The Vermont Tax Study

2005-2015

Summary Report

VERMONT
JOINT FISCAL OFFICE

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The Vermont Tax Study

(2005-2015)
This summary report and the complete study can be downloaded at:
http://www.leg.state.vt.us/jfo/revenue_tax.aspx

Previous Tax Studies

The Joint Fiscal Office produced similar tax studies in 1996 and 2007:

- The Vermont Tax Study (1996) – http://www.leg.state.vt.us/reports/tax/tax.htm
- The Vermont Tax Study (2007, Vol. 1– Comparative Analysis) http://www.leg.state.vt.us/jfo/reports/2007-01%20Vermont%20Tax%20Study%20-%20Volume%201.pdf
- The Vermont Tax Study (2007, Vol. 2 – Case Studies) http://www.leg.state.vt.us/jfo/reports/2007-10%20Vermont%20Tax%20Study%20-%20Volume%202.pdf

The Joint Fiscal Office

The Joint Fiscal Office (JFO) provides non-partisan fiscal analyses to the House and Senate Appropriations Committees, the House Ways & Means Committee, the Senate Finance Committee, the House and Senate Transportation Committees, and the Joint Fiscal Committee. Established in 1973, JFO also provides fiscal analysis and staff support to committees working on health care, education finance, and institutions.

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Notes on Numbers – Dollar amounts are in current, or nominal, dollars unless otherwise noted. Numbers in the text, tables, and figures of this report may not add up to actual specified totals because of rounding. Years are generally reported two ways: fiscal year refers to the Vermont fiscal year, which runs from July 1 to June 30, and is reported as the calendar year in which the fiscal year ends. The report also uses calendar years when appropriate, such as when referring to income tax filings. The average effective tax rate is defined here as taxes paid relative to federal adjusted gross income (AGI).

Vermont Revenue Sources – Fiscal Years 2005, 2010 and 2015

Revenue Sources (Nominal $)	FY 2005 $Millions	FY 2005 %	FY 2010 $Millions	FY 2010 %	FY 2015 $Millions	FY 2015 %	Compound Growth Inflation Adjusted %
State Total	**2,464.0**	**64**	**2,872.1**	**57**	**3,607.3**	**60**	**1.9**
Income and Estate Taxes	**579.7**	**15**	**578.1**	**11**	**843.9**	**14**	**1.8**
Individual Income	500.5		489.1		722.2		1.7
Corporate Income	60.4		74.8		111.8		4.3
Estate Tax	18.9		14.2		9.9		-8.0
Consumption Taxes	**817.0**	**21**	**901.2**	**18**	**1,139.2**	**19**	**1.4**
General Sales	***507.9***		***498.9***		***615.8***		***0.0***
Sales & Use	310.9		311.2		366.7		-0.3
Meals & Rooms	113.0		118.0		151.9		1.0
Purchase & Use, Vehicle Rental	84.1		69.7		97.3		-0.5
Fuels	***94.3***		***106.3***		***133.8***		***1.6***
Gasoline	68.3		63.8		80.0		-0.3
Diesel	15.5		15.7		19.9		0.5
TIB Fund	-		14.7		20.2		-
Fuel Gross Receipts & PCF	6.6		7.7		9.5		1.7
Other Fuel	3.9		4.3		4.2		-1.2
Health Care	***108.5***		***176.6***		***257.4***		***6.9***
Health Care Taxes	60.1		106.5		180.6		9.5
Cigarette	45.7		64.5		68.3		2.1
Tobacco	2.7		5.6		8.5		10.0
Business	***67.0***		***72.7***		***81.3***		***0.0***
Insurance Premiums	31.0		32.9		34.0		-1.0
Captive Insurance	21.5		23.3		24.0		-0.8
Bank Franchise	8.6		10.4		10.7		0.3
Solid Waste Franchise	3.3		3.3		3.1		-2.4
Electric Generating	2.6		2.9		9.4		11.5
Other Consumption	***39.2***		***46.7***		***51.0***		***0.7***
Lottery	21.4		26.1		26.2		0.1
Liquor, Beer & Wine	17.8		20.6		24.8		1.4
Property Taxes	**677.3**	**18**	**938.4**	**19**	**1,062.1**	**18**	**2.6**
Net Education Property	***637.3***		***917.5***		***1,034.0***		***2.9***
Net Homestead Property	255.4		359.5		423.8		3.2
Non-Residential Property	382.0		558.0		610.2		2.8
Other Property	***40.0***		***21.0***		***28.1***		***-5.3***
Property Transfer	22.8		12.0		17.1		-4.7
Land Gains	5.7		0.6		1.5		-14.5
Land Use Change	0.8		0.4		0.5		-6.9
Wind Property	-		-		0.9		-
Solar Energy Property	-		-		0.2		-
Railroad	0.1		0.1		0.1		0.0
Telephone Business	10.5		7.9		7.7		-4.9
Other	**390.0**	**10**	**454.4**	**9**	**562.0**	**9**	**1.7**
Other Revenue	232.5		267.9		335.2		1.7
Motor Vehicle Fees	56.1		72.5		80.1		1.6
All Other Fees	90.8		102.3		136.8		2.2
Penalties & Fines	10.7		11.8		9.9		-2.6
Local	**293.2**	**8**	**405.9**	**8**	**475.5**	**8**	**2.9**
Municipal Property	284.5		380.5		443.4		2.5
Local Option	8.7		25.4		32.1		11.8
Federal	**1,106.8**	**29**	**1,765.1**	**35**	**1,966.8**	**33**	**3.9**
TOTAL	**3,864.0**		**5,043.1**		**6,049.7**		**2.6**

Major Findings

Although the unabridged version of the Vermont Tax Study provides a more complete analysis of the state's tax structure, this summary covers major taxes and trends. Among the study's notable findings:

The aging of Vermont's population has the potential to curb or reduce state revenue from taxes on income, consumption, and property. The baby-boom generation, age 45 to 64, at or near its peak level of income and spending during the study period, has provided a substantial share of state tax revenue. As these workers move toward retirement over the next 10 to 15 years, they are expected to earn less, spend less on certain goods, and, as a result, pay less in taxes. Quantifying the revenue impact is difficult because other factors — a growing economy, other tax revenue, and baby boomers remaining longer in the labor force — may ease some of these revenue losses.

Vermont's progressive income tax structure results in most Vermonters paying relatively low effective tax rates. Across most income levels, Vermont has an effective income tax rate lower than those in other New England states and New York. Vermont's effective tax rate begins to climb more steeply at adjusted gross income (AGI) levels exceeding $100,000. In 2015, Vermont had the highest marginal tax rate in New England and New York at 8.95 percent; in Vermont, that rate applies to taxable income above $411,000. The state relies on these upper-income taxpayers for a significant share of total income tax revenue: the top 5 percent of resident tax filers, with AGI over $165,500, paid 48 percent of resident income taxes in Vermont in 2015.

Similarly, a relatively small share of taxpayers account for most of the corporate and estate tax revenues. Eighty-four percent of corporate income taxes are paid by larger, mainly out-of-state businesses. Despite roughly 5,400 deaths in Vermont annually, only about 84 estates per year are subject to the estate tax. Combined, the Corporate Income Tax and Estate Tax accounted for a relatively small share of total state tax revenues, 3.3 percent in 2015.

Because Vermont's three income-based taxes — on individual income, corporate income, and qualifying estates — are linked to the federal tax code, changes in federal tax policies could have major implications for state revenues.

Despite exempting purchases of food, clothing, and medications, Vermont's consumption taxes remain regressive for many citizens. Consumption taxes also apply to the purchase of electricity, fuel, vehicles, health care, and meals away from home, among other items. Lower-income households, often young and old alike, spend more of their after-tax income on these goods and services compared to other households. With the exception of taxes on health care and telecommunications, Vermont does not generally tax services, which constitute a growing share of the state and national economies.

Although Vermont reduces homestead property taxes based on income, the state's property tax structure is relatively flat. The income adjustments to the education portion of the property tax reduce the tax for low- and moderate-income households. As a result, most Vermont households pay roughly the same effective education tax rate as a percentage of income. The municipal property tax is capped (as a percentage of income) only for households with incomes less than $47,000; households with incomes just above that threshold generally pay higher effective tax rates than other households.

Case study analyses, comparing typical Vermont taxpayers to those in other states, illustrate the state's effort to ease tax liability on lower-income households. By comparison to other states, Vermont's effective income tax rate is lower than the national average among low- and middle-income taxpayers in the case studies, and above the national average for higher-income taxpayers. Vermont's exemption for food and clothing contributes to an effective sales tax rate that is lower than the national average. Finally, although average effective property tax rates are similar across the board in Vermont, the case studies indicate that lower-income taxpayers pay slightly lower rates than higher-income taxpayers.

