREGON 1/ |  |  |  |  |  |  |  |
| (\$197) | (\$394) | (\$197) | $\begin{array}{r} \mathrm{S}, \mathrm{M} / \mathrm{S} \\ \mathrm{M} / \mathrm{J} \end{array}$ | $\begin{aligned} & 5.0 \% \\ & 5.0 \% \end{aligned}$ | \$ $\begin{array}{r}3,400 \\ 6,700\end{array}$ | $\begin{aligned} & 9.9 \% \\ & 9.9 \% \end{aligned}$ | $\begin{array}{r} \hline \$ 125,000 \\ 250,000 \end{array}$ |
| PENNSYLVANIA 1/ |  |  |  |  |  |  |  |
| --- | --- | --- |  | 7\% of spe | d classes of | income | fective rate. |
| RHODE ISLAND |  |  |  |  |  |  |  |
| \$3,900 | \$7,800 | \$3,900 | S,HH,M/S, | 3.75\% | \$ 61,300 | 5.99\% | \$ 139,400 |
| SOUTH CAROLINA |  |  |  |  |  |  |  |
| \$4,050 | \$8,100 | \$4,050 | S,M/S,M/J | 0.0\% | \$ 2,930 | 7.0\% | \$ 14,650 |
| TENNESSEE |  |  |  |  |  |  |  |
| \$1,250 | \$2,500 | --- |  |  | 6.0\% o | est and divid | end income. |
| UTAH |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  | \% flat rate. |
| VERMONT |  |  |  |  |  |  |  |
| \$4,050 | \$8,100 | \$4,050 | S | 3.55\% | \$37,950 | 8.95\% | \$ 416,700 |
|  |  |  | M/S | 3.55\% | 31,425 | 8.95\% | 206,675 |
|  |  |  | HH | 3.55\% | 50,400 | 8.95\% | 413,350 |
|  |  |  | M/J | 3.55\% | 63,350 | 8.95\% | 416,700 |
| VIRGINIA |  |  |  |  |  |  |  |
| \$930 | \$1,860 | \$930 | S,M/J | 2.0\% | \$ 3,000 | 5.75\% | \$ 17,000 |
| WEST VIRGINIA |  |  |  |  |  |  |  |
| \$2,000 | \$4,000 | \$2,000 | S,M/J | 3.0\% | \$ 10,000 | 6.5\% | \$ 60,000 |
| WISCONSIN |  |  |  |  |  |  |  |
| \$700 | \$1,400 | \$700 | S,HH | 4.0\% | \$ 11,230 | 7.65\% | \$ 247,350 |
|  |  |  | M/J | 4.0\% | 14,980 |  | 329,810 |
|  |  |  | M/S 3/ | 4.0\% | 7,410 |  | 163,170 |

Source: Survey of State Revenue Department Officials; State Department of Revenue web sites; Federation of Tax Administrators, "State Individual Income Tax Rates as of January 1, 2017"; and Tax Foundation, "State Individual Income Tax Rates and Brackets for 2017."

1/ Does not include various local income taxes.
2/ Utah provides a tax credit equal to $6 \%$ of the federal personal exemption amounts (and applicable standard deduction).
3/ Wisconsin M/S thresholds are for 2016.

Table 15: Characteristics of State Individual Income Taxes

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

Table 15 (Continued) Characteristics of State Individual Income Taxes

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

Source: Federation of Tax Administrators, "State Personal Income Taxes: Federal Starting Points;" January 1, 2017 and "State Individual Income
Taxes;" January 1, 2017; Survey of State Revenue Department Officials; "2017 State Tax Handbook." Wolters Kluwer/CCH. 2016

* 'Federal taxable income' is the definition of income for state base.

1/ Federal taxes used as a deduction are limited to $\$ 5,000$. Plus "additions" \& "subtractions" to arrive at Montana Adjusted Gross Income.
2/ Tax only on interest and dividends.
3/ Federal deductibility is limited to $\$ 6,100$, and begins to phase out at a FAGI of $\$ 125,000$ for Single or Married Filing Separate or $\$ 250,000$ for Head of Household or Married Filing Joint.

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

DISTRICT OF COLUMBIA: $9.0 \% ~ 1 /$

| LOWER THAN THE DISTRICT 39 STATES |  |  |  |
| :---: | :---: | :---: | :---: |
| North Carolina | 3.00\% | Tennessee | 6.50\% |
| North Dakota | 4.31\% | West Virginia | $6.50 \%$ |
| Colorado | 4.63\% | Montana 3/ | 6.75\% |
| Arizona | 4.90\% | Kansas 4/ | 7.00\% |
| Mississippi | 5.00\% | Rhode Island | 7.00\% |
| South Carolina | 5.00\% | Idaho | 7.40\% |
| Utah | 5.00\% | Connecticut 5/ | 7.50\% |
| Florida | 5.50\% | Oregon | 7.60\% |
| Georgia | 6.00\% | Illinois 6/ | 7.75\% |
| Kentucky | 6.00\% | Nebraska | 7.81\% |
| Michigan | 6.00\% | Wisconsin | 7.90\% |
| Oklahoma | 6.00\% | Louisiana | 8.00\% |
| Virginia | 6.00\% | Massachusetts | 8.00\% |
| New Mexico | 6.20\% | New Hampshire 7/ | 8.20\% |
| Indiana $2 /$ | 6.25\% | Maryland | 8.25\% |
| Missouri | 6.25\% | Vermont | 8.50\% |
| Hawaii | 6.40\% | Delaware | 8.70\% |
| Alabama | $6.50 \%$ | California | 8.84\% |
| Arkansas New York | $\begin{aligned} & 6.50 \% \\ & 6.50 \% \end{aligned}$ |  | 8.93\% |
| New York | 6.50\% |  |  |
| SAME AS THE DISTRICT1 STATE |  |  |  |
| New Jersey 9.00\% |  |  |  |
| HIGHER THAN THE DISTRICT4 STATES |  |  |  |
| Alaska | 9.40\% | Pennsylvania | 9.99\% |
| Minnesota | 9.80\% | Iowa | 12.00\% |
| $\begin{aligned} & \text { NO TAX } \\ & 6 \text { STATES } \end{aligned}$ |  |  |  |
| Ohio 8/ <br> Nevada <br> South Dakota 9/ |  | Texas <br> Washington Wyoming |  |

Source: Survey of State Revenue Department Officials; Wolters Kluwer/CCH 2017 State Tax Handbook; and Federation of Tax Administrators, "Range of State Corporate Income Tax Rates, January 1, 2017."

