2021

Final Report of the Vermont Tax Structure Commission

PREPARED IN ACCORDANCE WITH ACT 11, SEC. H.17 OF THE 2018 SPECIAL LEGISLATIVE SESSION

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1. Introduction

> *In some respects, the history of taxation in Vermont is the history of a state trying to deal with alternatives to the property tax, or trying to find a better way to tax income.*
>
> - Paul Gillies, "The Evolution of the Vermont State Tax System"

This report is written by three Vermonters of different backgrounds and varying tax system experiences (Appendix 1-1). We first convened in December 2018, tasked by the Legislature and Scott Administration with developing long-term recommendations to help make the State's overall revenue system more fair, more sustainable, and simpler. From the beginning, we committed to operate by consensus. We believed, and continue to believe, our commission should only put forth recommendations that all three of us can support.

We worked for almost a year and a half before COVID shut down much of Vermont in March 2020. Given the uncertainty in the early days of the pandemic around the nature of the disease and its potential effects on our society and our economy, we suspended our work for two months. Once it became clear that some economic activity would continue, and that there were measures people could take that would allow them to keep functioning during the pandemic, we resumed our work.

As we deliver this report at the start of 2021, infections and deaths are climbing across the country, but the distribution of effective vaccines has allowed us and everyone else to look forward to a post-pandemic world.

The pandemic impacted both the logistics of our work as well as the data and issues we were tasked with analyzing.

In terms of logistics, we had hoped to travel the state to hear Vermonters' concerns and to talk through priorities and solutions in-person. We did hold meetings in the State House and various public libraries throughout our first year. We also scheduled a spring 2020 series of community panel discussions with experts to explore key revenue issues. Alas, that series had to be cancelled and our last several months confined to public Zoom meetings. All told, we still managed to hold more than three dozen public meetings, both in-person and online, and take written and oral testimony from more than 60 experts and members of the public (Appendix 1-2).

The process concluded with our publishing a draft report in January 2021 with a two-week period for public comment. The questions, suggestions, and critiques that we received from business and professional organizations, municipal organizations, legislators, local officials, tax professionals, public policy experts, and the general public were constructive and helpful in filling in gaps in the report and strengthening weak spots, and we are grateful to all who commented (Appendix 1-3).

In terms of data, it is clear to us that the pandemic has accelerated some long-standing trends: more shopping online and less brick-and-mortar retail, more remote work, more use

of video for professional and social gatherings, more telemedicine, more remote education. It is not clear that other than accelerating these trends, the pandemic will change the contours of our economy. Our data comes from the pre-COVID economy; our recommendations (summarized in Chapter 2) will be implemented in the post-COVID economy. We therefore have accounted for the COVID-induced acceleration of the above-mentioned trends in our recommendations, but they are not recommendations for a COVID economy – they are recommendations for a healthy post-COVID Vermont economy.

Our approach was to work within each major tax area, and among the major tax areas, to make the overall tax burden on Vermonters more fair relative to horizontal equity, with people of similar ability to pay bearing similar tax burdens, and vertical equity, with an effort to ensure that those with less ability to pay bear a lesser burden, and those with a greater ability to pay contribute a greater amount.

We recognize the *Principles of a High-Quality State Revenue System*, developed by the National Conference of State Legislatures (2007), apply to the entire tax structure—not to each tax. No individual tax can achieve them all. We discuss these principles and Vermont's tax structure in Chapter 3.

We recognize the conundrum posed by income and wealth, with the latter being a more accurate barometer of ability to pay but also far more difficult to assess. In Chapter 4 we discuss the interplay between income and assets and what it means for fairness. Then in Chapter 5, we present two compelling reasons to restructure Vermont's system of taxes and transfers, particularly with respect to support for low-income Vermonters.

Our predecessor, the Blue Ribbon Tax Structure Commission of 2009-2011, concentrated on income tax reform and made significant recommendations, several of which have been enacted in recent years (Tax Structure Commission, 2019). With that in mind, we chose to concentrate the bulk of our time on education and consumption taxes and the overall tax structure.

We believe our diverse experiences are a strength and we wanted each of our voices to come through. We each drafted different sections of this report, and as a result, you may notice significant shifts in writing style from chapter to chapter.

We recognize that Vermont's school spending is among the highest in the nation and the education property tax is often cited as our state's most burdensome. Chapter 6 lays out a proposal to restructure the homestead education tax and make other reforms to the way we pay for education.

Chapter 7 enumerates steps for Vermont to dramatically expand its sales tax base while slashing the tax rate. The plan is bold, but the concept is not unique. Ten years ago, the Blue Ribbon Tax Structure Commission also called for a significant expansion of the tax base. That's two separate commissions, with six different people from a variety of backgrounds, all agreeing that it doesn't make sense for Vermont to have one of the narrowest sales tax bases in the nation.

We discuss health care taxes in Chapter 8, opportunities for income tax and estate tax modernization in Chapter 9, and obsolete and inefficient taxes in Chapter 10.

In Chapter 11 we propose a timeline for our recommendations and call attention to steps that must be taken before some of the recommendations can be implemented.

In Chapter 12, we discuss Vermont's changing landscape and how three key areas of change – demographics, technology, and climate – underscore the importance of having an agile tax structure. We provide neither comprehensive analyses nor forecasts but rather offer thoughts on how to approach the tax implications of such significant changes.

We have worked to simplify the overall tax system in two major ways. First, we have endeavored to make recommendations that will make many individual taxes simpler. Second, we have made recommendations to eliminate a number of taxes outright. Falling into both these categories is the homestead education property tax, which currently is exceptionally complicated. We have recommended eliminating the education property tax on homestead housesites and replacing it with an education tax based on income for all Vermont residents. We have also recommended eliminating the Telephone Personal Property Tax.

On the subject of making our overall tax system more sustainable, we have been mindful of recommending changes that will make our tax system responsive to changes in the economy, technology, and environment without requiring further legislation. We hope that our recommendations regarding the education property tax make that more sustainable. We believe it removes one of the biggest sources of potential instability in Vermont's tax system, which is the growing demands by Vermonters for lower property taxes, and for property taxes that do not grow disproportionately.

Our commission was to review how the State raises revenue, and did not include a charge to consider State spending. We did, of course, hear a great deal from Vermonters about how the State spends money. We acknowledge the concerns of Vermonters around spending, and in particular around education spending, and we recognize and are grateful for the work the Legislature has done and is doing in those areas.

We hope our recommendations improve Vermont's overall tax system in terms of making it more fair, simple, and sustainable.

2. Summary of Recommendations

The Commission appreciates the attention the Legislature and the Administration continue to give to guiding Vermont through the pandemic, and we agree that it should be the State's top priority this session. For this reason, we have listed our recommendations not in order of significance, but rather in an order we think can and should be implemented. We believe the first two recommendations can be initiated during these uncertain times, and they strengthen our ability to analyze, manage, and improve our tax structure.

The Commission makes the following recommendations:

1. **Undertake tax incidence analysis in order to eliminate tax burden/benefit cliffs.**
2. **Establish an ongoing Education Tax Advisory Committee.**
3. **Restructure the homestead education tax.**
4. **Broaden the sales tax base.**
5. **Modernize income tax features.**
6. **Improve administration of property tax.**
7. **Create a comprehensive telecommunications tax.**
8. **Utilize tax policy to address climate change.**
9. **Collaborate with other states so each state can build a fairer, more sustainable tax system.**

Recommendation 1: Undertake Tax Incidence Analysis in Order to Eliminate Tax Burden/Benefit Cliffs

Key components:

A. Undertake an ongoing study of income, taxes, and the transfers or benefits that help families meet their basic needs.

B. Find ways to eliminate the tax and benefit cliffs.

Although we think of taxes as payments to government, the redistribution of those payments, through benefits and credits, is crucial in determining the equity of the whole structure. A comprehensive and ongoing study of income, taxes, and the transfers or benefits that help families meet their basic needs would help future legislatures look at changes over time, recommend adjustments, and measure progress (1A).

As demonstrated in *Vermont Basic Needs Budgets and Livable Wage* (Legislative Joint Fiscal Office, 2021), different family types have different needs. Looking at the combined effect of taxes and public benefits for different family types at different income levels would reveal where the family may go backwards—earning more in wages but losing a greater amount in benefits (aka the benefits cliff). This is devastating if it is unexpected; if it is anticipated, it is a disincentive to work. We need to make it a reality for people to work more hours, take on more responsibility in their job, earn more money, and see some improvement in their ability to make ends meet.

There is a crucial link between our other recommendation to broaden taxes –particularly the sales tax—and this recommendation to analyze the current distribution of taxes and benefits, and to remedy the unintended problems. A significant portion of the new revenue resulting from the broadened sales tax would be deployed to strengthen and rationalize the distribution system to support lower-income Vermonters, and to make sure that no one is harmed by the tax changes (1B).

Recommendation 2: Establish an Ongoing Education Tax Advisory Committee

The importance of education, the size of the Education Fund, the complexity of education finance, and the fact that the yield(s) and rate(s) must be set annually lead us to the conclusion that a structured commitment to the management of the finance system is warranted.

We recommend an ongoing Education Tax Advisory Committee to monitor the system, to conduct analyses, to report regularly, and to make annual recommendations to the Legislature. Annual recommendations would include the tax rate(s) and yield(s) and the amount of the stabilization reserve. Other recommendations, such as adjusting student weights or other changes to the system could be brought to the Legislature's attention as needed. With time, study, and analysis the process would build the capacity of the members and strengthen the ability of the Legislature to manage the education finance system.

Recommendation 3: Restructure the Homestead Education Tax

Key components:

- ***A. Eliminate the property tax credit.***
- ***B. Eliminate the homestead education property tax, and implement an income-based education tax for all residents (owners and renters) with rate tied to locally voted budgets.***
- ***C. Levy the non-homestead education property tax on all property except the residence and 2-acre site.***
- ***D. Create renter credit to offset the non-homestead property tax effectively paid through their rent.***

The commissioners agree that the complexity is overwhelming the effectiveness of the current homestead education tax.

We recommend eliminating the property tax credit (3A) and levying a direct tax instead. The current system, with a homestead property tax in one year and an income-based credit coming in the following year, obscures the connection between the budget vote and the tax bill. It also leads people to see the credit as a subsidy rather than a means to calculate each household's fair share. It creates administrative issues for local officials who need to apply the credit to the tax bills, and then answer questions from homeowners. There are also confidentiality concerns, as the credit amount is an indication of household income. In

addition, it means that a tax increase in one fiscal year is only partially covered in that year; some of the cost must be made up in the following fiscal year.

The current system allows homeowners to choose the lesser of the education property tax on their housesite or a tax on their income. This double system creates more than double the trouble, as it forces the match between the two systems, administered by different levels of government, with different calendars, with different confidentiality requirements. We recommend moving to a single system and, to maintain equity, the single system we recommend is a direct residential tax on income (3B).

Before endorsing income, we examined:

- Whether house value is a good proxy for wealth, and we found that it is not; house value is a high proportion of net worth for low-income households and a low proportion of net worth for high-income households.
- Whether house value is a good indication of income, and we found that it is not; a house value of average value is owned by households of all incomes.
- Whether a housesite exemption could offset the regressivity of the property tax without necessitating an income-based adjustment, and we found it could not.

Given the divergence between the value of a house and both income and wealth, and given the impracticality of determining, measuring or taxing net worth, the Commission believes that income is the best way to measure tax burden on a given taxpayer and is the most progressive way to tax residents for education at this time.

While the historical and administrative reasons for the distinction between renters and homeowners are clear, the Commission could not find a principle-based justification for treating the two groups of residents differently. The Commission believes the locally voted education tax should be based on the income of all residents. Renters would receive a credit to offset the education property tax paid through their rent (3D). We recommend initiating a process of data collection and analysis to enable the implementation of this change.

The Commission believes that the equity of the locally voted education tax is crucially important. Unlike many other taxes, it both collects and distributes. After the allocation of categorical grants, we rely on the locally voted tax to raise the amount needed to provide the education of the students in each district. If this tax is inequitable, it is likely that education will be distributed inequitably. For this reason, we believe the relationship between income, poverty, and education spending is vitally important to track. At this time, it appears that a combination of district consolidation, heavier weighting for poverty, and moving to an income-based tax for residents will improve the equity of the education tax.

Recommendation 4: Broaden the Sales Tax Base

Key components:

A. Expand the sales tax base to all consumer-level purchases of goods and services except health care and casual consumer-to-consumer transactions.

B. ***Use the gain from broadening the base to protect low-income Vermonters and reduce the sales tax rate to 3.6%.***
C. ***In health care, extend the provider tax to those provider categories that are not currently included and move to a single provider tax rate.***
D. ***Use the gains from broadening the provider tax base to lower the rate to a level below the current average rate.***
E. ***Continue to eliminate the sales tax on business inputs.***

All other things being equal, a broader tax base is more fair, more sustainable/stable, and simpler than a narrow tax base. If you combine a broader tax base with a lower rate, the new system becomes even more sustainable.

Vermont has one of the narrowest sales tax bases in the nation. There are a variety of historical reasons for the exclusion of various industries and economic categories from the sales tax. We examine each of those reasons, and find that there are only three categories whose exclusions from the sales tax still make sense: health care, whose complexity requires separate treatment; casual sales for which the administrative burden of sales tax collection outweighs the potential revenue; and business inputs (4A, 4B).

In particular, we believe there are more efficient ways to protect low-income Vermonters from the burden of a sales tax on necessities, and more effective ways to promote community goods, than exemptions from the sales tax. We also believe that there is nothing inherent in services that makes them less amenable to a sales tax than goods, and the historic exclusion of most services from the sales tax will become more destabilizing over time as services become a larger and larger portion of the consumer economy.

As part of our proposal, the Commission recommends extending the sales tax to those grocery-type items currently exempt from the meals tax, including items like whole pies, cakes, loaves of bread, etc., to be consistent with the extension of the sales tax to groceries.

We conclude that health care is not amenable to a sales tax, but that we can improve on the fairness, simplicity, and sustainability of our current system of taxing health care without limiting Vermonters' access to health care by extending the provider tax to the remaining health care provider categories that are not currently subject to the provider tax (4C, 4D).

The new revenue resulting from the broadened sales tax would be deployed first to strengthen and rationalize the distribution system to support lower-income Vermonters, and to make sure that no one is harmed by the tax changes, and second to lower the sales tax rate to 3.6% (4C).

Recommendation 5: Modernize Income Tax Features

Key components:

A. ***Expand the personal income tax base.***
B. ***Study the effect on Vermont pass-through entities of an entity-level tax.***
C. ***Examine opportunities to improve Vermont's estate tax.***
D. ***Explore options to improve the corporate income tax.***

We recommend expanding the personal income tax base by a) continuing to promote Vermont as a remote worker destination and ensuring that rural areas have the infrastructure such as high-speed broadband internet to support remote workers, and b) continuing to review tax expenditures to ensure these expenditures are accomplishing the purpose for which they were intended (5A).

We recommend studying the effect on Vermont pass-through entities (PEs) of an entity-level tax to replace the present system of nonresident withholding and composite return filing (5B). The Commission considers this study to be a long-term recommendation and not one that should be rushed in pursuit of short-term benefits, such as a workaround for the federal Tax Cuts and Jobs Act's $10,000 state and local tax deduction cap. Consider mandatory composite filing for all PEs with nonresident members. Continue to allow the individual nonresidents to file a Vermont return and take a credit for their share of the taxes paid.

We recommend examining opportunities to improve Vermont's estate tax by: a) continuing to monitor what our neighboring states and the federal government are doing relative to exemptions, b) studying in the future the possible elimination of the present estate tax structure and replacing it with a "deemed sale" type of tax on death (5C). The Commission understands the recent overhaul of the estate tax in 2016 and increase in the exemption in 2021 to $5,000,000 was a meaningful change and has made the estate tax much easier to understand and administer. The goal of the Commission is to look to the future, ten to 20 years and as such, we make this recommendation to the Legislature for future reference.

We recommend exploring several aspects of corporate income tax, including: a) the effect of adopting Finnigan with respect to unitary tax apportionment, b) the effect of adopting a Single Sales Factor approach to apportionment for multistate corporations, c) tax expenditures related to the corporate tax to ensure they are still serving their intended purpose (5D).

Recommendation 6: Improve Administration of Property Tax

Key components:

- ***A. Move expenditures for mental health services and for employee health insurance from the Education Fund to the General Fund.***
- ***B. Develop a program at Property Valuation and Review to appraise large and/or complicated property and to defend the appraisals.***
- **C.** ***Study alternatives to the common level of appraisal.***

In order to align local budgets with the costs local officials can actually control, we recommend the State move expenditures for mental health services and for employee health insurance from the Education Fund to the General Fund (6A), along with proportionate revenue sources.

We recommend the creation of a program at Property Valuation and Review to appraise large and/or complicated property and to defend the appraisals (6B). We also recommend

analyzing other ways in which local administration could be strengthened and supported by the State. The current per-parcel payment should be reviewed and a payment schedule that is based on both the size of the town and the certification of the local officials should be considered. We believe that the State can make investments in the administration of the property tax that will be offset by increased tax revenue.

Finally, we call for a study of alternatives to the common level of appraisal (CLA) (6C). The State must ensure Vermonters in different towns pay a comparable education tax on properties of equal value and therefore must be able to determine what constitutes equal value. However, the CLA can contribute to wild swings in valuation estimates and tax liability. Several alternatives have been proposed and should be studied to evaluate fairness, simplicity, and administrative burden.

Recommendation 7: Create a Comprehensive Telecommunications Tax

Key components:

A. ***Repeal the Telephone Personal Property Tax.***
B. ***Study changing Federal Communications Commission regulations.***
C. ***Craft a comprehensive telecommunications tax with an adequate revenue stream to sustainably support the Vermont Universal Service Fund, E911, and public access services.***

We recommend repealing the Telephone Personal Property Tax as it is declining every year and is based on somewhat outdated technology as a base for the tax (7A). The State should replace the lost revenue with another source based on more contemporary and long-term sustainable technology, or simply increase other telecommunications taxes on the providers to make up for this lost revenue.

We recommend creating a comprehensive telecommunications tax, with careful attention to changing Federal Communications Commission regulations (7B), that also supports the Vermont Universal Service Fund, E911, and public access services (7C).

Recommendation 8: Utilize Tax Policy to Address Climate Change

Key components:

A. ***Implement tax credits and exemptions to reduce the upfront cost of some investments that will make the transition to a low-carbon economy possible.***
B. ***Take a fresh look at the role of taxes in mitigating climate change.***
C. ***Whether it is a carbon tax or a cap-and-trade agreement, care must be taken to return revenue to lower-income households.***

Even though the Commission strives to keep the tax base as broad as possible, we support the use of tax credits and exemptions to reduce the upfront cost of investments that will make the transition to a low-carbon economy possible (8A).

We recognize that Vermont, being farther north and farther from the Atlantic than many northeastern cities, will see interest from people moving to avoid the consequences of climate change. At the same time, we recognize that intact forests are important tools in addressing climate change as they store carbon, prevent erosion and flooding, and protect biodiversity. Are we able to guide new development toward villages and away from forests? The Vermont Climate Action Commission report puts it this way: "Demographic change, greenhouse gas emissions, severe weather, and financial challenges prompt a fresh look at Vermont's smart growth strategies and land use governance as means to address climate change" (Vermont Climate Action Commission, 2018). We agree. And we recommend that the fresh look include the role of taxes in the mix (8B).

Although the tools chosen to speed the transition to clean energy may not technically be taxes, we recommend carefully returning revenue or benefits to overcome any potential regressivity (8C).

Recommendation 9: Collaborate With Other States to Build a Fairer, More Sustainable Tax System

Key components:

- ***A. Add an annual road use fee to the registration fees for electric cars.***
- ***B. Partner with other states to coordinate and strengthen our tax structures.***
- ***C. Work with other states to develop uniform asset-reporting requirements and collect information.***

Every state in the nation is evaluating decreases in gasoline consumption as a threat to transportation funds. We recommend that Vermont add an annual road use fee to the registration fees for electric cars as their contribution to the Transportation Fund in lieu of paying gas taxes (9A). This fee should persist until the technology is available to charge each vehicle for the miles, or even better, the pound-miles it travels on Vermont roads. We also recommend that the Vermont Agency of Transportation and Department of Taxes track other approaches as they progress in other states to ensure that our system continues to evolve and adopt best practices. We note this is a first step, and that it does not address the decline in gasoline taxes caused by the transition to electric cars by visitors from out of state, who will also not be paying gasoline taxes but who will be using Vermont's roads. Over time, we expect that a portion of the tax collected on electricity will need to go into the Transportation Fund.

The Commission recommends collecting information on assets in Vermont, initiating reporting requirements if necessary, and working with other states to explore the issues and to design and evaluate possible uniform approaches (9C). The effort of the Multistate

Tax Commission to bring clarity and consistency to the sales tax through the coordination of member states is a recommended model.

The Commission recommends collaborating and partnering with other states to coordinate and strengthen our tax structures (9B). Some past successful efforts include streamlining the sales tax with the Multistate Tax Commission and joining the Regional Greenhouse Gas Initiative. This type of partnership has the advantage of reducing the "race to the bottom" in which states try to lure business by lowering taxes; it clarifies jurisdictional issues; it simplifies filings for businesses in several states; and it improves the states' tax structures. Rather than racing to the bottom, together we may be able to move the middle, and end up with a fairer system.

3. Principles and Whole Tax Structure

Introduction

The General Assembly directed the Tax Structure Commission ("TSC" or "the Commission" or "this Commission") to "have as its goal, a tax system that provides sustainability, appropriateness, and equity" (Vermont Act 11, 2018, p. 232). Accordingly, the *Principles of a High-Quality State Revenue System ("the Principles")*, developed by the National Conference of State Legislatures (2007), were adopted by the TSC with minor changes to guide our analysis of the current structure and our evaluation of possible recommendations. Before applying the principles, it is important to note three considerations.

1. **The *Principles* are designed to be applied to the tax structure as a whole.** Although each tax contributes to the structure, and the role of each tax in meeting each goal is important, some principles can only be evaluated by looking at the bigger picture. Achieving revenue stability through a balanced variety of revenue sources, for example, requires looking at the combined effect of all the pieces.

2. **Some principles are conflicting.** For example, taxes that are the simplest are not likely to reflect the ability to pay. Or, a tax that is in line with one in a neighboring state may not raise sufficient revenue. The principles do not include measurements of success, but rather they reflect general goals that can be met to different degrees. Tradeoffs and balancing are required. Again, the goal is to look at the whole structure and the whole set of principles.

3. **The goal of aligning a state tax system with the *Principles* is a moving target.** For the tax structure to reflect these principles over time, it must respond to changes in needs for revenue, changes in the economy, and changes in the population. To a certain extent the structure can be designed to minimize the frequency of legislative intervention needed, but maintaining the right mix of revenue sources and tax levels to meet changing public needs will require periodic review, analysis, and modernization.

This chapter evaluates Vermont's tax structure, and the major tax types within that structure, based on the principles of sustainability, equity, and appropriateness. It also offers a few words on the goal of taxing bads not goods – the idea that shifting taxes away from socially beneficial activities and onto socially harmful activities can achieve social goals and increase economic efficiency.

This leads to Chapter 4, which examines the ability to pay in terms of income, and in terms of assets. In Chapter 5, we make the case for an ongoing study of income, taxes, transfer payments, and government benefit programs in order to better understand the equity and progressivity of our tax structure as a whole. We also make a recommendation for restructuring taxes, transfer payments, and government benefits with the two goals of

eliminating the "benefits cliffs" and of protecting low-income Vermonters from any additional tax burden caused by the changes we are recommending to the tax system.

In the following evaluation of Sustainability, Equity, and Appropriateness, the bullet points in the box under each heading are extracted from the *Principles* (National Conference of State Legislatures, 2007).

Sustainability

- Comprises elements that are complementary, including the finances of both state and local governments
- Produces revenue in a reliable manner, prioritizing stability, certainty, and sufficiency
- Relies on a balanced variety of revenue sources

Balance

Although there are no accepted optimal proportions, it is generally agreed that a state's tax portfolio should include a mix of consumption, property and income taxes both to provide a broad tax base and to promote revenue stability, as different taxes tend to have different economic cycles. The chart below shows the average mix in all states, the current mix in Vermont, and the mix that would result if the tax on all housesite property were replaced with an income-based tax as recommended by the Commission.

[1]

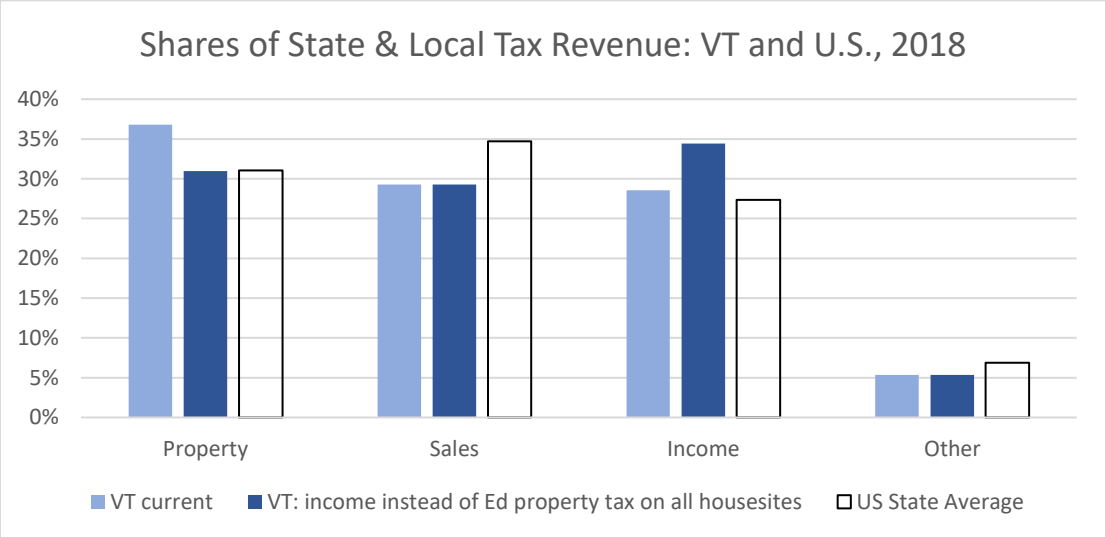

Figure 1 Graph by Tax Structure Commission using data from U.S. Census 2018 Annual Survey of State and Local Government Finances (2020), with a correction for local property taxes paid, per footnote below.

[1] "VT Current" attributes the portion of the homestead education tax which is paid based on income - $162.3M (Sheehan & Wexler, 2020, p. 24) - to the income tax category, not property tax. This does not show the recommended change concerning renters which is assumed to be a credit equal to, and offsetting, the additional tax amount.

Currently, Vermont's reliance on the property tax is above average and its reliance on the sales tax is below average. The Commission has recommendations to decrease the reliance on the property tax (by replacing the housesite education property tax with an income-based tax) and for increasing the base of the sales tax to eliminate most expenditures and to include services. Because the Commission is also recommending a decrease in the sales tax rate, the net effect on the sales tax will be revenue neutral and the sales tax proportion relative to total revenue will therefore remain the same.

But, even with this type of balance, the revenue stream can be volatile, depending on changes in the tax bases, changes in the population, changes in the economy, and changes made by the Legislature. Volatility can result not only in changes in the tax base from year to year, but also in changes between the time the budget is prepared and when the tax revenue is actually collected. This volatility is seen in the income tax and the sales tax. This within-year volatility is dealt with by maintaining a stabilization reserve and/or adjusting the budget mid-year to account for changes.

This within-year revenue volatility is mostly avoided by the property tax for two reasons. First, rather than keeping the same rate from year to year, the property tax rate is set each year to raise the revenue needed. The rate is calculated by dividing the amount needed by the tax base—so the right amount is billed. However, as noted below, this exchanges revenue volatility for rate volatility. Second, rather than applying the tax rate to the coming year's tax base, which is unknown at the time the budget is being developed, the property tax rate is applied to a tax base that is determined and fixed before the rate is set.

But volatility is also an issue for the taxpayer. The stability of the Education Fund, for example, results from the property tax functioning as a shock absorber, making up for the combined increases and decreases in other revenue sources so that the Education Fund is filled. The income tax, in contrast, varies depending only on the taxpayer's income, making it less of a problem for the taxpayer. While this means the tax revenue is variable, it also serves as an automatic stabilizer to the economy; in recessionary times, the tax is reduced, enabling consumer spending.

Sustainability and the Major Tax Types

Sustainability and Education/Property Tax

The *Principles* call for the taxes of state and local governments to be complementary. Vermont's current state/local system relies disproportionately on the property tax, which is the main source of local government revenue. Shifting the residential education tax from a property tax to an income-based tax, as recommended by the Commission, would reduce this imbalance as indicated in the Figure 1 above.

Because property tax, however, is generally thought to be more stable, a shift to an income-based tax could make the Education Fund revenue less stable. To increase stability, the tax rate should be set annually to raise the needed amount, as it is with the property tax. It is important to note that the property tax is generally paid out of income; during the pandemic we see nonpayment of property tax bills because incomes, and not the property values, have decreased.

Because the Education Fund has multiple sources supplying varying amounts each year, and because the education tax serves as the shock absorber to make the fund whole after accounting for the changing sources and uses, the Commission recommends creating an ongoing advisory commission to monitor the education tax and to make recommendations for the rates, annually, as well as for any changes needed for continued sustainability.

Sustainability and Consumption Tax

With consumption taxes, the broader the base, the more stable and sustainable the tax revenue. This is because with a broader base, any particular category or industry makes up a smaller part of the tax base, and growth or decline in that category or industry has a smaller effect on overall tax revenue, and more chance of being offset by a different industry moving in the opposite direction. This is true both of short-term impacts (e.g. COVID-19 drastically reduces tourism for a few seasons) and long-term impacts, like the accelerating and expected permanent decline of gas-powered cars.

In addition, our recommendation is not only to broaden the base, but also to lower the rate. Lower rates are by their nature more stable than higher rates, both economically (less likely to stimulate efforts to find lower-price substitutes) and socially (less likely to cause informal and formal protest and action).

Taken together, we believe these steps will make Vermont's consumption taxes significantly more sustainable over the next two decades.

Sustainability and Income/Estate Tax

Vermont taxes both individual and corporate income tax, as well as imposing tax on trusts. Business income generated by pass-through entities is taxed at the individual level.

Sustainability of Vermont's income tax system is highly dependent on the ability to adapt to economic factors in the state and the world in general. All but five states in the United States, and most foreign jurisdictions, have a form of income tax indicating popularity and in turn stability again, provided the system is adaptable to changes as needed.

Volatility exists in the Vermont income tax system, because it is collected based on the premise of income which can vary due to economic factors, size and composition of population and other factors which affect all states. Unfortunately, the size and composition of our population tends to potentially exaggerate volatility. Despite this, income tax in Vermont has been relatively stable when compared to other Vermont taxes.

The estate tax is even more volatile because it requires a death which cannot always be predicted. It is definitely not a stable, predictable source of tax revenue.

The recommendations of the Commission do not affect the volatility or sustainability of the income tax or estate tax.

Equity

- Imposes similar tax burdens on people in similar circumstances
- Imposes a higher burden on people with greater ability to pay, and minimizes taxes on individuals with low income
- Promotes equity and fairness, both actual and perceived

The *Principles* call for imposing a higher burden on people with greater ability to pay, which is also known as vertical equity or progressivity. In applying this principle to taxes, income is generally used as the measure of ability to pay.

The equity principles take on particular significance when considering the decades-long trend of rising inequality in the United States and in Vermont. The Economic Policy Institute reports that the share of total income captured by the top 1% of U.S. families doubled from 10% in 1979 to 20.1% in 2013 (Sommeiller, Price, & Wazeter, 2016). The gap also grew in Vermont, albeit from a somewhat lower base and at a slower rate. In 1979, the top 1% of Vermont families captured 7.8% of total income; by 2013 this share had risen to 13.8% (Sommeiller, Price, & Wazeter, 2016, p. 28). See a more comprehensive discussion of this topic in Chapter 4.