The Vermont Tax Study

Introduction

The Vermont Legislature in 2016 authorized the Joint Fiscal Office (JFO) to produce a comprehensive study of the state's tax system, including its simplicity, equity, stability, competitiveness, and trends. Covering the period from 2005 to 2015, this is the third such tax study — and the most comprehensive to date. In generating the analysis, JFO collaborated with the Vermont Tax Department, the Legislative Council, and other analysts. This document, prepared for policy makers and the public alike, is a summary of JFO's complete study available for download at http://www.leg.state.vt.us/jfo/revenue_tax.aspx.

The Vermont Tax Study and this Summary each comprise six major sections. **Section I, Overview and Demographics**, presents context for this report and longer-term trends in Vermont's workforce demographics. **Section II, General Revenue Trends**, analyzes revenues (federal, state, and local) available for state spending, including growth rates during the study period. **Section III, Taxes on Income, Consumption, and Property**, representing the bulk of the report, analyzes a number of taxes falling into three general categories: taxes on income, taxes on consumption, and taxes on real estate. (Fees and other revenues, not generally considered taxes, account for a fourth category of state revenue.) **Section IV, Demography and Tax Revenue**, projects how changing demographics, including an overall "aging" of Vermont's population, will affect state revenues. **Section V, Case Studies**, explores how Vermont's mix of taxes compares to those in other states among specific kinds of taxpayers.

I. Overview

The 10-year period covered in this study, fiscal years 2005 through 2015, included the Great Recession that roiled markets worldwide from roughly 2008 to 2010. Vermont nonetheless weathered the recession relatively well: the state's real per capita gross domestic product (GDP) grew an average of 0.4 percent per year from 2005 to 2015, as did per capita GDP nationwide. Among New England states since 2005, only Massachusetts showed a faster per capita rate of growth in GDP than that of Vermont.

Depending on how they are measured, individual incomes in Vermont either rose or fell during the study period. Taken as an *average*, Vermont's per capita personal income rose from 21st in the nation to 18th — from $34,668 in 2005 to $48,587 in 2015 (placing Vermont's personal income 1 percent above the national average of $48,112 that year). By another measure, Vermont incomes would appear to have declined during the period. The inflation-adjusted *median* household income, or the midpoint separating the upper half of households from the lower half, fell from $61,538 in 2005 to $59,494 in 2015. Nationwide during the period, median household income adjusted for inflation rose slightly, from $56,224 to $56,516.

One possible explanation for Vermont's drop in median income would be rising income disparity. Yet in the U.S. and in Vermont, incomes have grown among upper-income households and remained stagnant among the lower 80 percent of households. (A standard measure of this disparity, the Gini index, has increased at similar rates in Vermont and the U.S.) So the dip in median household income does not reflect a higher degree of income disparity in Vermont. Instead, household size increased faster across the country than in Vermont. More people per household increases the potential number of earners per household and therefore total income per household.

Even as the recession slowed economic growth overall,

Dollars and Definitions

Gross domestic product (GDP) is the total value of goods produced and services provided in a country or state during one year.

Current dollars are not, as might be expected, current — as in today's dollars. Instead, current dollars represent the nominal dollar amount in a particular year. For a consumer living in 1970, the current dollar price of gasoline was about 36 cents per gallon. All numbers in this report are in current dollars unless otherwise noted.

Inflation-adjusted (or **real**) **dollars** recognizes that, owing to inflation, a dollar in 1970 wasn't the same in terms of purchasing power as a dollar in 2015. So 36 cents per gallon in 1970 equates to about $2.21 per gallon today.

To compare dollars across a period of time JFO used the Consumer Price Index (CPI) to convert current dollars from past years into inflation-adjusted dollars. The CPI measures the price of a basket of consumer goods and services. From 2005 to 2015, the CPI rose 1.95 percent per year on average.

When comparing numbers across years, this report frequently shows both the current values of revenues raised in 2005 and 2015, reflecting actual dollar amounts in the budgets in those years, and the inflation-adjusted values to show how revenues have changed after accounting for inflation.

Vermont was at the same time benefitting from a favorable demographic bubble in its labor force. During the study period, members of the baby-boom generation were at a stage of high incomes and active spending habits, particularly on housing and consumer goods. These middle-aged and older workers, in their economic prime, paid a sizeable portion of Vermont taxes.

But this beneficial demographic is projected to change — with implications for state revenues. Vermont's population is older than that of every other state except Maine. As Vermont's baby boomers move toward retirement, without an equivalent workforce to take their place, Vermont can expect to see fewer middle-aged and older workers, particularly those age 45 to 64, by 2025 and therefore lower tax revenues from this vital demographic group. The aging of Vermont's population — and implications for state revenues — is discussed in greater detail in Section IV.

II. General Revenue Trends

The total revenues for public spending in Vermont — $6,050 million in fiscal year 2015 — come from three levels of government: federal (33 percent), state (60 percent) and local (8 percent).[1] During the study period, state revenues grew at an inflation-adjusted average rate of 1.9 percent per year, and the local portion increased by 2.9 percent. During the same period Vermont's inflation-adjusted GDP grew at an overall rate of 0.4 percent per year. Notable trends in revenue sources included:

- **Health Care** – During the study period, revenues from Vermont's various health care taxes combined grew at an average annual rate of 6.9 percent adjusted for inflation. This growth was due in part to Vermont's adopting several new health care taxes during the period and in part to high rates of growth in overall health care spending.
- **Education** – Inflation-adjusted revenues from the Education Property Tax increased 2.9 percent per year over the 10-year study period — from $773 million in 2005 to $1,034 million in 2015. Unlike other categories of taxes, Education Property Taxes grew during the Great Recession as rates were increased to keep up with statewide spending on education. Vermont's growing reliance on property tax revenue was due in part to increasing education spending during the study period (despite a 14 percent decline in the number of children under 18 years of age) and slower growth in non-property revenues to the education funding system.
- **Income** – Inflation-adjusted revenues from the Individual Income Tax grew at an average rate of 1.7 percent per year during the study period, slightly lower than the 1.9 percent rate of growth in total state revenues, owing in part to the Great Recession. Although it constitutes a small (but growing) share of total revenues (3.1 percent in 2015), Corporate Income Tax revenues grew at an average inflation-adjusted rate of 4.3 percent per year during the study period.

Revenue Sources: Striving for Balance

The 60-percent state portion of the overall revenue picture comes primarily from three sources: income taxes, consumption taxes, and property taxes. Tax analysts believe that maintaining relatively equal shares of revenue from these three sources helps protect the budget from swings in the business cycle. For example, revenues from income taxes and consumption taxes fell noticeably as shares of overall state revenues during the Great Recession. Property tax revenue, however, moved in the opposite direction, increasing as a share of total revenues.

Vermont's practice of linking specific taxes to particular programs can undermine the overall revenue balance. Dedicating education property taxes to the Education Fund is an example. When housing values decline and property tax revenue falls, the state has limited options other than raising education property tax rates (or expanding the base subject to the tax) to fund education.

As fiscal policy at the federal level evolves over the next few years, Vermont should be watchful of any impacts on federal funding to states. From fiscal years 2005 to 2015, the federal share of total state revenues rose from 29 percent to 33 percent. Greater reliance on federal funds brings increased vulnerability to reductions in federal largesse.

Revenue Growth Rates

Annual revenue growth rates over time are moving targets, depending on start and end dates, the business cycle, and even state accounting methods. Vermont's average annual growth rate of 1.9 percent per year during the study period may in other analyses be reported at a lower rate; this is due in part to Vermont's changing the way it accounted for Education Property Tax revenue. Over time, the state moved from collecting gross Education Property Taxes (and then issuing income-sensitive rebate checks) to collecting the taxes net of the income adjustments. Different ways of accounting for this change may cause other growth rate estimates to be lower.

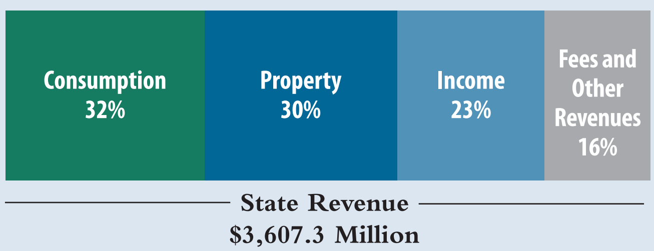
Moreover, further study is needed to understand how the business cycle affects the growth of state revenues relative to Vermont's GDP. Altering the study period would result in different relative growth rates.

1 The Vermont League of Cities and Towns maintains that the Education Property Tax should be considered a local tax, not a state tax.

III. Taxes on Income, Consumption, and Property

Total revenue raised at the state level in fiscal year 2015 was $3,607 million. Although Vermont collects more than two dozen kinds of taxes, three tax categories account for 84 percent of all revenue raised at the state level: income taxes (23 percent), consumption taxes (32 percent), and property taxes (30 percent). Fees and other revenues account for the rest (16 percent).