1/ D.C.'s rate is scheduled to decrease to $8.25 \%$ on January 1, 2018.
2/ Indiana's rate is scheduled to decrease to $6.0 \%$ on July 1, 2017.
3/ Montana's rate is 7\% for corporations making a "water's edge" election.
4/ Kansas' rate includes a $3.0 \%$ surtax on taxable income in excess of $\$ 50,000$.
5/ There is a $20 \%$ surtax for 2012-2017, for corporations with gross income over $\$ 100$ million.
6/ Illinois' rate includes 2.5\% Personal Property Replacement Tax.
7/ Does not include a Business Enterprise Tax of $0.75 \%$ on the enterprise base (total compensation, interest and dividends paid) for businesses with gross income over $\$ 150,000$ or base over $\$ 75,000$.
8/ Ohio's Commercial Activity Tax (CAT) is imposed on the privilege of doing business in Ohio, measured by gross receipts.
9/ There is a Bank Franchise Tax for Commercial Lenders in South Dakota.

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

DISTRICT OF COLUMBIA: $1.7 \%$

| LOWER THAN THE DISTRICT 17 STATES |  |  |  |
| :---: | :---: | :---: | :---: |
| Illinois 1/ | 0.50\% | Ohio | 1.40\% |
| New York 21 | 0.70\% | Idaho | 1.50\% |
| South Carolina | 0.75\% | Kentucky | 1.50\% |
| Wyoming | 0.75\% | Minnesota | 1.50\% |
| Iowa | 1.00\% | Connecticut | 1.75\% |
| Nebraska | 1.00\% | Florida | 1.75\% |
| Michigan | 1.25\% | Tennessee | 1.75\% |
| Indiana | 1.30\% | Texas | 1.75\% |
|  |  | North Carolina 3/ | 1.90\% |
| HIGHER THAN THE DISTRICT33 STATES |  |  |  |
|  |  |  |  |
| Arizona | 1.90\% | Georgia | 2.25\% |
| Colorado | 2.00\% | Louisiana | 2.25\% |
| Delaware | 2.00\% | Oklahoma | 2.25\% |
| Kansas | 2.00\% | Utah | 2.25\% |
| Maine | 2.00\% | Virginia | 2.25\% |
| Maryland | 2.00\% | Alabama | 2.30\% |
| Massachusetts | 2.00\% | California | 2.35\% |
| Missouri | 2.00\% | Arkansas | 2.50\% |
| New Hampshire | 2.00\% | South Dakota | 2.50\% |
| New Jersey | 2.00\% | Alaska | 2.70\% |
| North Dakota | 2.00\% | Hawaii | 2.75\% |
| Oregon | 2.00\% | Montana | 2.75\% |
| Pennsylvania | 2.00\% | Mississippi | 3.00\% |
| Rhode Island | 2.00\% | New Mexico | 3.00\% |
| Vermont | 2.00\% | West Virginia 4/ | 3.00\% |
| Washington | 2.00\% | Nevada | 3.50\% |
| Wisconsin | 2.00\% |  |  |

Source: Survey of State Revenue Department Officials; Wolters Kluwer/CCH 2017 State Tax Handbook.

1/ An additional $1 \%$ premium tax for fire or fire related insurance policies.
2/ Life insurers pay a franchise tax which is equal to the sum of the premiums tax and a tax based on the highest of four bases, plus a tax on subsidiary capital. The sum of the two components cannot be less than $1.5 \%$ or greater than $2 \%$ of premiums.
3/ An additional $6.5 \%$ insurance regulatory charge applied to premium tax liability for 2017.
4/ Additional fire and casualty insurance premium tax of 1 percent for municipal pensions and 0.55 percent surcharge for volunteer fire departments.

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

DISTRICT OF COLUMBIA: $5.75 \%$

| LOWER THAN THE DISTRICT18 STATES |  |  |  |
| :---: | :---: | :---: | :---: |
| Colorado (8.3\%) | 2.900\% | North Dakota (3.5\%) | 5.000\% |
| Alabama (7.0\%) | 4.000\% | Louisiana (7.0\%) | 5.000\% |
| Georgia (4.0\%) | 4.000\% | Wisconsin (1.75\%) | 5.000\% |
| Hawaii (0.50\%) | 4.000\% | New Mexico (3.56\%) | 5.125\% |
| New York (4.875\%) | 4.000\% | Maine | 5.300\% |
| Wyoming (2.0\%) | 4.000\% | Virginia (0.70\%) 1/ | 5.500\% |
| Missouri (5.0\%) | 4.225\% | Nebraska (2.0\%) | 5.500\% |
| Oklahoma (6.5\%) | 4.500\% | Arizona (5.3\%) | 5.600\% |
| South Dakota (2.0\%) | 4.500\% |  |  |
| North Carolina (2.75\%) | 4.750\% |  |  |
| SAME AS THE DISTRICT1 STATE |  |  |  |
| Ohio (2.25\%) | 5.75\% |  |  |
| HIGHER THAN THE DISTRICT26 STATES |  |  |  |
| Utah (2.15\%) 1/ | 5.950\% | Connecticut | 6.350\% |
| Florida (1.5\%) | 6.000\% | Arkansas (5.13\%) | 6.500\% |
| Idaho (3.0\%) | 6.000\% | Kansas (4.0\%) | 6.500\% |
| Iowa (1.0\%) | 6.000\% | Washington (3.40\%) | 6.500\% |
| Kentucky | 6.000\% | Nevada (1.30\%) | 6.850\% |
| Maryland | 6.000\% | Minnesota (1.5\%) | 6.875\% |
| Michigan | 6.000\% | New Jersey | 6.875\% |
| Pennsylvania (2.0\%) | 6.000\% | Indiana | 7.000\% |
| South Carolina (2.5\%) | 6.000\% | Mississippi (1.0\%) | 7.000\% |
| Vermont (1.0\%) | 6.000\% | Rhode Island | 7.000\% |
| West Virginia (1.0\%) | 6.000\% | Tennessee (2.75\%) | 7.000\% |
| Illinois (4.75\%) | 6.250\% | California (2.50\%) 1/2/ | 7.250\% |
| Massachusetts | 6.250\% |  |  |
| Texas (2.0\%) | 6.250\% |  |  |
| $\begin{gathered} \text { NO TAX } \\ 5 \text { STATES } \end{gathered}$ |  |  |  |
| Alaska (7.5\%) |  | New Hampshire |  |
| Delaware <br> Montana 3/ |  | Oregon |  |

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 in 2017."

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/ California's state rate decreased on January 1, 2017, making it different from the state rate of $7.5 \%$ presented in Table 7 of this report. 3/ Does not include sales taxes in some local resort areas.