Overall, Vermont's tax system is slightly progressive. It is one of only five state tax systems that doesn't worsen income inequality, as measured by the Institute on Taxation and Economic Policy (ITEP) in *Who Pays? A Distributional Analysis of the Tax Systems in All 50 States* (2018). However, ITEP analyst Aidan Davis (2020) cautions that this doesn't mean the tax system is consistently or robustly progressive. For example, the effective tax rate is higher—rather than lower—on the middle quintile of earners than it is on the next quintile of higher earners. And, she points out that the top one percent of earners pay only very slightly more than families in the middle quintile of the income distribution. Davis (2020) concludes:

> *This lack of meaningful progressivity in taxing top earners is a notable departure from Vermont's strong progressive tradition in other policy areas. By definition, Vermont's top earners are much more able to pay a higher tax bill than the vast majority of families. And yet together, the state and local governments ask these fortunate individuals and families to pay a rate that is nearly identical to the rate it charges the state's middle class. (p. 3)*

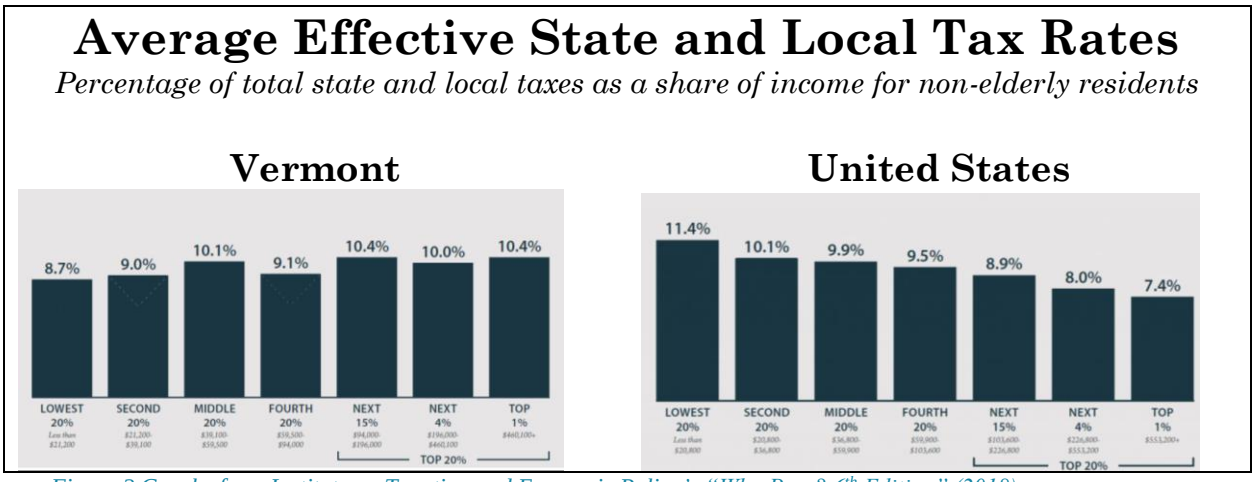

Figure 2 Graphs from Institute on Taxation and Economic Policy's "Who Pays? 6th Edition" (2018).

The personal income tax is Vermont's most progressive tax, not only because it is based on income, but also because it has different filing statuses, standard deductions, exemptions, and credits designed to further refine ability to pay and to target transfers.

Other taxes, such as the sales tax, avoid regressivity by exempting goods that are necessities. The Tax Structure Commission recognizes that an individual tax may be regressive, but it is the progressivity of the overall structure that is most important. Imposing a flat tax that falls more heavily on lower-income households may be easy to administer because it is simple, and it could actually make the overall tax structure more progressive assuming the revenue is directed toward meeting the needs of the lower-income households, either through the income tax, tax credits, or other programs.

For example, levying a sales tax on heating fuel may be regressive because fuel purchases are a higher percentage of the income of lower income households than of higher income households. Yet it may play a valuable role in discouraging the use of fossil fuels—and it raises revenue. If the amount of money lower-income households pay in the fuel tax results in an equivalent income tax reduction or credit, the regressivity is offset, the State receives more tax revenue from the higher-income taxpayers and nonresidents than it did without the tax, and fuel consumption is discouraged.

Equity and the Major Tax Types

Equity and Education/Property Tax

The *Principles* call for imposing similar tax burdens on people in similar situations, which is also known as horizontal equity. The unequal tax burdens in school districts, resulting from unequal grand lists, formed the basis of the *Brigham* decision and the subsequent changes in the education tax so that the tax rate now is the same in any district with the same spending per pupil.

But vertical equity is still an issue. For households with incomes less than $140,000 or so, the education tax increases slightly as a percentage of income; it drops at higher incomes. Changes recommended by the Commission would move all households to paying a flat percentage of their income. While this would not result in a progressive tax, it would improve the progressivity of the overall structure.

Equity and Consumption Tax

Sales taxes are by their nature regressive – everyone pays the same, regardless of ability to pay. In fact, taken in isolation, our recommendation to extend the sales tax to all consumer purchases of goods and services makes Vermont's sales tax more regressive. Currently, necessities like groceries are exempt, and lower-income households spend a higher percentage of their income on groceries than do higher-income households. This means that including groceries and other necessities, as we recommend, adds to regressivity.

However, we do not make this recommendation in isolation. We note the vital importance of protecting low-income households from bearing any additional burden, and in Chapter 5 we recommend a comprehensive review of the income, transfers, and taxes for low-income Vermonters to ensure that 1) no one is bearing an undue burden of taxation relative to their resources; and 2) that Vermont eliminate the benefit "cliffs" that causes a low-income household to be worse off when their income increases. We believe that if these issues are addressed in conjunction with our recommendations on the sales tax, we can achieve the goals of making the sales tax simpler, more sustainable, and fairer through a broader base and a lower rate while at the same time protecting low-income Vermonters from bearing any additional burden due to the expansion of the sales tax base to include necessities.

Equity and Income Tax

Vermont has a progressive income tax structure. Because of tiered rates that increase as income increases, a form of progressivity is achieved since those at higher income levels pay a larger percentage of their income due to the rate steps as opposed to a flat tax rate on all income. Vermont also offers other ways of achieving tax equity such as the earned income credit, renter's credit and other business-related credits such as the research and development credit and investment tax credits for solar investment.

Here is one of the major findings of *The Vermont Tax Study*:

> ***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. (Teachout, Manchester, & Wexler, 2017, pp. ii-iii)

The recommendations of the Commission do not affect the fairness of the income tax.

Equity and Estate Tax

By its nature, the estate tax is progressive. It is designed to tax the wealth upon the death of an individual over a certain threshold. Those decedents who fall below the threshold do not even have to file a return. In 2016, the Legislature simplified this tax, establishing a set threshold and applying a flat rate on all taxable estate over that threshold. The flat rate does however detract slightly from its progressivity, since an estate that is one dollar over the threshold is taxed at the same flat rate as millions of dollars over the threshold. The threshold at present, however, is high enough so that decedents in the low net worth cohort at death pay no tax. The simplicity outweighs the progressivity from an overall compliance standpoint, mainly the less complicated a tax is, the more widespread compliance.

The estate tax has a mechanism called the *step-up in basis* in the law. This simply means that because a decedent's estate is taxed on the fair market value of his or her property at date of death, the property passes to the beneficiary at that value. When the beneficiary sells that property, the stepped-up basis is used to calculate their taxable gain or loss. On the one hand, this is regressive because it gives the beneficiary a perceived unfair advantage since the appreciation the decedent realized during life escapes income taxation because any future taxable gain is measured using the fair market value at date of death. On the other hand, since the estate pays a rate of 16% on the total fair market value (the decedent's original cost does not enter into the calculation), the decedent's estate is in effect paying a higher rate versus an income tax rate. Also, if the step-up did not exist and the estate is taxed at full fair market value, the taxable appreciation of the decedent would be taxed twice, once at the estate tax level and then again at the beneficiary income tax level. This would add an unfair double tax. If the step-up was removed from the law, the estate

tax would become even more regressive since everyone receiving property from an estate would pay tax on the taxable appreciation realized by the decedent across all income cohorts. Yet another argument against the step-up would be for those estates below the threshold that don't pay estate tax, the appreciation on the property up to the decedent's date of death permanently escapes taxation.

The recommendation of the Commission to study the model of treating the estate tax as a taxable sale at date of death would eliminate the missed taxation on the decedent's lifetime taxable appreciation. This would add regressivity to the estate tax since the tax would be payable by all income cohorts regardless of their net worth.

Appropriateness

- Is easy to understand and minimizes compliance costs
- Is as simple as possible to administer, raises revenue efficiently, is administered professionally, and is applied uniformly
- Is transparent and accountable to taxpayers
- Is responsive to interstate and international competition
- Minimizes its involvement in spending decisions and makes any such involvement explicit

The *Principles* call for tax simplicity and conformity for at least three reasons. First, individuals and businesses operate in multiple jurisdictions and may be subject to multiple filing requirements, which can be especially costly and burdensome if a state government does not coordinate with other states, the federal government, and local governments. Second, state staff will be better equipped to provide fair and consistent customer service, minimize errors, and use a smaller proportion of revenue on administration if the tax system is simplified. Third, it must be transparent and accountable to taxpayers.

The *Principles* also acknowledge competition between states. As borne out by the proliferation of state tax rankings in recent decades, policymakers face increasing pressure to use revenue systems as a tool for economic development. The *Principles* note, however, that benefits have to be measured against costs. When making decisions about where to locate, businesses will consider a state's service levels and amenities as well as taxes.

Finally, the *Principles* recognize that taxes disincentivize behavior and tax breaks incentivize behavior. Deductions, exemptions, and credits all intend to foster certain activities, but they come at the cost of shifting the tax burden to other taxpayers. Policymakers must continuously evaluate the effectiveness of all tax expenditures and tax earmarks to ensure these tools are delivering their desired result more efficiently than alternative options.

Appropriateness and the Major Tax Types

Appropriateness and Education/Property Tax

The Commission recommends strengthening state support for professional administration of the property tax at the local level.

The Commission recognizes the baffling complexity of the current homestead education tax and hopes to simplify this by: replacing the dual property/income calculations with an income-only tax; eliminating the property tax adjustment; making the bill directly connected to the budget vote.

The locally voted education tax is different from other taxes in that it both collects and distributes. If this tax is unfair, it is likely education will be distributed inequitably. For this tax, perhaps the most important component of appropriateness is unambiguous equity, as it would support both the collection of revenue and the appropriate distribution to school districts.

Clearly, Vermont's homestead education tax is different than that of other states. Most Vermont homeowners now pay an income-sensitized property tax which is a locally voted tax rate applied to their income. The average rate is 2.5%. The Commission's recommendations call for making the income-based residential tax more direct and comprehensive. Although it would still average 2.5% of income, it would no longer be called a property tax. This change in terminology may make state-to-state comparisons more challenging, but in practice there would be little change in the amount of net tax for most taxpayers. The change would, however, increase the education tax on higher-income households which may prompt them to claim their residence in another state.

Appropriateness and Consumption Tax

As we look at the appropriateness of the sales tax with a broader base and lower rates, and evaluate that against each of the components of appropriateness, we find:

- **Is easy to understand**
  Presumably, any tax with fewer exceptions is easier to understand – it's easier to understand what's taxed, and requires fewer explanations of why certain categories are exempt from the tax.

- **Minimizes compliance costs**
  Cash register, payment, and tax compliance technology have made calculating the sales tax due on any given transaction close to effortless for merchants. It is also easy to report and remit totals due to the State. However, it is true that state audits of individual merchants do turn up instances of non-compliance, sometimes in the form of purchases made by a company which the company improperly deemed to be

exempt from the sales tax. The more we are able to exempt business inputs from the sales tax, and the more we are able to include all consumer purchases in the sales tax, the rarer such instances of non-compliance should become.

• Is as simple as possible to administer, raises revenue efficiently, is administered professionally, and is applied uniformly
The sales tax is very well understood and is currently administered across broad swaths of the Vermont economy. It is efficient and administered professionally, and our recommendations will increase the uniformity of its application.

• Is transparent and accountable to taxpayers
While certain sectors have lobbied to keep their particular industry exempt from the sales tax, there has been no broad taxpayer resistance to or demands for reform to the sales tax. Consumers may not be explicitly aware of the categories that are exempt from the sales tax, but in general seem to understand the sales tax and to expect to pay it on many of their purchases.

Excise taxes are different – we believe that most consumers are not aware of the level of taxation on gasoline, alcoholic beverages, or tobacco products, so there is an opportunity for greater transparency in these areas.

• Is responsive to interstate and international competition
Lowering our sales tax rate will make us more competitive compared to New York and Massachusetts, and will reduce our competitive disadvantage relative to New Hampshire.

• Minimizes its involvement in spending decisions and makes any such involvement explicit
The lower the rate, the less a tax affects spending decisions. The broader the base, the less a tax affects spending decisions, and the fewer involvements that require explicit explanation there are.

Appropriateness and Income Tax

Most states have some form of an income tax. For example, New Hampshire, which does not have a personal income tax, taxes interest and dividends and business income at the entity level.

Appropriateness and Estate Tax

The estate tax is appropriate in that it captures and taxes wealth accumulated during a lifetime if the estate exceeds the thresholds set in the law and these thresholds are set at an appropriate level that does not unfairly tax those in the lower income and wealth cohorts.

Taxing Bads Not Goods

We understand the school of taxation thought that favors taxing "bads" and not goods, which is to say, taxing things that we as a society want less of, like pollution, and taxing less of things we as a society want more of, like work. In particular, we have studied *A Green Tax Shift for Vermont*, a report by the University of Vermont Gund Institute's Vermont Green Tax and Common Assets Project (2009) on moving Vermont's tax system to one much more dependent on taxes designed to encourage responsible environmental stewardship.

We admire the thoroughness of the report's analysis and the comprehensive nature of the plan for taxing bads presented in the report. We further agree with the sound economic principle articulated in the report that the true cost of a product, including the environmental costs to produce it, should be borne by the producer, and that internalizing externalities allows the free market to better address environmental concerns.

The report proposes to tax resources, to encourage a reduction in their use; pollution, to discourage it, and land, to discourage sprawl. As with many taxes on "bads", the system is designed to reduce its own tax base over time. The goal is to reduce resource use and pollution. We do not dispute the importance of those goals for Vermont; however, transforming the tax system to achieve those goals undermine one of our three primary goals: sustainability. The goal of taxing a "bad" is to make it go away, and therefore one starts with the goal of making the tax unsustainable. We therefore view taxing "bads" as a policy tool to aid in the transition from current practice to a better practice, but not as an integral component of the tax system we are recommending.

4. Income, Assets, and the Ability to Pay

One of the principles adopted by the Commission is that the overall tax structure should impose a higher burden on people with greater ability to pay, and minimize the burden on people with low incomes. The words may differ, but this is a generally accepted principle of taxation throughout the United States and the Organization for Economic Co-operation and Development (OECD) countries. However, according to staff of the Joint Committee on Taxation, "The notion of ability to pay (i.e., the taxpayer's capacity to bear taxes) is commonly applied to determine fairness, though there is no general agreement regarding the appropriate standard by which to assess a taxpayer's ability to pay" (Joint Committee on Taxation, 2015). While most tax analyses use income to measure the ability to pay, others prefer this definition from Investopedia: "Ability to pay is an economic principle that states that the amount of tax an individual pays should be dependent on the level of burden the tax will create relative to the **wealth** [emphasis added] of the individual" (Kenton, 2020).

In order to better understand the ability to pay, how it is changing, and the extent to which Vermont's tax structure upholds our principles, we would like to measure, track, and analyze changes in both income and wealth.

Income

Income is the generally accepted way to measure the ability to pay in the United States. Nationally, the highest income cohorts have seen the greatest income growth. Data from the 2016 Survey of Consumer Finances (Federal Reserve Board, 2017) show that the median income of families in the top income decile increased by 34% (in constant dollars) between 1989 and 2016; the increase in the lowest quintile was 29%. This further concentrated the share of income at the top. In 1989 the median income in the top decile was 213 times the median income in the bottom quintile; by 2016 it was 252 times the income in the bottom quintile.

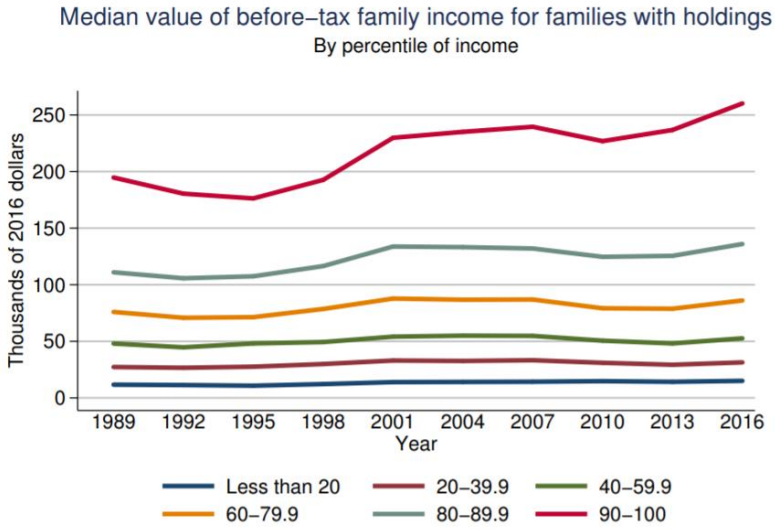

Figure 3 Graph from 2016 Survey of Consumer Finances (Federal Reserve Board, 2017).

The Economic Policy Institute examines income inequality by comparing the income of the top 1% of families to the remaining 99%. Their measurements indicate that the gap is growing in Vermont as well, but it is not as wide. In 1979, the top 1% captured 7.8% of the total income of Vermonters; by 2013 this share had risen to 13.8%; in the United States as a whole, the percentage grew from 10% to 20.1% (Sommeiller, Price, & Wazeter, 2016).

As shown in Figure 4, while Vermont's median income is similar to that of the United States as a whole, Vermont's wealthier half is not as wealthy. In 2017, a family reached the top five percent in Vermont with an income of $179,967; the U.S. average was $209,515.

Adjusted gross income floor on percentiles 2017						
	Descending cumulative percentiles					
	Top 1 %	Top 5%	Top 10%	Top 25%	Top 50%	Top 75%
United States	**$516,714**	**$209,515**	**$146,621**	**$84,646**	**$42,589**	**$20,840**
Vermont	$390,859	$179,967	$131,509	$81,013	$42,664	$21,875

Figure 4 Data from U.S. Internal Revenue Service.

Looking at the income distribution as a whole, the Congressional Budget Office has computed the Gini coefficient to measure the difference in inequality of household incomes between 1979 and 2016. The Gini coefficient ranges from 0 in a perfectly equal distribution (in which each household has the same income) to 1 in a perfectly unequal distribution. The coefficient rose from 0.41 in 1979 to 0.51 in 2016, indicating inequality has increased (Congressional Budget Office, 2019). The coefficient rises in periods of expansion and falls in recessions.

An analysis of the adjusted gross income of Vermont taxpayers indicates a similar trend in the overall increase between 1979 and 2018, and in the years of rise and fall.[2]

Assets

It is clear that assets also play a role in the ability to pay, and that role has been growing. According to economists Emmanuel Saez and Gabriel Zucman (2019), "aggregate household wealth has increased from 3 times annual national income around 1980 to about 5 times national income in 2018" (p. 6). To put the magnitude of value of assets in context, the Brookings Institution estimates:

> *[It is] over five times as much as all the goods and services produced in the U.S. economy in a single year. If that amount were divided evenly across the U.S. population of 329 million, it would result in over $343,000 for each person. For a family of three, that's over a million dollars in assets. (Sawhill & Pulliam, 2019)*

The Survey of Consumer Finances calculates family net worth by subtracting liabilities from assets. The data indicate that net worth is highly concentrated. The 10% of families in the top net worth decile accounted for 77% of the total in 2016. The inequality of net worth is even more extreme than the inequality of income; the before-tax income of the families in the top income decile accounted for 50% of the total income nationally in 2016 (Federal Reserve Board, 2017) and 41% in Vermont in 2018 (Sheehan, Income and Property Tax Bases, 2020).

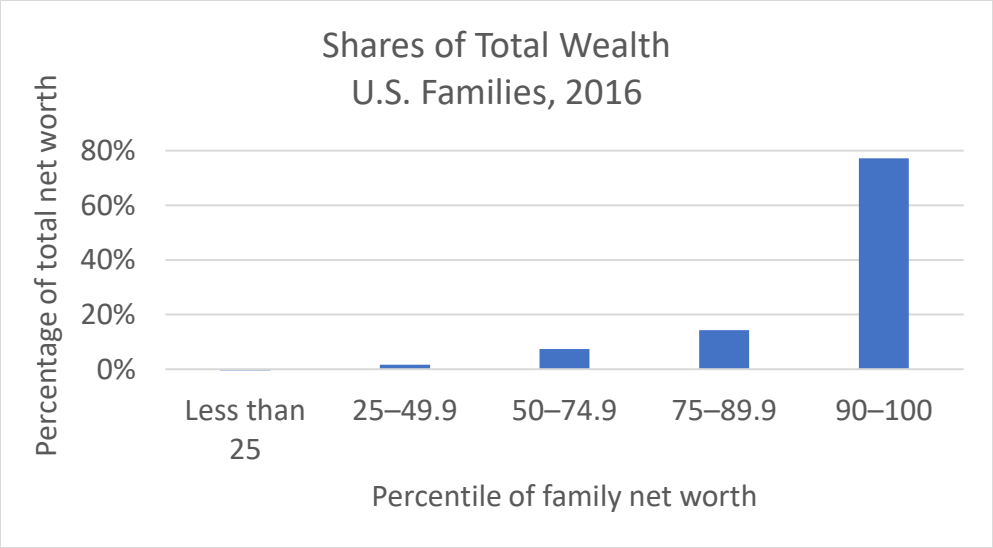

Figure 5 Data from 2016 Survey of Consumer Finances (Federal Reserve Board, 2017).

[2] Note that the definitions of income and the unit (family, household, tax return) differ in each study so the coefficient isn't comparable. However the trends are consistent.

Although there is not a perfect correlation, families in higher income deciles are wealthier.

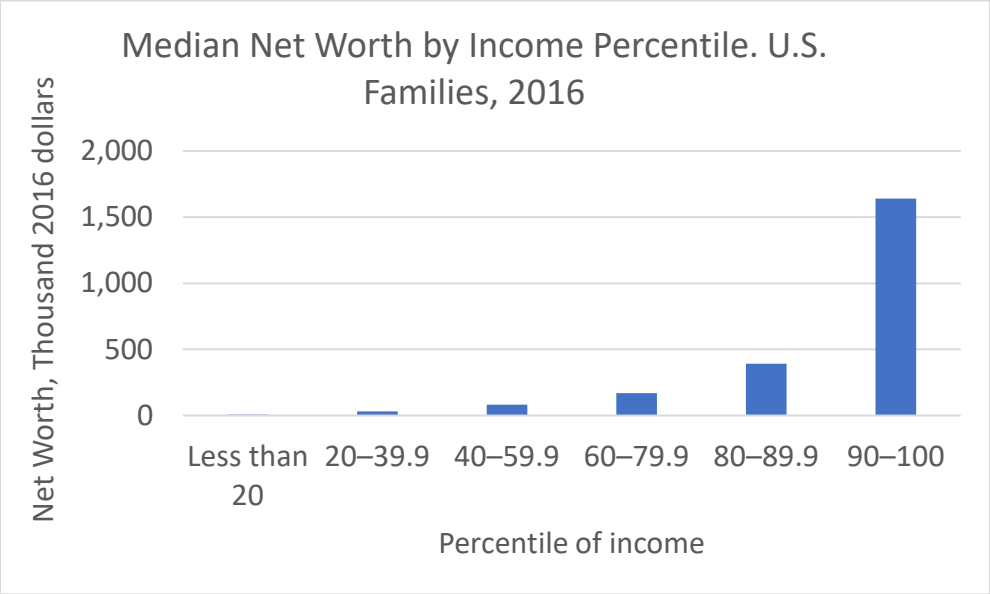

Figure 6 Data from 2016 Survey of Consumer Finances (Federal Reserve Board, 2017).

The data indicate that the concentration of net worth in the highest income decile is growing at a greater rate than the concentration of income. In 1989 the net worth of U.S. families in the top decile was 3.7 times their median income; by 2016, it was 6.3 times their median income. For families in the lowest income decile, the median net worth is less than the median income and it has crept up slowly; it grew from 29% of the median income of the quintile to 43% between 1989 and 2016.

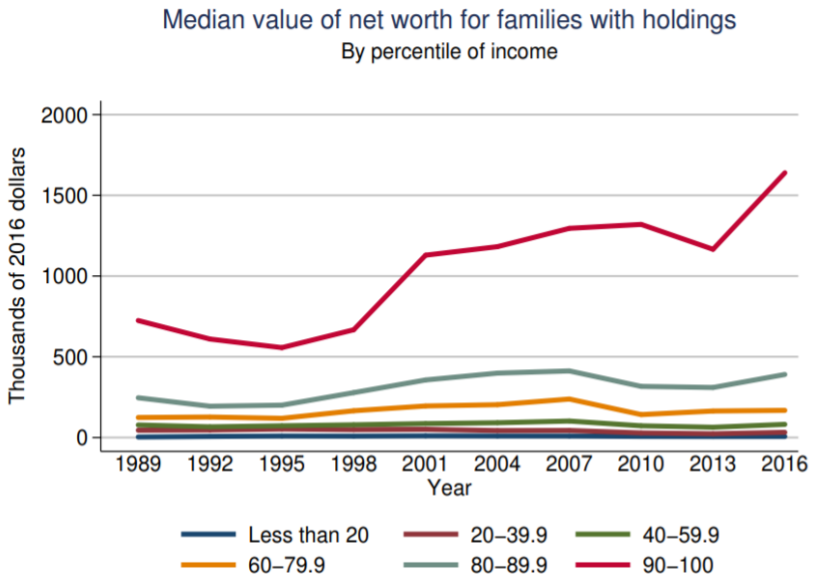

Figure 7 Data from 2016 Survey of Consumer Finances (Federal Reserve Board, 2017).

While there are differing views on how to measure wealth – as discussed by Kennickell (2017), Brickner et. al (2016), and Burtless (2019) – and assets are notoriously difficult to identify and tax, the Commission feels it is important to understand more about their value, their distribution, their importance in the economy, and how they are taxed. There are two main questions:

- Should assets be considered in the "ability to pay" that is used to determine the progressivity of the tax structure?
- Should assets be taxed differently and more consistently than they are currently?

Figure 8 provides the average value of each asset class as a percentage of total family assets, based on the 2019 Survey of Consumer Finances (Federal Reserve Board, 2020).

National distribution of assets (2019) and Vermont taxes (and tax expenditures) for each asset type

Assets - as classified by Survey of Consumer Finances	% of total assets[1]	Tax while holding	Tax at Transaction[2]	Federal Tax Preference[3]	Vermont Additional or Specific Tax Preference
Financial Assets	**42%**				
Transaction accounts	5%	indirectly, bank franchise tax			
Certificates of deposit	1%	tax on interest; indirectly, bank franchise tax			
Savings bonds	0%	indirectly, bank franchise tax			
Bonds	1%	tax on interest on non VT muni bonds	Capital Gains Tax	Capital gains on sale of bonds is subject to lower rates than ordinary income	Interest on VT Muni Bonds not taxable. Capital gains on bonds sold receive up to $5000 in capital gains exclusion from income
Stocks	6%	tax on interest or dividend; qualified dividends taxed at cap gains rates federally but regular rates in VT	Capital Gains Tax	Capital gains are subject to lower rates than ordinary income	Eligible for the $5,000 capital gain exclusion
Pooled investment funds	9%			Capital gains are subject to lower rates than ordinary income	Eligible for the $5,000 capital gain exclusion
Retirement accounts	15%	Taxable when withdrawn, except for Roth which receive no tax deduction for contribution and then earnings		Tax on contributions and income earned within accounts is deferred until withdrawal begins at retirement (except Roth)	
Cash value life insurance	1%	Indirect tax: insurance premium tax on firms			
Other managed assets	4%		Capital Gains Tax	Capital gains are subject to lower rates than ordinary income	Eligible for the $5,000 capital gain exclusion
Other	1%				
Nonfinancial Assets	**58%**				
Vehicles[1]	3%		Purchase and Use Tax; Capital Gains		
Primary residence	26%	Annual property tax		$250,000 cap gain exclusion ($500,000 for MFJ); home mortgage interest deduction	Same as Federal
Other residential property	6%	Annual property tax	Capital Gains Tax	Capital Gains are subject to lower tax rates than ordinary income	Qualifies for 40% cap gain exclusion up to the cap or the $5000 exclusion
quity in nonresidential propert	3%	Annual property tax;	Capital Gains Tax	Capital Gains are subject to lower tax rates than ordinary income	Qualifies for 40% cap gain exclusion up to the cap or the $5000 exclusion
Business equity	20%		Capital Gains Tax	Capital Gains are subject to lower tax rates than ordinary income	Qualifies for 40% cap gain exclusion up to the cap or the $5000 exclusion
Other	1%				

3 4

Figure 8 National distribution of asset data from 2019 Survey of Consumer Finances (Federal Reserve Board, 2020). Totals may not add to 100% due to rounding.

There are many opinions about whether and how assets should be taxed. A common conception is that income is a flow and assets are a stock. Income is received annually and should be taxed annually; the stock should not be taxed until it comes out of storage and becomes income. Another view holds that the annual increase in the value of the assets should be considered income, and subject to the income tax. Discussions of taxing wealth

[3] As of 2021, the estates of Vermont residents who die with more than $5,000,000 in assets are subject to Vermont's estate tax (Vermont Department of Taxes, n.d.).

[4] In fiscal year 2019, tax expenditures reduced federal income tax revenue by roughly $1.3 trillion, and they reduced payroll taxes and other revenues by an additional $140 billion. These federal tax expenditures generally carry through to impact state tax revenue, including Vermont's (Center on Budget and Policy Priorities, 2020).

are further complicated by considerations of the life cycle of a family; at least a portion of wealth is future retirement income.

Ironically, assets are recognized as a component of the ability to pay when it comes to transfers. Some public benefit programs have asset tests that limit the eligibility for assistance or reduce the benefits. This means that, at the lower end of the income scale, assets affect redistribution of income. At the higher end of the income scale, they do not.

The most notable exception to any of the views of how assets should be taxed is the annual taxation of the full value of real estate.

The Commission heard particular concern over the relationship between the value of a residence and the ability to pay in discussions about the education property tax. Although an income-based education tax on residents would more directly reflect the generally accepted measure of ability to pay, several people defended the appropriateness of a property tax because house value is a proxy for wealth—another indication of the ability to pay.

The following chart breaks out the aggregate value of residences and of net worth as percentages of total net worth. Because the property tax is levied on the full value of the residence and net worth is calculated after subtracting debt, the chart shows both the full value of residences and the value after subtracting mortgage and home equity loans.

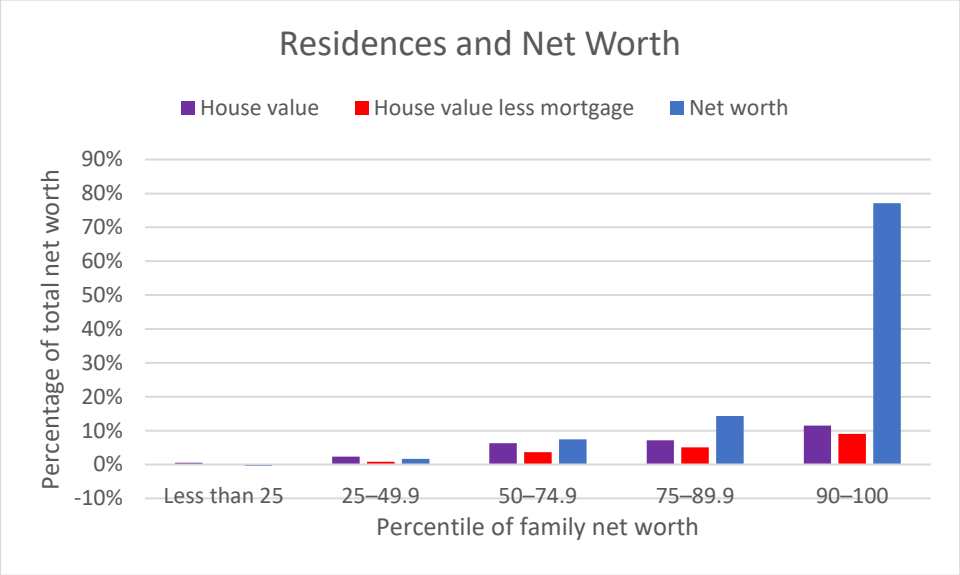

Figure 9 Data from 2016 Survey of Consumer Finances (Federal Reserve Board, 2017).

Although the value of residences is lower in the categories of lower net worth and higher in the categories of higher net worth, it would be unreasonable to use the house value as a proxy for net worth. For families at the low end who own their home, the value of the house may exceed their net worth because it is mortgaged and the family has few other assets. In contrast, the value of residences is only 14% of the aggregate net worth of families in the top decile.

The value of financial assets, on the other hand, increases as net worth increases, as shown in the chart below. Although nearly 100% of the families have a financial asset of some kind, even a piggy bank, the financial assets and net worth are low for half of them. As the median value of net worth increases, the value of a house becomes less important and the value of financial assets makes up a larger and larger share.