State Revenue Sources for Fiscal Year 2015



Income Taxes

Total revenue collected as income taxes in fiscal year 2015 was $844 million. For the purposes of this study, Vermont income taxes comprise the Individual Income Tax, the Corporate Income Tax, and the Estate Tax.

Individual Income Tax

Just over 372,000 Vermont individual income tax returns were filed in 2015, 320,000 of which (86 percent) came from resident taxpayers. The tax raised $722 million from residents and non-residents in 2015. Vermont's progressive income tax applies increasing rates to rising income brackets: a taxpayer calculates liability by multiplying the amount of income within each bracket by its assigned tax rate. A Vermont taxpayer pays the highest rate of 8.95 percent only on Vermont taxable income exceeding $411,501, and pays taxes at the lower rates on all the preceding income. As a result, the effective tax rate, or the amount of tax as a percentage of total income, is often a blend of two or more rate brackets.

Vermont Tax Rates and Brackets

2015 Taxable Income

Married Filing Jointly	Single	Tax Rate (%)
0 – $62,600	0 – $37,450	3.55
$62,601 – $151,200	$37,451 – $90,750	6.80
$151,201 – $230,450	$90,751 – $189,300	7.80
$230,451 – $411,500	$189,301 – $411,500	8.80
$411,501 and over	$411,501 and over	8.95

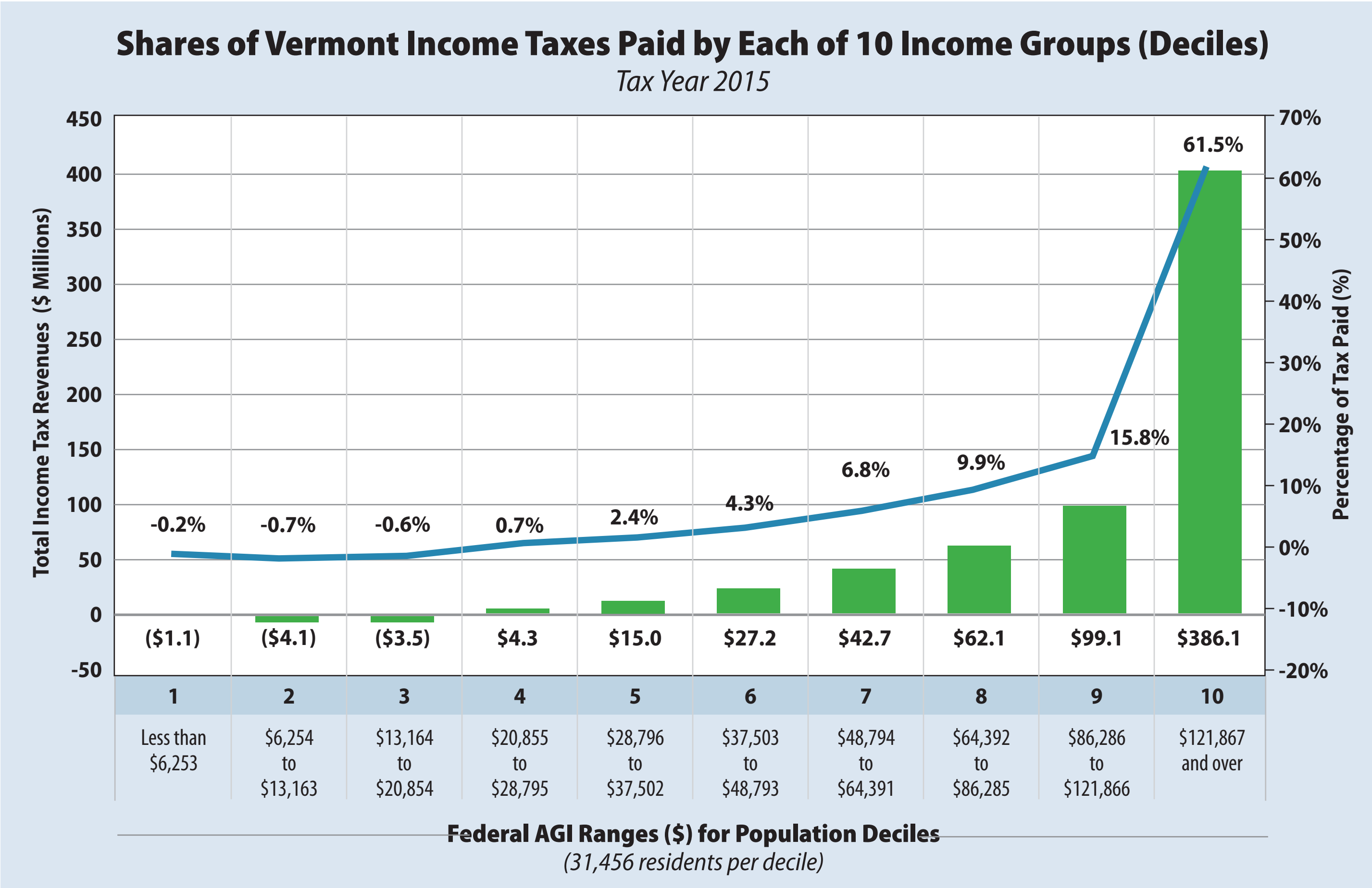
Vermont's progressive income tax structure means that taxpayers with the highest incomes supply most of the Individual Income Tax revenue to the state: the top 10 percent of all resident returns, or 31,456 filers with an adjusted gross income (AGI) greater than $121,867, paid 61.5 percent of all income taxes collected by the state in the 2014 tax year (see the chart on the next page). This reliance on high-income taxpayers has been a significant and growing trend in Vermont and the nation. Taxpayers in the middle deciles — with federal AGI between $20,855 and $64,391 — paid a combined 14.2 percent of all resident individual income taxes collected by the state in 2015. On average, filers with incomes less than $20,854 received net refunds, due in part to the state and federal earned income tax credit (EITC).

Because many taxpayers pay different rates across tax brackets, another way to look at the Individual Income Tax is by the *average effective rate,* defined here as a taxpayer's income tax liability divided by federal AGI. This effective rate varies significantly by income group. Effective rates are negative for the lowest income groups because many low-income tax filers receive the EITC as a refundable tax credit. Effective tax rates reach 6.4 percent for taxpayers with income between $500,000 and $999,999. Taxpayers with incomes of $1 million or more have a lower average effective tax rate of 5.9 percent, in part because they claim more tax expenditures, including deductions, exemptions, and credits. Effective rates are also useful in state-by-state comparisons.

Mobility of High-Income Taxpayers

Vermont relies on high-income taxpayers for a significant share of tax revenue. To better understand the potential mobility of these taxpayers, the Vermont Department of Taxes analyzed income tax returns from 2006 to 2015. Among the conclusions:

- Vermont's top-income taxpayers often are not the same people from year to year because high income is frequently a one-time event. Nevertheless, the total number of high-income filers is relatively stable from year to year.
- Roughly the same number of high-income filers have come to Vermont as have left over the 10 years examined. Yet in recent years, more high-income filers have left than have arrived. Every year some high-income filers leave Vermont and some move to Vermont. The majority were here permanently, meaning they filed a Vermont resident return for all years in the period.



State-by-State Income Tax Comparisons

The complexity of the individual income tax makes it difficult to compare income tax structures across the 50 states and Washington D.C. But one option is to use the effective tax rate. Overall, Vermont has lower effective rates for most income levels than other New England states and New York. Vermont's effective rate increases steeply beginning at about $100,000 of adjusted gross income. For taxpayers with AGI exceeding $1 million, marginal tax rates in the region range from a low of 5.2 percent in Massachusetts (a flat rate on all income) to a high of 8.95 percent in Vermont. Even so, Vermont's effective rate drops to third among the states for these same taxpayers (see the figure on page 9).

Corporate Income Tax

Although Vermont assesses a tax on corporate income, most businesses do not pay the tax because they are not organized as corporations. The Corporate Income Tax applies only to companies designated as "C corporations." In tax year 2014, 7,272 corporate income tax returns were filed in Vermont, representing fewer than 13 percent of all domestic and foreign for-profit businesses operating in the state. The tax contributed $70.3 million to state revenues that year, 84 percent of which came from a small number of multistate corporations.