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

## DISTRICT OF COLUMBIA: \$0.09

| LOWER THAN THE DISTRICT 7 STATES |  |  |  |
| :---: | :---: | :---: | :---: |
| Wyoming <br> Missouri <br> Wisconsin Colorado | $\begin{gathered} \$ .02 \\ .06 \\ .065 \\ .08 \end{gathered}$ | Kentucky Pennsylvania Oregon | $\begin{aligned} & \$ .08 \\ & .08 \\ & .084 \end{aligned}$ |
| SAME AS THE DISTRICT 1 STATE |  |  |  |
| Maryland | \$ . 09 |  |  |
| HIGHER THAN THE DISTRICT42 STATES |  |  |  |
| Massachusetts <br> Rhode Island <br> Indiana <br> New Jersey <br> Montana 1/ | $\begin{gathered} \$ .107 \\ .107 \\ .12 \\ .12 \\ .14 \end{gathered}$ | Connecticut <br> Virginia <br> Vermont <br> Washington 4/ <br> South Dakota | $\begin{array}{ll} \hline \$ .24 \\ .2565 \\ .265 \\ & .26 \\ & .27 \end{array}$ |
| New York <br> Minnesota $2 /$ <br> Arizona <br> Delaware <br> Nevada | $\begin{aligned} & .14 \\ & .15 \\ & .16 \\ & .16 \\ & .16 \end{aligned}$ | New Hampshire <br> Nebraska <br> Georgia <br> Maine <br> Louisiana | $\begin{aligned} & .30 \\ & .31 \\ & .32 \\ & .35 \\ & .40 \end{aligned}$ |
| North Dakota 31 <br> Kansas <br> Ohio <br> West Virginia <br> Iowa | $\begin{aligned} & .16 \\ & .18 \\ & .18 \\ & .18 \\ & .19 \end{aligned}$ | Oklahoma <br> New Mexico 5/ <br> Utah 6 <br> Mississippi <br> Idaho | $\begin{aligned} & .40 \\ & .41 \\ & .41 \\ & .4268 \\ & .45 \end{aligned}$ |
| California <br> Michigan <br> Texas <br> Illinois <br> Arkansas | $\begin{aligned} & .20 \\ & .20 \\ & .20 \\ & .231 \\ & .234 \end{aligned}$ | Florida <br> Alabama <br> North Carolina <br> South Carolina <br> Hawaii 7/ | $\begin{aligned} & .48 \\ & .53 \\ & .62 \\ & .768 \\ & .93 \end{aligned}$ |
|  |  | Alaska <br> Tennessee | $\begin{aligned} & 1.07 \\ & 1.29 \\ & \hline \end{aligned}$ |

Source: Survey of State Revenue Department Officials; and Federation of Tax Administrators, "State Tax Rates on Beer. (January 1, 2017)."

1/ Montana taxes beer at different rates per size of brewer (< 5 k barrels produced - $\$ .04$ per gallon; 5 k to $10 \mathrm{k}-\$ .07$ per gallon; 10k to $20 \mathrm{k}-\$ .11$ per gallon; and $>20 \mathrm{k}-\$ .14$ per gallon).
2/ Credit allowed to small brewers.
3/ $\$ 0.08$ per gallon for bulk beer.
4/ Credit allowed to small brewers.
$5 /$ Rate is $\$ 0.08$ 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 $\$ 0.54$ per gallon for draft beer.

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

## DISTRICT OF COLUMBIA: \$0.30

| MONOPOLY STATES 3 STATES |  |  |  |
| :---: | :---: | :---: | :---: |
| Pennsylvania 1/ |  | Utah $2 /$ Wyoming |  |
| LOWER THAN THE DISTRICT 4 STATES |  |  |  |
| California <br> Texas | $\begin{array}{r} \$ .20 \\ .20 \end{array}$ | Wisconsin Colorado | $\begin{array}{r} \$ .25 \\ .28 \end{array}$ |
| SAME AS THE DISTRICT <br> 4 STATES |  |  |  |
| Kansas <br> Minnesota | $\begin{array}{r} \$ .30 \\ .30 \end{array}$ | New Hampshire New York | $\begin{array}{r} \$ .30 \\ .30 \end{array}$ |
| HIGHER THAN THE DISTRICT <br> 39 STATES |  |  |  |
| Ohio <br> Mississippi <br> Maryland <br> Missouri <br> Idaho | $\begin{array}{r} \$ .32 \\ .35 \\ .40 \\ .42 \\ .45 \end{array}$ | New Jersey South Dakota Nebraska Delaware North Carolina | $\begin{array}{r} \$ .88 \\ .93 \\ .95 \\ .97 \\ 1.00 \end{array}$ |
| Indiana <br> Kentucky <br> North Dakota <br> Michigan <br> Massachusetts | $\begin{aligned} & .47 \\ & .50 \\ & .50 \\ & .51 \\ & .55 \end{aligned}$ | West Virginia <br> Montana $2 /$ South Carolina <br> Tennessee Hawaii | $\begin{aligned} & 1.00 \\ & 1.02 \\ & 1.08 \\ & 1.21 \\ & 1.38 \end{aligned}$ |
| Vermont <br> Maine <br> Oregon <br> Nevada <br> Connecticut | $\begin{aligned} & .55 \\ & .60 \\ & .67 \\ & .70 \\ & .72 \end{aligned}$ | Illinois <br> Rhode Island <br> Georgia <br> Virginia <br> Alabama | $\begin{aligned} & 1.39 \\ & 1.40 \\ & 1.51 \\ & 1.51 \\ & 1.70 \end{aligned}$ |
| Oklahoma <br> Arkansas <br> Louisiana <br> Arizona <br> Washington | $\begin{aligned} & .72 \\ & .75 \\ & .75 \\ & .84 \\ & .87 \end{aligned}$ | New Mexico <br> Iowa <br> Florida <br> Alaska | $\begin{aligned} & 1.70 \\ & 1.75 \\ & 2.25 \\ & 2.50 \end{aligned}$ |

[^17]
## Table 21: State Distilled Spirits Tax Rates (Per Gallon)