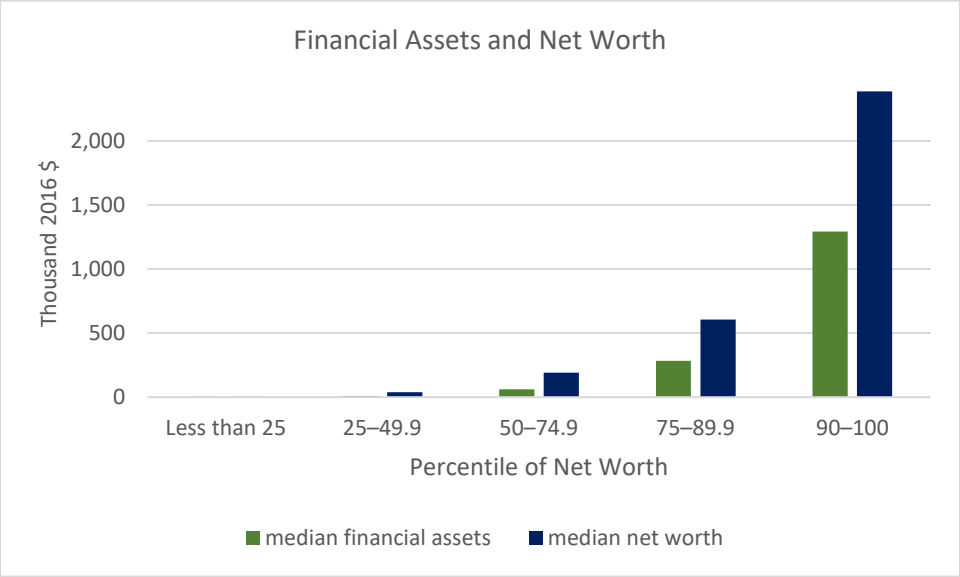

Figure 10 Data from 2016 Survey of Consumer Finances (Federal Reserve Board, 2017).

It appears that financial assets serve as a better indicator of net worth than residences do, but houses are certainly easier to locate and value.

While a case could be made for a wealth tax, experiences in other states and countries have not been particularly successful. Twelve countries in the Organization for Economic Co-operation and Development (OECD) had variations of a wealth tax in 1996, but now, although interest in the wealth tax continues, only four countries have one. Reasons for the decline include: it encouraged rich people to move their assets and/or themselves to other countries; it was a disincentive for foreign investment and slowed economic growth; it was difficult to administer; avoidance was difficult to control; there were liquidity problems for people who had assets and little cash; and it didn't raise much revenue (Organization for Economic Co-operation and Development, 2018).

In the United States, Florida levied a tax on intangible personal property (such as stocks and bonds) with generous exemptions so that it was effectively only a tax on the wealthy. Over time the rates decreased, avoidance increased, and the tax was basically gutted. In fact, it was so easy to set up ownership structures to avoid the tax that an article in the Florida Bar Journal concluded: "What is known is that some old adages are not always true. Yes, all die, but may not have to pay taxes, at least not the Florida intangible tax" (Law, 2000).

The Commission agrees that wealth is an increasingly important determinant of the ability to pay, and should influence our evaluation of the progressivity of our tax structure. The

Commission recognizes that an asset or wealth tax could improve the ability of the State to sustain tax revenue as the economy changes. However, the Commission does not recommend a wealth tax at this time, for several reasons.

First, there are no Vermont data on the level or distribution of assets to allow necessary detailed analysis. Second, we realize it is extremely difficult to define, track and tax assets. Third, we are sobered by the experiences of others, acknowledge the problems, and recognize that a national wealth tax would be more appropriate in avoiding some of the jurisdictional and avoidance issues.

But the Commission doesn't want the conversation to end with the prior paragraph. The Commission recommends collecting information on assets in Vermont, initiating reporting requirements if necessary, and working with other states to explore the issues and to design and evaluate possible uniform approaches. The effort of the Multistate Tax Commission to increase clarity and consistency to the sales tax through the coordination of member states is a recommended model.

5. Analysis and Restructuring of the Overall Tax and Transfer System

In order to understand the equity and progressivity of our tax structure, we recommend undertaking a comprehensive and ongoing study of income, taxes, and the various transfer payments and government benefit programs. This would help future legislatures look at changes over time, recommend adjustments, and measure progress.

The study would first divide households, adjusted by size, into deciles by market income. Next, it would compute transfer payments received by each of those deciles. Finally, it would compute taxes paid by each decile.

There are two approaches. The first would be based on state totals, similar in both methodology and assumptions to the national studies done by the Congressional Budget Office (2020). The difference would be the addition of state taxes and state transfer programs.

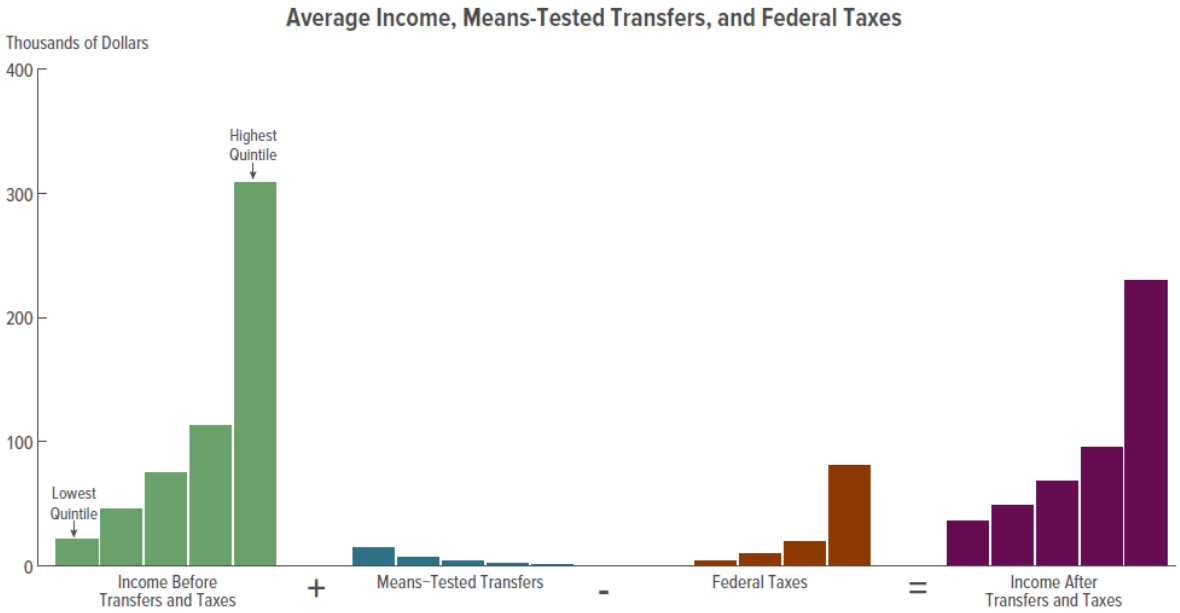

Figure 11 The Distribution of Household Income, 2017 - graph from Congressional Budget Office (2020)

A second approach may be considered in order to differentiate between types of households. This may be particularly important in shining a light on specific inconsistencies, such as different treatment for households with children or renters, or for determining if there are income levels at which there are sudden increases in tax liabilities or decreases in transfer payments.

The Legislature directs the Legislative Joint Fiscal Office (LJFO) to estimate the income needed to meet the basic needs of Vermont families (2 V.S.A. § 526). Accordingly, every other year LJFO looks at the following hypothetical family types:

- Single Person
- Single Person, Shared Housing
- Single Parent with One Child
- Single Parent with Two Children
- Two Adults with No Children – both wage earners
- Two Adults with Two Children – one wage earner
- Two Adults with Two Children – both wage earners

The report, *Vermont Basic Needs Budgets and Livable Wage,* estimates the cost for each family type to meet basic needs which include food, housing, transportation, childcare, clothing and household expenses, telecommunications charges, health and dental care, renter's insurance, life insurance, and savings (Legislative Joint Fiscal Office, 2019).

A concurrent study could look at the ability of these same hypothetical family types, at different income levels, to meet that basic needs budget. It would illustrate points at which the families' net worth decreases (aka benefit cliffs), and disclose exactly which taxes and transfers contribute to the problem.

As an example, Figure 12 below is based on one of the families in the report: one working parent with two children, aged four and six. The gross wages are on the horizontal axis. The net wages, after subtracting taxes, plus all state and federal benefits (including tax credits) make up the total net resources available to the family. The graph illustrates that there are points at which a family may earn more income and lose ground. The net wage increases steadily, but the combined decreases in tax credits and various benefits result in the family having fewer resources to make ends meet.

This phenomenon causes dismay for unsuspecting families, and discourages work for those in the know. It is the unintentional result of good intentions, but it needs a redesign. In addition to looking at each tax provision or transfer program in isolation, we need to look at the combined effect. In addition to looking at averages by income category, we need to look at different family types. In addition to looking at smoothly phasing out each benefit, we need to look at smoothly phasing in a family's ability to pay. We worry that a federal top-bracket income tax rate of 50% would be too high, with the assumption that it would discourage work. However, we effectively have created a marginal rate that is greater than 100% for some families who do not have enough income to meet their basic needs.

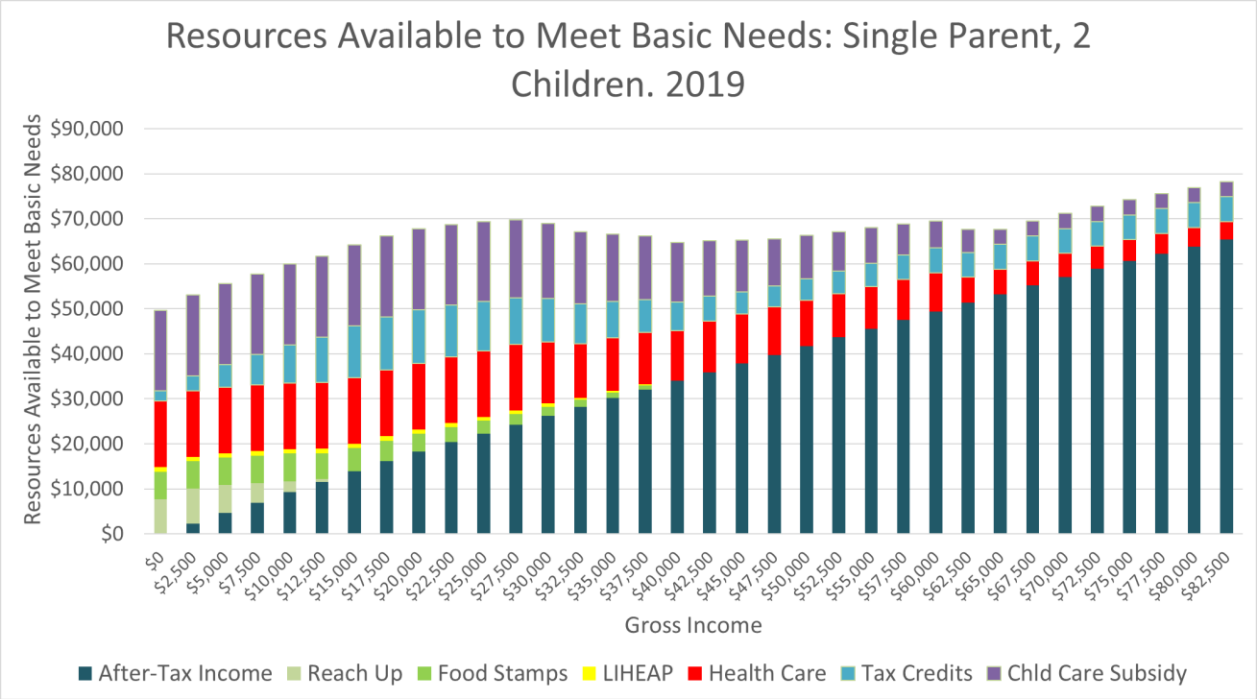

Figure 12 Data from Vermont Basic Needs Budgets and Livable Wage (Legislative Joint Fiscal Office, 2019). Note: Child Care Subsidy includes the Pre-K voucher.

Since most single parents with children are women, we'll assume that this family is headed by a single mom. Note that as she works her way up from no income at all to an annual income of $27,500, she has more and more resources available for her and her children. Indeed, it is a testament to the Vermont community that someone with no income at all will have about $50,000 in resources, and as her income climbs from zero to $27,500, her total resources go from $50,000 to $70,000.

However, as she continues to work hard and get raises and promotions, or takes on a second job, as her income goes up, her situation gets worse. From an income of $27,500 to an income of $40,000, every extra dollar she earns takes more than a dollar out of her total resources. It isn't until she's worked her way up to an income of $60,000 (and please reflect for a moment on how incredibly difficult it is to work your way up from earning $27,500 to earning $60,000) that she's back to the resource level she was at when she was earning $27,500.

However, then she hits another setback, and doesn't get back to her $27,500 level until she gets to $67,500. Over years of hard work, she's added $40,000 a year of income to her family, she's more than doubled her income, and yet she's exactly where she was all those years ago when she was earning $27,500.

This is clearly not the intent of anyone working on these programs, and we don't believe it would be too hard to solve, and that's the first reason to restructure Vermont's system of low-income assistance.

The Importance of Childcare

It is important to note that of the six family types analyzed in the Vermont Basic Needs Budgets, the tax and benefit trough is most pronounced for single-parent households. And the major culprit – as shown in Figure 12 – is the childcare subsidy structure.

We heard several comments from the public about the importance of childcare in allowing parents to work, both outside of the home as well as in work-from-home capacities. Stated another way, the lack of affordable childcare is a major barrier to full workforce participation. As Vermont looks to expand its income tax base, it must remove such barriers.

The Commission recognizes that our charge is to focus on the revenue side of the public finance ledger, not the expenditure side. Therefore, we are not making a specific policy recommendation related to childcare but are acknowledging its importance. We note that our philosophy aligns with the intent of both the Vermont Chamber's priorities for supporting remote work and the Let's Grow Kids campaign to create a sustainable system of high-quality, affordable child care.

Protecting Low-income Vermonters From a Broader Sales Tax

There is another reason to restructure Vermont's system of support for low-income Vermonters. The changes we are proposing to the sales tax will cause low-income Vermonters to pay tax on some essentials, like groceries and home heating, and some community goods, like education, that are currently exempt from the sales tax.

As we will describe in the following chapters, we do not believe these exemptions are an efficient way to protect low-income Vermonters from the burden of these taxes, nor are they an effective way to promote community goods. We do firmly believe that low-income Vermonters must be protected from these burdens.

We recommend extending the sales tax to essentially all consumer transactions except health care, and using the gains from broadening the base to 1) protect low-income Vermonters and 2) lower the sales tax rate to 3.6%. If you enact those recommendations, it will mean that the additional net tax burden (additional sales taxes paid minus the savings from the lower tax rate on things they currently pay sales tax on) on low-income Vermonters will be approximately as follows, by household income decile:

- Lowest income decile: $2.5 million
- Second income decile: $3.1 million
- Third income decile: $3.6 million
- Fourth income decile: $4.4 million[5]

[5] See Appendix 7-4: Consumer Expenditures by Income Decile. See also Vermont Sales Tax Calculator (Tax Structure Commission, 2021).

These, then, are roughly the amounts that we need to transfer to these households to keep them whole. With the expansion of the sales tax base that we recommend, we also recommend setting the sales tax rate at 3.6%. This will raise about $32 million more than our current sales, which will allow us to return the $14 million to low-income Vermonters and have all these changes be roughly revenue neutral.

The low-income Vermonters with whom we have spoken, and advocates for low-income Vermonters, have been consistent in their assertion that it is important that these monies not arrive in a lump sum at the end of the year. Rather, it is important to find a mechanism to distribute these payments on at least a monthly basis, and bi-weekly would be even better.

There are many benefits to Vermonters and Vermont's economy to broadening these tax bases and lowering the rates, but the evolution of Vermont's support for low-income Vermonters must come first to ensure that no one is harmed in the transition.

6. Education Tax Reform

Introduction

Before attempting to evaluate or suggest improvements to the education tax, the Commission sought comments, criticisms, and suggestions from legislators, municipal officials, school teachers and administrators, representatives of government and education organizations, and citizens. And they delivered. First, we just listened. Then we methodically organized, analyzed and discussed the comments we received before looking for ways to address them. If there was a common theme, it was that the system's strength is equity, and its weakness is complexity.

Although we looked at ways to address the different issues individually, we do not recommend a new box of band-aids. Instead, we looked for more fundamental structural changes that would address as many of the issues as possible while maintaining equity. We evaluated five possible approaches; two were rejected, three were considered improvements to the current system, and we recommend one of those three.

Our recommendation is to replace the current education tax on the primary residence (and up to two acres) with a locally voted tax on income. This would eliminate the homestead property tax and the property tax credit. For many households, the tax bill would be the same as the net bill under current law; the change would make the bill direct (as opposed to requiring a credit in the following year) and there would no longer be a double system of property tax and income tax on each housesite.

We do not see any principle-based reason that the education tax should be different for renters than for homeowners, and we recommend that renters be taxed on their income and credited for education taxes assumed to be paid through their rent. To design and implement this component, we recommend initiating reporting, data collection and analysis.

The sections that follow document key issues that we considered in coming to our recommendations. Rather than presenting only the points that support our recommendations, we attempted to indicate different interpretations and different solutions.

The five approaches to structural change that we examined are outlined in Appendix 6-1.

Background

Education is both a state and a local responsibility, and its funding comes from both broad-based state taxes and a locally voted tax. Finding the right state and local balance in both

governance and revenue is a constant challenge, not only to ensure educational quality, but also to ensure equity between school districts.

Traditionally, K-12 education in the United States has been partially funded with state taxes, and partially with local property taxes. In Vermont, as in many other states, the property tax was adjusted in two ways to reduce inequities. First, in recognition that the value of a home did not necessarily indicate the ability to pay, a circuit-breaker program capped the tax bill on a house based on the income of the owner. Second, in recognition that the disproportionately small tax bases of some districts made it difficult to raise enough to provide an adequate education, various formulas were developed to distribute state funds to help support these districts. Both remedies focused on aiding those with the least ability to pay (homeowners with low incomes, or districts with low tax bases per pupil) and not on adjusting the overall system so that all homeowners or all districts had reasonably equal ability to support education.

In the 1990s, the mechanism for determining the distribution of state aid was known as the *Foundation Plan*. Basically, the State estimated the amount needed to provide an adequate education and compared this with the amount that could be raised with a property tax at a uniform foundation rate, district by district. If a district could not raise the adequate amount at the foundation rate, state aid made up the difference. Districts could levy an additional property tax to raise additional revenue, and most did.

As noted by the Governor's Blue Ribbon Commission on Educational and Municipal Financing Reform (1993), the success of the Foundation Plan, like all the plans before it, followed a predictable trajectory. When the program was passed, there was an infusion of state funds, making property tax rates drop. Because the level of the property tax was reduced, the level of inequity was reduced. But the profile of inequity was not changed, and over time, as the state share decreased, the inequity became urgent again (p. 11).

In the *Brigham* decision of 1997, the Vermont Supreme Court decided:

> [*T]he current system for funding public education in Vermont, with its substantial dependence on local property taxes and resultant wide disparities in revenues available to local school districts, deprives children of an equal educational opportunity in violation of the Vermont Constitution.* (Brigham v. State. 96-502, 1997, p. 1)

The opinion notes:

> *We must confront the constitutionality of the system in light of the limited nature of the Foundation Plan's purpose. The object of the Plan is not equality of educational opportunity generally, or even equality of local capacity to facilitate opportunity. It is only to equalize capacity to produce a minimally adequate education, assuming the voters can sustain the state-selected rate. (p. 6)*

The opinion concluded: "We find no authority for the proposition that discrimination in the distribution of a constitutionally mandated right such as education may be excused merely because a 'minimal' level of opportunity is provided to all" (p. 22).

In response to *Brigham*, the Legislature made fundamental changes to the education funding system, some immediately with the passage of Act 60, and others over time. The main changes are:

- To reduce between-district disparity in ability to raise revenue, all non-homestead property is taxed at a uniform state rate, and the revenue is shared by all districts.
- To reduce between-district disparity in the ability to raise revenue, the homestead education tax rates are a function of the district's voter-approved spending per pupil—and not a function of the district's grand list. For a given spending per pupil, the rate is the same in any district. This applies to all districts; it applies to all spending levels.
- To better reflect the ability of taxpayers to pay the tax, the education property tax on a housesite (house plus up to 2-acre site) is adjusted to reflect the household income.

Perhaps the most important feature of the system is its ability to maintain equity through changes in the economy and in state and federal revenue, avoiding the predictable path of past funding formulas. There are two main reasons for this. First, unlike earlier systems, all districts now benefit from state support of education, and all legislators have an interest in supporting adequate funding. Earlier systems provided state aid for districts with low tax bases but wealthier districts did not benefit from the scheme. Second, the equity provisions are integral to the tax rate and apply to all levels of spending, so the equity does not erode over time if state General Fund and federal contributions to the Education Fund decline.

The income component is not direct. The housesite tax has been referred to as an income-sensitized property tax. There are actually two rates set annually in each district -- one for property and one for income, determined by spending per pupil in the district, divided by the state-set yields. Effectively, homeowners pay the lesser of the housesite value multiplied by the property rate or the household income multiplied by the income rate. In practice, however, they pay the school property tax in one year and then receive a credit in the following year if the property tax paid on their housesite exceeds the tax that would have been due if they had paid on income.

The Commission recognizes the important and significant advances made in reducing the disparity between school districts, and in reducing the regressivity of the education tax. However, after a generation of experience with the new system, the Commission sought comments, criticisms, and suggestions from legislators, municipal officials, school teachers

and administrators, representatives of government and education organizations, and citizens. [6]

What follows is a discussion of the main issues raised, especially as they relate to principles of taxation accepted by the Commission. The main focus was the locally voted homestead tax; there was general support for the state tax on non-homestead property.

Following the discussion of the issues is a summary of our recommended changes, along with comments as to how they relate to issues raised during the study and to the principles adopted by the Commission.

Appendix 6-1 includes a summary of the other models considered.

Issues

Complexity

The most common criticism was the bewildering complexity of the locally voted homestead education tax. According to the Vermont League of Cities and Towns, "The education property tax system is endlessly complicated, confusing and disconnected from the education budgets that voters adopt at the local level" (Horn, 2020).

Although several people testified that the current system is a vast improvement over the earlier property tax and that complexity is a small price to pay for the gains in equity, the commissioners agreed that the complexity is overwhelming the effectiveness of the current education tax.

The complexity is primarily due to: use of a credit that comes a year late and causes the tax bill to be disconnected from the budget vote; and utilization of both property value and income to determine the contribution of each household, creating what is essentially a double system.

The tax is not direct; homeowners pay a property tax and, in the following year, receive a credit for the difference between the property tax and what they would have paid based on their income. Even though the net result may be the household income multiplied by the district's income tax rate, the two-year process is cumbersome and confusing. The amount of the homestead tax bill is not directly related to the budget voted that year and therefore somewhat unpredictable, as it includes a credit based on the prior year. In addition, homeowners must apply for the credit and complete a detailed compilation of the income of all household members which is error prone. The Vermont Department of Taxes calculates the credit for each household and sends the information to each town. Local officials subtract the credit from the tax due on the property tax bills, often twice as a result of late

[6] List of people who testified and links to testimony in Appendix 6-2

filings and corrections. And, because there is no longer a clear link between the budget voted and the voter's tax bill, the cost control and accountability of the budget process is weakened.

The Commission recommends eliminating the property tax credit and implementing a direct tax in its place.

The process is further complicated by the process involved in forcing the match between the two systems, administered by different levels of government, with different calendars, with different confidentiality requirements. For local and state officials, the administration of the double system is confusing and time consuming; for legislators and policy makers, the complexity has resulted in spending penalties, income caps, house-value caps, and special rates—all of which further compound the complexity. And, local officials are often stuck with trying to explain the tax bills to taxpayers.

The Commission recommends replacing the hybrid property/income homestead tax base with a single tax base; and, to maintain equity, that single tax base should be income.

Equity

The Commission's accepted principles incorporate two standard concepts of tax equity: horizontal equity and vertical equity. Horizontal equity calls for equal taxation of people in equal situations. Vertical equity calls for greater tax burdens for people with greater ability to pay. While these are clear in concept, they are more difficult to evaluate in practice.

Most of the equity discussion involved the locally voted tax on the housesite and the income-based credit. In addition to complexity, the current double system leads to different characterizations of the tax and different impressions of its equity. The Blue Ribbon Tax Structure Commission (2011) noted two different perspectives: income tax adherents who believe most residents pay an education tax based on their income; and property tax adherents who believe the current system is a property tax on the housesite, with a subsidy based on income.

Depending on the starting position, people measure equity differently. The income tax adherents may feel that equity results from the net (property tax minus the credit) education tax because it rises as incomes rise. So, in their view, households in the same district with equal incomes should pay the same tax, even though one owns a $400,000 house and the other owns a $200,000 house. Property tax adherents may feel that equity results when people with higher value housesites pay a higher property tax. In their view the tax bill of the $400,000 house should be twice that of the $200,000 house, and the property tax credit is considered a subsidy for those less able to pay.

This position leads to perceived inequities of the current system, focused on the credit rather than on the net tax people pay. The household with the $400,000 house will receive a larger credit than the household with the $200,000 house, although the two net bills would

be the same because the household incomes are the same. Looking at the credit rather than the net tax leads to the perception that the system is unfair.

It is important to note that the owners of the $400,000 house still do pay twice as much as the owners of the $200,000 house in locally voted municipal property taxes, assuming their incomes exceed $47,000. Municipal taxes support services and investments – including roads, recreation programs, libraries, and town government — that are more variable from town to town, less controlled by state, and more related to the value of property.
.
Two main reasons are offered to support the property tax adherent's view of the vertical equity of an education property tax on residences. The first is that higher income people tend to have higher value houses. The second is that the residence is a type of wealth that most people have, and it is a good proxy for total wealth, which is also an indication of ability to pay.

According to the American Community Survey (U.S. Census Bureau), 72% of Vermont primary residences were owner-occupied in 2018, and 28% were renter-occupied. Figure 13 shows Vermont tax data on owner-occupied households only, the median value of the house site increases as the household income increases.

2017 Household Income	**# Owner-Occupied House Sites**	**Median House Site Value**
< $47,000	52,410	$144,896
$47,001 - 90,000	58,991	$183,708
$90,001 - 136,500	33,766	$232,785
$136,501 - 200,000	13,818	$285,949
$200,001 - 300,000	5,665	$351,761
$300,001 - 500,000	2,645	$418,733
$500,001 - 1,000,000	1,048	$485,479
> $1,000,000	434	$582,394

Figure 13 Data from Legislative Joint Fiscal Office.

However, the distribution is not tidy. Figure 14 demonstrates that within any income category there is quite a range of house values in a given year.

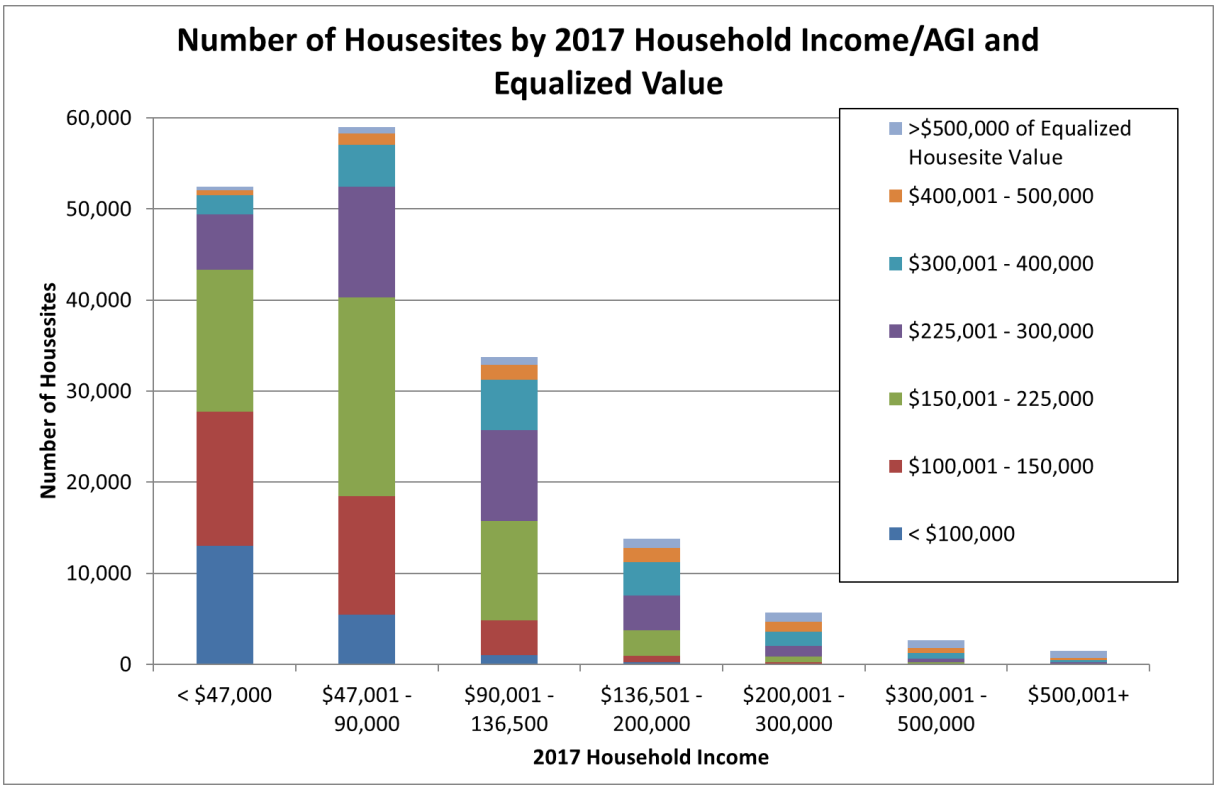

Figure 14 Data from Legislative Joint Fiscal Office.

As discussed in Chapter 4, Vermont does not have data on assets of its residents so the Commission relied on national data to look at whether the value of a residence was a good proxy for wealth. At the national level, the Federal Reserve Board's Survey of Consumer Finances collects information on the assets and liabilities of families, and estimates the family net worth—the difference between the family's gross assets and its liabilities. For families with low net worth, the primary residence often exceeds 100% of their net worth because they own few other assets and the residence is mortgaged. The Survey estimates that value of the primary residence represents 88% of the net worth of families between the 50th to 75th percentiles of net worth but only 25% of the net worth of the families in the top decile (Federal Reserve Board, 2017).

Given the divergence between the value of a house and both income and wealth, and given the impracticality of determining, measuring or taxing net worth, the Commission believes that income is the best way to measure taxpayer equity and the most progressive way to tax residents for education at the present time. However, the Commission agrees that wealth is an important component of a household's ability to pay, and we would like further research on how wealth could be measured or included in the tax structure (see Chapter 4).

Using income as the indicator of the ability to pay, Figure 15 illustrates the vertical equity of the current homestead education tax, before and after the credit. The bars in the chart below show the property tax on the housesite, before the credit. The dashed line shows the net education tax paid (after the credit). While the bars indicate that the housesite property

tax is extremely regressive, the net tax (after the credit) is somewhat progressive up to incomes of about $140,000, and regressive at higher incomes. There are also jumps resulting from various housesite and income caps. It is clear that the current homestead tax has improved vertical equity of the education tax and of the tax structure as a whole, but it is not a progressive tax.

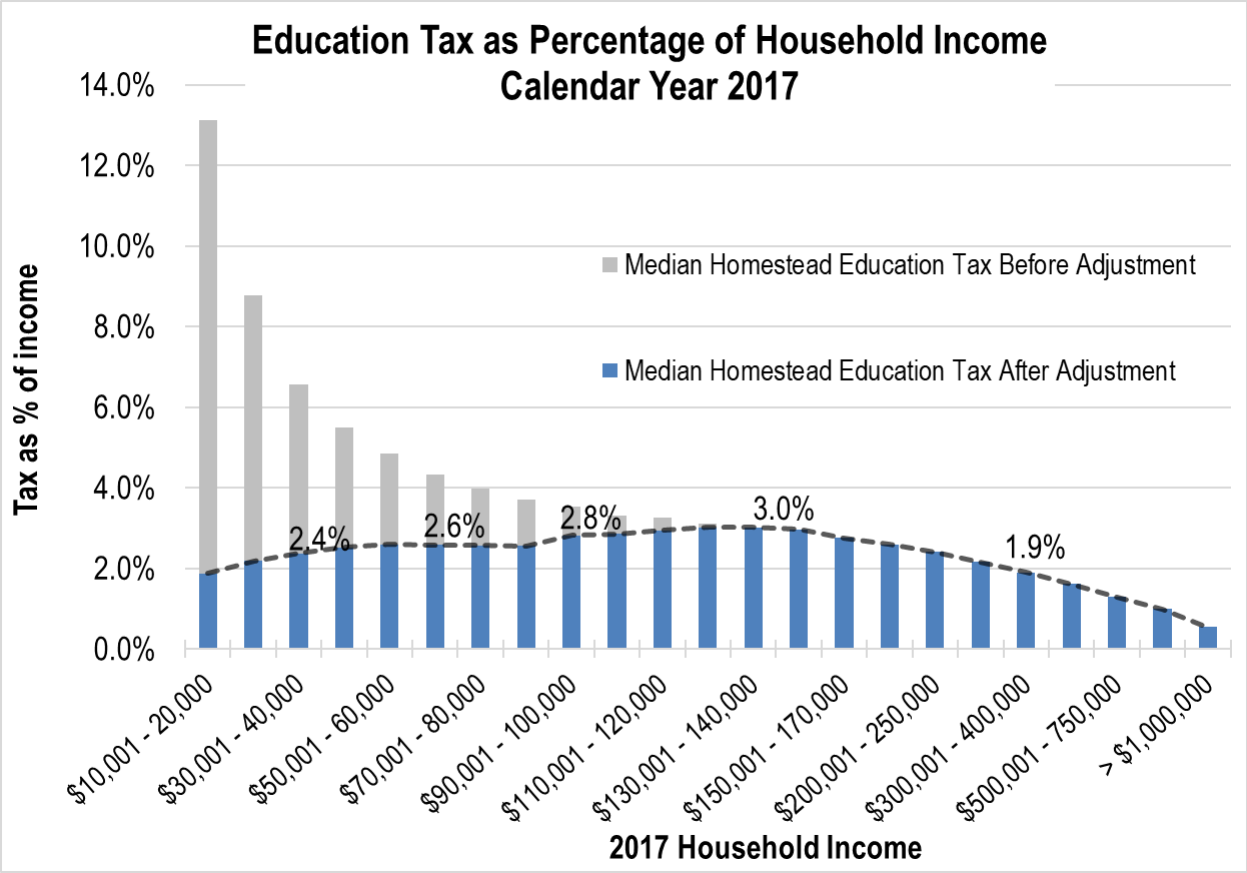

Figure 15 Data from Legislative Joint Fiscal Office.