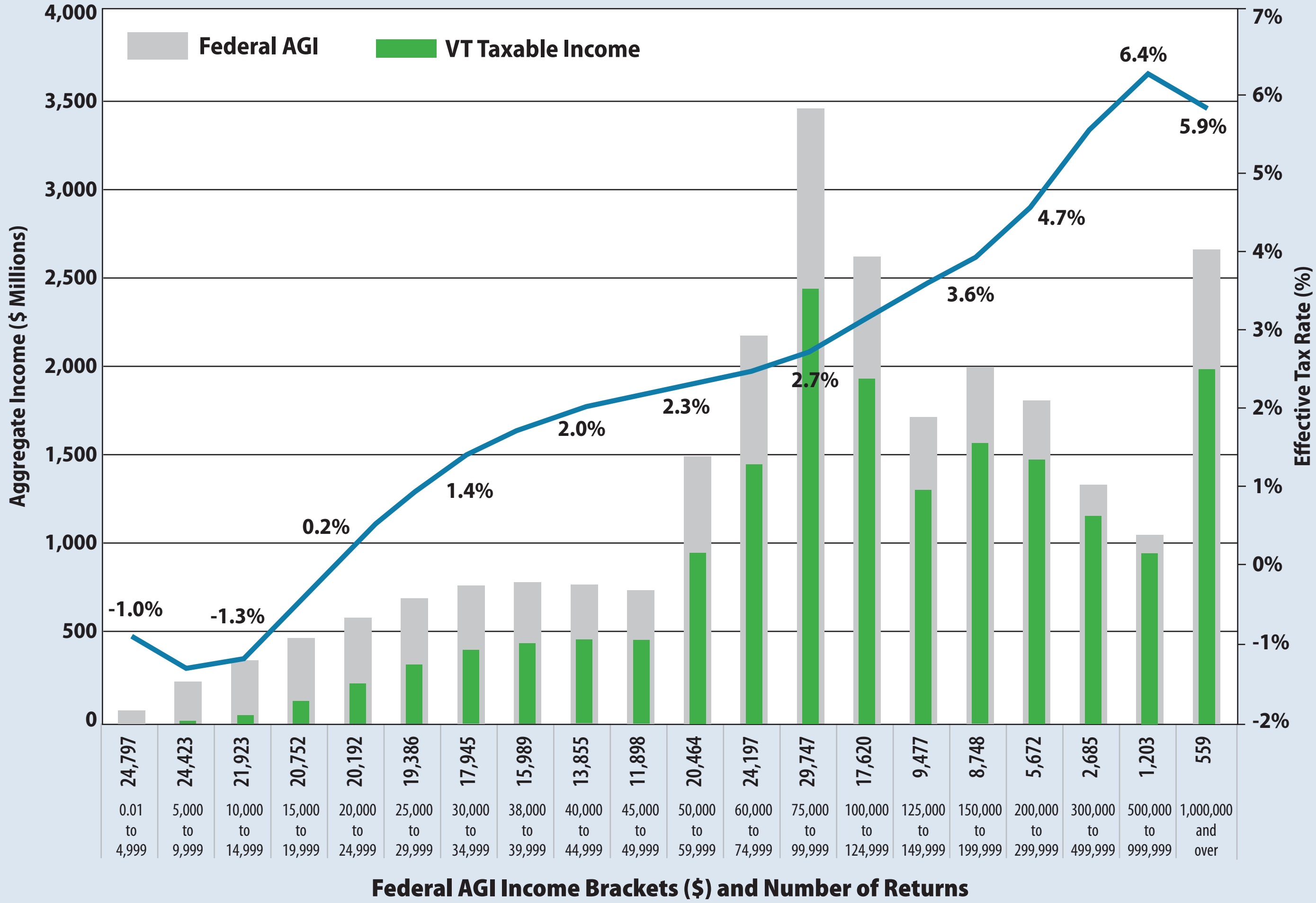
Although corporate income tax revenues grew during the study period at a relatively high, inflation-adjusted annual rate of 4.3 percent, the tax itself accounts for a relatively small portion of total state revenues, rising from 2.5 percent of the total in fiscal year 2005 to 3.1 percent in fiscal year 2015. Much of the revenue increase can be attributed to the implementation of unitary combined reporting, which uses a broader measure of Vermont's corporate income tax base. Corporate tax revenues declined in fiscal year 2016 and will likely decline further in fiscal year 2017. In most New

Corporate Tax Rates and Tiers

State	Top Rate	Flat/Tiered
ME	8.8%	4 Tiers
NH	8.5%	Flat Rate
VT	8.5%	3 Tiers
MA	8.0%	Flat Rate
CT	7.5%	Flat Rate
RI	7.0%	Flat Rate
NY	6.5%	Flat Rate

Effective Vermont Income Tax Rates and Taxable Income as a Share of Federal AGI

Tax Year 2014



England states, corporate income tax revenue represents less than 0.45 percent of state GDP (0.37 percent in Vermont in 2013). New Hampshire and New York are the exceptions, with corporate tax closer to 1 percent of GDP.

Among the 50 states and Washington, D.C., four states have no corporate income tax, two have alternative corporate taxes, and 32 states have a flat tax rate. The remaining 12 have income tiers like those in Vermont. With three rate tiers in its Corporate Income Tax structure, Vermont's top rate of 8.5 percent ties the state with New Hampshire for 9th highest behind eight other states and DC.

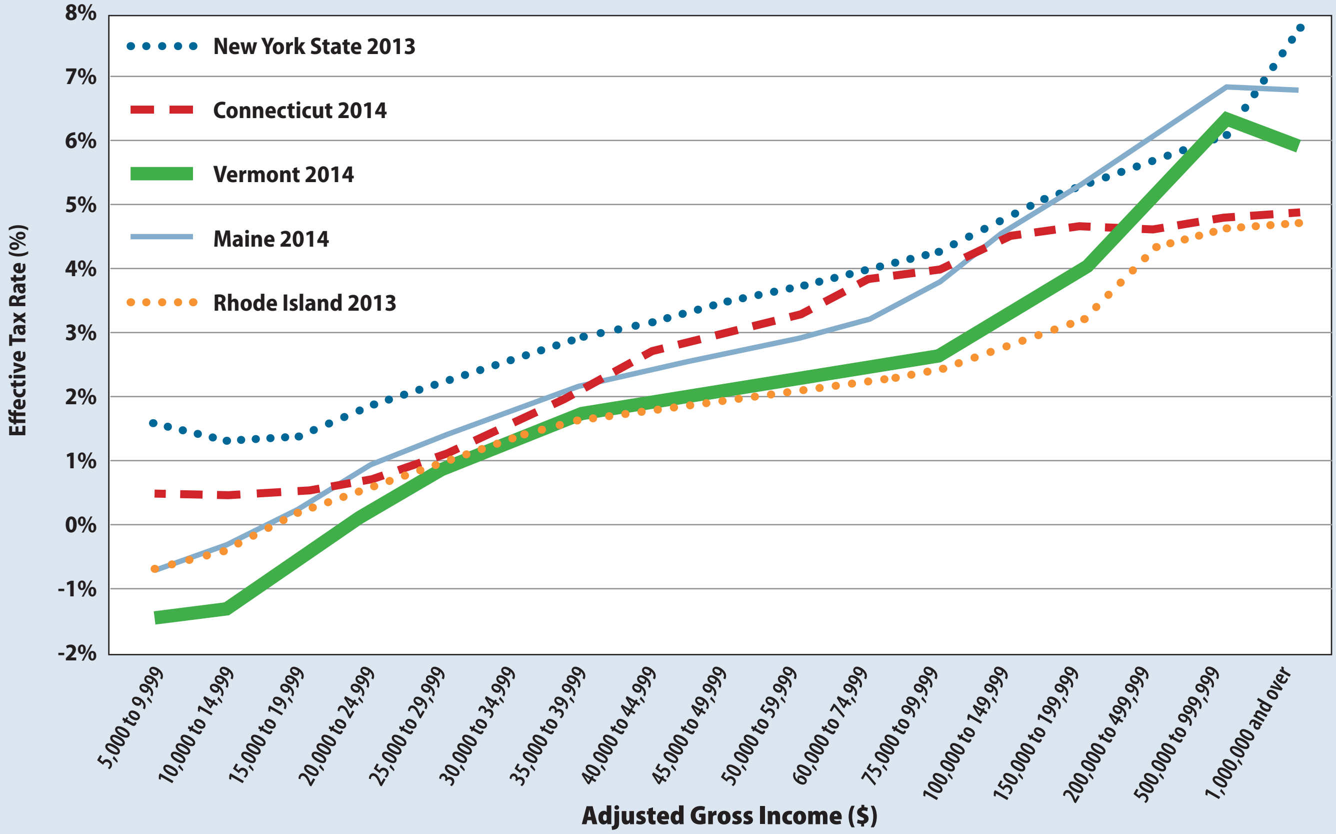
Estate Tax

A tax on the assets of a deceased person, the estate tax tends to be volatile and unpredictable because revenue depends on the wealth of a small number of people who die in any particular year. One or two substantial estate tax returns may constitute most of the revenue in any given year. (Estate taxes are applied on the decedent's estate, while heirs are responsible for inheritance taxes; Vermont has no inheritance tax.)

From fiscal year 2005 through fiscal year 2015, the Vermont Estate Tax contributed about $22.3 million on average each year, ranging from a high of just over $35 million in fiscal year 2011 and fiscal year 2014 to its lowest level of $9.9 million in fiscal year 2015 (which represented 0.3 percent of total state revenues that year). An average of about 84 estates per year pay the tax. As of 2016, a total of 18 of the 50 states, plus Washington D.C., retain an estate, inheritance or gift tax on the transfer of individual wealth. Estate taxes were applied in 12 states in 2016; inheritance taxes were imposed in four states; and two states have both estate and inheritance taxes.