DISTRICT OF COLUMBIA: $\$ 1.50$

| CONTROL BOARD STATES 17 STATES |  |  |  |
| :---: | :---: | :---: | :---: |
| Alabama <br> Idaho <br> Iowa 1/ <br> Maine <br> Michigan <br> Mississippi <br> Montana 2/ <br> New Hampshire <br> North Carolina 3/ |  | Ohio <br> Oregon <br> Pennsylvania 4/ <br> Utah 5/ <br> Vermont <br> Virginia 6 <br> West Virginia <br> Wyoming |  |
| SAME AS THE DISTRICT1 STATE |  |  |  |
| Maryland | \$ 1.50 |  |  |
| HIGHER THAN THE DISTRICT 32 STATES |  |  |  |
| Georgia <br> Kentucky <br> Missouri <br> Colorado <br> Texas | $\begin{array}{r} \$ 1.89 \\ 1.92 \\ 2.00 \\ 2.28 \\ 2.40 \end{array}$ | Delaware 9/ <br> Nebraska <br> South Dakota <br> Massachusetts <br> Tennessee | $\begin{array}{r} \$ 3.75 \\ 3.75 \\ 3.93 \\ 4.05 \\ 4.40 \end{array}$ |
| Arkansas 7/ <br> Kansas <br> North Dakota <br> Indiana <br> South Carolina $8 /$ | $\begin{aligned} & 2.50 \\ & 2.50 \\ & 2.50 \\ & 2.68 \\ & 2.72 \end{aligned}$ | Minnesota Connecticut Rhode Island New Jersey Oklahoma | $\begin{aligned} & 5.03 \\ & 5.40 \\ & 5.40 \\ & 5.50 \\ & 5.56 \end{aligned}$ |
| Arizona <br> Louisiana <br> Wisconsin <br> California <br> Nevada | $\begin{aligned} & 3.00 \\ & 3.02 \\ & 3.25 \\ & 3.30 \\ & 3.60 \end{aligned}$ | Hawaii <br> New Mexico <br> New York <br> Florida <br> Illinois | $\begin{aligned} & 5.98 \\ & 6.06 \\ & 6.43 \\ & 6.50 \\ & 8.55 \end{aligned}$ |
|  |  | Alaska <br> Washington | $\begin{aligned} & 12.80 \\ & 14.27 \end{aligned}$ |

Source: Survey of State Revenue Department Officials; Federation of Tax Administrators, "State Tax Rates on Distilled Spirits, (January 1, 2017)."

## 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. An additional $7 \%$ state sales tax.
$4 / 18 \%$ wine \& liquor tax on top of a $30 \%$ markup.
5/ Spirituous liquor is subject to a markup of $86 \%$ above the landed case cost.
6 / Virginia levies a tax of $20 \%$ of the price charged on alcoholic beverages.
7/ Containing more than $21 \%$ of alcohol by weight.
8/ Additionally, there is a $\$ 1.79$ case tax per gallon, and a $\$ 0.41$ surtax, totaling $\$ 4.92$ per gallon.
9/ Distilled spirits with $25 \%$ or less ethyl alcohol at $\$ 2.50$ per gallon.

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

DISTRICT OF COLUMBIA: \$2.92 1 /

| LOWER THAN THE DISTRICT 42 STATES |  |  |  |
| :---: | :---: | :---: | :---: |
| Missouri | . 17 | Kansas | 1.29 |
| Virginia | . 30 | Oregon | 1.32 |
| Georgia | . 37 | Florida | 1.339 |
| North Dakota | . 44 | Iowa | 1.36 |
| North Carolina | . 45 | Texas | 1.41 |
| Idaho | . 57 | South Dakota | 1.53 |
| South Carolina | . 57 | Delaware | 1.60 |
| Kentucky | . 60 | Ohio | 1.60 |
| Wyoming | . 60 | New Mexico | 1.66 |
| Tennessee | . 62 | Montana | 1.70 |
| Nebraska | . 64 | Utah | 1.70 |
| Alabama | . 675 | New Hampshire | 1.78 |
| Mississippi | . 68 | Nevada | 1.80 |
| Colorado | . 84 | Illinois | 1.98 |
| California | . 87 | Alaska | 2.00 |
| Indiana | . 995 | Arizona | 2.00 |
| Oklahoma | 1.03 | Maine | 2.00 |
| Louisiana | 1.08 | Maryland | 2.00 |
| Arkansas | 1.15 | Michigan | 2.00 |
| West Virginia | 1.20 | Wisconsin | 2.52 |
|  |  | Pennsylvania New Jersey | $\begin{aligned} & 2.60 \\ & 2.70 \end{aligned}$ |
| HIGHER THAN THE DISTRICT 8 STATES |  |  |  |
| Washington | 3.025 | Minnesota $2 /$ | 3.59 |
| Vermont | 3.08 | Rhode Island | 3.75 |
| Hawaii | 3.20 | Connecticut | 3.90 |
| Massachusetts | 3.51 | New York | 4.35 |

[^18]1/ Includes an in lieu cigarette sales tax currently at $\$ 0.42$.
2 Includes an in lieu cigarette sales tax currently at $\$ 0.55$.

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

DISTRICT OF COLUMBIA: \$ . 235

| LOWER THAN THE DISTRICT 25 STATES |  |  |  |
| :---: | :---: | :---: | :---: |
| Alaska | \$ . 08 | Illinois | \$ . 19 |
| New York 1/ | . 08 | Louisiana | . 20 |
| New Jersey | . 105 | Tennessee | . 20 |
| Vermont | . 121 | Texas | . 20 |
| Hawaii | . 16 | Arkansas | . 218 |
| Oklahoma | . 16 | Colorado | . 22 |
| South Carolina | . 16 | New Hampshire | . 222 |
| Virginia | . 162 | Delaware | . 23 |
| Missouri | . 17 | Nevada | . 23 |
| New Mexico | . 17 | North Dakota | . 23 |
| Alabama | . 18 | Wyoming | . 23 |
| Arizona | . 18 |  |  |
| Indiana | . 18 |  |  |
| Mississippi | . 18 |  |  |
| HIGHER THAN THE DISTRICT 25 STATES |  |  |  |
| Kansas | . 24 | Maine | . 30 |
| Massachusetts | . 24 | Oregon | . 30 |
| Kentucky | . 246 | Iowa | . 307 |
| Florida | . 248 | Wisconsin | . 309 |
| Connecticut | . 25 | Idaho | . 32 |
| Michigan | . 26 | West Virginia | . 322 |
| Georgia | . 263 | Rhode Island | . 33 |
| Nebraska | . 273 | Maryland | . 335 |
| Montana | . 277 | North Carolina | . 34 |
| California | . 28 | Washington | . 494 |
| Ohio | . 28 | Pennsylvania | . 582 |
| South Dakota | . 28 |  |  |
| Minnesota | . 29 |  |  |
| Utah | . 294 |  |  |

Source: Survey of State Revenue Department officials. Federation of Tax Administrators, "State Motor Fuel Rates, (January 1, 2017)."

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

1/ Excludes a petroleum fee of $\$ 0.162$.