One additional question about taxpayer equity was raised. Currently, the education tax on housesites does not vary depending on the number of people in the household. In contrast, the personal income tax uses deductions and exemptions to adjust for the size of the family supported by the income. The Commission recognizes the tradeoff between simplicity and equity and does not have a strong preference in this case.

The between-district horizontal equity received little comment. The Commission did not receive testimony questioning the guaranteed yield system that provides equal per-pupil revenue for equal homestead tax rates. Nor did it receive testimony questioning the state education tax on non-homestead property. The Commission believes both provisions have increased between-district horizontal equity substantially, understandably, and simply.

Although the *Brigham* decision used equal spending per pupil as a yardstick, the Legislature acknowledged that the cost of educating students to state standards can vary

by district based on the differing needs of the students, the size of the school, grade levels, and transportation. For that reason, two districts might not be able to reach the same educational standards with the same spending per pupil. Currently, the variation in the needs of districts is addressed in two ways:

1) Categorical state aid is sent to districts based on their need for certain programs, including transportation and special education.
2) Per Pupil Weighting adjusts the student count used to calculate the spending per pupil that determines the tax rate. Heavier weights increase the student count and decrease the rate needed to fund a given budget. Currently weights are applied to account for grade level, English Language Learners, and economically disadvantaged students.

Comparing the spending per weighted student across districts shows that the extreme disparity that triggered the *Brigham* case has been reduced. An analysis by Public Assets Institute found that spending for two-thirds of the (weighted) pupils in the state fell within $1,400 of the $15,400 state average. They calculated that the standard deviation in spending per student had narrowed by 35% since the passage of Act 60 (Cillo & Yu, 2019, p. 1).

Yet there are reasons to examine between-district equity more carefully. The Commission heard concern that high-income districts were spending more than low-income districts. To examine the relationship between the household income of homeowners and spending per pupil, we looked separately at three categories of districts in 2018: PreK-12; elementary; and high school. We also looked separately at union districts and town districts.

Of course, spending per pupil depends on multiple interacting factors. The most consistent trends we found were:

- In general, spending per pupil was lower in districts with more students.
- In general, in districts with more students, the incomes of homeowners were higher.

Putting those two prominent trends together, it would seem that spending per pupil would be lower in districts with higher incomes. But that was not generally true. Holding enrollment constant, there was also an offsetting tendency for higher-income districts to spend more per pupil. Because this relationship was not statistically significant except in town elementary districts, and because the relationship between enrollment and spending was stronger in all types of districts, on average districts with higher incomes did not spend more per pupil.

There were significant differences between traditional town districts and union districts. Town districts generally had fewer students, lower spending per pupil, and greater between-district variation in spending per pupil, than union districts. Controlling for enrollment, there was a positive relationship between spending per pupil and income in town elementary districts, although it only accounted for about 5% of the variation in

spending per pupil. There was only a slight decrease in spending as enrollment increased in these districts.

Union districts, on the other hand, generally had more students, higher spending per pupil, and less between-district variation in spending per pupil, poverty ratios, and incomes. In general, the larger the enrollment in the union district, the lower the spending per pupil. In union districts there was little relationship between the spending per pupil and the average income of homeowners.

It makes sense that by combining smaller town districts, unions would tend to reduce the between-district variation in poverty and income, and blunt the impact of sudden changes that make the spending per pupil more volatile in small districts. This snapshot is from 2018, when Act 46 was in the early stages of implementation, and there were still 108 town elementary districts. It is likely that the relationship between income and spending will decrease as these small school districts are incorporated into larger unions.

As mentioned earlier, the extra cost of educating students in poverty is addressed by weighting those students. If the weighting scheme were successful, we would see inequality in spending per pupil, and equality in spending per equalized (weighted) pupil; higher poverty districts would spend more per pupil than lower poverty districts, but the spending per equalized pupil would be same. The data indicate that, to a certain extent, this is successful. Controlling for enrollment, spending per (unweighted) pupil tends to be slightly higher in higher-poverty districts, which is not what would be expected. But spending per equalized pupil still tends to be lower in higher-poverty districts, indicating that the weighting did not convince voters to support the full supplement per poverty student.

The 2019 weighting study, *Pupil Weighting Factors Report*, calculates a substantially higher weight for poverty than the current weight (Kolbe, Baker, Atchison, & Levin, 2019). This would mean that high-poverty districts would be able to spend more per pupil at their current tax rate, and presumably it would increase spending in those districts. And, because the poverty rate is generally higher in districts with lower incomes, increasing the poverty weighting would tend to offset the difficulty that lower-income households may have in paying taxes.

The Commission believes that the equity of the locally voted education tax is crucially important. Unlike many other taxes, it both collects and distributes. After the allocation of categorical grants, we rely on the locally voted tax to raise the amount needed to provide the education of the students in each district. If this tax is inequitable, it is likely that education will be distributed inequitably. For this reason, we believe the relationship between income, poverty, and education spending is vitally important to track. At this time, it appears that a combination of district consolidation, heavier weighting for poverty, and moving to an income-based tax for residents will improve the equity of the education tax.

Volatility

Several people commented on the volatility of the education tax, and the Commission looked at this in two ways: volatility in terms of the total amount raised for education, and volatility in the bills of taxpayers.

For most state taxes, such as the sales tax or the income tax, the revenue raised varies from year to year depending on changes in the tax base. Volatility in the revenue is a challenge to steady budgeting to meet state needs. Volatility is an issue even within a single fiscal year, as budgets are developed and approved without the knowledge of the amount that most state taxes will raise during the year. Usually estimates are fairly close, but a budget adjustment process is routine.

However, for the education property tax the process is reversed; the budget determines the education property tax rate needed each year to raise the necessary amount. And, in contrast to other state taxes, the property tax base is known before the rate is set, so there is very little guesswork. With the exception of delinquencies, the property tax will bring in the amount budgeted. As a result, the education property tax does not result in insufficient revenue due to year-to-year changes in the tax base.

However, this system shifts the volatility to the taxpayer. The education property tax functions as the shock absorber that allows the Education Fund to be filled. The education property tax must be increased or decreased in response to changes in the tax base (especially due to appreciation as estimated by the common level of appraisal), changes in education spending, changes in uses such as health insurance, and changes in the other revenue sources in the Education Fund including the sales tax, meals and rooms tax, and one-time money like federal funding during the Great Recession or the COVID pandemic.

In some years, education property tax bills have increased at a rate that exceeds the increase in school spending, frustrating voters. This is not unique to Vermont; local rates will rise to compensate for falling state aid in any state that relies on a combination of state and local funding for education. But Vermont's system has more moving parts.

Some possibilities suggested for reducing the volatility in the tax bills are:

- Create a stabilization reserve, to be used to stabilize tax rates
- Eliminate the property tax credit which essentially passes on a tax increase from the prior year to the current year (or pay for it out of the General Fund)
- Reduce disparity in increases in spending between districts
- Index state funding to some measure of spending growth
- Move to two-year budgeting
- Separate funding for capital construction from annual expenses
- Stabilize the yield at a certain spending level, shifting the volatility to higher spending districts
- Stabilize the adjustment of listed value to taxable value (CLA) if using a property tax

- If using an income tax, make it less progressive than the personal income tax
- Use categorical grants to offset uncontrollable costs or special programs
- Limit uses other than education spending from receiving support out of the Education Fund; move spending on mental health services and employee health insurance to the General Fund.

The Commission also heard concerns that replacing the homestead property tax with a direct tax on residents' incomes would increase volatility—both in the taxpayers' bills and the revenue received by the Education Fund to support education. The change would mean that the Ed Fund would be more reliant on fewer people at the top end of the income distribution—and their income tends to be more variable. For example, in 2018, the top 5% of the housesites accounted for 14% of the total value of housesites; in contrast, the top 5% of income filers accounted for about double that percentage of total income, or 30% of total adjusted gross income (AGI) of Vermont residents. Many national studies have looked at the volatility of state revenue and point out that the personal income tax tends to reflect the business economic cycle, resulting in declines in revenue during economic downturns. However, the volatility of revenue of the personal income tax results from a combination of the volatility of the underlying tax base, changes in tax policy, changes in the distribution of income within a progressive structure, and changes in tax rates. Unlike the personal income tax, the proposed education tax would not have brackets and the rate would be set annually to match the revenue needed.

An analysis of the changes in only the two tax bases between 2000 and 2018 indicates the income base has actually been less volatile. The average annual change in the homestead equalized education grand list (Homestead EEGL) in constant 2018 dollars was 4.7%, with a standard deviation of 3.8%. The average annual change in AGI of Vermont residents was smaller – 3.3% – and the standard deviation was 2.2%. The number of years that the tax base declined was equal. Assuming that the tax rate would be set each year to raise the revenue needed, it does not seem that the rate would be significantly more volatile from year to year using an income base.

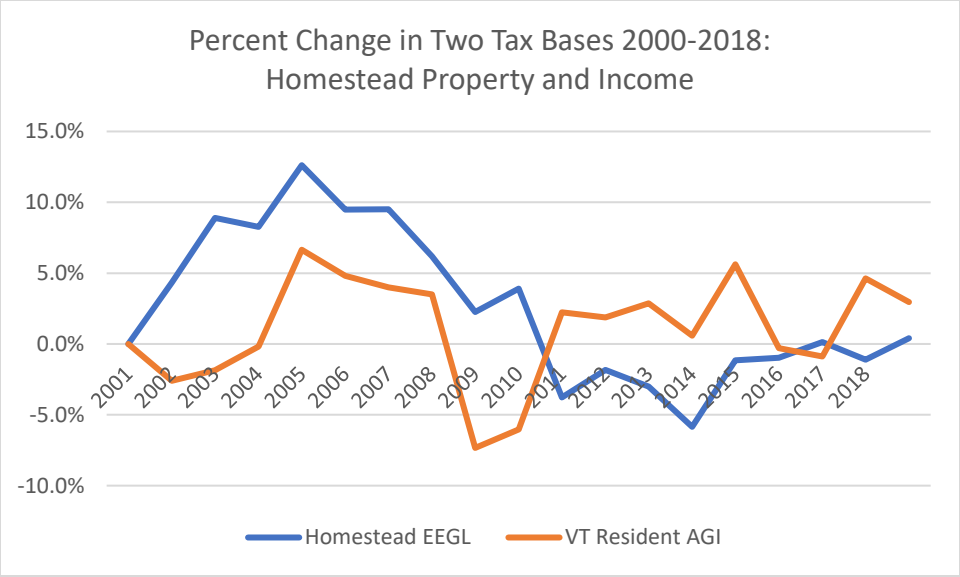

Figure 16 Data from Vermont Department of Taxes

Shifting from the current homestead education to an income-based tax would increase the chances that Education Fund tax revenue actually received in a year would not match the budget estimates because the income tax base would not be completely known at budget time. However, an income-based tax would not need to assume the same volatility of Vermont's personal income tax. Some possibilities suggested to reduce volatility are:

- Setting the rate annually to raise the required amount, as is done currently with the education property tax
- Basing the tax on the prior year's income, as is effectively done with the current education property tax credit, so the revenue estimate would be more accurate
- Using a stabilization reserve

For an individual taxpayer, the income-based bill could be more volatile than a property tax bill—especially if the taxpayer's income is more volatile than the house value. However, this volatility would be tied to the ability of the taxpayer to pay the bill. If the tax is based on the prior year's income, taxpayers with sudden changes in income would not see the concomitant change in their tax bill until the following year. This is also true of the current homestead education tax, as the property tax credit is based on the prior year's income.

Cost Control

Many people felt that education spending is too high, and several legislators expressed frustration that they were unable to keep spending from increasing. The Commission feels the spending level is not in its scope, and that the tax structure is not the best agent for accomplishing the most efficient delivery of quality education. However, the Commission does recognize the potential for some controls on spending to be built into the tax system, and these would be preferable to separate penalties or incentives.

At one extreme, spending could be controlled if the State took over the system of taxation and revenue distribution. This would allow the Legislature to set the uniform tax rate(s) each year, and distribute the revenue to each district based on a state determination of need.

Assuming the tradition of local control, locally voted budgets and local tax rates continues, higher spending could be constrained by reducing the yield (increasing the rate) as per-pupil spending increases. The current system essentially halves the yield at spending levels that exceed 121% of the prior year's average.

Representative Beck has suggested a variation to this approach that would direct the Education Fund's revenue from the non-homestead tax, non-property tax sources, and a basic homestead tax to support per-pupil spending at a base amount estimated to provide an adequate education (Beck, 2019). Compared to current law, this would result in lower rates for spending up to that base amount. For spending above this base amount, the yield would be significantly lower than current law (and therefore the rate would increase more sharply) because the yield would be supported only by the homestead taxes of the districts spending above the base amount. This approach would tend to lower and stabilize the tax rates in the low-spending districts and increase both the amount and the volatility of the tax in higher-spending districts.

The Commission believes that the confusion surrounding the current property tax credit and the double system for determining the tax bill has removed the direct link between the budget vote and the tax bill. The first step in improving cost control and accountability within the tax structure should be simplifying the system so that voters have a clear idea of the effect their vote on the school budget will have on their tax bill. And, for the local tax to effectively control costs, those costs should be controllable. We recommend moving health care for school employees and mental health services to the General Fund.

What the Education Fund Should Pay For

There seems to be general agreement that the uses of the education fund should be limited so that the non-homestead property tax and the locally voted homestead tax are only covering the costs of education that the voters have some control over. This would make it more likely that a district's rate would rise and fall in sync with its spending, rather than with other spending, strengthening the connection between the budget vote and the resulting tax bill. When the Legislature established the Education Fund in Act 60, it explicitly listed eligible uses, and stated: "Upon withdrawal of funds from the Education Fund for any purpose other than those authorized by this section, 32 V.S.A chapter 135 (education property tax) is repealed" (Vermont Act 60, 1997).

The Commission recommends moving expenditures for mental health services and for employee health insurance from the Education Fund to the General Fund, along with proportionate revenue sources. This would remove some of the most uncontrollably volatile costs from the locally voted tax, so that the budgets would be more directly related to

education expenses, more predictable, and more easily controlled by the voters. It would also give the Legislature greater ability to manage some of the costs that they now feel are out of their hands.

The Commission recommends further study of the costs now covered by the Education Fund to see whether they are actually education costs and what the effect would be on both the level of the local tax and the volatility if they were covered by the General Fund.

Renters

The current system raises education taxes from homeowners through an annual tax bill based on a school budget approved by voters – homeowners and renters. Because rental property is taxed for education at the non-homestead rate, it is assumed that renters contribute this amount through their rent.

As a result, the two groups are taxed for education at different rates. And the connection between the local budget vote and the effect on their tax bills is different. While the historical and administrative reasons for this distinction are clear, the Commission could not find a principle-based justification for treating the two groups of residents differently.

Ongoing Oversight

Assuming we continue to have a locally voted education tax, finding the right balance will always be a challenge. The tax rates must be set each year, with a careful analysis of anticipated changes in incomes, property values, school district spending, and anticipated Education Fund revenue from other sources such as the sales tax and the rooms and meals tax. As demonstrated by the recent weighting study, equity in spending needs to be evaluated to ensure the weights are effective. Similarly, what is distributed through categorical grants and what is considered spending on general education to be raised via the local tax should be reviewed and analyzed periodically. Rather than create a special commission to tackle each of these when a crisis arises, Vermont would be better served by an ongoing review process and regular reports to aid the Legislature.

There are a few examples of similar state efforts. The Debt Affordability Advisory Committee makes annual recommendations of the maximum level of the State's general obligation debt, after an annual study of history and projections. The recommendation is advisory, but generally followed because of the thorough and consistent review. Similarly, the Current Use Advisory Board, after analyzing the economic situations for farms and forestry, establishes use values that reflect the income-producing capability of the land. These efforts create stability in the programs, as well as enabling legislative decisions to be based on sound research.

The Commission recommends establishing an ongoing Education Tax Advisory Committee to monitor the system, to report regularly, and to make annual recommendations to the Legislature. Annual recommendations would include the tax rate(s) and yield(s) and the

amount of the stabilization reserve. Other recommendations, such as adjusting student weights or other changes to the system could be brought to the Legislature's attention as needed.

Property Tax Administration

In addition to comments about the complexity resulting from the administration of the homestead tax, the Commission heard several concerns about the local administration of the property tax in general. The property tax was once only a local tax, but it now is predominantly a state tax and the competence of local listers is crucial to ensure that the state tax is being administered correctly, consistently and fairly.

Times have changed since Vermont towns began electing citizens to serve as Fence Viewers, Listers, and Weighers of Coal. Although the duties of Weighers of Coal and Fence Viewers have evaporated, the duties of listers have increased substantially, and so has the expertise required to do the job.

Listers were so named because their main job was to make lists. Every household had an individual list of taxable possessions. The listers compiled these individual lists into the town's grand list, and the tax for each type of property was set by the State so they didn't need to appraise. To do the job with the support of the electorate, they needed to be honest, and good penmanship was a plus. The work was seasonal, between sugaring and planting.

At this point, the job continues throughout the year and listers need to know, among other things: appraisal practices; Act 250, Open Meeting and Public Records laws; chapters 112-135 of Title 32; how and when to capitalize income to value property; how to understand and value easement restrictions; how to use standard software for valuing, compiling, reporting and updating.

And once they master the job, there will be changes. They need to learn how to value the new types of property – such as cell towers, wind turbines, solar installations and subsidized housing – that may have special tax treatment. They need to understand and implement the latest changes in laws such as the education property tax or current use. And, they must adjust to frequent changes in the software and in reporting requirements.

Yet most of the listers have none of this experience when they are first elected to serve.

There is no authority to ensure that all the locally elected listers function responsibly, consistently, and competently in conformance with state laws. The Vermont Department of Taxes' Division of Property Valuation and Review has tackled this challenge admirably by offering courses, certification programs, webinars, training materials, forms to use for special property, handbooks, and frequent one-on-one assistance to listers. Significant progress has been made in the standardization of practices. However, the Division has little control, and training has been limited by funding.

One particular concern is the ability of small towns to appraise large and complicated properties and to defend the appraisals. For example, consider a $4,000,000 property in a town with a municipal tax rate of 30 cents. If the listed property were reduced to $2,000,000 as the result of an appeal, the town would be out $6,000 per year, which is not enough to warrant an expensive defense. The State, on the other hand, would be out $32,560 per year. The State not only has better ability to appraise and defend appraisals, it also has more at stake.

The Commission recommends developing a program at Property Valuation and Review to appraise large and/or complicated property and to defend the appraisals. We also recommend analyzing other ways in which local administration could be strengthened and supported by the State. The current per-parcel payment should be reviewed and a payment schedule that is based on both the size of the town and the certification of the local officials should be considered. We believe that the State can make investments in the administration of the property tax that will be offset by increased tax revenue.

Recommended Structural Change to the Homestead Tax

The Commission considered five possible approaches to changing the locally voted homestead tax. See Appendix 6-1. The intention was to preserve or further the equity gains of the current system while reducing complexity.

After modifying and evaluating different approaches, we recommend levying an education tax, at a locally voted rate, on the income of all residents. This would eliminate the property tax credit and the option of paying an education property tax on the housesite. Because renters are assumed to pay an education tax through their rent, they would receive a credit designed to offset that cost.

Two of the alternative approaches considered are actually small steps toward the recommendation. Model 1 would allow a homeowner to pay the lesser of the tax on the housesite or on income, as in current law, but without using a credit. This would make the tax bill directly reflect the budget vote, and remove the confusion caused by the credit that is related to the prior year's bill. Model 2 would similarly eliminate the property tax credit but, in addition, it would eliminate the option of paying a housesite property tax. This would remove the double property/income calculations and move to one tax base: income. While the Commission supports these changes, we don't feel either model goes far enough. Our recommendation adds changes to the way renters are paying for education.

Two approaches were rejected. Model 3 looks at property as the tax base, and uses a generous homestead exemption to address regressivity. After further analysis, this approach was rejected because, in order to maintain equity, it would require substantial adjustment based on income and would not be an improvement over the current double income/property system.

Model 4 eliminates the locally voted tax entirely and imposes a uniform state school tax. This approach was also rejected. Although it has many tax advantages, the Commission concluded that local control and local democracy are more important than tax simplicity.

These are not fully detailed models; in all cases there are components that could be changed. For each approach, the Commission lays out the purpose, a general description of how it could work, its advantages and disadvantages, and the Commission's recommendations.

The recommended approach is discussed below; the others are outlined in Appendix 6-1.

Recommended Structural Change to the Homestead Education Property Tax

We recommend levying an education tax, at a locally voted rate, on the income of all residents. We recommend eliminating the property tax credit and the option of paying an education property tax on the housesite. Because renters are assumed to pay an education tax through their rent, they would receive a credit designed to offset that cost.

Purpose: To simplify current law by taxing all residents on income, and providing the same link between voting decisions and tax bills for both renters and homeowners.

FY 21 example. (School budget voted in March 2021 for 2021-2022 school year)

Local Residential Education Income Tax
Income as of Dec. 31, 2020, filed in April 2021
X
Spending per pupil FY22 / yield FY22

1. The budget presentation to voters includes the estimated income rate so people can estimate what their tax bill will be if the budget is approved.
2. Local residential education taxes are paid to the State. The town does not send out education bills for declared house sites.
3. Landlords file a statement that includes the name of the renter and the rent.
4. All residents file their 2020 adjusted gross income (AGI) and a residence declaration with their Vermont income tax form by April 2021.
5. Installment payments, estimated taxes, or withholding would be paid by residents to the State between April 2021 and April 2022.
6. Reconciliation takes place in April 2022. If the filer has overpaid, a credit would be issued; if the filer has underpaid, a payment would be due.
7. The rental credit would be refundable, and it could be deducted from the withholding or estimated payment. The Vermont Department of Taxes would determine the tax

paid on the rental unit by using the grand list. The Landlord Certificate would be used to verify the renter and the rental unit.

The school district budget vote would determine the local income rate, based on the spending per equalized pupil. This rate would apply to the income of all residents; there would not be different income brackets as there are in the personal income tax. At the time of the vote, taxpayers will have a good idea of what their tax bill will be by applying the estimated rate to the AGI that they are filing around the same time. If their income goes up or down during the year, the tax bill will not change. This is essentially what happens now, as the current property tax credit is based on the prior year's income.

For simplicity, AGI should replace household income. The AGI would not be adjusted for household size, although a case could be made for reducing the taxable income to account additional household members. As the filing status and number of exemptions already appear on the income tax form, no new paperwork would be required.

If the Legislature feels there should be a maximum education tax, this could be set at a certain income level as is done with the social security tax.

Landlords would need to file annually, as they do now. However, they would not need to calculate allocable rent. The landlord's filing would list the names of people responsible for rent. If the renters change during the year, the landlord would indicate the responsible renters by month.

We do not feel that the amount of the renter credit needs to be exactly equal to the education taxes paid on the rental unit; it could be based on the median rent in the county, as the recently changed renter rebate is. However, if the Legislature feels it should be directly tied to the taxes paid on the unit, it could be calculated by allocating the rental property's assessed value to each unit proportionally by rent.

Housesite property could be defined as it is currently, or it could have a maximum value, indexed to some measure of appreciation.

There would be one statewide equalized rate for all non-housesite property. The town would send education property tax bills for all non-housesite property only.

If the Legislature feels the tax is too high for lower-income households, the district rate can be phased in rather than using the current circuit breaker. For example, filers could pay 20% of the district rate at incomes below $10,000, rising to 80% for incomes of $47,000 and 100% for incomes of $60,000. There would be no separate paperwork needed; there would be no credit. This could be designed to avoid two issues with the current circuit breaker: it creates a sudden jump in tax bills when incomes exceed $47,000, and it insulates eligible taxpayers from the tax consequences of the budget vote.

Taxing renters in the same way as homeowners is recommended by the Commission, although more analysis is needed to better understand the advantages, disadvantages, rate implications, and administration of the change for renters before it can be implemented. The Commission recommends initiating reporting and data collection on renters and rental units as soon as possible to enable further analysis.

Pros:

- Provides meaningful property tax relief for more Vermont homeowners and renters
- Strengthens link between local vote and local tax bill, for all district residents
- Consolidates the spending and revenue resulting from one school year to one fiscal year so education spending and tax rates are in sync
- Eliminates the taxpayer confusion resulting from the adjustment
- Eliminates household income calculation; can use AGI
- Shifts the focus to what is a fair tax amount to pay, rather than what is a fair subsidy
- Eliminates tax jump at incomes of $90,000
- Reduces regressivity that now occurs at high incomes
- Less likely to affect behavior of high-income homeowners because renters are treated the same way as homeowners

Cons:

- Administrative changes at both the state and municipal levels to account for renters
- May influence high-income homeowners to choose another state as their residence

Appendix 6-1 features the Commission's evaluation of other options.

7. Consumption Tax Reform

> *From the point of view of government policymakers, a good tax raises a lot of money without causing people to avoid the tax by distorting their spending (or voting) behavior. By that measure, a sales tax is a very good tax indeed: a body of research shows that, overall, sales-tax rates are not noticeable enough to consumers to make them change their behavior.* (Baker, Johnson, & Kueng, 2017)

Introduction

Consumption taxes are an important source of revenue in all 50 states. Even states with no sales tax, like New Hampshire, tax some services and impose excise taxes. In Vermont, consumption taxes take the form of the sales and use tax, meals and rooms tax, purchase and use tax (for motor vehicles), fuel taxes, and excise taxes. Although most consumers and many policymakers do not consider Vermont's health care taxes as consumption taxes, there are good reasons, as we discuss below, for examining health care as part of the review of consumption taxes. This is consistent with the treatment of health care taxes as consumption taxes in *The Vermont Tax Study* (Teachout, Manchester, & Wexler, 2017, p. ix). In Vermont, consumption taxes make up about 32% of state revenue, with the sales and use tax making up over half of that, and health care making up another quarter of the total.

For a variety of reasons, both economic theory and tax policy theory approve of most consumption taxes when applied broadly at a low rate. Our goal is to make the Vermont tax system overall more fair, more sustainable, and simpler, and our recommendations for consumption taxes aim to further those goals in the overall financial picture of Vermonters, and specifically with respect to consumption taxes.

Our most general recommendation to achieve those goals is to broaden Vermont's sales tax base. As we discuss below, among the 45 states with a sales tax, Vermont's sales tax base is unusually narrow. Much of what we recommend about broadening Vermont's sales tax base follows recommendations made by the Blue Ribbon Tax Structure Commission, and we note that two different commissions, separated by ten years and made up of six different Vermonters with very different backgrounds, having together taken testimony from a broad range of Vermonters, have reached the same conclusion and made the same recommendation. Our recommendations would move Vermont into the group of two or three states, including Washington State, New Mexico, and Hawai'i, with the broadest sales tax bases in the nation. (Note that Hawai'i's tax is called a general excise tax (GET); New Mexico's tax is a gross receipts tax (GRT); and Washington does not have a personal income tax).

We recognize that in terms of tax policy, being in the middle of the pack of states provides some security. It's less likely that Vermont will go very wrong if the state is doing things that are in the middle of the range of what is working in a good number of other states. There are, however, areas in which Vermont prides itself in being in a small minority, or even standing alone: Vermonters are proud of being one of the lowest-crime states in the

country; Vermonters are proud of being one of only a very few states with no billboards; and in tax policy, Vermonters can be justly proud that Vermont is one of two or three states that are leading the way in using the state tax code to reduce inequality. We see very little risk to Vermont's reputation or economy in being among the few states with the broadest sales tax base, and much benefit in terms of the fairness and stability of our sales tax system. We also feel that having one of the lowest sales tax rates in the country poses no risk and provides both economic and reputational advantages.

The sales tax was created as a tax on tangible personal property (TPP), which by definition did not include services. Over the years, all 45 states with a sales tax have expanded it to include some services, although often with the justification that a particular service, like ski rental, is a substitute for a purchase, like buying skis. In addition to all the categories left out of the tax by definition, there are others that are specifically exempted by statute. In Vermont, these include a variety of necessities like groceries, clothing, and home heating oil.

We examine the reasons that some categories of goods and services are either exempt or excluded from the sales tax, and weigh the logic and the evidence as to whether those reasons are compelling or not.

We also examine the hurdles to expanding the sales tax base, including the likely concerns from people in businesses that do not currently collect sales taxes and from low-income Vermonters and advocates for low-income Vermonters, and we also consider various technical and administrative challenges.

For the most part, the sales tax applies only to private consumption – purchases made for government use by the federal, state, and local governments are exempt. However, purchases made for individuals using federal dollars, as when a Medicare patient buys a piece of medical equipment and Medicare pays for it, are eligible for the sales tax. Purchases made *by* tax-exempt non-profits are generally exempt (subject to some limits), but when a consumer purchases something *from* a tax-exempt non-profit, it is generally taxable.

Since health care makes up about a third of the consumer-level economic activity in Vermont, we examine the current taxes on health care and whether there is a way to simplify and broaden them without restricting Vermonters' access to health care.

Finally, we examine the question of what mix of lowering rates and increasing revenue Vermont should pursue based on a broader sales tax base, and conclude that after protecting low-income Vermonters and administrative costs, essentially all of the gain should be put toward lowering the rates.

Value-Added Taxes, Transaction Taxes, and Gross Receipts Taxes: Three Things We Do NOT Recommend

Globally, the value-added tax (VAT) is the most common form of consumption tax, used in over 160 countries including all European countries, Canada, Australia, Japan, India,

China, and almost all the countries in Latin America (International Monetary Fund, n.d.). A VAT is collected at each step of the production process, from raw materials to consumer sale. However, the tax is not charged on the full value of the product, only the value that is added at each step of the process. If you imagine Vermont with a 6% VAT, an ice cream company buys cream from a farmer for $2/lb. The farmer collects $2.12, and sends 12 cents to the State. The ice cream company then sells a pint of ice cream to the local grocery store for $3, and collects $3.18, but, having already paid 12 cents in VAT, only sends 6 cents to the State. The grocery store sells the pint of ice cream to you for $5, collects $5.30, of which it sends 12 cents to the State. The end result is the same as a 6% sales tax – you, the consumer, pay 6%, or 30 cents, on your $5 purchase of ice cream, and the State collects 6%, or 30 cents, on that pint.

From the consumer's point of view, there is no difference between a sales tax and a VAT. From the point of view of the businesses involved in the supply chain, a VAT is more burdensome to administer, although this is somewhat offset by the fact that businesses are relieved of the burden of determining whether a customer is a consumer or a business. From the government's point of view, the revenue raised is the same, but the VAT has two advantages – it's harder to evade, and the government receives the revenue in multiple payments over time instead of one payment at the end of the process, when the consumer makes the purchase. Because the United States has a somewhat unusual system of taxing authorities at the federal, state, and local levels, it does not seem that the VAT is viable in the United States. A VAT can only work at the federal level, so you either take away the states' ability to levy a sales tax and do a national VAT instead, or you layer a national VAT on top of a sales tax, which leads to double taxation of sales (Campbell, Memo on Transaction Tax Details, 2018). As the Legislative Joint Fiscal Office explains: "[A VAT] requires a national entity to operate the system of remittances and credits because of interstate transactions. Therefore, it would be exceedingly difficult, if not impossible, for a state on its own to implement a VAT" (Campbell, Memo on Transaction Tax Details, 2018).