Effective Income Tax Rates by Income Level: New England States and New York

Tax Liability as a Percentage of AGI (2013 or 2014)



Income ranges and effective tax rates are based on federal AGI except for NY, which uses state AGI; NH is omitted because it lacks an income tax; data for MA were unavailable.

Consumption Taxes

Vermont collected $1,139 million in taxes from the consumption of goods and certain services in fiscal year 2015; taken together, consumption taxes represent the largest single category of revenue to the state. The major consumption taxes include:

- **Sales and Use Taxes** – A Sales Tax of 6 percent is charged on retail sales of tangible personal property unless exempted by law. Vermont exempts certain necessities from the Sales Tax, including food sold at a grocery store or market, over-the-counter and prescription medicine, and clothing and footwear. (Vermont began taxing soft drinks in fiscal year 2015.) The compensating Use Tax applies to items purchased out of state and brought back to Vermont (and is the responsibility of the consumer rather than the retailer). A local option Sales and Use Tax of 1 percent has been adopted in 14 communities as of October 2016. Combined, Sales and Use Tax revenue constituted 10 percent of total state revenue and 32 percent of all Vermont consumption taxes in fiscal year 2015.
- **Meals and Rooms Tax** – Consumers pay the Vermont Meals and Rooms Tax when they purchase meals (food prepared away from home) or alcoholic beverages or when they rent a room for short-term lodging. The tax rate is 9 percent on sales of prepared food and food sold in restaurants, 10 percent on the sale of alcoholic beverages, and 9 percent on room rentals, including meeting rooms in hotels. The Meals and Rooms revenue constituted 4 percent of total state tax revenue and 13 percent of state consumption tax revenue. A local option Meals and Rooms Tax of 1 percent has been adopted in 17 communities.
- **Purchase and Use Tax** – Vermont taxes the sale of motor vehicles at a rate of 6 percent. (Vehicles used for short-term rentals are subject to a separate Rental Tax of 9 percent.) Purchase and Use Tax revenue constitutes 3 percent of total state tax revenue and 9 percent of consumption tax revenue in fiscal year 2015. In most states, the sales tax encompasses the tax on meals, rooms, and motor vehicles. Vermont is unique in applying these taxes separately.

- **Health Care Taxes** – A variety of taxes on providers (doctors and hospitals), payers (commercial insurance companies), and certain consumers of health care account for one of the fastest-growing categories of state revenues, in part because health care costs have grown faster than the rest of the economy. Revenues from health care taxes are deposited into the State Health Care Resources Fund, which pays for state health care programs, including Medicaid. Funds from cigarette and tobacco excise taxes are also used to pay for government health care programs. Health care taxes constituted 7.1 percent of total state tax revenue and 22.6 percent of consumption tax revenue in fiscal year 2015.
- **Motor Fuels Taxes** – Vermont levies excise taxes on motor fuels: gasoline and diesel. The revenues are deposited into three funds supporting transportation and environmental programs: the Transportation Fund, the Transportation Infrastructure Bond (TIB) Fund, and the Petroleum Clean-Up Fund. Motor fuels taxes constituted 3.7 percent of total state tax revenue and 11.7 percent of consumption tax revenue in fiscal year 2015.
- **Other Consumption Taxes** – Vermont collects additional taxes on a range of goods and certain services, some of which are classified as "excise taxes" on specific products: heating fuels (oil, propane, kerosene, natural gas, and coal), electricity generation (including solar), trash facilities, and certain trash haulers. Banking institutions, exempt from the Corporate Income Tax, are taxed under the alternative Bank Franchise Tax (a flat rate of 0.0096 percent of average monthly deposits). Similarly, Vermont taxes insurance companies (property and casualty, not health insurance) at a rate of 2 percent per year on gross premiums; captive insurance companies, providing a specialized form of business insurance, are also taxed in Vermont at tiered rates on premiums. Revenue from the two insurance taxes was just over $57.9 million in fiscal year 2015.

Sales and Excise Tax Rates and Revenues at the Borders

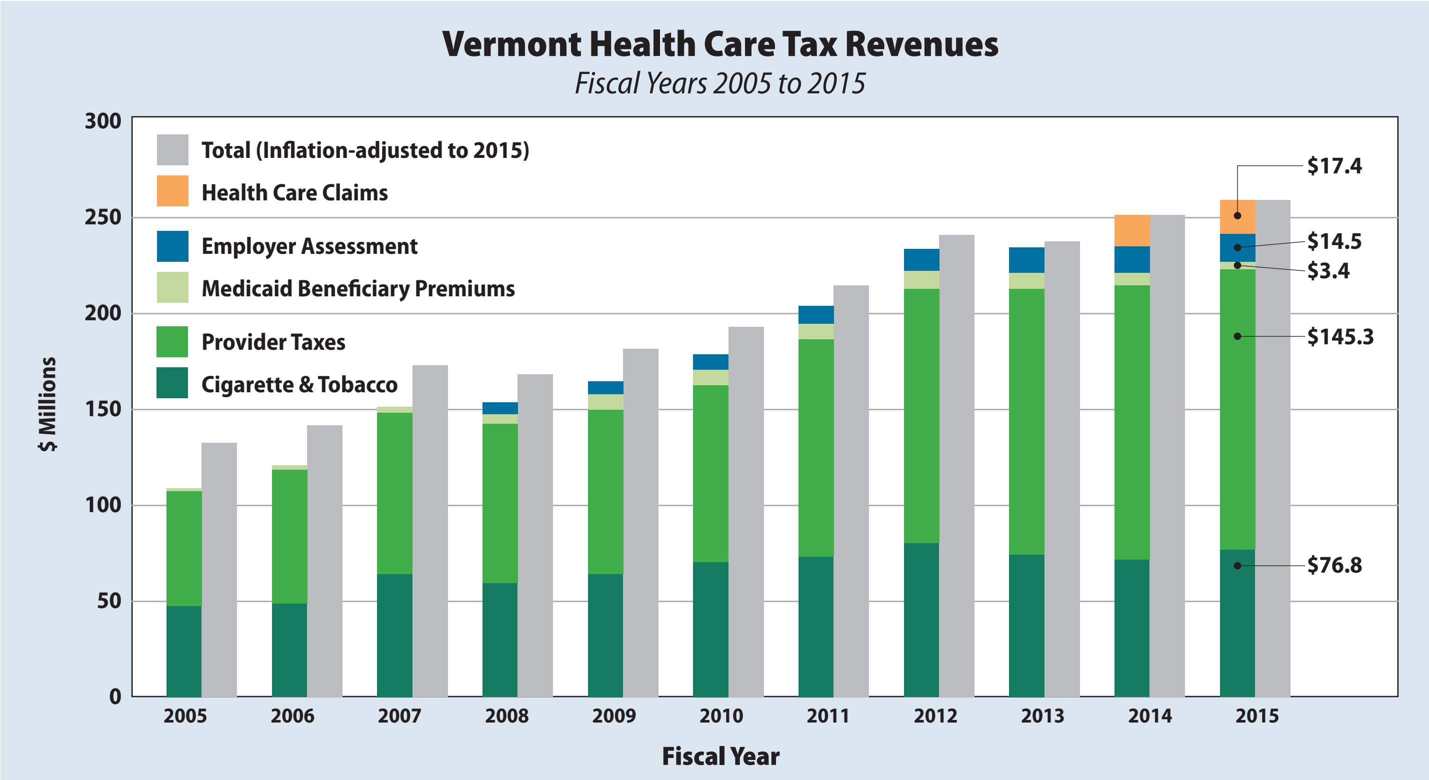
During the past 47 years, Vermont's steadily increasing Sales Tax rate, now at 6 percent, has contributed to a shift in retail activity toward New Hampshire, which has no sales tax. Yet this tax differential alone is hardly the single — or perhaps even the most significant — factor in Vermont's retail competitiveness with New Hampshire, or with other neighboring states. Additional factors, working at times to Vermont's advantage, include: the rise of "big box" stores and internet sales, historic settlement patterns and population growth, land use laws, as well as the location of interstate highways, colleges, medical centers, and even Lake Champlain. The full Vermont Tax Study includes an analysis of the so-called "cross-border impacts." Among the findings:

- Although the avoidance of taxes through internet purchases has affected Vermont Sales and Use Tax revenues, it has also removed some of the incentive to shop in other states.
- State policies, particularly those affecting commercial development (such as Act 250 and local opposition to "big box" stores), may have done more to affect retail store development along the New Hampshire-Vermont border than the sales tax rate differential. Settlement patterns affecting the growth of communities on both sides of the Connecticut River have been in place for hundreds of years — well before any sales tax existed.
- Demand for most goods increases as income rises. Consequently, part of the difference in sales per capita could stem from higher per capita incomes in New Hampshire border areas, not differences in sales tax rates.
- Even though Vermont loses some sales tax revenue to New Hampshire, those losses may be offset entirely or in part by substantial sales tax gains from out-of-state visitors, particularly in communities hosting or near ski resorts.