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

46 States and D.C.

| DISTRICT OF COLUMBIA: 1/ <br> $6 \%$ of fair market value $-3,499$ pounds or less <br> $\mathbf{7 \%}$ of fair market value $-3,500$ pounds and less than 5,000 pounds <br> $8 \%$ of fair market value $-5,000$ pounds or more |  |  |  |
| :---: | :---: | :---: | :---: |
| Alabama | 2.00\% | Ohio 3/ | 5.75\% |
| Colorado | 2.90\% | Florida 3/ | 6.00\% |
| New Mexico | 3.00\% | Idaho | 6.00\% |
| North Carolina $2 /$ | 3.00\% | Kentucky 3/ | 6.00\% |
| Oklahoma | 3.25\% | Maryland | 6.00\% |
| Hawaii | 4.00\% | Michigan | 6.00\% |
| New York | 4.00\% | Pennsylvania 7/ | 6.00\% |
| South Dakota | 4.00\% | Vermont | 6.00\% |
| Wyoming 3/ | 4.00\% | Illinois | 6.25\% |
| Virginia | 4.15\% | Massachusetts 3/ | 6.25\% |
| Missouri 3/ | 4.23\% | Texas 71 | 6.25\% |
| Delaware 4/ | 4.25\% | Connecticut 3/, $9 /$ | 6.35\% |
| Utah | 4.70\% | Arkansas 3/, 10/ | 6.50\% |
| Iowa 5/ | 5.00\% | Kansas | 3.50\% |
| Louisiana 3/ | 5.00\% | Minnesota | 6.50\% |
| North Dakota | 5.00\% | Washington 3/ | 6.50\% |
| South Carolina 6/ | 5.00\% | Georgia 11/ | 7.00\% |
| West Virginia 71 | 5.00\% | Indiana 3/ | 7.00\% |
| Wisconsin 3/ | 5.00\% | Mississippi 3/ | 7.00\% |
| Maine 3/8/ | 5.50\% | New Jersey 3/ | 7.00\% |
| Nebraska | 5.50\% | Tennessee | 7.00\% |
| Arizona | 5.60\% | Rhode Island | 7.00\% |
|  |  | California 3/ | 7.50\% |
|  |  | Nevada 3/ | 8.10\% |
| NO TAX <br> 4 STATES |  |  |  |
| Alaska |  | New Hampshire |  |
| Montana |  | Oregon |  |

[^19]
# Table 25: State Motor Vehicle Annual Registration Fees 

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

DISTRICT OF COLUMBIA: \$115.00 $1 /$

| LOWER THAN THE DISTRICT 47 STATES |  |  |  |
| :---: | :---: | :---: | :---: |
| Arizona | \$ 9.50 | Delaware | \$ 40.00 |
| Mississippi | 15.00 | South Carolina | 40.00 |
| Nebraska | 15.00 | Washington 5/ | 40.00 |
| Georgia | 20.00 | Virginia | 40.75 |
| Kentucky | 21.00 | Oregon | 43.00 |
| Missouri 2/ | 21.00 | New Hampshire | 43.20 |
| Indiana | 21.35 | Utah 6/ | 44.00 |
| Alabama | 23.00 | Hawaii | 45.00 |
| Tennessee | 24.00 | California | 46.00 |
| Arkansas | 25.00 | Rhode Island | 46.50 |
| New York 3/ | 27.04 | North Dakota 71 | 49.00 |
| Louisiana 4/ | 27.90 | Alaska | 50.00 |
| Massachusetts | 30.00 | Colorado 8/ | 50.00 |
| West Virginia | 30.00 | Michigan 8/ | 56.50 |
| Wyoming | 30.00 | Texas | 59.80 |
| Florida | 32.50 | New Mexico 9/ | 62.00 |
| Nevada | 33.00 | Maryland | 67.50 |
| Ohio | 34.50 | Idaho | 69.00 |
| Maine | 35.00 | South Dakota | 72.00 |
| North Carolina | 36.00 | Wisconsin | 75.00 |
| Pennsylvania | 36.00 | Vermont | 76.00 |
| Kansas | 37.25 | New Jersey | 84.00 |
| Connecticut | 40.00 | Oklahoma | 96.00 |
|  |  | Illinois | 101.00 |
| HIGHER THAN THE DISTRICT 3 STATES |  |  |  |
| Montana 10/ | 217.00 | Iowa 11/ <br> Minnesota 12/ | $\begin{aligned} & 293.00 \\ & 356.00 \end{aligned}$ |

[^20]
## 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 36 STATES |  |  |  |
| :---: | :---: | :---: | :---: |
| Colorado | \$ . 05 | West Virginia $6 /$ | \$ 1.65 |
| Alabama | . 50 | South Carolina | 1.85 |
| Georgia $2 /$ | . 50 | Tennessee | 1.85 |
| Hawaii 3/ | . 50 | Arizona 7/ | 2.00 |
| Illinois | . 50 | New York | 2.00 |
| Kansas 4/ | . 50 | New Jersey 81 | 2.00 |
| Kentucky | . 50 | Maine | 2.20 |
| Ohio | . 50 | Massachusetts | 2.28 |
| South Dakota | . 50 | Rhode Island 9/ | 2.30 |
| Oklahoma | . 75 | Maryland 10/ | 2.50 |
| Iowa | . 80 | Florida | 3.50 |
| North Carolina | 1.00 | Michigan | 3.75 |
| Nebraska | 1.13 | New Hampshire | 3.75 |
| Virginia | 1.25 | Connecticut 11/ | 3.75 |
| Nevada 5/ | 1.30 | Pennsylvania | 5.00 |
| Wisconsin | 1.50 | Vermont $12 /$ | 6.25 |
| Arkansas | 1.65 | Washington | 6.40 |
| Minnesota | 1.65 | Delaware | 30.00 |
| $\begin{aligned} & \text { NO TAX } \\ & 14 \text { STATES } \end{aligned}$ |  |  |  |
| Alaska |  | Montana |  |
| California 13/ |  | New Mexico |  |
| Idaho |  | North Dakota |  |
| Indiana |  | Oregon |  |
| Louisiana |  | Texas |  |
| Mississippi |  | Utah |  |
| Missouri |  | Wyoming |  |

Source: Survey of State Revenue Department Officials, State web sites; Wolters Kluwer/CCH 2017 State Tax Handbook; and National Conference of State Legislatures (NCSL), "Real Estate Transfer Taxes."