We therefore do not recommend consideration of a VAT for Vermont to replace the sales tax.

Tax theory discourages a broad transaction tax, which would include the application of a sales tax to business inputs, with purchases at wholesale being the most prominent example. Here's why:

Take a company whose business model requires 50% margins. In a state without taxes, the company purchases a product at wholesale for $50 and sells it to the consumer for $100.

If you apply Vermont's 6% sales tax to the consumer purchase, the company buys it for $50, sells it for that same retail price of $100, and the consumer pays $106, including the $6 in tax.

If you apply the 6% sales tax to both transactions, the company pays $53 for the product at wholesale, and sells it for a retail price of $106 (to maintain their 50% margin target). Then you apply the 6% sales tax to that, and the consumer pays $112.36.

Breaking down the $112.36 that the consumer paid, you see that $50 is the wholesale cost, $53 is the retailer's margin, and $9.36 is tax. Note that of that $9.36 in tax, $3 is tax at the

wholesale level that got passed on to the consumer, another $6.18 is the tax the consumer pays on the underlying $103 of wholesale price plus retail margin, and 18 cents is the 6% consumer tax on the 6% wholesale tax, yielding an effective consumer tax rate of 9.09% ($9.36/$103), and an increased cost to the consumer of $12.36 compared to the taxless transaction. The state ends up collecting $9.36 more, but the consumer ends up paying $12.36 more.

This effect, known as *pyramiding* or *cascading*, is roundly discouraged by tax theory. It is more efficient for all parties for the State to simply levy a 9.36% sales tax at the consumer level, and exempt the wholesale purchase. The State ends up with the same revenue; the consumer pays $3 less; the wholesaler is relieved entirely of the administrative burden of collecting and remitting sales tax; and the retailer is relieved of the burden of paying sales tax on their purchases, and can sell their wares to consumers at a slightly lower price.

For the same reason, we do not recommend a gross receipts tax. In addition to Hawai'i and New Mexico, seven other states impose GRTs. These taxes typically apply to business-to-business (B2B) transactions as well as consumer purchases (B2C), and therefore cause the same pyramiding as a transaction tax. GRTs tend to be at very low rates, so the pyramiding is less of a factor, but our view is that it is best to avoid taxing business inputs, and expanding Vermont's existing sales tax base will be less disruptive than scrapping our sales tax and creating a new GRT.

The Effects of Adding, Increasing, Removing, or Decreasing the Sales Tax

We also examined the effect of changes in the sales tax on levels of consumption and/or access due to price elasticity of demand, which is to say, how much demand or access decreases/increases in response to an increase/decrease in the sales tax. In general, consumer-level demand is price inelastic in the range of price changes caused by adjusting sales tax rates. Per research done at the Kellogg School of Business at Northwestern University, *"the researchers saw no impact on household spending habits four months to a year after a sales-tax increase"* (Baker, Johnson, & Kueng, 2017). There is some evidence that in the month prior to a sales tax increase, consumers stockpile goods, so demand goes up in the month prior and then down in the months after, but once that stockpile is worked off, demand goes back to where it was prior to the tax increase. Presumably, the opposite is also true –in the month ahead of an announced decrease in the sales tax, people may purchase less, waiting for the tax to go down. It is also important to note that price elasticity of demand varies based on household income – lower-income households are more likely to reduce their purchases in response to a small price increase than are higher-income households. Price elasticity of demand also varies based on the magnitude of the change in price. While a 5% price increase may cause a 3% decrease in demand (price elasticity of demand of -.6), a 50% price increase may cause a 40% decrease in demand (price elasticity of -.8).

Demand is particularly inelastic for necessities like health care, groceries, education, residential energy use, and clothing, which are the five biggest categories that are currently exempt from the sales tax in Vermont. As is often the case, health care is unique in that

demand, which is to say, how much people buy, is often determined not by the consumer/patient, but by the doctor. A further factor distorting demand in health care is the fact that often neither doctor nor patient knows or particularly cares how much a given treatment costs. Both of these phenomena are likely to be important factors in the inelasticity of health care demand. We reiterate our recommendation from Chapter 5 that the Legislature make structural changes to Vermont's programs for low-income Vermonters to ensure that the changes we are recommending do not reduce access to any of these necessities for them.

Another factor decreasing the net effect of the changes we are recommending is that even if demand did have some price response in the range of changes we are examining, our recommendation to broaden the base and lower the rate would mean that there would be a slight decrease in demand for the roughly half of purchases of goods and services that are not currently subject to the sales tax, but that would be partially offset by the increase in demand for the consumer goods that are currently taxed, as the tax rate for these things would go down.

We will therefore assume that changing the sales tax by a few percentage points will not have a material effect on demand. However, in the accompanying Vermont Sales & Provider Tax Calculator (Tax Structure Commission, 2021), we have included four calculations: for both holding low-income Vermonters harmless from the application of the sales tax to categories currently not taxed and making no provision to do so, we model scenarios with both price elasticity of demand and no elasticity. You will see that the inclusion or exclusion of price elasticity of demand does not make a large difference to the results, while holding low-income Vermonters harmless does make a meaningful difference.

In contrast with the changes of a few percent that we are contemplating here, a heavy tax can, in fact, change consumer behavior in the intended manner. For example, Vermont's 60% excise tax on cigarettes works to reduce smoking, especially among young people. We are therefore mindful of the effects on demand in the analysis of the excise tax.

Vermont's current 6% sales tax exempts or excludes some categories of goods and most categories of services. We now examine the reasons for those exemptions and exclusions, and we will explore opportunities to make Vermont's sales tax more fair, more sustainable, and simpler by expanding the base and reducing the rate, while at the same time exempting business inputs.

Why Are There Exemptions to and Exclusions From the Sales Tax in Vermont?

There are hundreds of categories of goods and services in the United States economy, and states have made very different choices about which ones to tax. Vermont currently taxes consumer purchases of most goods that are not deemed necessities, and exempts most necessities like groceries, clothing, home heating, and medical products. Vermont currently exempts most sales of business inputs. Finally, Vermont currently taxes about 45 of the 200 or so services that are taxed by at least one other state (See Appendices 7-1 and 7-2).

It is also true that the exemptions to Vermont's sales tax have been enacted over many decades by many different legislatures, and the original intent of each exemption is not always clear. However, there appear to be six main reasons that Vermont exempts or excludes some categories of goods and services:

1. To protect low-income Vermonters from the financial burden of paying a tax on necessities, like groceries, clothing, home heating, and health care.
2. To encourage community goods, like education and newspapers. Health care falls into this category as well.
3. Since the sales tax was originally just on goods, many services, like limousine rental, are exempt simply because they've always been exempt. Along with its other categories, health care also falls into this category.
4. Some categories are exempt because the sales tax is deemed too hard or too complicated to collect, for the seller and/or for the Department of Taxes. Health care and education are probably the only two sectors to fall into all four of these categories.
5. Some categories are so small that the administrative burden to collect the tax are greater than the revenue from the tax. This includes "casual sales," one-time events like yard sales.
6. To avoid taxing business inputs.

This leads to three big questions:

1. Are sales tax exemptions an efficient way to protect low-income Vermonters, and if not, is there a better way to achieve this goal?
2. Are sales tax exemptions an effective way to promote community goods, and if not, is there a better way to achieve this goal?
3. Is the benefit of the historic exclusion of services from the sales tax likely to outweigh the costs of that exclusion as the economy continues to evolve toward more services?

We will examine each question in turn in the following sections.

Are Sales Tax Exemptions an Efficient Way to Protect Low-Income Vermonters?

For purposes of this report, we define low-income Vermonters as those living in households in the lowest four deciles of household income. This very roughly corresponds to households making less than 80% of the median income (U.S. Census Bureau, 2019), which is the definition used by the U.S. Department of Housing and Urban Development, U.S. Department of Agriculture, and Vermont's Agency of Commerce and Community Development in its housing needs assessment. This definition is broader than some other measures, as it equates very roughly to between 250% and 300% of the federal poverty level (Vermont Department of Health, 2018), so it yields higher and more conservative estimates of the costs of protecting low-income Vermonters than other measures would. While we define low-income Vermonters as those in the lower 40% of the income distribution for purposes of discussion and illustration, please note our recommendation in Chapter 5 for an

analysis of the total financial picture of households ranging from the lowest household incomes up to 400% of the federal poverty level and a policy initiative to eliminate benefits cliffs for people moving up through those income levels and to insulate them from additional burden based on our proposed changes to Vermont's tax structure.

For reference, median household income in Vermont is around $62,000 (U.S. Census Bureau, 2019), and the federal poverty level for a family of three is $21,720 (U.S. Department of Health & Human Services, 2020), so for a family of three, 80% of median household income is around $49,600, 250% of the federal poverty level is $54,300, and the 40th percentile of household income in Vermont is around $49,900 (U.S. Census Bureau, 2019).

Health care, groceries, home energy, education, clothing, and car repair services account for about 85% of the private consumer spending that is currently not included in the sales tax in Vermont (See Appendix 7-3). Health care is the largest sector, and is the most complicated case, and the one with the most reasons for exclusion, so we will examine health care in a separate section below.

Starting with groceries: based on data from the U.S. Bureau of Labor Statistics (2020), we estimate low-income Vermonters spend about 27.8% of Vermont's total private spend on groceries[7]. That means that right now, by exempting groceries from the 6% sales tax, Vermont is giving up about $126.1 million in sales tax revenue (Feldman, Schickner, Stein, Campbell, & Dickerson, 2019) to provide $35.1 million in relief to low-income Vermonters.

To be clear, we are not recommending a 6% sales tax on groceries. Our recommendations are laid out below. At this point, our goal is simply to think through whether or not exempting groceries is an efficient way to protect low-income Vermonters from a sales tax of any level on groceries.

If Vermont levied the 6% sales tax on groceries, collected the $126.1 million in taxes, and refunded that $35.1 million in grocery sales tax collected from low-income Vermonters, there would be no harm to low-income Vermonters. Conservatively assuming a 15% cost to administer a rebate program, the State would have an additional $85.8 million which it could put toward lowering the sales tax rate and/or increasing spending, in whatever ratio the Legislature decided was appropriate.

As noted in Chapter 5 of this report, we would encourage a comprehensive review of income, benefits, and taxes by income level in order to eliminate disproportionate loss of benefits as income increases ("benefit cliffs"), rather than looking at each element of support for low-income Vermonters in isolation. That being said, Vermont currently provides food support to low-income Vermonters through 3SquaresVT and Vermont WIC, which programs could provide part of the mechanism for rebating grocery sales tax payments to the lower end of the low-income spectrum, with a new mechanism required for remitting sales tax payments to people in the higher end of the low-income spectrum.

[7] State-level data not available, assumes Vermont mirrors national data.

> *States frequently exempt consumer goods, such as clothing and groceries, but these* ***blanket exemptions are ineffective ways to lessen the regressive nature of sales taxes*** [emphasis added]. . . *If states are still concerned about the somewhat regressive nature of sales taxes,* ***several policy options are more effective tools than blanket exemptions.*** [emphasis added] *Grocery tax credits, expanded Earned Income Tax Credits, or an increased standard deduction in an income tax would provide assistance without introducing the same degree of economic distortions.* (Kaeding, 2017)

When one looks at the other big categories of private consumer spending that are currently exempt from the sales tax, one finds the same pattern. Using a 6% tax rate as an example, in home energy consumption, the State is foregoing roughly $42.1 million in revenue (Feldman, Schickner, Stein, Campbell, & Dickerson, 2019) to protect low-income Vermonters from a $13.2 million expense. As with groceries, as part of a comprehensive review of the income, benefits, and taxes in low-income households, we note that Vermont already has a mechanism for providing support to low-income Vermonters' residential energy purchases in the Low-Income Heating Assistance Program (LIHEAP). If you extend the sales tax to residential energy, the State could collect the $42.1 million in tax revenue, distribute $13.2 million back to low-income Vermonters through LIHEAP, and end up (again assuming a 15% administration cost) with $26.9 million per year for increasing spending and/or decreasing the rate.

Low-income Vermonters spend about 17.4% of the total private dollars spent on education (U.S. Bureau of Labor Statistics, 2020)[8], so again, using 6% as an example, the State is foregoing $59.1 million in revenue to protect low-income Vermonters from $10.3 million in sales tax burden (U.S. Bureau of Economic Analysis).[9] Clothing and automobile repair follow the same pattern. Indeed, the *Vermont 2021 Tax Expenditure Reviews* suggests "the clothing and footwear exemption does a poor job at targeting purchases that are necessary for health and welfare" (Campbell, Feldman, & Hicks-Tibbles, 2021, p. 32)

In general, we conclude that exempting broad categories of necessities is not an efficient way to protect low-income Vermonters from the financial burden of paying a sales tax on necessities, and that better mechanisms exist or can be developed that even at a 15% cost of administration, will hold low-income Vermonters harmless, and increase Vermont's capacity to raise revenue and/or decrease the sales tax rate. Again, it is not our recommendation that refund mechanisms be developed for each category of goods and services to which we extend the sales tax. Instead, we refer to our recommendation in Chapter 5 that the Legislature look at the full financial picture for low-income Vermonters including income, transfers, and taxes in the context of our recommendations, and adjust the programs that support low-income Vermonters accordingly.

We note the concern raised in the *Vermont 2021 Tax Expenditure Reviews* that "academic literature suggests that a full repeal of the clothing exemption would result in a reduction in sales for Vermont retailers on the border, particularly since all neighboring states either

[8] State-level data not available, assumes Vermont mirrors national data.

[9] See also *Vermont 2020: Comprehensive Economic Development Strategy* (Agency of Commerce and Community Development, 2016).

exempt clothing from their sales tax or have no sales tax" (Campbell, Feldman, & Hicks-Tibbles, 2021, p. 27) As we have discussed, due to the low level of the recommended 3.6% sales tax, the Commission expects any shift of sales across the border to be insignificant.

With that in mind, we support the option presented by the Legislative Joint Fiscal Office and Vermont Department of Taxes of:

> *Repealing the exemption in its entirety and replacing it with a more targeted income tax credit, such as:*
>
> - *A refundable personal income tax credit for low-income taxpayers, such as Maine's refundable Sales Tax Fairness credit, which provides up to $225 for lower- and middle-income taxpayers to offset the regressivity of the sales tax.*
> - *An expansion of the Earned Income tax credit, which would offset the regressivity of the sales tax by providing additional refundable credit to lower-income households. (Campbell, Feldman, & Hicks-Tibbles, 2021, p. 27)*

We temper that support by noting our recommendation that these changes be incorporated in a full overhaul of Vermont's system of taxes and support for lower-income Vermonters, and by the guidance that providing assistance each week or every two weeks is a great deal more helpful than providing help at the end of the year.

Are Sales Tax Exemptions an Effective Way to Promote Community Goods?

> A body of research shows that, overall, sales-tax rates are not noticeable enough to consumers to make them change their behavior. In other words, we tend to adopt an attitude of "it is what it is" about sales tax—even when the rates go up—and just get on with the business of purchasing what we need. *(Baker, Johnson, & Kueng, 2017)*

What is true of rates going up is equally true of rates doing down. A 6% sales tax is not enough to discourage consumer behavior, and exemption from a 6% sales tax is not enough encourage consumer behavior.

The list of community goods that Vermont tries to encourage and/or make more affordable with sales tax exemptions includes two big items: health care and education. As noted above, we will examine health care separately.

Education in this context includes only private spending on education – private payments for K12 and private payments for college. This includes both public and private institutions.

Total private education spending in Vermont in 2019 was $984.6 billion (U.S. Bureau of Economic Analysis). Low-income Vermonters spent about 17.4% of that (U.S. Bureau of Labor Statistics, 2020). There are several important barriers for low-income Vermonters to accessing education:

> *Higher education in Vermont—for both two and four-year colleges—consistently ranks as the most expensive in the nation, while simultaneously offering the lowest state funding, according to a 2019 report from the College Board. . . For the 80% of CCV students who are enrolled part-time, supporting students outside of the classroom is a major issue. . . The lack of access to a car or daycare for their child can really derail a great student from completing their classes.*[10] *(Bakuli, 2020)*

In light of these issues, the presence or absence of a sales tax would not appear to be a significant factor in accessing education. Expanding higher education in Vermont might be better achieved through larger-scale subsidies or refunds of the tuition for low-income and middle-income Vermonters, combined with services like transportation, remote learning, and childcare for students for whom those things are a barrier. If college tuition is $40,000, and we add a (say) 3.6% sales tax to that, the price of that tuition goes up to $41,440. Combining several estimates of price elasticity of demand for higher education (Parker, 2010) to arrive at .6, that $1440 increase might reduce access to education by 2.2%, whereas the inflation adjusted growth in public college tuition over the last 20 years of 65% (USA Facts, 2019) has probably reduced access by almost 40%. The problem is not the $1440 in sales tax, it's the $40,000 in tuition.

There are a number of smaller categories of community goods that are exempt from sales tax in Vermont as well: newspapers; admission to school sporting events; membership services from environmental, human rights, social, civic, and business organizations; sports instruction; other amusement and recreation industries; and others.

We do not in any way dispute that these things are good for the community and deserve Vermont's support. We simply do not believe that a sales tax exemption is an effective way to support, encourage, or expand them. We do believe that exempting these activities, while not providing meaningful support to the activity, does create complexity, unfairness, and instability in Vermont's tax system, and causes the rate to be higher than it would otherwise be, and those negative consequences outweigh the very limited benefit the exemptions provide.

We conclude that exempting community goods from the sales tax is not an effective way to expand those goods, and that if the Legislature does indeed wish to support, expand, and encourage these and other community goods, an approach may be to analyze the barriers to expansion, and address them head-on with appropriate means and mechanisms. We do not believe that the sales tax exemption, either alone or in combination with other measures, provides Vermonters with meaningful access to these community goods.

[10] See also Trends in College Pricing 2019 (College Board, 2019)

We recognize the very important public policy role that taxes in general play in encouraging community goods and discouraging community bads. As noted, the excise tax on cigarettes continues to be an effective tool to discourage smoking, especially among young people, and has played a significant role in reducing suffering and premature death, improving health, and reducing health care costs for Vermonters. The earned income tax credit has been a very effective tool at reducing poverty. Federal tax credits have undoubtedly accelerated the very beneficial transition to electric cars. The data suggest, however, that because the sales tax has a relatively low rate, and therefore changes to the sales tax are on the order of a few percentage points or less, it is not among the more effective taxation tools for discouraging or encouraging behavior.

Does the Exclusion of Services From the Sales Tax Still Make Sense?

> *The General Assembly concludes that structural deficiencies in Vermont's current revenue and budgeting structure, combined with a change in the State economy from an economy based on goods to an economy based on services, requires an examination and rethinking of Vermont's current sales tax base. (Vermont Act 57, 2015, p. 107)*

Per the Vermont Department of Taxes' *Sales Tax on Services Study* (Feldman, Dooley, & Morgan, 2016), services were initially excluded from the sales tax in the 1930s:

> *[Because goods] constituted a large portion of household consumption, wealthier people bought more of them, and they were easier to quantify. Also, it was widely believed at that time that taxing a service would be like taxing the jobs associated with that service, and jobs were already scarce in that era. (p. 4)*

In principle, excluding some services from the sales tax raises an issue of fairness, as it puts Vermonters who don't happen to use that service at a disadvantage, and it also puts individuals and companies who happen to produce something that is taxable at a disadvantage. As we have noted, the exclusion or inclusion of any service in the sales tax does not meaningfully change demand, so this fairness issue is more one of principle than practice.

However, more serious consequences of exempting most services from the sales tax are that doing so makes sales tax revenue less stable and less sustainable, makes the tax system more complicated, and forces the State to impose a higher tax rate to achieve any given revenue goal. These problems will become more pronounced as the portion of the economy represented by services continues to grow. While a crisis like COVID leads to a vast reduction in some service sectors associated with tourism, the broader the base, the less likely a particular crisis is to have a disproportionate negative effect. If we taxed only services, COVID would have been far more damaging to state revenues than it has been. If we taxed groceries, as this Commission recommends, COVID would have been much less

damaging to state revenues.

We conclude that there is nothing inherent in the service sector that justifies a blanket exclusion from the sales tax, and that the widespread exclusion of services adds complexity, unfairness, and instability to Vermont's tax system and inflates Vermont's sales tax rate. As with goods, our recommendation explicitly exempts the purchase of services by businesses.

The Human Hurdles to Expanding the Sales Tax to New Goods and Services

The experience of the past has shown that any industry that has not been included in the sales tax will view the prospect of their new inclusion in the sales tax with concern. Their objections cluster around losing sales, and around the administrative burden of collecting and remitting the sales tax.

We see several ways in which the Legislature can address these concerns: first, making the expansion as close to universal as possible makes it more difficult for any one industry to argue that it should be exempt or excluded. Second, you can present the data that show that sales in a sector do not, in fact, decline when they go from being exempt from the sales tax to being included in the sales tax. Finally, we note that the burden of collecting and remitting the sales tax has decreased a great deal due to the advances in sales tax software.

We expect that you will hear some passionate and emotional testimony from people asking you to continue to exempt or exclude their business or their industry from the sales tax. Some of this testimony will include dire predictions about the effects on Vermont businesses, and on the economic competitiveness with other states. We would recommend that your consideration of these concerns be married to a consideration of any supporting data. We note that while Hawai'i is in a unique position in the middle of the ocean, Washington State, for instance, is similar to Vermont in that it shares a border with Canada and fairly rural borders with a couple other states. Washington State does not seem to have suffered from its broad tax base.

Summary of Categories Not Currently Subject to Sales Tax, Potential Sales Tax, and Level of Protection Required for Low-Income Vermonters

Current untaxed category	Total consumer activity in Vermont by category	% of total activity by low-income Vermonters	Total tax revenue at a 3.6% sales tax	Portion of total revenue that would be returned to low-income Vermonters
Education	$984,600,000	17.4%	$35,445,600	$6,167,534
Automotive services	$316,000,000	22.9%	$11,376,000	$2,605,104
Services not related to personal property	$283,333,000	21.1%	$10,199,988	$2,152,197
Professional services	$143,333,000	21.1%	$5,159,988	$1,088,757
Related to personal property besides cars	$133,333,000	21.1%	$4,799,988	$1,012,797
Hair, skin, & nails	$125,000,000	23.3%	$4,500,000	$1,048,500
Veterinary services	$83,333,000	21.1%	$2,999,988	$632,997
Household services	$75,000,000	19.7%	$2,700,000	$531,900
Funeral	$25,000,000	21.1%	$900,000	$189,900
Travel	$16,667,000	21.1%	$600,012	$126,603
Groceries	$2,102,500,000	27.8%	$75,690,000	$21,041,820
Residential energy	$702,500,000	31.4%	$25,290,000	$7,941,060
Clothing	$503,333,000	21.7%	$18,119,988	$3,932,037
Newspapers	$39,833,000	27.0%	$1,433,988	$387,177
Sales of mobile/modular homes	$5,000,000	100%	$180,000	$180,000

Figure 17. Category data from 2019 Vermont Expenditure Report (Feldman, Schickner, Stein, Campbell, & Dickerson, 2019); Regional Data - GDP and Personal Income (U.S. Bureau of Economic Analysis); Vermont 2020 (Agency of Commerce and Community Development, 2016). Share of spending by low-income consumers from Consumer Expenditure Survey (U.S. Bureau of Labor Statistics, 2020). State-level data not available, so we assumed U.S. distribution of spending across income deciles matched Vermont's. See Appendix 7-4 for breakdown by decile.

Please note that we expect this roughly $49 million in increased sales taxes paid by lower-income Vermonters to be partially offset by $35 million or so in reduced sales tax on items they are currently paying sales tax on (assuming a 3.6% rate in both cases), so the net cost of protecting these Vermonters will be around $14 million (see page 36 for further detail).

Applying the Sales Tax to Health Care

As noted, there are multiple reasons that health care is not subject to the sales tax. We will start with the desire to ensure access to health care for all Vermonters, and low-income Vermonters in particular. Currently, low-income Vermonters are partially insulated from

the cost of some health care services in a number of ways. For those living below 138% of the federal poverty level, the Medicaid program provides access to health care with very little in the way of out-of-pocket costs. For those between 138% and 400% of the federal poverty level who do not receive health insurance through their employer, the Affordable Care Act provides meaningful subsidies for insurance premiums and caps on out-of-pocket spending. For those between 200% and 300% of the federal poverty level, Vermont provides assistance as well. The State also supports low-income Vermonters with Dr. Dynasaur (Medicaid coverage for children and pregnant women), long-term care assistance, and prescription drug assistance (Department of Vermont Health Access, n.d.).

One complication in health care is that Medicaid patients typically have no or very low co-pays. However, Medicaid and other programs for low-income Vermonters often have fixed payment levels for particular services, and if a provider adds a sales tax to a bill that's already at the maximum reimbursement rate, payment of the full sales tax is likely to fall entirely onto the patient, potentially increasing their co-pay by multiples. It is not clear that the prohibition on balance billing would apply to a sales tax for Medicaid patients. As the additional sales tax might present an insurmountable financial barrier to some Vermonters, we cannot recommend a sales tax on health care without finding a mechanism to protect low-income Vermonters from this burden.

Many states do impose a sales tax on some health care transactions. Of the 45 states with a sales tax, plus the District of Columbia:

- Four states (Delaware, Hawai'i, New Mexico, and Washington State) currently apply a sales tax or a gross receipts tax to physicians' and dentists' work[11].
- Thirty-seven states impose the sales tax on non-prescription drugs (See Appendix 7-1).
- One state (Illinois) currently applies a (1%) sales tax to prescription drugs.
- Thirty-two states apply the sales tax to non-prescription medical devices (Dumler, n.d.).
- Nine states apply the sales tax to medical devices regardless of whether they are prescription or non-prescription (Dumler, n.d.).

We examined the possibility of creating a mechanism by which charges for Medicaid would be exempt from the sales tax. While the states cited above apply a sales tax to some health care expenditures, as we worked through the practical implications of trying to apply a uniform sales tax across all patient-level health care expenditures, it became clear that a system to exempt Medicaid charges from the sales tax rapidly becomes unreasonably complicated and burdensome. Vermont's dual drives toward universal primary care and paying providers based on outcomes add further dimensions of complexity to this question.

We believe that the importance of keeping access to health care as free from barriers as possible, combined with the complexity of how health care for low-income Vermonters is paid for, means that it is not practical to apply the sales tax to health care.

[11] Delaware and Washington by way of a gross receipts tax. See Federation of Tax Administrators *2017 State Sales Tax Survey* data in Appendix 7-1.

Further Considerations on Expanding the Sales Tax Base

> *Meaningful [sales tax] base broadening [is] a worthwhile endeavor, as base expansion allows for greater tax neutrality and revenue stability, and can be paired with more targeted relief for low-income households. (Kaeding, 2017)*

We conclude that there are no good reasons to exempt any categories of goods and services from the sales tax, with the single exception of health care. We further note that there are some affirmative reasons to include as many categories as possible.

Historically, the sales tax has been applied mostly to goods purchased in person, and as the economy evolves toward more services and more online transactions, it is important to the goals of fairness and sustainability that the tax structure shift with it.

By some measures, Vermont has a fairly narrow sales tax base. If you look just at the number of services Vermont taxes, per Figure 18, you see that Vermont is on the lower end of the spectrum.

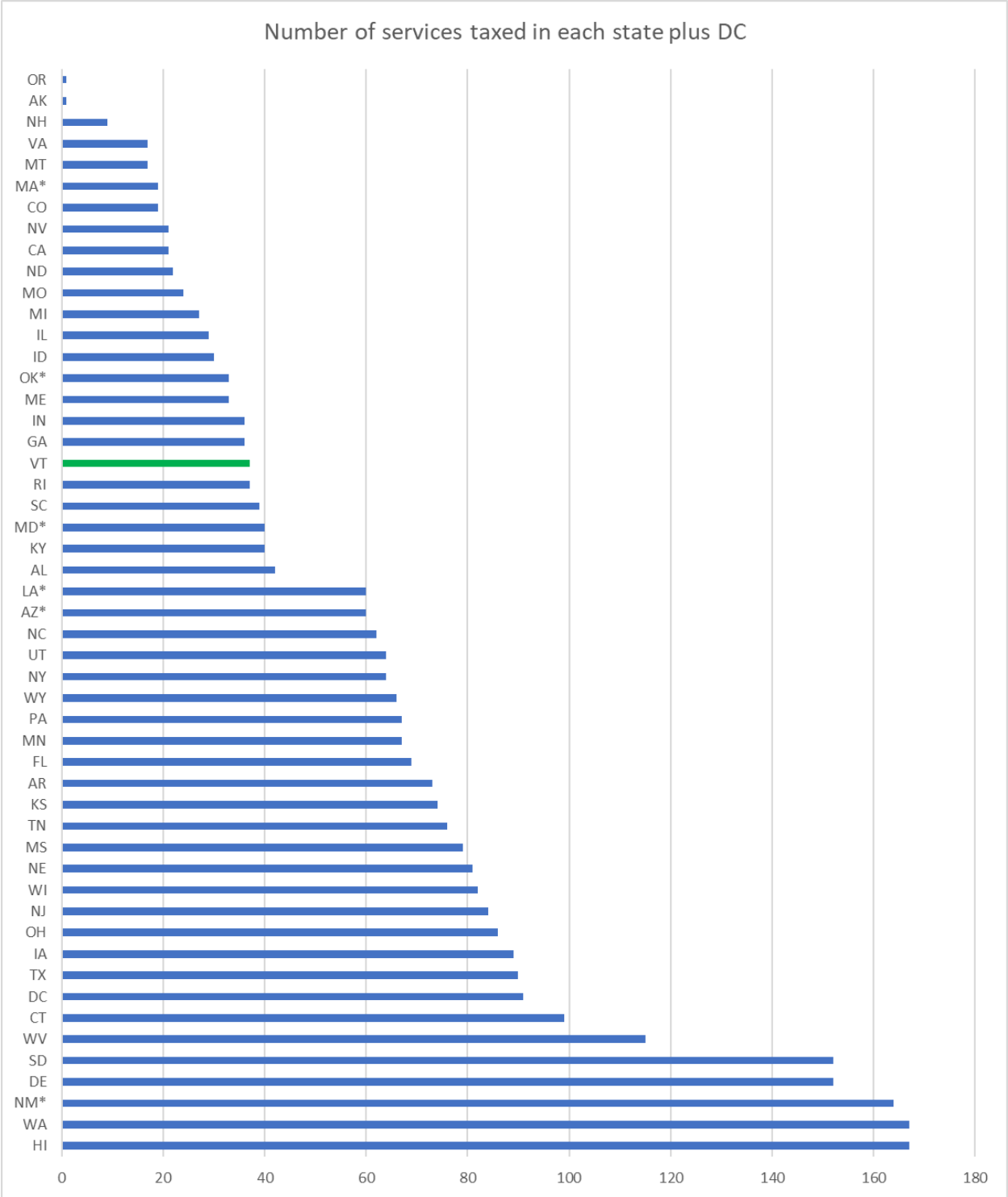

Figure 18 Graph from Sales Tax on Services Study (Feldman, Dooley, & Morgan, Sales Tax on Services Study, 2016). See also Federation of Tax Administrators data in Appendix 7-1.

If you take the same look at New York and New England, per Figure 19, you see that Vermont is middle of the pack.

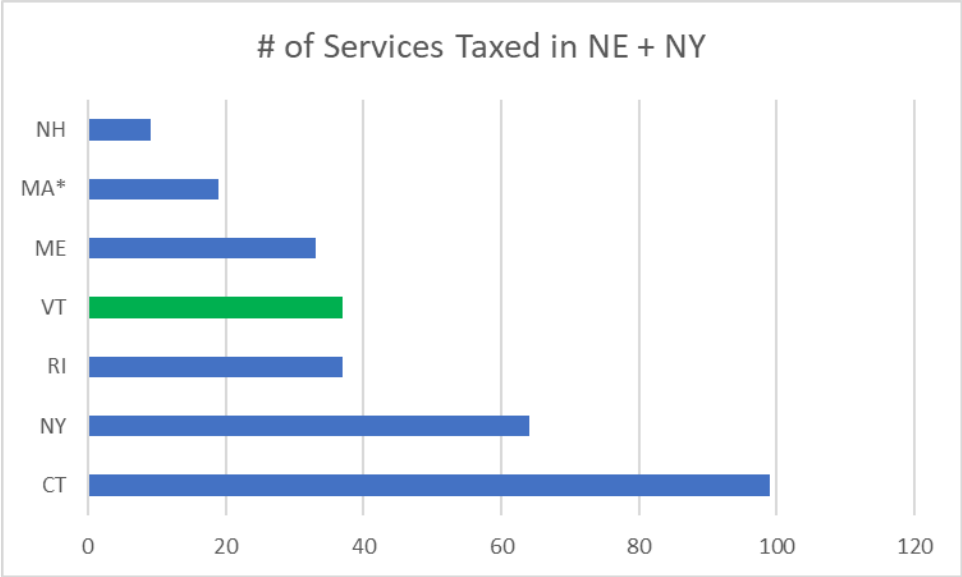

Figure 19 Graph from Sales Tax on Services Study (Feldman, Dooley, & Morgan, Sales Tax on Services Study, 2016). See also Federation of Tax Administrators data in Appendix 7-1.