Consumption Taxes: Notable Findings And Trends

Because their rates and tax bases vary across the country, consumption taxes are difficult to compare from state to state. Although each tax is analyzed in detail in the full report, a few trends are noteworthy, mostly related to Vermont's 6 percent Sales and Use Tax.

- The national median state sales tax rate is 5.09 percent, with a population-weighted average local tax rate of 1.35 percent, for a cumulative national rate of 6.44 percent. Vermont's comparable weighted average is 6.17 percent. Five states — Alaska, Delaware, Montana, Nevada, and New Hampshire — impose no sales tax. (A chart of state and local rates in 51 states and jurisdictions is available in the full report's Appendix C.) Among New England and New York State, the



sales tax rate, weighted for population, varies between 5.5 percent in Maine and 8.49 percent in New York.

- Sales and Use Tax revenues, which vary with the economic climate, decreased significantly through the Great Recession. Since 2010, as consumers gradually increased consumption, revenues have recovered steadily at an inflation-adjusted rate of 2.6 percent per year. Vermont does not levy the Sales and Use Tax on most services. As services continue to constitute a growing part of the economy, some states are now exploring taxing certain services.
- The growth of online shopping and cross-border sales means that the Vermont Sales and Use Tax is likely underpaid or unreported.
- During the study period, revenues from health care taxes almost doubled and represented the fastest growing category of taxes in Vermont. Much of the increase was in the Provider Tax revenues, which reached $145.3 million in fiscal year 2015. Three factors explain the increases in health care tax revenues: the rising volume of health care services, prices of health care services rising faster than general consumer prices, and tax policy changes that created higher rates and new revenue sources in the health care sector. Vermont has also raised health care taxes in order to leverage federal matching funds for expanding health care access in the state.

Property Taxes

Total revenue collected as property taxes in fiscal year 2015 was $1,062 million. Local governments in Vermont collect two types of property taxes: municipal property taxes, which stay in the local jurisdiction, and education property taxes, which go to the state and are redistributed to fund education statewide. The state portion takes two forms:

- The **Homestead Education Tax** applies to "homestead property"— a primary residence and contiguous land. The statewide tax rate is adjusted in each community based on local per pupil education spending and further adjusted to equalize property tax obligation statewide. In fiscal year 2017, the base Homestead Education Tax rate was $1.00 per $100 of property value. The average Homestead Education Tax rate in fiscal year 2017 was $1.527.
- The **Non-residential Education Tax** applies to other types of property, including second homes and rental, commercial, and industrial properties. In fiscal year 2017, the base Non-Residential Education Tax rate was $1.535 per $100 of property value.

Vermont is unusual among states in the extent to which it adjusts property taxes based on household income, lowering the tax due for many low- and middle-income resident households (analyzed below).

Vermont also imposes other types of property-based taxes, including the Property Transfer Tax, Land Gains Tax and taxes on land use change. The vast majority of property tax revenue came from the state Education Property Tax.

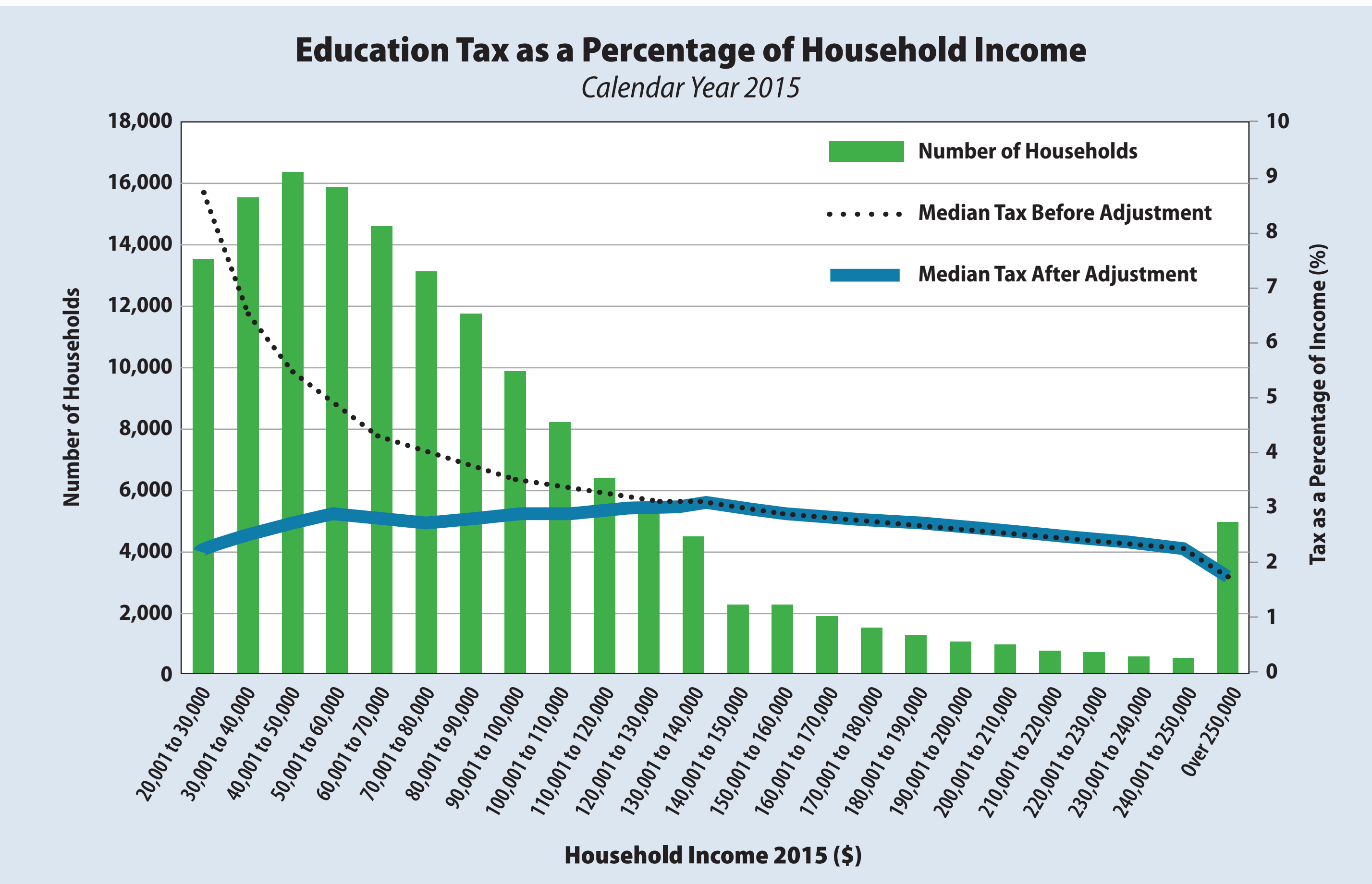
Education Property Taxes

Education property taxes constitute the greatest single source of state tax revenue, contributing $1,030 million in 2015. Of that total, 59 percent ($610.2 million) came from taxes on non-residential property and 41 percent ($423.8 million) from homestead property taxpayers. Of the homestead portion, 65.2 percent ($276.4 million) came from homeowners paying the full amount of the Education Property Tax and 34.8 percent came from homeowners receiving a reduction in taxes due based on their household income. Put another way, of the total revenue from the Education Property Tax (including non-residential tax revenue), 14.3 percent was based on household income and the remaining 85.7 percent was based on the fair market value of property.

That most of the tax revenue is derived from property value (rather than taxes based on household income) is important. The real estate market — and therefore property values — does not always track with the general economic cycle, adding stability to state revenue during economic downturns. Moreover, Vermont uses three years' worth of property sales to determine equalized property values, which further insulates property tax revenues from downturns in the real estate market and general economy. As a result, the Education Property Tax is a relatively predictable and stable revenue source for the state, somewhat resistant to volatility in income and property values. Nevertheless, as discussed in Section II, reliance on education property taxes to fund much of education spending meant that property tax rates had to be increased in order to fund the growth in education spending.

	Property Tax Rank	
State	Per Capita	Per $1,000
Connecticut	3	9
Maine	12	5
Massachusetts	9	13
New Hampshire	4	2
New York	5	6
Rhode Island	7	4
Vermont	6	3

Inflation-adjusted revenues from the Education Property Tax increased 2.9 percent per year over the 10-year study period — from $773 million in 2005 to $1,030 million in 2015. The portion of the total that comes from homestead taxpayers fluctuated only slightly around 40 percent during



the period. Reliance on property tax revenue has grown due to a combination of increased spending (despite a 14 percent decline in the number of children under 18 years of age in the state) and slower growth in other revenues used in the education funding system.