1/ For D.C., $\$ 11.00$ represents the deed recordation tax + the deed transfer tax per $\$ 500(\$ 5.50 / \$ 500$ for each). In D.C. $1.1 \%$ of consideration or fair market value for residential property transfers $\langle \$ 400,000 ; 1.45 \%$ of consideration of fair market value on the entire amount if transfer is $>\$ 400,000$.
2/ $\$ 1.00$ for the first $\$ 1,000$ or fractional part thereof. Thereafter, $\$ 0.10$ per each $\$ 100.00$.
3/ Based on value, from $\$ 0.50$ to $\$ 6.25$ per $\$ 500$ of value, as value rises from less than $\$ 600,000$ to over $\$ 10,000,000$.
4/ This is a mortgage registration fee. Recording rate is per page.
$5 /$ County transfer tax is $\$ 0.65 / \$ 500$ if population under 700,$000 ; \$ 1.25 / \$ 500$ if population over 700,000 .
6 State rate is $\$ 1.10$, county rate is $\$ 0.55$
7/ Flat fee per deed or contract.
8/ Based on value, from $\$ 2 / \$ 500$ to $\$ 6.05 / \$ 500$ of consideration.
9/ State rate is $\$ 0.90$; local rate is $\$ 1.10$.
10 / Rate is $0.75 \%$ for up to $\$ 800,000$ and $1.25 \%$ over $\$ 800,000$.
11/ State transfer tax rate only. State recordation tax varies by county and is not reflected in this number.
12 Unless property is owner-occupied, in which case $\$ 2.50 / \$ 500$ on first $\$ 100,000$ in value and $\$ 6.25 / \$ 500$ on value over $\$ 100,000$.
13/ Local option transfer tax $\$ .55 / \$ 500$ for counties.

## Appendix

Map 5: Combined 2016 Tax Burdens (Income, Property, Sales, \& Auto) as a \% of Income (Family Earning \$25,000/Year)


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

| Burden Range |  |
| :--- | ---: |
| $-5.7 \%$ | $17.5 \%$ |

Map 6: Combined 2016 Tax Burdens (Income, Property, Sales, \& Auto) as a \% of Income (Family Earning \$50,000/Year)


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


Map 7: Combined 2016 Tax Burdens (Income, Property, Sales, \& Auto) as a \% of Income (Family Earning \$75,000/Year)


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

| Burden Range |  |
| :--- | ---: |
|  |  |
| $3.9 \%$ | $19.2 \%$ |

Map 8: Combined 2016 Tax Burdens (Income, Property, Sales, \& Auto) as a \% of Income (Family Earning \$100,000/Year)


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

| Burden Range |  |
| :--- | ---: |
|  |  |
| $3.9 \%$ | $19.5 \%$ |

Map 9: Combined 2016 Tax Burdens (Income, Property, Sales, \& Auto) as a \% of Income (Family Earning \$150,000/Year)


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

| Burden Range |  |
| :--- | ---: |
|  |  |
| $3.8 \%$ | $20.2 \%$ |

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

| City | State | 2000 Population | 2010 Population | 2016 Population | \% Difference 2010 to 2016 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Birmingham | Alabama | 242,820 | 212,026 | 212,157 | 0.1\% |
| Anchorage | Alaska | 260,283 | 293,405 | 298,192 | 1.6\% |
| Phoenix | Arizona | 1,321,045 | 1,450,267 | 1,615,017 | 11.4\% |
| Little Rock | Arkansas | 183,133 | 194,003 | 198,541 | 2.3\% |
| Los Angeles | California | 3,694,820 | 3,796,575 | 3,976,322 | 4.7\% |
| Denver | Colorado | 554,636 | 603,300 | 693,060 | 14.9\% |
| Bridgeport | Connecticut | 139,529 | 144,911 | 145,936 | 0.7\% |
| Wilmington | Delaware | 72,664 | 70,787 | 71,442 | 0.9\% |
| Jacksonville | Florida | 735,617 | 823,280 | 880,619 | 7.0\% |
| Atlanta | Georgia | 416,474 | 422,753 | 472,522 | 11.8\% |
| Honolulu | Hawaii | 371,657 | 338,680 | 351,792 | 3.9\% |
| Boise | Idaho | 185,787 | 206,355 | 223,154 | 8.1\% |
| Chicago | Illinois | 2,896,016 | 2,697,650 | 2,704,958 | 0.3\% |
| Indianapolis | Indiana | 791,926 | 821,632 | 855,164 | 4.1\% |
| Des Moines | Iowa | 198,682 | 204,573 | 215,472 | 5.3\% |
| Wichita | Kansas | 344,284 | 382,872 | 389,902 | 1.8\% |
| Louisville | Kentucky | 256,231 | 597,738 | 616,261 | 3.1\% |
| New Orleans | Louisiana | 484,674 | 347,900 | 391,495 | 12.5\% |
| Portland | Maine | 64,249 | 66,087 | 66,937 | 1.3\% |
| Baltimore | Maryland | 651,154 | 621,180 | 614,664 | -1.0\% |
| Boston | Massachusetts | 589,141 | 620,623 | 673,184 | 8.5\% |
| Detroit | Michigan | 951,270 | 711,049 | 672,795 | -5.4\% |
| Minneapolis | Minnesota | 382,618 | 383,083 | 413,651 | 8.0\% |
| Jackson | Mississippi | 184,256 | 173,750 | 169,148 | -2.6\% |
| Kansas City | Missouri | 441,545 | 460,732 | 481,420 | 4.5\% |
| Billings | Montana | 89,847 | 104,539 | 110,323 | 5.5\% |
| Omaha | Nebraska | 390,007 | 432,672 | 446,970 | 3.3\% |
| Las Vegas | Nevada | 478,434 | 584,780 | 632,912 | 8.2\% |
| Manchester | New Hampshire | 107,006 | 109,611 | 110,506 | 0.8\% |
| Newark | New Jersey | 273,546 | 277,347 | 281,764 | 1.6\% |
| Albuquerque | New Mexico | 448,607 | 547,092 | 559,277 | 2.2\% |
| New York City | New York | 8,008,278 | 8,192,426 | 8,537,673 | 4.2\% |
| Charlotte | North Carolina | 540,828 | 738,678 | 842,051 | 14.0\% |
| Fargo | North Dakota | 90,599 | 105,928 | 120,762 | 14.0\% |
| Columbus | Ohio | 711,470 | 790,694 | 860,090 | 8.8\% |
| Oklahoma City | Oklahoma | 506,132 | 582,118 | 638,367 | 9.7\% |
| Portland | Oregon | 529,121 | 585,427 | 639,863 | 9.3\% |
| Philadelphia | Pennsylvania | 1,517,550 | 1,528,338 | 1,567,872 | 2.6\% |
| Providence | Rhode Island | 173,618 | 178,114 | 179,219 | 0.6\% |
| Columbia* | South Carolina | 116,278 | 130,430 | 134,309 | 3.0\% |
| Sioux Falls | South Dakota | 123,975 | 154,594 | 174,360 | 12.8\% |
| Memphis* | Tennessee | 650,100 | 652,479 | 652,717 | 0.0\% |
| Houston | Texas | 1,953,631 | 2,114,761 | 2,303,482 | 8.9\% |
| Salt Lake City | Utah | 181,743 | 186,564 | 193,744 | 3.8\% |
| Burlington | Vermont | 38,889 | 42,417 | 42,260 | -0.4\% |
| Virginia Beach | Virginia | 425,257 | 439,038 | 452,602 | 3.1\% |
| Seattle | Washington | 563,374 | 610,383 | 704,352 | 15.4\% |
| Charleston | West Virginia | 53,421 | 51,400 | 49,138 | -4.4\% |
| Milwaukee | Wisconsin | 596,974 | 595,120 | 595,047 | 0.0\% |
| Cheyenne | Wyoming | 53,011 | 59,901 | 64,019 | 6.9\% |
| WASHINGTON, DC |  | 572,059 | 605,126 | 681,170 | 12.6\% |