Among the top five states in terms of tourism as a percentage of the total state economy, shown in Figure 20, Vermont has by far the narrowest sales tax base[12] and collects the least in terms of sales tax as a percentage of total state and local government revenue (Walczak & Cammenga, 2020). (Due to differences in how states define various taxes, these are not perfect comparisons. For instance, Vermont's per capita number does not include the meals and rooms tax.)

[12]The Tax Foundation calculates each state's Sales Tax Breadth based on what percentage of consumer transactions are included.

Vermont: A Tourism-dependent Outlier

Vermont is one of five states in which the Accommodations and Food Services sector accounts for over 4% of Gross State Product. The other four lean on broader sales taxes.

	Accommodation and Food Services		State Sales Tax		State & Local General Sales Tax		
	As % of Gross State Product	National Rank	State Sales Tax Breadth	Breadth Rank	Collections per Capita	Collections Rank	As % of State & Local Tax Collections
Nevada	11.9%	1	54%	4	$ 1,846	4	41%
Hawaii	8.4%	2	105%	1	$ 2,431	2	37%
Vermont	**4.8%**	**3**	**25%**	**42**	**$ 627**	**45**	**10%**
Maine	4.1%	4	44%	8	$ 1,080	27	20%
Florida	4.1%	5	43%	9	$ 1,323	16	36%

Figure 20 Gross State Product from "Regional Data - GDP and Personal Income" (U.S. Bureau of Economic Analysis). Tax comparisons from "Facts and Figures 2020" (Tax Foundation, 2020). For more information, see Progressivity in State Tax Structures: Highlights from National Comparisons (Sheehan, 2020).

Similarly, among the top five states in terms of retail as a percentage of the total state economy, Vermont has by far the narrowest sales tax base and collects the least in terms of sales tax as a percentage of total state and local government revenue.

Vermont: A Retail Trade-dependent Outlier

Vermont is one of five states in which Retail Trade accounts for over 8% of Gross State Product. The other four lean on broader sales taxes.

	Retail Trade		State Sales Tax		State & Local General Sales Tax		
	As % of Gross State Product	National Rank	State Sales Tax Breadth	Breadth Rank	Collections per Capita	Collections Rank	As % of State & Local Tax Collections
Washington	9.0%	1	39%	16	$2,476	1	46%
Maine	8.8%	2	44%	8	$1,080	27	20%
Mississippi	8.7%	3	46%	6	$1,180	20	32%
Idaho	8.3%	4	40%	14	$ 984	33	26%
Vermont	8.2%	5	25%	42	$ 627	45	10%

Figure 21 Gross State Product from "Regional Data - GDP and Personal Income" (U.S. Bureau of Economic Analysis). Tax comparisons from "Facts and Figures 2020" (Tax Foundation, 2020). For more information, see Progressivity in State Tax Structures: Highlights from National Comparisons (Sheehan, 2020).

7. Consumption Tax Reform

Additionally, of the 45 states that have a sales tax, plus the District of Columbia, Vermont is one of only seven states that exempt all three of groceries, clothing, and prescription drugs. Similarly, per the *Vermont 2021 Tax Expenditure Reviews*, "Vermont is only one of seven states to offer preferential sales tax treatment to clothing and one of only three states with a full exemption without price thresholds or different rates" (Campbell, Feldman, & Hicks-Tibbles, 2021, p. 27).

Tax theory suggests that as a general rule, a broad base is better than a narrow base. There are at least three reasons for this:

1. The broader the base, the more stable and sustainable the tax revenue, as any particular category or industry makes up a smaller part of the tax base, and growth or decline in that category or industry has a smaller effect on overall tax revenue, and more chance of being offset by a different industry moving in the opposite direction.
2. A narrow tax base implies judgements and discretionary choices about what should or should not be exempt. Sometimes intentionally, sometimes inadvertently, these choices necessarily advantage some consumers over others, and advantage some businesses and non-profits over others, calling the fairness of these taxes into question, regardless of the nobility of their goals.
3. The broader the base, the more choices policy makers have for the mix of increasing revenue and decreasing tax rates.

The Vermont tax code has some inconsistencies: for instance, Vermont deems transportation a necessity, so the State exempts automobile repair services, but taxes the purchase of automobiles and gasoline. Vermont exempts the purchase of home heating, but taxes the purchase of the home.

With Vermont's sixty or so exemptions from the sales tax, Vermont also has issues of unfairness and complexity. One usually thinks of tax fairness from the point of view of the person paying the tax, and from that point of view, Vermont's patchwork of taxable and non-taxable purchases inadvertently favors people who happen to consume more of the non-taxables and handicaps people who happen to consume more taxables. It is also valuable to look at fairness from the point of view of the people producing the goods: it is unfair to tax the work of people whose labor creates goods, but not to tax the work of people whose labor produces services.

In order to improve Vermonters' lives, the Legislature has to decide on what's good and what's bad, what's necessary and what's not necessary. These are difficult and crucially important decisions. The sales tax is an area in which the Legislature currently devotes a great deal of careful thought to making these decisions: food is a necessity; is soda? Is candy? Clothing is necessary; is a $50 hat? A $500 pair of boots? Taxing clothing above $150, for instance, will cause some consumers to buy the $145 dress they like less, and not get the $154 dress they like more, since the $154 dress with a 6% sales tax becomes $163.25, and somewhat insignificant 6% difference between $145 and $154 becomes a more meaningful 12.6% difference between $145 and $163.24. As noted, with excise taxes the benefit to Vermont seems well worth the work and judgement that goes into choosing products and categories and setting rates. However, given the very small effects on access

and affordability that exclusions from and changes to the sales tax make, the value to Vermonters does not seem worth the time and effort required on the part of the Legislature to contemplate and discuss each of the product and service categories that might come into question.

Vermont's current system also puts state revenue at risk, as the economy can evolve away from taxable categories, like gasoline, and toward untaxed categories, like home electricity used to charge electric cars. While this shift is clearly beneficial for the environment, and therefore to be applauded, it does raise the question of how we pay for roads and other elements of our transportation system.

We note that the Blue Ribbon Tax Structure Commission Recommendations 2A and 2B proposed expanding the sales tax to include "all consumer-purchased services with limited exceptions for certain health and education services and business-to-business service transactions," and all consumer purchases of goods, "retaining only the exemptions for food and prescription drugs" (Blue Ribbon Tax Structure Commission, 2011). As we have seen, we see no compelling reason to exclude consumer purchases of education or food.

Because we find no compelling reason to exempt any form of consumer activity from the Vermont sales tax, with the exception of health care, and in view of the advantages for fairness, simplicity, and sustainability, we recommend that Vermont's sales tax base be expanded to include all consumer purchases of goods and services except health care, and to exclude all business inputs. We note that it is not our recommendation to add a sales tax to categories that are subject to other consumption taxes, like the meals and rooms tax. We also recommend avoiding double taxation: a service like Netflix should not be subject to both a telecom tax and a sales tax.

One last important issue: over a dozen Vermont towns have a local option sales tax of 1%, making the sales tax in those towns 7%. If we reduce the state sales tax to 3.6%, and expand the base, in those towns, the rate will drop from 7% to 4.6%, and goods and services that are not currently subject to the sales tax, like groceries, will be subject to a 4.6% sales tax. We do not believe the additional 1% makes a material difference to our recommendations, but it will require careful analysis to ensure that we are not causing any unintended issues in those towns. The Legislature could look at the process for approving and changing the local options tax.

See Chapter 11 for our recommended implementation plan and timeline.

If Vermont Expands the Tax Base, What Should the Legislature Do With the Money?

When you expand the base, you have to decide how much of the additional revenue you are going to spend, how much you are going to rebate to low-income Vermonters, and how much you are going to put toward lowering the tax rate.

In approximate numbers, if you apply the sales tax to all consumer-level purchases except health care, our Vermont Sales & Provider Tax Calculator (Tax Structure Commission, 2021) estimates:

> 1A. With the current 6% sales tax, making no accommodation to protect low-income Vermonters, you would add around $330 million in sales tax revenue to the current sales tax revenue of $389.3 million.[13]
>
> 1B. With the same assumptions, but rebating to low-income Vermonters the full among collected from them, and assuming a 10% cost to administer the rebate program, a 6% sales tax will raise an additional $235 million.
>
> 2A. If you choose to make this change revenue-neutral, and use the broadening of the tax base to reduce the tax rate, making no accommodation for low-income Vermonters, you can lower the rate to approximately 3.4%.
>
> 2B. In the revenue-neutral scenario, if you hold low-income Vermonters harmless, you can lower the sales tax rate to 3.6%.

We have reviewed the suggestion that a 3.6% sales tax on necessities would not cause any significant harm to low-income Vermonters, due to programs already in place and due to inelasticity of demand. On balance, we believe that ensuring the well-being of all Vermonters is so important that the Legislature should exercise an abundance of caution, and we therefore do not recommend adding a tax to any category without an affirmative way to keep low-income Vermonters whole, as recommended in Chapter 5.

If you expand the sales tax to all consumer purchases, and you ensure that low-income Vermonters will not bear any new financial burden, the last question we examine in this section is how much of the additional revenue Vermont should allocate to new spending, and how much Vermont should allocate to lowering the sales tax rate.

There are significant unmet needs in Vermont toward which additional revenue could be allocated, including adapting our infrastructure for the changes in weather expected from climate change.

There are also significant benefits to a meaningful lowering of the Vermont sales tax rate:

- Vermonters pay a low, uniform sales tax rate, making things more fair for all Vermonters, and reducing the minor distortions in economic behavior created by a higher rate imposed inconsistently.
- Holding low-income Vermonters harmless means they will not bear any increased costs for the things they purchase in the newly taxed categories, and, as with all Vermonters, the tax they pay on things that are currently taxed will go down.
- While Vermont businesses will ultimately benefit from simpler, fairer system that treats every business's output the same, we are aware that for businesses that have never collected or remitted sales tax, the prospect can be daunting. This is

[13] Current sales tax revenue from "Sales and Use Tax Statistics Report - Period Summary by County/Town" (Vermont Department of Taxes, 2020).

particularly true for the many businesses who provide services to consumers and to other businesses, as they will have the burden of keeping their sales to consumers (taxable) separate from their sales to other businesses (not taxable). We note that one of us works at a small manufacturing company that sells both to consumers and to other businesses, and does not have any difficulty in charging sales tax to consumers and exempting sales to businesses. We also note that sales tax compliance software is more readily available now than when Florida and Massachusetts expanded their sales tax bases. We also recall the recent objections to the increased administrative burden raised by local providers to extending the sales tax to software, but note the tens of thousands of businesses in Vermont who currently collect and remit the sales tax without much effort. If the West Wardsboro General Store can comply, one expects that a software company can comply.

- The Vermont government benefits from a more stable and sustainable Vermont tax base, and a simpler tax code that is easier to administer.
- The Vermont economy benefits from an increased competitive advantage on sales tax relative to New York's 4% rate and Massachusetts's 6.25% rate. As with Vermont, localities in both states add a local sales tax to that, so in some cases Vermont's advantage will be even larger. Vermont will also have an advantage compared to every other state with a sales tax except Delaware and Colorado, and a decreased competitive disadvantage relative to New Hampshire and the four other non-sales-tax states.

We therefore recommend that the revenue from expanding Vermont's sales tax base be used first to hold low-income Vermonters harmless, and that most of the remainder be used to lower the sales tax rate, with the smallest part used to fund additional spending. Specifically, we recommend applying a 3.6% sales tax to all consumer purchases of goods and services, excluding only health care, creating mechanisms to make this change neutral for low-income Vermonters, and deploying the additional $15+ million in new revenue first to cover the administrative costs of collecting sales tax from a larger number of entities, and second to tackle some of the current unmet needs and anticipated future needs that we have identified.

As noted elsewhere, we believe this structure will improve simplicity, fairness, and sustainability/stability, regardless of the level of revenue raised, and if the Legislature feels that our recommended balance leans too far toward rate-lowering and not enough toward raising revenue, moving the sales tax to 4% and protecting low-income Vermonters would raise an additional $50 million/year vs. our current system, and would still leave Vermont in the lowest tier of state sales tax rates (at 4%, Vermont would be one of five states with a 4% rate, with only two states with lower rates, and five states with no sales tax).

We would suggest that it is much easier to expand the base to include everything than it is to expand the base to include almost everything. If there is a single exception, there will be pressure from industries/companies/sectors and their lobbyists to give them an exemption as well. Although a sales tax exemption does not encourage any significant amount of

additional activity[14] -- and as we've seen, collecting and remitting the sales tax does not appear to be particularly burdensome for the thousands of businesses large and small in Vermont that do so -- the concerns that businesses and other organizations have are understandable and deserve your attention.

The change we are recommending will make the sales tax more fair, more sustainable, and simpler; it will do no harm to low-income Vermonters; and it will make Vermont's sales tax third-lowest among the 45 sales-tax states, after Delaware (gross receipts tax) and Colorado (2.9% sales tax). We do note these recommendations, along with giving Vermont one of the lowest sales tax rates in the country, will also give Vermont the broadest sales tax base in the country. This is an advantage for all the reasons discussed above; however, it does mean that there are some categories of goods and services that Vermont will include in the sales tax that are taxed in only a very small number of other states.

We heard concern from the public that the expansion of the base is likely to be permanent, but that the lowering of the rates is likely to be temporary, as a small increase in a low, broad sales tax is an attractive source for increased revenue for the Legislature. Our goal was to recommend a structure that is simple, fair, and sustainable regardless of the level of revenue the Legislature decides to raise. Stated another way, a broad tax base is better than a narrow one at any level of sales tax. Whether the rate is 3.6% or 6%, a broad sales tax base is more fair, more stable and sustainable, and simpler than a narrow sales tax base.

We note one final advantage of this approach: legislative efficiency. If you do in fact include all the major categories of consumer transaction (except health care) in the sales tax, you and future legislatures will avoid the perennial and chronic discussion and debate about whether to include or exclude this or that category or industry. Imagine not having to talk about that particular issue for the next, say, ten years.

We leave to the Legislature to determine what constitutes a casual sale that is exempt from the sales tax. There is a line between a one-time yard sale and a weekly flea market, but where a summer-long yard sale falls isn't clear to us. Similarly, there is some level of revenue per year below which any activity feels casual. Someone who makes a few hundred dollars a year giving piano lessons every other weekend to a couple of their neighbor's kids feels as though they are engaged in a more casual activity than someone who devotes a substantial amount of their time teaching piano to enough students to make $20,000/year with that activity.

As a last word on the sales tax, we recommend excluding from the sales tax all business inputs, including some that are currently taxed, including what the North American Industry Classification System (NAICS) labels commercial art and graphic design; sign construction and installation; rental of hand tools to licensed contractors; and bulldozers, draglines and construction machinery. These services are listed in Part C of Appendix 7-1.

[14] As noted above, sales increase in the month or so before a sales tax is imposed or raised and decrease for a couple of months after before returning to their pre-increase level, and presumably the same phenomenon occurs in reverse when one lowers or eliminates a sales tax.

Meals Tax

There are currently eight exemptions to Vermont's meals tax. The State taxes restaurant meals, and we are proposing to tax groceries, but the notion of an additional tax on meals prepared at home is almost nonsensical, and four of the eight exemptions to the meals tax exist simply to avoid taxing meals prepared at a person's "home," even if it's a temporary home, including retirement communities, summer camps, hospitals, convalescent and nursing homes, and schools. We support these exemptions.

Two of the remaining four exemptions to the meals tax exist to allow non-profits to use as much of the money they raise from selling meals as possible toward their mission, whether they sell the meals on their premises or at fairs/picnics etc. The statute specifically requires 100% of the income from selling these meals to be used for the non-profit's mission. We support these exemptions as well.

The seventh exemption to the meals tax is for meals provided to people who work in restaurants and hotels during their shift. The total dollar value of this benefit is relatively small, the hassle of keeping track of the value of the meals consumed by staff when they're working is high, and the value of the benefit to relatively low-wage workers is high, so we do not see any justification for ending this exemption, and support its continuation.

The final exemption from the meals tax is for grocery-type items furnished for take-out, including "whole pies, cakes, and loaves of bread, single-serving baker items sold in quantities of three or more, deli and candy sales by weight, whole uncooked pizzas, and larger containers of ice cream, salad dressing, sauces, cider, or milk" (Feldman, Schickner, Stein, Campbell, & Dickerson, 2019). Since we are recommending that the sales tax be extended to groceries, we recommend repealing this exemption and reclassifying these items as groceries and including them in the 3.6% sales tax.

Rooms Tax

Vermont's rooms tax is intended to tax the act of staying somewhere temporarily for fun or for work. It is not intended to tax anyone's long-term accommodation. Of the six exemptions to the rooms tax, four are designed to avoid taxing people's residences: those exemptions are for rooms at a retirement community; in a hospital, sanatorium, convalescent home, nursing home, or assisted living facility; student housing; and summer camp accommodations. We support continuing these exemptions.

The fifth exemption to the rooms tax is for rooms rented on the premises of a non-profit. As with the exemption to the meals tax, the purpose of this exemption is to allow the non-profit to further their public-service mission. While data is not available on how much money this is, it is hard to imagine it is a meaningful amount of money, and we support continuing this exemption

The final exemption to the rooms tax is rooms provided employees of hotels and restaurants

as part of their jobs. The value of housing provided as part of employment is reported as part of the employee's income, so we support maintaining this exemption from the rooms tax.

Excise Taxes

This Commission took no testimony on excise taxes, and as noted, we believe they are generally working as intended, and are applied to appropriate categories at appropriate rates.

As discussed further below in the sections on long-term structural changes to our economy, climate, and society, we expect that over the next 20 years, gasoline use will drop dramatically. We note that California has just passed a law banning the sale of new gas-powered passenger cars as of 2035, following in the footsteps of several European countries with similar legislation. We also observe more and more electric cars on Vermont's roads, and expect that the newly formed Vermont Climate Council will work to accelerate the transition to clean transportation, whether or not Vermont joins the regional Transportation Climate Initiative. This is a great step forward for the fight against climate change, and a step forward for the environment in general as well as new industries and new jobs.

The other side of the coin is the fact that our roads, which are the backbone of our transportation infrastructure, are supported by gasoline and motor fuels taxes. This change in technology affects both private passenger vehicles, public transportation vehicles, and public safety vehicles. Further, as a result of the pandemic, we are seeing less driving, which is also resulting in lower taxes collected from this source.

Over time, this source of revenue for the Transportation Fund is likely to erode gradually then suddenly. There are also issues of fairness – right now, people driving gas-powered cars are paying for the roads that people driving electric cars are using for free.

We fully support the transition to zero-emissions vehicles, and one of us has driven an electric car for over two years. We have been deliberate in thinking through the implications of this transition for Vermont and Vermont's ability to pay for its transportation system as fewer and fewer people use gasoline and pay gas taxes. Vermont is not alone in trying to figure out how to manage tax revenue through this transition. Per recent research conducted by the National Council of State Legislatures, "twenty-eight states have laws requiring a special registration fee for plug-in electric vehicles" (Hartman & Shields, 2020). These fees range from $50 in Colorado and Hawai'i to $212.78 in Georgia.

That same article notes that in addition to special registration fees, over a dozen states are considering road user charges, also known as *vehicle miles traveled fees* or *mileage-based user fees*. Instead of collecting gas taxes, these programs aim to charge drivers based on how many miles they drove. We can imagine a time when the technology will allow for even greater precision, and the State will be able to charge vehicle owners for the pound-miles they travelled, capturing the wear on the roads of both the distance the vehicle traveled and its weight.

At the moment, however, based on ease of implementation, we recommend a special annual fee for electric vehicles, to be set based on what the average Vermonter pays in state gasoline taxes in a year.

Conclusion

We are aware that implementing these recommendations will require a great deal of work on the part of the Legislature, the Vermont Department of Taxes, the Legislative Joint Fiscal Office, and others in state government. These recommendations will also require quite a bit of work on the part of the affected businesses and other organizations. Some of them will also raise concerns with you, as they have with us.

The main objections they will raise are:

1) *The sales tax is already regressive and expanding it to necessities like groceries will make it more regressive.* We note that we recommend expanding the sales tax base only AFTER you have restructured the support system for low-income Vermonters to ensure they are not harmed by these changes.

2) *Applying the sales tax to things like education will make it less affordable at a time when there's already an affordability crisis in higher education.* We note that exempting education from the sales tax has not made education readily accessible, and a 3.6% sales tax will not be the difference between affordable and unaffordable. On a $40,000 college tuition bill, 3.6% is $1440. Grants of $10,000 or $20,000, or very low-interest, long-term loans, are a more meaningful way to make education more affordable.

3) *Some of them will be concerned about the administrative burden of collecting and remitting the sales tax,* although as noted, every corner store in the state has figured out what products to charge sales tax on and which are exempt, and in many cases who should pay the sales tax and who is exempt.

We hope these recommendations regarding Vermont's consumption taxes will further the goals of making both Vermont's consumption taxes and Vermont's overall tax system fairer, simpler, and more sustainable over the next 20 years, and we believe the benefits for Vermonters and for Vermont are worth the effort.

8. Health Care, Provider Taxes, the Insurance Premium Tax, and Health Insurance Claims Assessments

Vermonters use a variety of health care services and goods:

- Visits (in person or via telemedicine) to the doctor's office, the dentist, the psychotherapist, the chiropractor, etc.
- Ambulatory surgical centers and *outpatient hospital services.*
- *Stays at hospitals and nursing homes*
- *Intermediate care facility, home health,* and nursing services
- Services of managed care organizations
- Lab and x-ray services
- *Emergency ambulance services*
- *Prescription* and non-prescription medications
- Prescription and non-prescription medical devices

We generally think of health care as exempt from taxes, but in fact all the categories above in *green italics* are already subject to something like a sales tax in Vermont via the provider tax. Further, all health care services listed above which are covered by private insurance are taxed. Every time an insurance company receives a premium payment from a Vermonter, the insurance company pays a 2% tax on that revenue, and every time a Vermont provider submits a valid claim, the insurance company pays a claims assessment of 0.999% on that claim. These two taxes on insurance companies get factored into the premiums that Vermonters pay.

The provider tax is imposed on most categories as a net patient revenue tax, which is a gross receipts tax minus contractual discounts/refunds that providers give to payers; charity care; and bad debt. This makes provider taxes functionally similar to a gross receipts tax, which outside of health care is roughly similar to a sales tax, as a gross receipts tax on a business gets passed on to consumers via higher prices.

Health care makes up about 18.8% of Vermont's total economic activity (Perry, 2020), and about a third of Vermont's consumer activity, so although health care is not amenable to the sales tax, any analysis of consumption taxes in Vermont that ignores health care is incomplete. We therefore include the provider taxes in parallel with our analysis of consumption taxes, and note that every state except Alaska imposes provider taxes.

The provider tax has a unique feature in that Vermont and other states use revenue from the provider tax to help pay for Medicaid, and those provider tax dollars spent on Medicaid trigger the release of matching (at various rates) federal Medicaid dollars to the State. "Beyond Medicaid, states have the policy option to tax most types of providers and services and to designate or earmark the revenue for any state purpose" (National Conference of State Legislatures, 2017).

As noted above, outside of health care, a gross receipts tax gets passed on to consumers via higher prices. In health care, however, there are a variety of ways that providers support the expense of the tax: some providers can charge patients more and some cannot; some providers can charge insurance companies more, and some cannot. The options available to hospitals are different from those available to independent practitioners.

We note also that as it now stands, the provider tax in Vermont is not levied at all on some categories of health care, and it is levied at different rates (between 3.3% and 6%) on the various categories on which it is levied. On prescriptions, it is not levied at a rate at all, but at a fixed dollar amount of ten cents per prescription, which on average ends up being about 0.15%. All of this inconsistency adds complexity. It probably also reduces fairness, although again, health care pricing and net revenue are affected by so many factors that the underlying "sales" numbers are inconsistent to begin with. Further, the partial application of the provider tax to health care reduces stability of the tax revenue and increases rates compared to a system in which the provider tax was applied equally to all health care providers.

As noted above, there are four possible reasons that part of health care is exempt from the tax in Vermont: to protect low-income Vermonters; to promote health care; because it's seen as too complicated; and because it's always been exempt. We will now examine the first three of those reasons as they apply to expanding the provider tax.

Do the Current Categorical Exemptions From the Provider Tax Increase Vermonters', and Particularly Low-Income Vermonters', Access to Health Care?

As far as maintaining the partial provider tax exemption to expand access to health care as a community good, RAND analysis of the available data suggests that the price elasticity of demand for health care is -.17 (Ringel, Hosek, Vollaard, & Mahnovski, 2005), which is to say, demand is very inelastic. This is even more true for low-income households who receive health care through federal and state programs, since Medicaid, state programs, and the Affordable Care Act (ACA) provide them with lower levels of cost-sharing, and "studies consistently find lower levels of demand elasticity at lower levels of cost-sharing" (Ringel, Hosek, Vollaard, & Mahnovski, 2005). This is in addition to health care's particular distortions of purchasing decision, described on pages 61-62 above.

This means that an approximately 5.2% provider tax on those categories of health care goods and services that are currently exempt, even if it were passed on entirely to the consumer, would result in a reduction of health care utilization in those categories of less than six tenths of one percent. If you harmonize the provider tax rates across all provider classes, the increase in the tax in half the health care areas will be partially offset by decreases in the tax in some of the other areas.

Are There Undue Complexities in Extending the Provider Tax to All Provider Categories?

One of the main complexities in the United States' health care system is just how many parties are involved in paying for Vermonters' health care:

- The federal government through Medicaid, Medicare, TRICARE, subsidies provided by the ACA, and the federal government's portion of federal employees' health care expenses.
- Individuals and families with private insurance, through premiums, deductibles, co-pays, co-insurance, and payments for non-covered medical expenses.
- Employers that provide health insurance to their employees and their employees' families, through premiums and contributions to Health Savings Accounts and other mechanisms for reimbursing employee out-of-pocket expenses, or through direct payments of claims.
- Private insurance companies, through their portion of patient expenses.
- The state government through the state portion of Medicaid; state programs to assist low-income Vermonters with health care costs; and the state portion of state employees' health care expenses.
- Local governments, including local school systems through the local governments' part of insurance premiums and out-of-pocket health care costs for town employees and teachers and other school system employees.
- Hospitals, which pay for all or part of the care for several groups of patients: emergency care patients, regardless of ability to pay; Medicaid patients, for which the hospitals are reimbursed only part of the cost of care; and patients who simply don't pay their bills. To offset the costs of that portion of services for which the hospital doesn't get paid, hospitals are forced to increase charges to private insurance companies. To cover those increases, private insurance companies do two things: increase the premiums that organizations and individuals pay; and reduce coverage by increasing patients' out-of-pocket expenses.

Vermont health care providers and legislators have done a great deal of work over the years on expanding the provider tax, including investigations into including some of the categories that are currently outside the provider tax system. We have studied the Vermont Health Care-related Tax Study Report (Pacific Health Policy Group, 2012). We acknowledge the barriers that exist now or existed in the past, including reporting and administrative barriers and resistance from particular provider categories. We note the fact that many providers, like dental practices, do not routinely produce annual financial statements, and that there would be some cost to each practice to begin to track the inputs to the Net Patient Revenue calculation. This issue also affects independent physician practices, chiropractors, and other practitioners whose finances are not currently regulated by the State. It is also true that to administer, monitor, and collect provider taxes from these health care sectors will require resources and potentially new regulatory authority for some state entity. We do not see any of the concerns, costs, or hurdles as outweighing the benefits to fairness, sustainability, and simplicity that expanding the provider tax to all or almost all categories of providers will create.

The one category that we do not make a recommendation on is prescriptions. We were not able to answer to our own satisfaction the questions around the current unique treatment of prescriptions under the provider tax, and cannot recommend a change to something we do not fully understand.

We are sensitive to the concerns that imposing a provider tax on physicians' practices and on dental practices may make it harder to attract young physicians and dentists to Vermont, and the consequent concern that fewer doctors and dentists practicing in the state will in fact be a significant barrier to access.

However, we note that there is a decline in primary care physicians and dentists now, and since they are currently not included in the provider tax, there are clearly other causes of this decline. We recommend that the Legislature identify those causes and address them. We also note that the imposition of the provider tax has not led to a decrease in providers in those categories in which it has been imposed.

Another factor is the relative number of Medicaid patients that each category of provider treats. Generally, the imposition of a provider tax on a category is combined with an increase in the Medicaid reimbursement rate. This benefits categories with higher numbers of Medicaid patients, while those with lower Medicaid patient populations pay the provider tax but see a smaller offset from increased Medicaid reimbursement rates.

The recent cases of dentists and emergency ambulance service providers gives us an illustrative contrast. The Legislature studied the prospect of extending the provider tax to dental practices. That effort foundered on three snags: first, dental practices don't typically produce audited financial statements, so calculating and monitoring Net Patient Revenue would be difficult; second, many dental practices have few or no Medicaid patients, so increased Medicaid reimbursement rates are of limited value to them; and finally, dentists can support well-organized and well-funded lobbying campaigns.

On the other hand, the effort to extend the provider tax to emergency ambulance services was successful, and indeed had the support of emergency ambulance service providers. Like the dentists, the ambulance services did not typically produce audited financials. Unlike the dentists, the ambulance services all serve a meaningful number of Medicaid patients. By applying a provider tax to emergency ambulance services, the State was able to increase the Medicaid reimbursement rate, and the ambulance services ended up with more revenue.

As increasing Medicaid reimbursements is not a great benefit to those providers who don't treat Medicaid patients, a different approach to securing provider support may be 1) to decide at the outset that all provider classes will be included, so there is no in-or-out decision to be made, and no reason for a provider class to lobby to be in the "out" group; 2) to provide hard numbers in terms of what the inclusion of all provider classes means for how low the provider tax rate will be.

As the example of the emergency ambulance service providers shows, implementing adequate financial record-keeping and reporting is not unduly difficult or expensive.

Hawai'i's excise tax on health care services applies to doctors and dentists and includes amounts received from patients and health insurance companies, and Michigan specifically taxes medical services when provided by Medicaid managed care organizations (Dumler, n.d.).

Since we believe the provider tax can be extended to the provider categories that are presently exempt without harming low-income Vermonters, and without limiting Vermonters' access to health care, and without undue complexity, and since we see meaningful benefits for Vermonters in terms of a lower and consistent provider tax rate, and a simpler and more fair tax system, and since we see benefits to the state government in terms of a more stable and sustainable revenue stream and a simpler tax code, we recommend replacing Vermont's partial and inconsistent provider tax with a consistent provider tax on all providers of consumer health care, and using the revenue from the expanded provider tax to lower and harmonize provider tax rates. The only provider class we make no recommendation on prescriptions, which we would leave as they are.

As a 2012 report prepared for the Department of Vermont Health Access noted:

> *The actual calculation methodology is different for each of the existing assessments, reflecting the State's long-standing value of working collaboratively with the relevant provider classes to implement the assessments in a manner that is acceptable and transparent for the providers, while also being administratively streamlined for both providers and the State* (Pacific Health Policy Group, 2012, p. 32).

We hope that spirit of cooperation between the providers and the State can continue.

That 2012 study also notes (pp 6 & 7) that when extending the provider tax to new categories of provider, there are several important implementation tasks, including:

- Policy development – defining the classes, conferring with the Centers for Medicare & Medicaid Services (CMS), etc.
- Potential impact on Section 1115 Waivers
- Administration – updating taxpayer lists, collecting data, collecting the tax
- Staffing – ensuring sufficient resources at the responsible state entity to administer the program

We expect that Vermont will continue to use the provider tax to fund the portion of Medicaid currently funded with the provider tax, and that will trigger the release of the same federal dollars to Vermont. We rely on the current mechanisms for protecting low-income Vermonters from unaffordable health care costs to continue to do so with the categories of health care that will be newly subject to the provider tax. We also refer back to our primary recommendation in Chapter 5 regarding low-income Vermonters and the tax code.

Therefore, for reasons of fairness, simplicity, and sustainability, we recommend expanding the provider tax to include those categories of providers not already covered. We further

recommend harmonizing the provider tax rates across all categories of providers, with the one exception of prescriptions, which we would leave as is.

We estimate that about $2.4 billion of Vermont health care expenditures are not currently subject to the provider tax (Perry, 2020). Extending an approximately 5.2% provider tax to this activity would generate about $80 million, of which about $6.5 million would come from low-income Vermonters.[15] However, revenue from the provider tax on hospitals and nursing homes would drop as the rate goes down from 6% to approximately 5.2%, partially offsetting these gains.

Per best practice, we recommend consultation with CMS before any changes to taxation and assessments on health care.

We also note that any large-scale reforms to health care, up to and including moving to a single-payer system, have the potential to drastically change any current or future health care taxes.