Adjustments to the Education Property Tax

In fiscal year 2015, 110,358 households — 66 percent of the 167,025 homestead parcels — received some type of property tax reduction designed to limit the tax to a percentage of household income. The total value of the income-based reductions amounted to $145.7 million in 2015. (The adjustments are limited to households with household income up to $108,889 in fiscal year 2015.) The remaining 34 percent of homesteads paid based on property value alone.

A number of exceptions and conditions in the law, however, lead to many households paying based on both income and property value, resulting nonetheless in a high portion of overall property tax revenues derived at least in part from housing value. The Education Property Tax adjustments have a noticeable impact on the net homestead property tax paid relative to the amount based on property value alone. In the accompanying figure on page 12, the green bars represent the number of homesteads in each household income category. The two lines show the Education Property Tax as a percentage of household income — before and after the application of the property tax adjustment. Although the adjustments offer income-based support to property taxpayers, the net effect makes Vermont's Education Property Tax rate essentially flat across all income levels — and therefore not progressive.

State Property Tax Comparisons

The unique nature of the statewide Education Property Tax makes it difficult to compare Vermont's system to those in other states. But one approach ranks the tax by state on a per capita basis and per $1,000 of personal income using survey data of all the states from the U.S. Census Bureau. The second approach uses representative taxpayers to calculate tax liabilities for hypothetical households; those results are presented in Appendix D of the full report.

Among the New England states and New York, property taxes rank on the high side compared to the rest of the nation. Vermont ranks sixth nationally in terms of net property taxes paid per person; Connecticut, New Hampshire, and New York rank higher. Vermont ranks third nationally in terms of net property tax paid per $1,000 of personal income; only New Hampshire ranks higher among the New England states and New York.

Another concept to consider when reviewing property taxes is land use. States with populations similar to Vermont's, including Wyoming, Montana, and North and South Dakota, have large stores of natural resources, the extraction of which is taxed, which offsets taxes on income, sales, and property for citizens in these states.

Property Transfer Tax – Vermont imposes a tax on the transfer of real property located within the state. Revenue in fiscal year 2015 from the Property Transfer Tax was $17.2 million, a decline in both actual and inflation-adjusted dollars from the amount collected in fiscal year 2005. The decline and more recent slight recovery of Property Transfer Tax revenues reflects the declining real estate sales leading up to — and during — the Great Recession.

Thirty-seven states and D.C. have real estate transfer taxes ranging from 0.01 percent to 2.625 percent, assessed at the local, county or state level. Among the New England states and New York, all states have a property transfer tax at the state level, and both Massachusetts and New York impose a county-level tax as well. Only Connecticut and New Hampshire have transfer tax rates as high as or higher than Vermont.

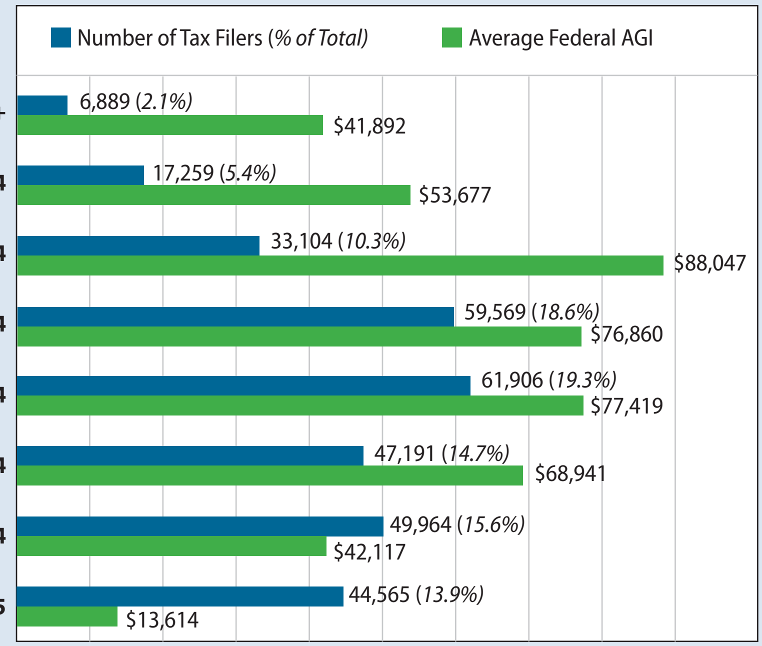
Vermont assesses various other taxes on land transactions and certain businesses (including telephone companies and railroads), all of which amount to a relatively small portion of state revenues. These taxes, some of which are alternatives to the Education Property Tax, are discussed in detail in the full report.

IV. Demography and Tax Revenue

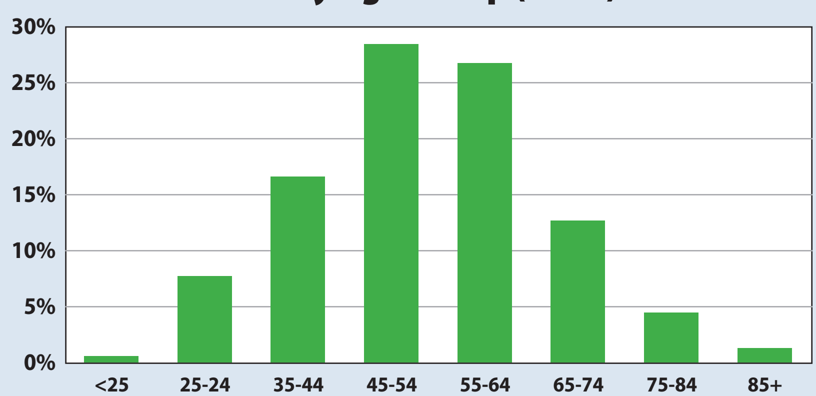
Vermont's population is older than that of every other state except Maine — a trend expected to continue with implications for state revenues. Middle-aged and older workers, mainly baby boomers with high earnings and active spending habits, pay the bulk of Vermont taxes , and file the majority of income tax returns. But as they move toward retirement, these Vermonters will pay less in taxes (reflected in the top figure to the right). Moreover, changing demographics in the state suggest that in coming decades middle-aged and older workers will shrink as an overall share of the Vermont population. Over the next 15 years or so, baby boomers will move from being active workers who pay substantial taxes to retirees who pay less in taxes[2]:

- Vermont's current bulge in people 45 to 64 years of age provided nearly 56 percent of total income taxes paid by state residents in 2014, the most recent year for which data are available (represented in the bottom figure to the right). The expected increase in the number and percentage of people 65 years of age and older will have notable implications for income tax revenue in coming years. To the extent that older people stay in the workforce longer, however, they will continue to contribute income taxes to state revenues at higher levels.
- Because middle-aged and older workers, particularly those 45 to 64, spend relatively large amounts on taxable items (on household goods, for example, or meals away from home), they also provide a sizeable portion of state consumption tax revenues.
- Households 45 to 64 years of age paid 49 percent of the total net property taxes and represented 46.4 percent of homesteaders in 2015. Older homesteaders 65 to 74 years of age paid 20.6 percent of total net property taxes and represented 20.1 percent of homesteaders. (Total net property taxes included net municipal taxes as well as net homestead property taxes.)

Incomes and Tax Returns by Age Group (2014)



Shares of Vermont Income Taxes Paid by Age Group (2014)



Vermont is by no means the only state dealing with these demographic issues, but the aging of the state's population tends to be among the most pronounced in the country.

2 In the upper graph, the relatively high average federal income for the age group 65 to 74 is the result of one or more high-income tax filers with a large portion of income from outside Vermont. Consequently, the group's share of Vermont income taxes is not correspondingly high.

VI. Case Studies

Much of the data about taxpayers presented in this analysis are averages across many households — by age group, for example, or income bracket. While informative, this standard mode of analysis reveals little about the experiences of individuals and families who pay taxes, and how Vermont's tax structure ranks across the country. To produce such a comparison, JFO created seven hypothetical households for case-study analyses comparing tax liabilities across the 50 states and the District of Columbia.