Source: U.S. Census Bureau. 2000 \& 2010 data: Table DP-1. Profile of General Demographic Characteristics: 2010. 2016 Data: Annual Estimates of the Resident Population for Incorporated Places of 50,000 or More, Ranked by July 1, 2016 Population: April 1, 2010 to July 1, 2016 Release Date: May 2017. 2016 Estimates for Burlington, VT: Census Quick Facts, accessed November 30, 2016.
*After the 2016 surveys were sent out to the 50 states with the previous year's largest cities referenced, the U.S. Census released data indicating that in two states, South Carolina and Tennessee, the largest cities changed. As of July 1, 2016, Charleston, South Carolina had 76 more persons than Columbia; and Nashville, Tennessee had about 7,000 more residents than Memphis. These changes will be reflected in future reports. The current Study includes Columbia, South Carolina, and Memphis, Tennessee.

Map 10: Population of the Largest Cities as a \% of the State's Total Population, 2016


Source: ORA Analysis of data from Table 27 and the U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population: April 1, 2010 to July $1,2016$.

# Office Locations and Telephone Numbers 

Office of the Chief Financial Officer<br>The John A. Wilson Building<br>1350 Pennsylvania Avenue, NW, Suite 203<br>Washington, D.C. 20004<br>Office hours: Monday through Friday, 8:00 a.m. - 6:00 p.m.<br>(202) 727-2476

Office of the Chief Financial Officer
Jeffrey DeWitt, Chief Financial Officer
Angell Jacobs, Chief of Staff and Deputy Chief Financial Officer
David Tseng, General Counsel
Ranabir Dey, Chief Information Officer
Paul Lundquist, Executive Director for Management and Administration
David Umansky, Public Affairs Officer
Timothy Barry, Executive Director for Integrity \& Oversight
Wharton Berger, Director of Economic Development Finance
Marshelle Richardson, Chief Risk Officer
Jeffrey Gander, Continuous Improvement Officer
Office of Revenue Analysis (ORA)
Fitzroy Lee, Deputy Chief Financial Officer (202) 727-7775
$11014^{\text {th }}$ Street, SW, Suite W770, Washington, D.C. 20024
Office of Budget and Planning (OBP)
Gordon McDonald, Deputy Chief Financial Officer
(202) 727-6234

1350 Pennsylvania Avenue, NW, Suite 229, Washington, D.C. 20004
Office of Finance and Treasury (OFT)
Jeffrey Barnette, Deputy Chief Financial Officer and Treasurer
(202) 727-6055
$11014^{\text {th }}$ Street, SW, Suite W800, Washington, D.C. 20024
Office of Financial Operations and Systems (OFOS)
Bill Slack, Deputy Chief Financial Officer
(202) 442-8200
$11004^{\text {th }}$ Street, SW, Suite E800, Washington, D.C. 20024
Office of Tax and Revenue (OTR)
Keith Richardson, Deputy Chief Financial Officer (202) 442-6200
$11014^{\text {th }}$ Street, SW, Suite W750, Washington, D.C. 20024
D.C. Lottery

Economic Development and Regulation
EventsD.C.
Government Operations
Government Services
Health Benefits Exchange Authority
Human Support Services
Not-for-Profit Hospital Corporation
Primary and Secondary Education
Public Safety and Justice

Beth A. Bresnaham, Executive Director Cyril O. Byron, Jr., Associate Chief Financial Officer Henry Mosley, Associate Chief Financial Officer Mohamed Mohamed, Associate Chief Financial Officer George Dines, Associate Chief Financial Officer Mila Kofman, Associate Chief Financial Officer Delicia Moore, Associate Chief Financial Officer Lillian Chukwuma, Chief Financial Officer, United Medical Center
Deloras Shepherd, Associate Chief Financial Officer Angelique Hayes Rice, Associate Chief Financial Officer


## Prepared By:

Government of the District of Columbia
Office of Revenue Analysis
$11014^{\text {th }}$ Street, SW
Suite W770
Washington, D.C. 20024
(202) 727-7775


[^0]:    ${ }^{1}$ After the 2016 surveys were sent out to the 50 states with the previous year's largest cities referenced, the U.S. Census released data showing that in two states, South Carolina and Tennessee, the largest cities changed. As of July 1, 2016, Charleston, South Carolina had 76 more persons than Columbia; and Nashville, Tennessee had about 7,000 more residents than Memphis. These changes will be reflected in future reports. The current Study includes Columbia, South Carolina, and Memphis, Tennessee.
    ${ }^{2}$ 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.

[^1]:    ${ }^{3}$ "Structural Imbalance and Management Issues." GAO-03-666. Government Accountability Office. Washington, D.C.: 2003. p. 1.
    4 "D.C. Tax Facts 2017." 2016 Tax Exempt Land Value as a \% of Total Taxable and Exempt Land Value. Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis. Washington, D.C.: 2017. p. 42.

[^2]:    ${ }^{5}$ Newark, New Jersey, falls in the New York City MSA and Wilmington, Delaware, falls in the Philadelphia MSA, thus those MSA data are used for both cities. A sensitivity analysis presented in the 2013 Tax Rates and Tax Burdens Report shows how this choice affects the findings.