There is one more topic on the subject of taxing health care in Vermont. Vermont imposes an insurance premium tax of 2%, paid by the insurance companies on the premiums they collect, and a claims assessment of 0.999% on every claim that is submitted to a private insurance company.

Hospitals build their budgets based on all their expected expenses and all their expected sources of revenue. They set the rates they charge commercial insurers based on the portion of their budget the hospital hopes to cover with commercial insurance revenue. Insurance companies set their premiums so as to cover the bills from the hospital and other providers, and the claims assessment, and the insurance premium tax. This means those taxes get paid by a number of payers:

- For consumers with individual insurance:
    - For consumers who qualify for the ACA's federal and state premium tax credits, the consumer pays for part of those taxes through their premiums, and the federal and state taxpayers pay for the rest through their taxes.
    - For consumers who do not qualify for those tax credits, the consumer pays for the premium tax and the claims assessment through their premiums.
- For consumers who get their insurance through their employer, the consumer and the employer together pay the premium tax and the claims assessment through their premiums.
- The employees of self-insured companies don't pay the premium tax, but they do pay the claims assessment.

There is a small problem here with paying taxes on taxes – since the premium includes money for the claims assessment, taxing the premium in effect is taxing both the money the insurance company collects for its operations and profit, and the money it collects to pass on to the State in claims assessments. This could be solved by allowing insurance companies to

[15] Calculation based on data from *2018 Consumer Expenditure Survey* (U.S. Bureau of Labor Statistics, 2020) and "State Health Facts - Distribution of Total Population By Federal Poverty Level" (KFF, 2019)

deduct the amount they pay in claims assessments from the amount they collect in premiums before they calculate their insurance premium tax.

9. Income Tax Reform

Personal Income Tax

Throughout the history of Vermont taxation, income taxes have proven to be the best indicator of a person's ability to pay. Paul Gillies mentions this in his paper "The Evolution of the Vermont State Tax System" published by the Vermont Historical Society (Gillies, 1997). Personal income tax is the largest General Fund source of revenue in Vermont, accounting for 56-59% of those funds. It is also the largest "income tax" source of revenue in Vermont.

Personal income tax revenue tends to be more resilient to the aging population effect in Vermont compared to other states, partially due to Vermont's treatment of income items as taxable which closely follows the federal treatment.

The Commission studied the use of income as a means to fund education, replacing the homestead property tax with an income tax. The challenge is the tax rate needed to fund education added to the already existing income tax rates. Currently, Vermont's highest tax rate is 8.75%. If a rate of 2.5% was needed to fund education without using any property tax, the highest rate would now be 11.25%, a double-digit tax rate. Vermont cannot control the publishing of state income tax rates and comparisons. This double-digit rate could put Vermont at a competitive disadvantage when trying to attract people to move to Vermont. Presently many taxpayers pay their education funding tax based on income, but because it is a property-based tax with an alternative income-based calculation, the income tax rates published do not reflect these property taxes even though they are based on income and not property value. Raising revenue to pay for education based on income should not be called an income tax, rather it should retain its character as an education tax and be a separate and distinct tax, stated as a separate payroll deduction and also a separate item on estimated tax payments and tax returns filed.

The Commission solicited comments and the option to give testimony from a list of stakeholders regarding the tax system as it stands now, what parts of the system are troubling and suggestions from these stakeholders on improvements. Stakeholders include members of the business community, certified public accountants, the Vermont and Lake Champlain Chambers of Commerce, and many other groups.

The Commission received only one item of public comment regarding the personal income tax. That comment related to the medical expense deduction which the Legislature addressed in its 2019 session.

In 2018, 372,821 tax returns were filed. Of those, 207,166 returns, which represents 56% of returns filed, showed adjusted gross income (AGI) of less than $60,000. Of all returns filed, 80,901 were filed showing no tax which is 22% of all returns filed. An earned income credit was claimed on 39,625 returns, which represents 11% of all returns filed. For those reporting AGI of $150,000 or greater, 24,916 returns were filed which is 6.7% of all returns.

According to *The Vermont Tax Study*, personal income tax accounted for 86% of total **income** taxes collected in 2015 (Teachout, Manchester, & Wexler, 2017). This percentage stayed the same in Legislative Economist Tom Kavet's report dated August 2, 2019. For FY 2018, the percentage increased to 89.7%. For FY 2018, personal income tax was 41% of total General Fund revenues. In FY 2020, this tax is forecast to be 40.8% of General Fund sources by Tom Kavet in this same report.

The legislative change made to use federal adjusted gross income as the taxable starting point makes it easier to compare Vermont to other states because that is the most common tax base used by states as a starting point for taxable income. The Legislature retained personal exemptions as well as a standard deduction for all taxpayers. This system allows personal exemptions across all four filing statuses, contributing to the "fairness" goal of our personal tax structure. The legislation retained a credit up to $1,000 for voluntary charitable contributions and a modified medical expense deduction which was added to give residents with high medical expenses, the primary population being older residents, the "fairness" our system strives to achieve. It does not, however, allow a deduction for fees to long-term care facilities.

There are four filing statuses with rates ranging from 3.35% to 8.75%, with the highest rate starting at $200,200 of taxable income for single individuals, $121,875 for married filing separately, $243,750 for married filing jointly and $221,950 for head of household.

In 2018, although the top tax bracket rate was 8.75%, the average rate, which takes into account the personal income tax of Vermont residents divided by their Vermont taxable income, was 5.2% (before credits). The average rate is substantially lower than the top rate because many residents do not reach the higher brackets, and, for those who do, the highest rate applies to only a portion of their income. For example, a person whose Vermont taxable income is $300,000 and is married filing jointly would have a total Vermont tax of $ 19,698. The average tax rate in this case would be 6.6%, even though each dollar of taxable income over $243,750 is taxed at 8.75%.

The Vermont Tax Study also concluded that the upper 5% of taxpayers paid 48% of the individual income tax in 2015. This also supports other research done that shows the majority of the Vermont population is in the lower income cohorts. A higher effective tax rate would imply more taxpayers in the upper income cohorts. It is important to note that pass-through entity business income is part of the personal income tax revenue stream because, although the income may be generated from business activities, it is reported as personal income because it passes through to the individual owners.

The Vermont Tax Study also looked at income tax expenditures by value. A tax expenditure is a tax deduction or credit that is available to decrease taxable income in the case of a deduction or exemption, or the actual tax itself, in the case of a tax credit. These expenditures are used to aid certain individuals or to incentivize certain behavior. According to the study, in 2015 the earned income tax credit accounted for 49% of Vermont income tax expenditures, the 40% capital gains exclusion accounted for 18%, the flat $5,000 capital gain exemption accounted for 13%, the exclusion of income from Vermont Municipal Bond interest accounted for 5% and all others accounted for 15% (Teachout, Manchester, & Wexler, 2017). The Legislature has reduced the 40% capital gain exclusion by placing a

ceiling on the amount of gain that is subject to the exclusion which will bring down the cost to Vermont of this tax expenditure.

Recommendations of This Commission:

The Commission has few recommendations regarding the personal income tax. The Legislature restructured the personal income tax within the last three years which incorporated the shift in the tax base from federal taxable income to federal adjusted gross income but retained the standard deduction and personal exemptions, added a tax credit for charitable contributions with a maximum credit of $1,000 and a formula-based medical expense deduction. This was a major change to Vermont's personal income tax. These changes were recommended by the Blue Ribbon Tax Structure Commission (BRTSC) in their final report (2011).

Recommendations made by the BRTSC that were not adopted by the Legislature were:

- Implement a lower, flatter rate and bracket structure
- Implement a residential credit as a transparent alternative to deductions
- Evaluate all remaining personal income tax expenditures for removal
- Reduce the number of filing statuses from four to two, single and joint

In response to the first bullet point, the Legislature did reduce all brackets by .2% and reduced the number of tax brackets from five to four (Tax Structure Commission, 2019).

In response to the second bullet point, the Legislature left in the standard deduction (Tax Structure Commission, 2019).

Vermont has one of the most progressive personal income tax structures in the country. As this is one of the goals of a fair tax system, this Commission has minor recommendations to change the structure.

The Commission discussed a wealth tax in the spirit of progressivity. Many states have studied some form of wealth tax but have found that it is extremely difficult to administer and very subjective when it comes to valuation of assets that are not publicly traded or available. Florida had a form of wealth tax which it eliminated a few years ago because of its complexity in administration. The Commission has not studied in-depth and is not recommending a wealth tax at this time although many European countries have a form of wealth tax and some states are exploring some form of wealth tax.

- Continue to promote the remote workers living in Vermont and provide the things needed for remote work such as high-speed broadband and expanded cell phone service. This will increase the taxpayer base in the state, providing additional personal income tax revenue and future stability to the personal income tax. It is also a climate conscious approach to increasing the population and tax base of the state which minimizes the amount of motor vehicle traffic and helps to minimize our carbon footprint.

- Continue to review tax expenditures to ensure these expenditures are accomplishing the purpose for which they were intended, including those highlighted in *Vermont 2021 Tax Expenditure Reviews* (Campbell, Feldman, & Hicks-Tibbles, 2021). The previous report showed some expenditures that remained at zero for FY 2016 and 2017 and were projected to also be zero in FY 2020 (Feldman, Schickner, Stein, Campbell, & Dickerson, 2019). Such expenditures should be looked at more closely to see if they are obsolete and should be repealed, or if changes need to be made to modernize them.

Income Taxation related to Pass-through Entities

The taxation of Pass-through Entities (PEs), although more of a business income tax, generally falls under the personal income tax structure due to its pass-through nature. Nationwide, as well as in Vermont, most small businesses are organized as some form of pass-through entity, which passes taxable income and loss to its owners to be reported on the owner's personal income return. Therefore, this income, although business related, is recorded as personal income and not business income. It is important to understand that Vermont income tax is either individual or corporate, not individual and business.

The Commission solicited testimony from various stakeholders as previously mentioned but received no public testimony regarding PEs.

The Commission prepared a backgrounder on "Taxation of Pass-through Entities: Nonresident Withholding" (Mesner, Taxation of Pass-Through Entities: Nonresident Withholding, 2019). As with the rest of the country, the growth in the pass-through entity as a choice of business entity for taxation has grown in popularity over the years.

	2009	2010	2011	2012	2013	2014	2015	2016	2017
C Corp (1120)	10,436	10,386	10,285	10,121	9,798	9,738	9,777	9,637	9,559
S Corp (1120S)	14,649	14,620	14,213	14,208	14,233	14,331	14,608	14,568	14,468
Partnership (1065)	9,384	9,406	9,864	9,778	9,899	10,188	10,737	10,989	11,327

Figure 22 Table from "Taxation of Pass-Through Entities: Nonresident Withholding" (Mesner, Taxation of Pass-Through Entities: Nonresident Withholding, 2019)

Most limited liability companies (LLCs) are taxed as partnerships, and limited liability partnerships (LLPs) are taxed also as partnerships. The main difference is that an LLC can elect to be taxed as either a) a flow-through entity (partnership) if it has more than one member, b) a Disregarded Entity (DRE) if it is single member, c) a C corporation subject to the corporate income tax, or d) an S corporation which is taxed as a PE. An LLP is almost always taxed as a PE. The other main difference is that an LLC member has limited

liability whether part of management or not, and an LLP has general and limited partners. A general partner does not have limited liability protection and a limited partner cannot participate in management. Figure 22 above illustrates the shift from C corporations which are taxed at the entity level, to pass-through entities, which are taxed at the individual level. This trend accounts for the decrease in the percentage of total tax revenue that the corporate tax has exhibited.

The challenge in the tax collection from pass-through entities is not with entities that are owned by Vermont residents, rather with those that are owned by nonresidents. Vermont presently has two ways to collect the tax from these nonresidents at the entity level. The first is mandatory nonresident withholding required by the entity for entities with 50 or fewer nonresident shareholders, partners or members. PEs with more than 50 nonresident shareholders, partners or members are required to file a composite return, and business entities with fewer than 50 nonresident shareholders, partners or members may elect to file a composite return. The difference between nonresident withholding and composite filing is that owners who are included in a composite return are relieved of the obligation to file their own income tax return, provided there is no other income or activity that creates a requirement to file in Vermont.

In 2017, the Vermont Department of Taxes initiated a Program to Improve Vermont Outcomes Together (PIVOT) project to study how it processes nonresident withholding. The Department has since implemented all recommended changes.

The nonresident withholding is a very important part of the individual income tax collection structure. Although it places some administration on the pass-through entity itself, it is necessary to ensure collection of the tax from nonresident owners as well as parity with resident owners who are required to pay estimated taxes.

As a result of changes in federal tax law in the Tax Cuts and Jobs Act of 2017, the federal itemized deduction for state and local income, real property and other deductible taxes for individuals is capped at $10,000. This has led a handful of states to institute a tax at the entity level which is deductible on the entity-level federal return, some mandatory and some elective. The IRS has now ruled that these entity-level tax structures will be respected.

Recommendations of This Commission:

- Study the effect on Vermont PEs of an entity-level tax for the reasons stated above to replace the present system of nonresident withholding and composite return filing. The Commission considers this study to be a long-term recommendation and not one that should be rushed in pursuit of short-term benefits, such as a workaround for the $10,000 state and local tax deduction cap.
- Consider mandatory composite filing for all PEs with nonresident members. Continue to allow the individual nonresidents to file a Vermont return and take a credit for their share of the taxes paid.

Estate Tax

Vermont is one of only twelve states that has an estate tax. Six other states have an inheritance tax. Among the states in Vermont's geographic region, i.e. New York and New England, only New Hampshire does not have an estate tax. According to *The Vermont Tax Study*, from FY 2005 to 2015, the inflation-adjusted (2015$) average annual estate tax revenue was $22.3 million, with a high of over $35 million in 2011 and a low of less than $10 million in 2015 (Teachout, Manchester, & Wexler, 2017, p. 32). By its nature, the estate tax is not a predictable and stable source of tax revenue as evidenced by large annual swings in actual tax collected.

In FY 2020, the estate tax was forecast to be 2% of General Fund sources and 1% of total revenue sources.

The Commission solicited public testimony from stakeholders but received no public comments or public testimony regarding the estate tax.

Vermont's estate tax is assessed based on taxable estate before exemption, less a $5,000,000 exemption, with a flat tax rate of 16% on taxable income after applying the exemption.

The Legislature has overhauled the estate tax over the last four years. Vermont is now in line both in rate and exemption amount with our neighboring states. For these reasons, the Commission did not study the estate tax in great depth.

The Commission discussed inheritance taxes as compared to the estate tax. The difference between the two taxes is as follows:

- The estate tax is assessed against the decedent's estate based on the fair market value of the decedent's taxable estate less the Vermont exclusion.
- An inheritance tax is assessed against the person receiving the inheritance, subject to certain exclusions depending on the relationship to the decedent.

The estate tax is assessed against the estates of both Vermont residents and nonresidents who own property in Vermont. This effectively taxes the wealth transfer of assets located in Vermont, either by physical location or ownership by a Vermont resident. The decedent's property that is included in their estate receives what is known as a *step-up in basis* to the fair market value of the property at the date of death. This stepped-up basis becomes the new basis for the beneficiaries of the estate. There is a perceived fairness to the step-up because the decedent typically acquired those assets with funds that had already been subject to the income tax. However, it is also true that this results in the appreciation escaping taxation, unless the estate is subject to the Vermont estate tax. Elimination of the basis step-up would subject the asset to both the estate tax and personal income tax when the property is disposed of by the beneficiary of the estate.

An inheritance tax would be paid by residents of Vermont who are beneficiaries of an estate, the estate being a resident or nonresident of Vermont makes no difference. An inheritance tax coupled with the estate tax has the potential to tax the same assets twice.

Also, an inheritance tax would be much harder to enforce than the estate tax, since death is a matter of public record whereas an inheritance from a nonresident would need another layer of individual reporting which adds complexity to the system.

Recommendations of This Commission:

1. Continue to monitor what our neighboring states are doing relative to the estate tax and also recommendations of the Multistate Tax Commission and the federal estate tax legislation. Although the Vermont estate tax has completely decoupled from federal, it is important to make sure the Vermont exemption is not greater than the federal exemption since the Vermont exemption is set and not scheduled to change with any changes in the federal estate tax exemption.

2. Study the possible elimination of the present estate tax structure and replace it with a *deemed sale* type of tax on death, similar to the Canadian structure. In Canada, the tax is assessed on the decedent's final tax return and taxes 50% of the gain on the decedent's estate property as if the estate property was sold at the fair market value at date of death, subject to certain rules such as marital transfers at death not being taxable until the second of the spouses dies. This type of structure would still need to have some form of exemption to maintain the progressivity of Vermont's overall tax structure. This would be a major change and would have to be carefully analyzed since no other state has this structure. It would tax the appreciation because it would be treated as a deemed sale. It would eliminate property being transferred from generation to generation without taxation on the appreciation. There is also no U.S. state data to model the effects of such a change, but there is data available from the Canada Revenue Agency. The Commission understands the recent overhaul of the estate tax in 2016 and increase in the exemption in 2021 to $5 million dollars was a meaningful change and has made the estate tax much easier to understand and administer. The goal of the Commission is to look to the future, ten to 20 years and as such, we make this recommendation for the Legislature for future reference.

Corporate Income Tax

The corporate income tax is a tax levied on the taxable income of a corporation that is taxed as a C corporation. Vermont is one of 45 states as well as the District of Columbia that levy a corporate income tax on business profits. According to *The Vermont Tax Study*, of the total income taxes collected in 2015, corporate income tax was 13% of that total (Teachout, Manchester, & Wexler, 2017). In FY 2020, this tax is forecast to be 8% of General Fund sources and 5% of total revenue sources.

The Commission received no public comments or testimony from the solicitation sent to stakeholders regarding the corporate income tax.

One controversial source of corporate tax revenue as a result of the 2017 Tax Cuts and Jobs Act has been the repatriation of foreign earnings. It is the opinion of both the Vermont Department of Taxes and Legislative Council that this repatriated income is subject to Vermont tax and has accounted for an uptick in 2019 and expected 2020 fiscal corporate tax collections. The Commission did not study this element as it is considered to be a one-time effect based on a major change in federal tax law.

The Vermont Corporate Income Tax Brackets are as follows:

Tax Bracket (taxable income)	**Tax Rate** (%)
$0+	6.000%
$10,000+	7.000%
$25,000+	8.500%

Figure 23 Data from Vermont Department of Taxes (2020)

The starting point in calculating Vermont taxable income is federal taxable income plus or minus state specific differences.

The Commission prepared a backgrounder entitled "Corporate Income Tax – Sourcing of Sales for Services" that compared Vermont's cost-of-performance rule with market-based sourcing (Mesner, 2019). Legislation was passed and will become effective January 1, 2021 changing Vermont's sourcing of service revenue to market-based.

Vermont, like many states, is a unitary tax state. Under a unitary tax approach, governments treat a multistate corporation as a group made up of all its local branches, instead of treating each local branch as an individual entity separated from the global chain. The profits that the multinational corporation declares as a group are then apportioned to each state where it operates based on how much of its real economic activity took place in that state. Further, under unitary tax, there are two approaches to determine what is included in the receipts factor numerator of each member, *Joyce* and *Finnigan* (both named after California administrative tax decisions).

The difference between the Joyce and Finnigan methods is receipts factor calculation. Under Joyce, a unitary member not having any apportionment factors in Vermont is not taxed in Vermont. Under the Finnigan method, taxation of the combined group is as though all of the members of the combined group are taxed in Vermont. Vermont is a member of the Multistate Tax Commission (MTC) and both Vermont and the MTC use Joyce. Currently, the MTC is hearing testimony and considering adopting Finnigan to replace Joyce.

The "Act 51 Vermont Corporate Income Tax Report" (Vermont Department of Taxes, 2019) studied a Single Sales Factor Apportionment and also the experience of states that switched from a multi-factor to a single factor, the exclusion of overseas business income of an affiliated group, changing the bank franchise tax to tax banks under the corporate tax, and alternatives to the corporate tax such as a gross receipts tax. The report concludes:

> *Each of these changes on its own will alter the landscape of Vermont corporate income and requires delicate consideration before abrupt delineations are made. Further, adjustments to tax regulations and/or statutes cannot be viewed in isolation as the impacts can spread over several tax types and taxpayers. (p. 19)*

Recommendations of This Commission:

- Request that the Vermont Department of Taxes study the effect of adopting Finnigan with respect to unitary tax apportionment. As a member of the MTC, if Finnigan is adopted by the MTC, although Vermont does not have to adopt it, conformity with the MTC as a member is important provided the switch is either revenue positive or at a minimum, revenue neutral.

10. Obsolete and Inefficient Taxes

Telephone Personal Property Tax

The Telephone Personal Property Tax (TPP) is a tax on every person or entity owning or operating a telephone line or business in Vermont. The tax equal to 2.37% of net book value as of the preceding December 31st of all personal property located in Vermont, used in whole or in part for conducting a telecommunications business. The applicable law is located at Vermont Statutes Title 32, Section 8521.

Any person or entity that owns or operates a telephone line, or that owns or operates a business that provides telecommunications services, is subject to the telephone personal property tax. Persons or entities that provide traditional telecommunications services through a public switched telephone network (PSTN) are subject to the telephone personal property tax. Persons or entities that provide telecommunications services through mechanisms other than a PSTN, including Voice over Internet Protocol (VoIP) technology, are also subject to TPP.

All personal property used in whole or in part for conducting a telecommunications business is subject to this tax, including personal property under construction, materials, and supplies. Property subject to tax as real property is not subject to TPP.

"Net book value" of personal property means the original cost less depreciation of the property as computed for the federal income tax return required to be filed with the federal authorities for the corresponding tax year. Accelerated depreciation taken in accordance with Federal income tax law, including "bonus depreciation" under IRC § 168(k), is includable when calculating net book value. This depreciation would include bonus depreciation allowed at the federal level. This can result in the case of currently allowed 100% bonus depreciation in a taxable net book value of zero.

Per *The Vermont Tax Study* and *Fiscal Facts*, TPP revenue fell from $10.5 million in 2005 to $7.9 million in 2010, $7.7 million in 2015 (Teachout, Manchester, & Wexler, 2017), $4.7 million in 2018, and was forecast to drop to $3.3 million by FY21 (Legislative Joint Fiscal Office, 2020, p. 6).

According to the Vermont Department of Taxes, there are currently sixteen filers and the annual cost to administer this tax is about $25,000.

The telecommunications landscape is changing rapidly in Vermont as well as the entire United States. "Land lines" as they are referred to are in many cases being replaced solely by cellular phone communications, which is not subject to this tax, rather is taxable in another section of Vermont's tax code. This would beg the question of how much new investment in property subject to this tax will be made going forward, which will be a contributing factor to the annual decline in revenue from this tax.

A white paper entitled "Property Taxation on Communications Providers: A Primer for State Legislatures" (NCSL Executive Committee Task Force State and Local Taxation, 2015) notes:

> *In Vermont, most businesses pay property taxes on real property and personal property. Property generally is assessed at 100 percent of fair market value. In the case of business personal property, a town may provide that such property is to be assessed at (1) fifty percent of its cost (with a ten percent floor), or (2) at its net book value (with a ten percent floor), at the election of the taxpayer. Most intangible personal property is nontaxable, and a specific exemption exists for money, securities, mortgages, and other evidences of debt. Municipalities, at their discretion, may elect to not tax business inventory. Valuation methods for real and personal property vary from locality to locality, but the cost (based on replacement cost), income, and market data approaches are used. Real and personal property, except land and buildings, used in carrying on a telephone business in Vermont is exempt from local taxation. Each person or corporation owning or operating a telephone line or business in Vermont, excluding resellers of telephone transmission capacity who do not own or operate and telephone lines or transmission facilities in the state, are subject to central assessment by the Vermont Department of Taxes, Division of Property Valuation and Review. This state-imposed tax is imposed on the net book value of all personal property of the owner or operator located in the state. Cable companies are assessed locally. A state-imposed education property tax is also levied on all nonresidential property. Real and personal property, except land and buildings, used in carrying on a telephone business in Vermont is exempt from the education property tax. Cable companies are subject to the education property tax.* (p. 29)

Recommendations of This Commission:

1. Consider the repeal of the Telephone Personal Property Tax as its revenue is declining and is based on somewhat outdated technology as a base for the tax; replace the lost revenue with another source based on more modern and long-term sustainable technology.
2. Consider not repealing this tax, but subjecting cell tower equipment to this tax. Currently, if the cell provider owns the tower, the equipment is considered personal property. If the landowner owns the tower, it is considered real property. The property tax is based on the rental income generated from the lease, much the same as commercial and residential building leases (Income Lease Approach). The cell tower should no longer be classified as real property under this recommendation, and the cell company would be subject to the TPP. A better measure of value for purposes of the TPP would be either the income approach or the undepreciated book value of the equipment, not the tax value. The book depreciation should be calculated using the useful life of the tower and a straight-line depreciation method.

Gasoline and Motor Fuel Taxes

As noted in Chapter 7, we expect the sales tax on gasoline to become obsolete over the next 20 years, and we similarly expect the excise tax on gasoline to become obsolete. See Chapter 7 for our recommendations on phasing in a sales tax on home energy and an annual registration fee for electric vehicles, and continued monitoring of the development of mileage charges as potential venues for providing revenue to maintain Vermont's transportation network during and after the transition away from gas-powered cars.

11. Timetable

We recognize the Legislature and Administration are currently focused on the COVID pandemic response. We also recognize that our recommended changes will require significant resources to enable a smooth transition from current systems. Therefore, we propose the work of the current biennium focus on laying organizational and analytical foundations necessary to successfully reform the tax system over the following several years.

		Track 1: The three major taxes		**Track 2: The overall tax structure**
Current Biennium	2021-2022	<u>Property tax/education financing:</u> 1) Compile/analyze rent/income data 2) Analyze move to income rather than housesite value for all homeowners	Create and staff Education Tax Advisory Committee to monitor education finance and recommend rates	Commission incidence study for Vermont tax and benefits
2nd Biennium	2023-2024	Migrate to funding education by taxing all residents on income <u>Consumption taxes:</u> Expand sales tax to remaining untaxed consumer transactions	Move mental health and staff health care expenditures from Education Fund State to take over appraisal of large commercial properties	Overhaul taxes/ transfers for low-income Vermonters to: 1) eliminate benefits cliffs and 2) ensure that low-income Vermonters are not harmed by any of the changes we are recommending to the tax system
3rd Biennium	2025-2026	Extend provider tax to remaining untaxed provider categories; lower and harmonize rates	State support of professional local assessment administration	Investigate taxation of net worth/ assets/wealth
4th Biennium	2027-2028	<u>Income tax</u>		If taxing wealth is viable: 1) set up reporting requirements for disclosure, then 2) incorporate a wealth tax into tax structure

12. Our Changing Landscape and the Tax Structure

We would be remiss to write a report on the long-term prospects for Vermont's tax structure without discussing some of the key social, economic, and environmental changes that will impact our state and our revenue system over the coming decade. There will invariably be others, as the current pandemic serves as all too stark of a reminder, so this section is not intended to be exhaustive. It also does not attempt to offer comprehensive analyses or forecasts. Our aim instead is to underscore the importance of having an agile tax structure and to offer thoughts on how to approach three areas of change:

- Climate Change
- Technology
- Demographics

Climate Change and the Tax Structure

Many state, national and global scientific experts have predicted the likely consequences of climate change and suggested approaches to reduce carbon emissions. The Commission relied on those forecasts and tried to imagine the corresponding tax implications. First, we looked at predicted effects of climate change that might affect the tax bases and tax revenue, absent interventions. Second, we looked at approaches to mitigate and adapt to climate change that might either affect current tax bases or that might rely on new taxes, changes to existing taxes, or tax credits. We then considered the combined effect of climate change and Vermont's response on the tax structure.

Tax Related Consequences of Climate Change

Briefly, the main immediate climate consequences in Vermont are expected to be: warmer temperatures; longer summers, shorter winters, and unpredictable shoulder seasons; intense and unpredictable weather events; more precipitation in the winter but summer drought. These, in turn, will lead to stress and decline in some native species but increased productivity of some crops and weeds; spread of invasive species, ticks and tick-borne diseases; storm damages to structures, infrastructure, forests, and agriculture. In general, there will be damages to health, homes, forests, infrastructure, agriculture, labor, tourism, and supply chains. Nationally, the effect has been estimated to be a loss of 1% to 3.1% of average gross domestic product (GDP) by the end of the century (Deryugina & Hsiang, 2014). The composition of Vermont's GDP by sector looks similar to that of the nation, as shown in Figure 24.

2019 GDP	United States		Vermont
All industry total (million $)	$21,427,690		$34,785
Agriculture, forestry, fishing and hunting	0.8%		1.2%
Mining, quarrying, and oil and gas extraction	1.5%		0.5%
Utilities	1.6%		1.9%
Construction	4.1%		3.3%
Manufacturing	11.0%		9.3%
Wholesale trade	6.0%		4.9%
Retail trade	5.5%		7.4%
Transportation and warehousing	3.2%		1.7%
Information	5.2%		2.6%
Finance, insurance, real estate, rental, and leasing	21.0%		19.4%
Professional and business services	12.8%		10.9%
Educational services, health care, and social assistance	8.8%		14.0%
Arts, entertainment, and recreation	1.1%		1.0%
Accommodation and food services	3.1%		5.3%
Other services (except government and government enterprises)	2.1%		2.3%
Government and government enterprises	12.3%		14.3%

Figure 24 Data from "Regional Data - GDP and Personal Income" (U.S. Bureau of Economic Analysis)

However, there are ways in which Vermont's economy is different. The Bureau of Economic Analysis looks at outdoor recreation as a component of GDP—teasing out recreation activities from several of the traditionally tallied categories shown in the table above. In the United States as a whole, outdoor recreation accounts for 2% of GDP; in Vermont it accounts for 5.2% of GDP and 4.4% of Vermont's employment (U.S. Bureau of Economic Analysis, 2020). This total includes not just the recreation activity itself, but also associated expenditures.

Although outdoor recreation in all seasons is important to the economy, snow sports account for nearly half of the outdoor recreation value added. A NOAA study projects Vermont will have 25-34 fewer days below freezing per year by 2080 (NOAA Climate.gov, n.d.). The shorter snow season will be punctuated by more interludes of rain and warmth, severely reducing the snowpack for snowmobiling and back county skiing, and challenging the ability of snowmaking to save the alpine ski season. Because the season is projected to start later, it is less likely that Vermont ski areas will be able to open during the Christmas/New Year's holidays by the second half of the century, even with significant increases in snowmaking (Dawson, 2009).

Agriculture is also more important in Vermont that in the nation as a whole. The market value of products sold in 2017 was estimated to be $781 million (USDA National

Agricultural Statistics Service, 2020). Just as with snow sports, agriculture is part of the Vermont brand and is the foundation of many value-added enterprises, including tourism.

According to the United States Department of Agriculture, climate change may affect dairy not only by stressing cows, but also by changes in crop production; changes in feed-grain availability, and price; and disease and pest distributions (U.S. Department of Agriculture, 2016).

Maple trees will suffer as the Vermont climate changes. One Vermont study concluded "climate projections under a low emissions scenario indicated that by 2071 55% of sugar maple across the state would likely experience moderate to severe climate-driven stress relative to historic baselines, increasing to 84% under a high emissions scenario" (Oswald, et al., 2018). The yield and sugar content of maple sap are projected to drop due to shorter seasons, fewer freezing nights, and stressed trees (AcerClimate and Socio-Ecological Research Network, 2017). And, a shorter and less predictable fall, with a diminishing pop of bright maple leaves, will dim the foliage tourist season.

Apple trees, balsam Christmas trees, and northern hardwood forests as we know them will also be stressed as their preferred climate changes and new pests, diseases, and invasive species gain foothold.

As dire as it may seem, Vermont is expected to be better off than many other parts of the United States. For many crops, production is projected to increase in Vermont due to longer growing seasons and carbon dioxide fertilization. In the southern part of the United States, on the other hand, production is projected to decrease due to heat and drought.

Vermont is predicted to have a relative advantage in more than just agriculture; one national study projected climate change consequences on agriculture, energy demand, crime, labor and mortality and showed all Vermont counties doing relatively well in comparison to other parts of the country. The study results indicate a "large transfer of value northward and westward" (Hsiang, et al., 2017).

This may lead to what is perhaps the most significant consequence of climate change on the Vermont economy: in-migration. It is estimated that 40% of U.S. residents live in coastal areas, which are most likely to experience flooding and hurricane damage. In neighboring Massachusetts alone, 62,069 homes are at risk of being underwater if sea levels rise by six feet (Rao, 2017). Cities, which have higher concentrations of industry as well as residents, are also projected to be hotter and to have higher levels of air pollution than rural areas. Although several studies have located the houses and businesses at risk and the potential for out-migration, few have attempted to give more shape to where the migrants will go except: inland and north.