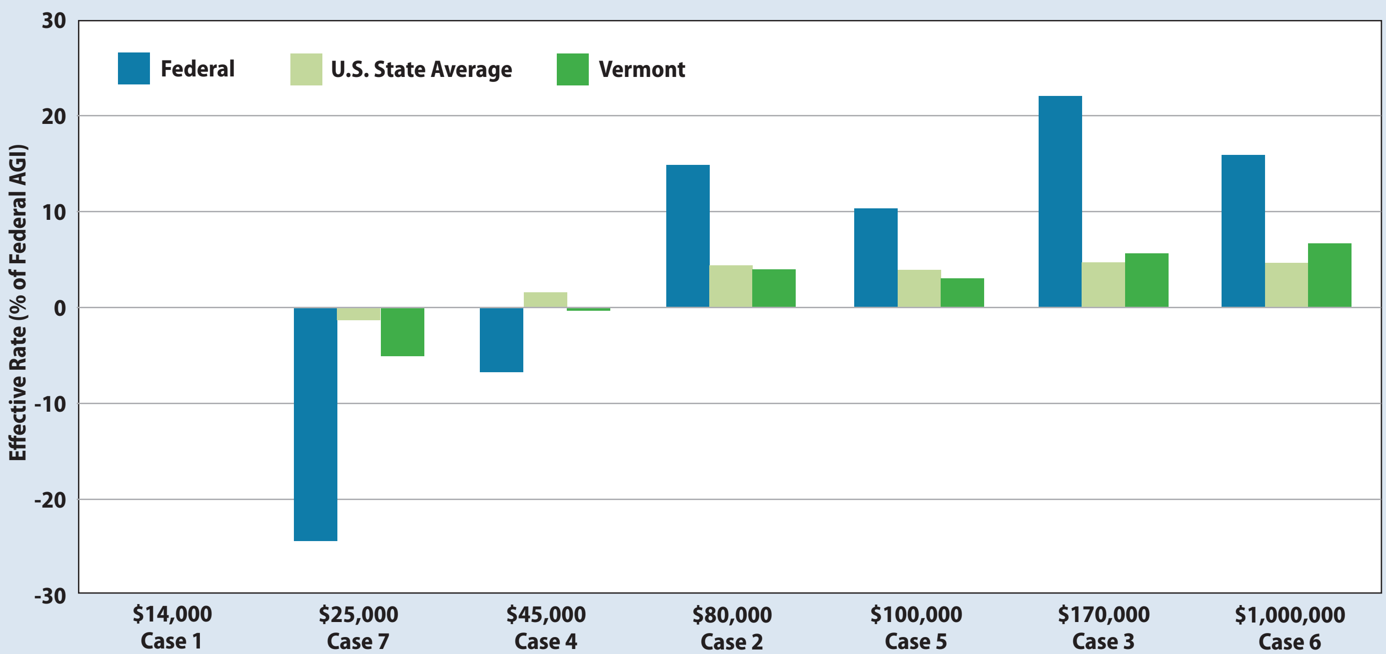
These hypothetical families represent various income levels, ages, family sizes, and living situations: single individuals, married couples with dependent children, couples without children, single-parent families, retirees, working families with and without dependents, renters and homeowners. Many types of income are represented, including salaries and wages, Social Security income, rentals, capital gains, and retirement benefits.

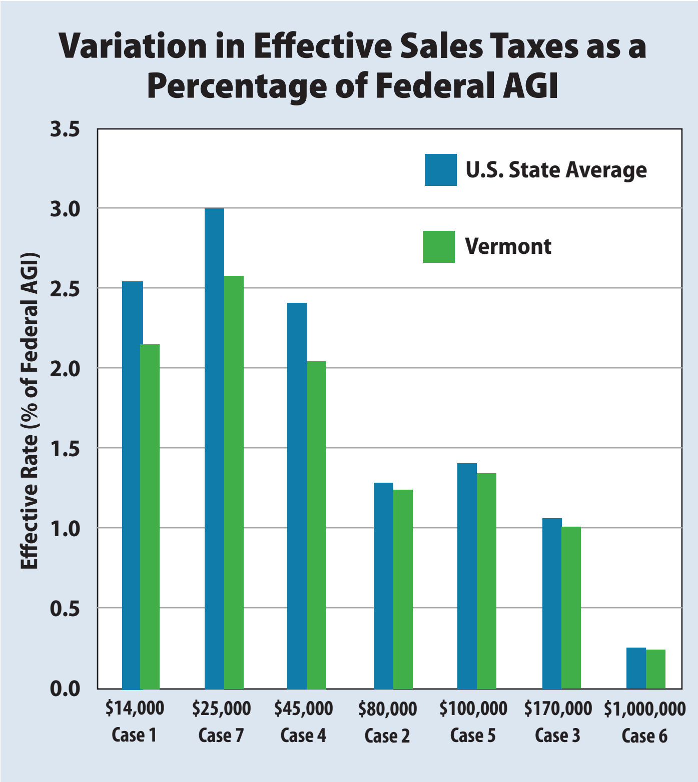
For each of the seven households, JFO calculated tax liability across jurisdictions for personal income tax, consumption taxes, and property taxes. The goal is to provide consistent and relevant comparisons across the United States. Case study details are presented in extensive tables and charts in the full report's Appendix D. Among the general findings:

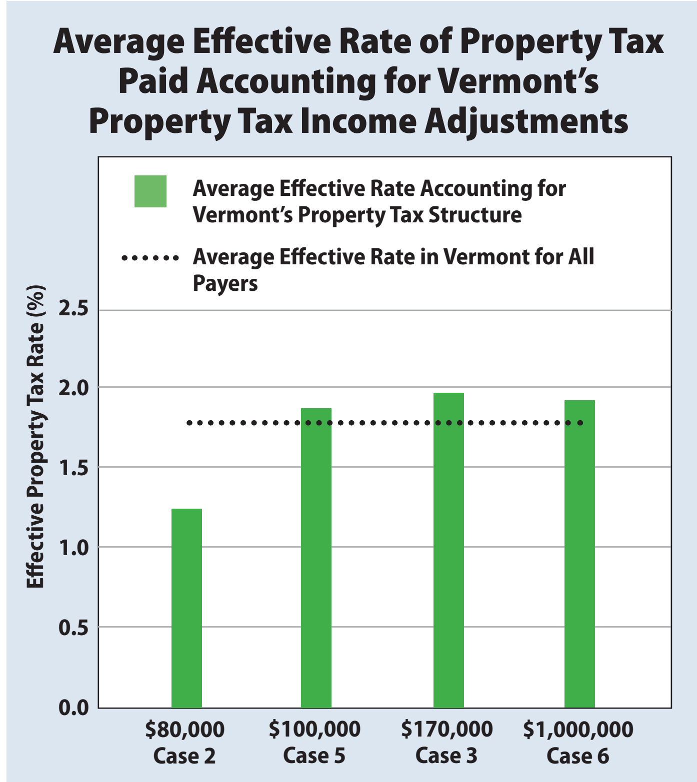
Case Number	Filing Status	Number of Exemptions	AGI ($)
1	Single (Retired)	1	14,000
2	Single	1	80,000
3	Single	1	130,000
4	Married Filing Separate	3	170,000
5	Married Filing Joint	2	100,000
6	Married Filing Joint	4	1,000,000
7	Head of Household	3	25,000

- **Income Tax Liability** – The case studies bear out Vermont's highly progressive income tax structure. Vermont ranked 38th and 41st in state income tax liability for the two low-income households: Cases 7 ($25,000 in adjusted gross income) and Case 4 ($45,000). Vermont ranked 11th and 8th for two high-income households: Case 3 ($170,000) and Case 6 ($1,000,000). For the middle-income households — Case 2 ($80,000) and Case 5 ($100,000) — Vermont ranked slightly below the national average. The case study also calculated federal tax liability; of note in the chart below is the decreasing effective federal tax liability for the highest income filer, in contrast to Vermont's higher progressivity and effective rate at this income level.

Variation in Effective Income Tax Rates: Federal, U.S. State Average, and Vermont







- **Sales Tax** – The case studies illustrate the regressive nature of sales-based taxation. Lower-income families spend a larger portion of income on taxable consumption of goods, most of which includes food, electricity, and vehicle expenses. To ease the regressivity, Vermont exempts food, clothing, and medications. This contributes to an effective sales tax rate that is lower than the national average.
- **Property Tax** – Vermont's unique property tax structure, a blend of income and value-based taxation, reduces property tax liability for low-income homeowners across the state. The case study results indicate that the lowest-income homeowner examined paid a Vermont average effective property tax rate of 1.21 percent of household income, whereas higher-income homeowners paid approximately 1.9 percent.

Looking Forward

The Vermont Tax Study represents 10 years of tax and revenue policy during a period of economic change. Between 2005 and 2015, the nation fell into a deep recession, states took on a greater role in social service programs (most notably health care), and a significant portion of the population (baby-boomers) began to move into retirement.

Vermont would continue to benefit from regular analyses of its tax structure, including stability and competitiveness. At least three other subject areas warrant greater or continuing analysis:

- **Tax Incidence** – Tax and economic policy can improve with greater knowledge of who pays Vermont's taxes, including how a tax relates to taxpayer income, type of household, and place of residence. Questions to be asked include whether producers or consumers pay business taxes, for example, or which households pay particular consumption taxes.
- **Changing Demographics** – Although this study begins to look at how the aging of Vermont's population affects tax revenues, this continuing demographic trend warrants additional research, including its impacts on the state's overall economy.
- **Business Cycle Fluctuation** – Policy makers in Vermont could benefit from better understanding how rising or falling GDP — the business cycle — affects taxpayers, revenues from particular taxes, total state revenues, and the Vermont economy.

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