[^3]:    6 " 50 -State Property Tax Comparison Study For Taxes Paid in 2016." The Lincoln Institute of Land Policy and the Minnesota Center for Fiscal Excellence. June 2017: pg. 11.
    ${ }^{7}$ Ibid, pg. 102.
    ${ }^{8}$ Ibid, pg. 11.
    ${ }^{9}$ The study found that in Washington, D.C., the classification ratio between apartments and homesteads is 1.102 , indicating that homesteads are treated slightly preferentially to rental buildings by the property tax.

[^4]:    ${ }^{10}$ Based on analysis of state programs in the Lincoln Institute of Land Policy's Significant Features of the Property Tax Database for 2015 (most recent year available).
    ${ }^{11}$ This discussion does not intend to assess appropriate levels of PTER used in circuit breaker programs, or to advocate that they be lower. It is intended solely to consider whether and how these levels are used as an input for the Tax Burden Study's calculation of renter's tax burdens as compared to home owner's tax burdens across the 50 states.
    ${ }^{12}$ The MN Renter's Property Tax Refund program allowed renters to qualify for a refund on their rent of up to $17 \%$ of rent paid (dependent on the renter's income level) in 2016.
    ${ }^{13}$ U.S. Department of Housing and Urban Development, "2016 $50{ }^{\text {th }}$ Percentile Rent Estimates." Data for studio apartments used.
    ${ }^{14}$ U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates.

[^5]:    ${ }^{15}$ Zippel, Claire. "A Broken Foundation: Affordable Housing Crisis Threatens DC's Lowest-Income Residents." D.C. Fiscal Policy Institute. December 8, 2016.

[^6]:    Source: ORA analysis. See Table 1 b on the following page for tax burdens as a percent of income.

[^7]:    Source: ORA analysis. See Table 1e on the following page for tax burdens as a percent of income.

[^8]:    ${ }^{16}$ Newark, NJ, is in the New York City (NYC) Metropolitan Statistical Area, thus the data used for Newark are the same as for NYC. See page 55 of the 2013 Tax Rates and Tax Burdens Study for a sensitivity analysis of how several cities’ (including Newark's) property tax burdens would change using city-level data.

[^9]:    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.

[^10]:    Source: Survey of State Revenue Department Officials.
    Cities with no state or local general sales tax: Anchorage, AK; Billings, MT; Manchester, NH; Portland, OR; and Wilmington, DE.
    Note: Unweighted average includes only those jurisdictions with a sales tax.
    *These rates include state-side mandatory local add-on rates: CA: $1.25 \%$; UT: local $1.0 \%$ and county $0.25 \%$; VA: $1.0 \%$

[^11]:    1/ Gas Mileage Guide, EPA fuel economy estimates for city driving, U.S. Department of Energy. http://www.fueleconomy.gov/
    2/ National Automobile Dealers Association Used Car Guide. http://www.nadaguides.com
    3/ Assumes 15,000 miles driven for primary car; 7,500 for secondary car (secondary car denoted with an asterisk).

[^12]:    17 "District of Columbia Economic and Revenue Trends: September 2016." Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis. Washington, D.C.: 2015. p. 6.

[^13]:    ${ }^{18}$ "D.C. Tax Facts 2017." Government of the District of Columbia, Office of the Chief Financial Officer, Office of Revenue Analysis, p. 42.

[^14]:    Source: ORA Analysis. Averages for Income and Sales taxes do not include cities/states with no income or sales tax.
    Note: While using the median of the 51 cities results in slightly different dollar amounts, the results are the same in that DC's overall burden is slightly higher than the 51-city median at the $\$ 25,000$ income level, and lower than the median at the other four income levels.

[^15]:    1/ This count excludes D.C.
    2/ Includes two states that tax dividends and/or interest only.
    3/ Comparisons are based on highest comparable rate in each jurisdiction. Those based on federal liability are not included.

[^16]:    1/ Does not include various local income taxes.
    2/ Nebraska, New York, and North Dakota Head of Household thresholds are for 2016.

[^17]:    Source: Survey of State Revenue Department Officials; Federation of Tax Administrators, "State Tax Rates on Wine, (January 1,
    2017)."

    1/ $18 \%$ wine \& liquor tax on top of a $30 \%$ markup.
    2/ $\$ 1.06$ per gallon if sold to an agency owned liquor store.

[^18]:    Source: Survey of State Revenue Department Officials; Federation of Tax Administrators, "State Excise Tax Rates on Cigarettes, (January 1, 2017)."

[^19]:    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 when owners move to the District. No excise tax on hybrid vehicles.
    2/ Tax on sales price less trade-in allowance. The maximum tax is $\$ 2,000$ for each certificate of title issued for a Class A or Class B commercial motor vehicle and for each certificate of title issued for a recreational vehicle.
    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 of $\$ 300.00$.
    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/ State rate $7.75 \%$ on most vehicles with sales price of more than $\$ 50,000$.
    $10 /$ Local sales taxes are capped at $\$ 25$ per 1 percent of tax on a single transaction. Used cars below $\$ 4,000$ are exempt.
    Maximum local sales tax applied against transaction is $\$ 62.50$.
    11/ Title Ad Valorem Tax collected at time of title application.

[^20]:    Source: Survey of State Revenue Department Officials; Review of State Motor Vehicle Registration Web Sites; and National Conference of State Legislators, "Vehicle Registration Fees 2017."
    1/ $\$ 72$ (<3,499 lbs.); $\$ 115(3,500-4,999 \mathrm{lbs}.) ; \$ 155$ ( $>5,000 \mathrm{lbs}$ ); and $\$ 36$ (clean fuel or electric vehicle).
    2/ Based on vehicle horsepower. $\$ 21$ is for a vehicle between $12 \mathrm{hp}-23 \mathrm{hp}$. Does not include $\$ 1$ insurance database fee.
    3/ Biennial fees start at $\$ 26$ for a vehicle under $1,650 \mathrm{lbs}$. and increase by $\$ 1.50$ for every 100 lbs . above 1,650 . Presented annually here.
    4/ Based on value of the vehicle. Current rate is $0.1 \%$ of vehicle per year.
    5/ Includes \$11.00 fee earmarked for Emergency Medical Services System.
    6/ Includes \$1 insurance database fee.
    $7 /$ Fees range from $\$ 49$ to $\$ 274$ based on weight and number of years vehicle has been registered.
    8/ Varies based on age, weight, taxable value, purchase date, and plate type.
    9/ This fee is for the first registration, $1.25 \%$ of base vehicle value, plus $\$ 10$.
    10/ There is an additional $\$ 6$ fee for Park access and a $\$ 5$ fee for police salaries.
    $11 /$ Based on fee of $1 \%$ of value plus a $\$ .40$ fee per 100 lbs .
    12/ Registration fees range from $\$ 27.00$ to $\$ 62.00$ for a one (1) year registration.