Obviously, the effects of climate change will be far ranging and substantial. However, they do not necessarily indicate a change in Vermont's tax structure. While some enterprises may decline, others, such as renewable energy, information, and construction are likely to

grow — especially after considering Vermont's advantage relative to other parts of the country. While there may be reductions in property values due to storm damages and perceived risk as well as decreased demand for slope-side condominiums, reconstruction and in-migration may add new development to the property tax rolls. Consumption taxes will need ongoing revision as new services are developed to deal with changes and as consumers spend more on services and less on goods. The meals and rooms tax is likely to suffer disproportionately, although it is also possible that Vermont will provide a welcome escape from the hot cities, offsetting some of the loss of winter tourism.

Tax-Related Efforts to Reduce Carbon Emissions and Adapt to Consequences

The Legislature has looked at both pricing and non-pricing options for reducing climate emissions, and recently commissioned a decarbonization study to provide objective estimates to help craft the State's response (Hafstead, et al., 2019). Pricing options generally involve carbon taxes, or cap-and-trade programs that would increase the price of emitting carbon. Non-pricing approaches include things like incentives to purchase electric vehicles, investments in public transportation, and regulations or performance standards. For Vermont to reach its emission goals, both pricing and non-pricing initiatives are being developed.

The pricing approaches tend to be more comprehensive and more cost effective. The main difference between the types of pricing options is that a climate tax sets a price for carbon, but not the emission level that results. A cap-and-trade approach, on the other hand, sets the emission level allowed, but not the price. In addition, carbon taxes tend to apply to all carbon emissions while cap-and-trade programs tend to apply to only certain sectors such as electricity or transportation. As with taxes in general, the broader the base, the more effective and less distortionary it can be, at a lower rate.

Both pricing approaches result in revenue to the State, which can be distributed to make investments to further the goal of carbon reduction, to reduce the cost of electricity, to reduce taxes, and/or to make payments to households to help offset the cost increases due to the carbon pricing. Some of the options to return this revenue to the economy are tax related: tax credits, tax exemptions, and reductions in tax rates.

To achieve reasonably similar reductions in carbon, either approach would result in a slight reduction in GDP, which could be offset to different degrees by different uses of the resulting state revenue and non-pricing activities. A reduction in the GDP would mean a reduction in tax revenue, in addition to the reduction in gas tax revenue. However, when accounting for the environmental and health benefits, all options considered by the decarbonization study commissioned by the Legislature would result in net benefits.

At the current time, Vermont is participating in the Regional Greenhouse Gas Initiative (RGGI) that covers electricity generation and at some time in the future may consider joining the Transportation Climate Initiative (TCI), a regional cap-and-trade program that covers carbon emissions in the transportation sector. While regional cap-and-trade

programs increase fuel prices, they do so for all participating states. In contrast, a Vermont carbon tax on the same sectors would cause the loss of revenue to neighboring states and the perception of Vermont having higher taxes.

Pricing approaches are likely to be less successful in reducing emissions in Vermont than they would be in other areas in the country because a high proportion of our emissions come from activities that are necessary, and therefore less likely to be reduced if the price is increased. About 43% of Vermont's emissions come from transportation while only 28% of the emissions in the United States do. Similarly, 24% of Vermont's emissions come from heating, while only 10% of the emissions in the United States do (Hafstead, et al., 2019, p. 14). Reducing emissions in these sectors is difficult unless there are viable alternatives that meet Vermonters' needs. For this reason, non-pricing approaches that provide economically feasible alternatives are needed, even though in isolation they may be less cost effective than pricing approaches.

Both the Vermont Energy Action Network (EAN) and the Vermont Climate Action Commission (VCAC) have recommended numerous non-pricing actions to reduce emissions, generate energy from renewable sources, and sequester carbon. Many recommendations would provide incentives to help Vermont families transition off fossil fuels. Some of these do not require public funds. The electric utilities can provide financing for some of the investments needed by households and businesses to switch from fossil fuels to electricity (Vermont Climate Action Commission, 2018). This type of investment would meet the Tier 3 requirements of Vermont's Renewable Energy Standard while also increasing electricity sales. But other incentives recommended to be expanded, such as the Electric Vehicle purchase incentive and the Clean Energy Development Fund incentives, would be publicly supported. In addition, because transition investments are difficult, if not impossible, for lower income households, public funding is recommended for expanding loan programs and doubling the Weatherization Assistance Program.

Many recommended initiatives are state infrastructure projects, requiring public funding. These include state aid for school biomass projects and expanding public transit and rail infrastructure.

While most climate change programs often focus on reduction of emissions and/or renewable generation, the VCAC notes that sequestration is also important and frequently overlooked. They recommend investments to conserve forest land not only for sequestration, but also for flood protection which is increasingly important in weathering the intense storms in the changing climate. This may be looked at as preventing emissions, as the report states: "Every acre of forest lost to development has the potential to release a hundred metric tons of carbon dioxide equivalent into the atmosphere – like adding 25 cars for a year" (Vermont Climate Action Commission, 2018, p. 55).

The most obvious effects of Vermont's responses to climate change are likely to be a reduction in the fuel-dependents sectors of the economy, an increase in the electricity and green energy sectors, a slight reduction in the GDP from pricing which may be offset by

growth induced by the non-pricing actions, a reduction in the gas tax revenue, and the need for more funding for transition initiatives.

In Combination

The Commission appreciates the efforts being made in mitigating and adapting to climate change. Our scope is only to consider the tax implications, and to align them with the principles adopted by the Commission. We are looking only at a short-term forecast of a transition period; our assumption is that investments made during this transition period will protect the state and strengthen the economy over the long term. As such, we offer a few observations.

In combination, climate change and programs to address it, are likely to decrease GSP slightly during the transition period, and therefore reduce revenue from current taxes at current rates. The greatest hits will probably be in the gas tax and the meals and rooms tax.

Because lower income households pay a higher percentage of their incomes in fuel, any increase in fuel prices is likely to be regressive. Whether the pricing mechanism is called a tax or not, the Commission recommends returning enough of the resulting revenue to households to offset the regressivity.

The Commission supports the use of tax credits and exemptions to reduce the upfront cost of some investments that will make the transition possible, even though in general the Commission strives to keep the tax base as broad as possible. But it is important to also enable citizens who can't afford to make an investment at all to transition off fossil fuels. Combining an upfront incentive with a loan that can be paid off through savings in a short period of time may be helpful, although outside of the tax code.

We would like to address the apparent contradiction in our support for using the tax code to support the transition to a clean energy economy on one hand, and our recommendation to charge owners of electric cars an annual road use fee in lieu of paying gasoline taxes. Right now, the vast majority of cars on the road are gas-powered; 20 years from now, the vast majority of cars on the road will be electric. Part of our job is recommending structures that will allow us to maintain our roads during and after this transition. Another way of putting it is that we will need roads even when there are no more gas-powered cars. As noted, we support making the purchase and operation of electric cars as affordable as possible to encourage their rapid adoption, and we also believe that every vehicle should help pay for the roads it uses. Over a dozen states already have special road fees for electric vehicles, and some have a reduced version of the same fee for hybrid vehicles. States are also investigating the possibility of charging vehicles for the number of miles they travel each year, tying each taxpayer's contribution to the road maintenance even more closely to their actual use. We recommend that Vermont follow these developments closely.

In comparison with a Vermont-only pricing program, regional partnerships have the benefits of retaining the state's actual and perceived competitivity in the region and reducing the incentive to buy fuel or conduct business over state lines. The Commission agrees that the tax structure should be responsive to interstate competition.

If the pricing mechanisms are successful, carbon emissions will drop each year, and the pricing will need recalibration to continue the progress. In this process, using the revenue from carbon pricing to replace other taxes (such as lowering the income tax rate in the lowest bracket) could destabilize the tax structure. Instead, we recommend that returns to the economy from the pricing mechanism be made in transitional payments and investments that help offset the costs of the transition. Once we reach steady state, the tax structure could be rebalanced.

While in-migration could benefit the economy and boost tax revenues, it is not clear how it would be accommodated. Much of our infrastructure is inadequate to support growth in village centers, and many of our village centers are near rivers. At the same time, we have a goal of keeping our forests intact, for multiple ecosystem benefits as well as for carbon sequestration and flood resiliency. Vermont's response to rapid development in the 1980's included the land gains tax and the Use Value Appraisal Program. Although these taxes are still in place, it is not clear to the Commission that we have the right tools to direct potential development at this point in time.

The VCAC report puts it this way: "Demographic change, greenhouse gas emissions, severe weather, and financial challenges prompt a fresh look at Vermont's smart growth strategies and land use governance as means to address climate change" (Vermont Climate Action Commission, 2018). We agree. And we recommend that the fresh look include the role of taxes in the mix.

Technological Change and the Tax Structure

Technology has changed our lives in many ways. Vermont's tax structure must also keep up with these technological changes to be sustainable in the future. The financial needs of the State which are funded primarily by taxes will continue despite this changing landscape of technology.

Changes to the Way We Travel

As transportation technology evolves, there is less and less dependence on fossil fuels to power the vehicles that we use to travel, both locally and long-distance. More and more alternative fuel vehicles are on the road today, and that number is increasing every year. This creates a positive environmental impact which is very beneficial. The other side of that change is the decrease in the use of fossil fuels which at present are the major source of tax revenue that is used to maintain our roadway. The same holds true for public transportation vehicles as well.

Technology is also affecting the way we book leisure time events, air travel, and lodging. As more and more services for reservations become digitized, the tax structure must evolve with it and tax these items to the same extent they are at present despite the use of e-tickets and online booking for lodging, etc.

Changes to the Way We Live and Work

Technology is also changing the way we live. The pandemic has shown us that many jobs can be done remotely, i.e. working from home. This presents a great opportunity for people to live in Vermont and enjoy the tremendous lifestyle it offers, while maintaining a position that may not be available with a Vermont-based organization. This is something the State has been working on to begin to rebalance the demographics of the state and the aging population. This is something that will not only increase the younger population of the state, it will also increase the higher income earners, and have a positive effect on the personal income tax collections. As this evolves, the traditional nexus for the employer of having an employee working in the state will have to be revisited so it does not become a discouragement for employers with headquarters and operations in another state to allow their employees to work remotely in Vermont. This will also hold true for Vermont-based employers. The difference here is the resulting decrease in demand for office space. This will tend to depress the value of office properties from an education funding tax and municipal property tax standpoint. It will also decrease the income from these rentals and ultimately the amount of income tax revenue collected from the property owners. The tax structure will need to contain new sources of revenue to make up for these two pieces of lost revenue.

Many households in Vermont now utilize solar power and excess energy storage units as their source of electricity. This is an excellent use of renewable energy and certainly reduces our carbon footprint which is important to address climate change. Many of these households are connected to the grid and therefore contribute to the taxes ultimately paid by their public utility. The State through its tax structure must continually monitor the amount of revenue from the use of electricity and be able to replace those lost taxes with another sustainable source of revenue.

The use of landline telephone service has decreased over the years as Voice over Internet Protocol technology develops as well as the use of cellular telephones. The Telephone Personal Property Tax is a tax that, from a collection standpoint, continues to diminish every year. As mentioned in Chapter 10, it and other obsolete taxes need to be phased out and new sources of tax revenue found.

Our purchasing habits have also changed due to the advances in technology. The ability to purchase online has increased the ability of Vermont residents to order goods from around the world online and have them delivered, many times in the next day. As a result of the U.S. Supreme Court's *South Dakota v. Wayfair* decision in 2018, many of these transactions are now captured by the sales tax which would be the equivalent of a resident purchasing the good at a brick-and-mortar store in Vermont. Vermont must continue to monitor enforcement and take the appropriate measures to promote a high level of compliance to sustain its revenue from the sales tax.

The trend toward online purchases has consequences for other Vermont taxes. Lost jobs at brick-and-mortar stores means lost wages which means lost income tax revenue. This also leads to a decrease in the need for retailers to invest in large brick-and-mortar establishments to sell their product and consequently a drop in the education property tax as well as the municipal property tax. The tax structure must be flexible and provide new sources of revenue to make up for the lost revenue from these retail brick-and-mortar establishments.

Many of our purchases today are digital rather than tangible property, such as audible and e-books. Also, our movie watching habits have changed as well. Although people do still go to the movie theatre, that is down from years past. Movie rentals is another area that has dramatically changed. Not that many years ago, if you wanted to rent a movie, you went to the local movie rental shop, rented the movie, watched it, and returned it. Today with the streaming services available, we rent them digitally streaming them over our computers and smart televisions that are connected to the internet. Music is available as well through online subscription services as well as in many cases for free. Not that many years ago, we purchased record albums, then tapes, and finally CDs, which are all tangible personal property subject to sales tax. The tax structure must be flexible to find new ways of taxing the things we always paid tax on that may be out of the reach of the tax system without adapting itself to the new technology.

These are just a few examples of how the changing landscape with respect to technology will affect the tax system, and the structure must constantly be evaluated and change to be sustainable and provide the necessary revenue that the State needs to provide the services to the residents it must provide.

As this summary points out, our changing landscape with respect to technology affects the three major tax types: income, consumption, and property. To preserve the sustainability of the tax structure, the Legislature should study the effects technology has already had on our tax structure as well as what it might look like ten years down the road.

Changes to Business Because of Technology

All of the changes noted in the previous sections will also have an impact on how business is conducted because of changes in technology.

As manual tasks continue to become automated, there will be a shift in employment for those workers who perform manual tasks such as check-out clerks, receptionists, assembly and piece workers, and order takers. Those displaced workers will need to be retrained to assist with the technology that replaced them, including set-up, operation, and maintenance.

One piece of technology that has and will continue to change business is the internet. Businesses no longer have to rely on foot traffic in their brick-and-mortar stores; they can now sell virtually all over the world from their location in Vermont. They will now need to employ new technology to take, process, and ship orders as well as comply with federal and state tax rules. The upside of this for the State should be more revenue in the long run from sales tax and business taxes. Another upside is that after the initial shock of technology

taking workers' places, the retraining and reemployment of these displaced individuals should lead to higher paying jobs.

Vermont now sources revenue from services using market-based sourcing. As Vermont-based service businesses branch out and remotely do work for customers in other states, unless the business is a pass-through entity and all of its owners live in Vermont, the State may see a decline in tax revenue as many Vermont businesses will now be better equipped to perform services remotely to destinations all over the United States. The upside of the ability of businesses to work remotely is that the market-based sourcing rules will subject non-Vermont-based service providers to income tax.

Another by-product of technology changes for businesses is reduced use of paper and need to keep paper copies of records, etc. These files can be stored and accessed in the "cloud" and the business can operate in an almost paperless environment.

Long-term Decline in the Value of Commercial Real Estate

We note another possible long-term impact of the trends toward online shopping and remote work. These trends have the potential to make commercial real estate less valuable.

The businesses most impacted by COVID are bars and restaurants, and we are likely to see more closures before the end of the pandemic. In principle, there is no reason for bars and restaurants not to return to pre-pandemic levels in the post-pandemic world, although it is quite possible that the number of new restaurants and bars will not be as great as the number that went out of business.

Retail stores are a different story. Even pre-pandemic, brick-and-mortar retail was in trouble, with thousands of brick-and-mortar store closures each year among retailers large and small. These closures have happened in small towns, suburbs, and big cities, and in remote malls and on Main Street. This trend has been accelerated by COVID, and there is no reason to expect that the pandemic will meaningfully change the decline in brick-and-mortar retail in the post-pandemic world.

This could lead to a decline in demand for retail spaces, both for food and drink and for products. That in turn would lead to a decline in the rents these spaces are able to command, which would reduce the building's cash flow, which would reduce the value of the building, which would reduce the building's appraisal, which would reduce the property taxes the state and municipality receive from it.

Similarly, to the extent that some work that has moved out of the office and into the home office stays in the home office, and to the extent that new businesses start with the assumption that they will not have a commercial office and that all their work will be done remotely, it is possible that demand for office space in Vermont's cities and towns will decline, leading to the same decline in value on the grand list.

It is difficult to predict whether any of this potential decline will be offset by other factors. Will people find other ways to use former retail and former office spaces productively, creating new demand for them? Can these spaces be effectively repurposed to meet our

growing needs for day care, health care, social services, and elder care? Will the trend toward smaller households and smaller homes be partially offset by the fact that new homes may all need two spaces in them that can be used as home offices?

We do not know, but we do want to raise the possibility of a long-term decline in the value of commercial real estate, and the potential need to offset that declining source of tax revenue by augmenting a different source.

Conclusion

As technology continues to evolve, so must the tax structure and tax laws.

Demographic Change and the Tax Structure

In 2019, this Commission published a report on the effects of demographic changes on Vermont's revenue system.

Population Changes and Vermont State Revenue (Tax Structure Commission, 2019) reports that while Vermont's total population level is (at least temporarily) stable, the state is undergoing three large demographic trends: the population is aging; it's shifting to the Greater Burlington area and surrounds from everywhere else in the state; and it's dividing into smaller households (p. 3).

We identify implications for Vermont's revenue system, **assuming those trends continue, and assuming no changes to Vermont's tax system**:

Implications of an Aging Population for Vermont's Three Major Revenue Sources

1. **Reduction in income taxes**
   "• Vermont has benefited in recent years from substantial income tax receipts from the large cohort of baby boomers progressing through their peak earning years.
   • Younger baby boomers (age 55-64 in 2018) currently account for more than a fifth of tax returns and more than a quarter of personal income tax dollars. As the state's most populous age cohort progresses through their senior years, their decreasing incomes will no longer contribute as disproportionately high of a share of income tax revenue" (p. 34).
2. **Reduction in consumption taxes**
   "• Compared to other age groups, seniors tend to spend more on mostly non-taxable services, such as health care, rather than the taxable goods favored by younger cohorts.
   • This drop could be partially mitigated due to seniors tending to work and spend later in life, because seniors as a whole are now wealthier than other generations, and because the state benefits from tourism by empty nesters and recent retirees from nearby states" (p. 35).

3. **Education property taxes**
   As people age, become empty nesters, and retire, they tend to downsize, so an aging population can lead to lower overall property taxes.

Implications of Urbanization for Vermont's Three Major Revenue Sources

1. **Increase in income taxes**

Statistically, the urban area around Burlington provides higher-paying jobs than the rural areas, so to the extent that the population shifts to the Greater Burlington area, we expect average incomes, and income tax revenue, to increase. "The counties that are losing population are the lowest-income counties" (p. 20).

2. **Increase in consumption taxes**

As incomes increase and become more concentrated in the Burlington area where there are more, and more varied, opportunities for consumption, we expect consumption to increase as well.

3. **Increase in education property taxes**

Property values tend to be higher in Greater Burlington, so to the extent that migration leads to an increase in housing units in Chittenden County, we would expect total education property tax revenue to increase.

Implications of Smaller Household Size for Vermont's Three Major Revenue Sources

Per our 2019 paper:

> *Vermont real per capita income has increased five percent while the state's median household income has fallen four percent. This divergence between per capita income and median household income is driven by two factors. First, smaller households mean fewer earners per household and total income is spread across more households. Second, greater inequality, with greater concentration of income among high-earners, serves to pull up the average more than the median. The first factor can suppress revenue to the extent that tax benefits are given at the household level (as opposed to by filing status or number of dependents), while the second factor produces increased revenue through a higher effective tax rate in a state with a progressive income tax (like Vermont).* (pp. 20-21)

All in all, we would expect that the change in household size would not greatly affect **income tax revenue.**

We would expect a very gradual increase in **consumption tax revenue** as household size decreases, since there are that many more households that need to be equipped with kitchenware, furniture, entertainment systems, etc.

As far as **property tax** is concerned, Vermont has a disproportionate number of larger houses (p. 17). This is driven by the prevalence in rural and formerly rural areas of large,

rambling farmhouses that grew over many decades to accommodate large farming families; large homes built in towns before the Great Depression designed to accommodate a family and their servants; and "McMansions" built in the 1980s and 1990s during a trend toward larger homes.

However, with smaller households, and the trend toward smaller, more energy-efficient and cost-efficient houses, economists expect demand for the larger houses is likely to fall, so prices will fall, and appraised value will fall, and grand list value will fall. This will be partially offset by new construction of smaller houses, growing the grand list. It is also likely that some of the larger homes will be divided into two-family homes or multi-family homes.

One of the household configurations that is growing is multi-person non-family households, so it is likely that some of these formerly single-family homes will be occupied by unrelated adults.

All in all, we would expect declining revenue from education property taxes based on the trend toward smaller households.

Why These Trends Might Change, and Implications for Vermont's Tax System

External factors affecting these three trends (aging, urbanizing, shrinking households), combined with the changes we recommend to Vermont's tax system, lead to a different set of implications.

Changes in technology, the economy, and the climate all have the potential to significantly affect Vermont's demographic trends.

First, the age structure of Vermont's population is driven by births, deaths, domestic and international in-migration, and domestic and international out-migration. There is not much reason to expect Vermont's birthrate or deathrate to change, although both are certainly possible. However, there are several factors which could lead to meaningfully increased in-migration from other states:

1. There are many reasons that some people don't want to live in Vermont, the long, cold, dark winters primary among them. Vermont's winters are getting shorter and warmer, which means that:
    - More people who live here will be willing to spend all winter here (fewer snowbirds). That means more local consumption from people who otherwise would have spent two to six months somewhere warmer.
    - There is likely also to be a new trend of people who live in areas that become uninhabitably hot during the summer, or prone to too many violent storms during hurricane season, who are the opposite of snowbirds, who instead of fleeing south to avoid the cold and snow flee north to avoid the heat and hurricanes.

2. When surveyed, 66% of Americans say they'd like to live in a small town or rural area. "Given six choices of a type of place where they could live, 27% of Americans choose a rural area, more than any other option . . . 39% would choose a town, a small city or a suburb of a small city" (Newport, 2018). The barriers to their actually living in places like that include the lack of employment, the lack of good schools for their children, and the lack of cultural experiences. However, per our paper on demographics, most of Vermont's rural areas are what are called *high-amenity rural areas*, which is to say, rural areas with access to good schools and recreational and cultural activities.
3. Twenty years ago, we saw in-migration by people fleeing terrorist attacks on urban areas, and recently, we have seen in-migration driven by people fleeing pandemic hot-spots. These people are either moving year-round to what had been a vacation home, or simply moving to Vermont. A recent news story noted school enrollment in Windham County is up for the first time in a very long time and "the Covid-19 pandemic is bringing a new crop of students to the state, as newly remote workers decamp from urban areas to Vermont, which has made national headlines for its low rates of infection" (Duffort, 2020).

Advances in communication technology now mean that many people no longer need to live near their employer. This removes another one of the big barriers to moving to Vermont, which was lack of good jobs. For many people, a Vermont with mild winters and plentiful employment opportunities is a much more attractive place to live, and this is particularly true of the rural areas. People moving to Vermont tend to be younger and have (or soon give birth to) children, and to the extent that they are pursuing a rural or small-town environment, they are likely to settle outside of Greater Burlington. This may temper or reverse all three of the big trends of aging, urbanizing, and shrinking household size.

The implications for our tax system are generally positive. More people earning good incomes means more income tax revenue. More people living in Vermont means more consumption tax revenue.

Further, even if the population does continue to age, our recommendation that Vermont continue to expand the consumption tax base to include all consumer-level purchases of goods and services means that the shift in consumption caused by an aging population (purchases of fewer goods and more services) will not erode the consumption tax base.

Our recommendation that we complete the many-decades-long process of transitioning the source of education finance from property tax to income tax means that the effect of any future trends on homestead property tax revenue will affect only local revenue, not state revenue. To the extent that people move year-round to what had been their vacation homes, the State will go from collecting non-homestead property tax to collecting income tax.

All in all, we believe that our recommendations mitigate or even neutralize the threats to Vermont's revenue system posed by the long-term changes that may arise from Vermont's changing demographics.

Underlying all our recommendations is a belief that our economy and our climate and our population are all becoming less stable, and Vermont will need to be ever-vigilant and ever-agile to be successful in continuously adapting to a changing world.

13. Conclusion

Reforming and restructuring a state tax system is hard. It is probably harder than creating an entire tax system from scratch. Our economy, technology, and climate are changing faster than ever, and designing a tax system that will evolve appropriately as our world changes is daunting. In addition, the modern economy is growing more complex, which makes designing a fair and sustainable tax system that is as simple as possible even more challenging.

Then there is the human factor. People are properly cautious about change and are even more wary of change that involves their money. There are hundreds and hundreds of companies, industries, and interest groups in Vermont, each of which is naturally more focused on their own well-being than on Vermont's overall well-being. The goal of making our system more fair implies that it is not perfectly fair right now, which in turn means that right now some people are bearing more than their fair share of the tax burden, and some are bearing less. That means that moving toward more fairness means that some people will have a greater relative burden than they do now. They will not like that. You will hear from them.

We are confident that you will hear their concerns because we heard them. We hope we have addressed them adequately and appropriately. We are also aware that the Governor and the Legislature have been convening commissions like ours regularly since at least 1929. When the Legislature was considering a cigarette tax in 1938, a lobbyist published a brochure arguing against the cigarette tax because it would be regressive and would damage Vermont businesses (Gillies, 1997). The more things change . . .

Gillies also points out that "every five years or so another commission is appointed to study the system and propose improvements that will repair the problems of fairness, progressivity, and a sufficient tax base to justify funding of necessary expenses" (Gillies, 1997).

Our Commission is part of that series, preceded by the Blue Ribbon Tax Structure Commission and undoubtedly followed by another commission in the not-too-distant future. Our goals were to design a tax system for Vermont that would be as good as possible for as long as possible.

Evolving our tax system is difficult and daunting and complicated, but it is vitally important for the well-being of our Vermont community. We wish you luck, patience, and wisdom as you undertake this part of the journey. We are grateful to everyone in the Legislature and the Administration for your work on this, and for everything you do every day for Vermont. We are grateful for the opportunity you gave us to contribute, we hope this report is useful to you, and we stand ready to help in any way we can.

Respectfully submitted,

Deb Brighton, Commission Chair
Stephen Trenholm, Commission Vice-Chair
Bram Kleppner, Commissioner

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Appendices

Appendix 1-1. Commissioner Biographies

Commissioner Deb Brighton, Chair

For the past 20 years Deb has been working primarily as a consultant to the Vermont Legislature, the Vermont Agency of Administration, and various Vermont towns and nonprofit organizations on tax, finance, economic, equity, and land use issues. This focus arose from directing Vermont's Use Value Appraisal Program for its first eight years and seeing the inequitable and often counter-productive consequences of the property tax.

She also worked with Vermont Family Forests setting up a community forest—a conserved forest parcel in which community members can own shares, protecting the forest while allowing lower-income Vermonters an opportunity to own carefully managed forest land. She previously worked as the systems analyst for the Green Mountain National Forest.

She served as a board member of the Vermont Housing and Conservation Board, the Vermont Land Trust, the Vermont Community Foundation, Vermont Family Forests, and the Salisbury Planning Commission. She has a BA in literature from Tufts and a MS in Forestry from UVM.

Commissioner Stephen Trenholm, Vice-Chair

Steve is the Principal at Advisors of Vermont PLLC which provides tax consulting services to high net - worth individuals and their business entities.

Prior to starting Advisors of Vermont PLLC, Steve was a Director in the Tax department at Gallagher, Flynn & Company, LLP. Prior to joining Gallagher Flynn in 2012, Steve was the tax manager at Bauer Hockey, Inc. in Exeter, New Hampshire. Previous to Bauer, Steve spent three years as tax manager with Ernst & Young's Boston, Massachusetts office.

Previous to Ernst & Young, Steve spent several years in public accounting in accounting firms in the greater Boston, Massachusetts area. Steve is a cum laude graduate of Salem State University where he earned his Bachelor's Degree in Accounting, and Bentley University, where he earned his Master's Degree in Taxation.

In addition to Advisors of Vermont PLLC, Steve is a member of the American Institute of Certified Public Accountants and the Vermont Society of Certified Public

Accountants. Steve is also a member of the Essex Fire Department where he serves as a Battalion Chief in charge of Safety.

Commissioner Bram Kleppner

As CEO of Danforth, Bram has turned around a loss-making business and led the company to many years of growth and profitability. Danforth has expanded its network of retail stores and has enjoyed dramatic growth online. Bram successfully acquired and integrated three companies into Danforth, instituted company-wide profit-sharing and partially paid maternity leave, and added an employee seat to the Board of Directors. He converted the company's electricity to 100% solar power, and has committed to moving to zero fossil fuel use.

Previously, Bram spent ten years at Ben & Jerry's, where he co-led their first campaign against global warming and led the creation of their first non-GMO ice cream.

Bram chairs the Board of the Population Media Center, which promotes the rights of women and girls in the developing world and protects the planet by stabilizing global population at a sustainable level. PMC's programs have been seen by over 500 million people.

Bram is a past Co-chair of Vermont's Medicaid & Exchange Advisory Board, providing guidance on health care policy to state agencies, the Governor, and the Legislature.

Bram earned an MBA from the (now) Grossman School of Business at the University of Vermont and a BA from Middlebury College, and is the recipient of the VBSR Terry Ehrich Award for Lifetime Achievement.

Appendix 1-2. Acknowledgements

The Commission appreciates the dozens of Vermonters who provided testimony and feedback on our work. Many of these Vermonters focused on education finance and/or property taxes. They are recognized in Appendix 6-2. Presentations and testimony not focused on education finance or property taxes are listed below.

Foundational Presentations

Legislative Joint Fiscal Office

- Welcome to the Budget
  https://ljfo.vermont.gov/assets/Uploads/f11ed02c9c/GENERAL-329145-v1-HAC_Welcome_to_the_Budget_Power_Point.pdf

- Revenue/Tax Briefing for New Members
  https://ljfo.vermont.gov/assets/Publications/New-Member-Briefings-January-8-2019/5049915918/Revenue-Tax-Presentation-for-New-Members.ppt

- Overview of the 10-Year Tax Study
  https://ljfo.vermont.gov/assets/Uploads/d8088d8783/GENERAL-338380-v1-Overview_of_10-Year_Tax_Study.pdf

- Major Tax Changes from the 2019 Legislative Session
  https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-05-29/e310a6b619/Major-Tax-Changes-of-2019-Session.pdf

- Provider Taxes – Overview
  https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-11-09/a0673e9861/GENERAL-351044-v1-2020_Provider_Tax_presentation.pdf

Other

- Report on Unfunded Budget Pressures FY 2020
  https://ljfo.vermont.gov/assets/Uploads/7dcc27a495/Report-on-Unfunded-Budget-Pressures-Fiscal-Year-2020-Memo-to-Appropriations-Chairs.pdf

- Corporate Revenues from Repatriation
  https://ljfo.vermont.gov/assets/Uploads/b36ecf3423/Repatriation-Commentary-0718-and-0119.pdf

- Backgrounder - Taxation of Pass-Through Entities: Nonresident Withholding
  https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-07-24/2935ad886b/GENERAL-343052-v1-TSC_DRAFT_Brief_Taxation-of-Pass-Through-Entities_7_23_19.pdf

Written Testimony

The following Vermonters provided written testimony on non-education finance/property tax issues:

Lauren-Glenn Davitian (CCTV Center for Media & Democracy)

- https://docs.google.com/document/d/1BJtgb1boI5ua8exrCChFanMWTSRkySNVf_zKXkjVSPI/edit
- https://docs.google.com/document/d/1bmYgee2UwERBg5AQfcUxJZSpJEl7CGSKuUXJZ9KRhd8/edit
- https://docs.google.com/document/d/1LaAAyZEov-gAPJa0mFsFyKI5BPUO7PwydNAfkRfa0Q8/edit
- https://docs.google.com/document/d/1_6quLNWrHXjlU3j03REDsLy2JHUIaMXmgrpr0sBmY3M/edit
- https://docs.google.com/document/d/1Tw_AS66MccAl5pfc2f2ud2pYIjzEUfURa1VK8oijeV0/edit
- https://legislature.vermont.gov/Documents/2020/Docs/BILLS/S-0318/S-0318%20As%20Introduced.pdf

John McClaughry (Ethan Allen Institute)

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-10-12/47aaffd01e/CONSUMPTION-TAX-IDEA-021111-004.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-10-12/cbc667f371/Sales-Tax-on-services-042815.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-10-12/522d5c1a65/Tax-decoupling-062101-004.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-10-12/a0e699c2fd/Vermont-Enterprise-Account-1992.pdf

Lori Smith and John Burton (Vermont Futures Project)

- https://docs.vtfuturesproject.org/8.20-Vermont-Futures-Project-Taxing-Dilemma.pdf

Hugh L. Williams and Lucy Beck

- https://ljfo.vermont.gov/assets/Uploads/965f53be10/VT-Tax-Structure-Commission-letter.pdf

Survey Respondents

In late 2019, the Commission invited stakeholders and the public to provide feedback via an online survey. The Commission thanks the following people for providing input via the survey and also appreciates the 26 respondents who did so anonymously.

- Chris Campany (Windham Regional Commission)
- Justin Fimlaid (NuHarbor Security)

- Steven Julian (Gallagher Flynn & Company)
- Edward Larson (Central Vermont Chamber of Commerce)
- David Logan (Autumn Harp)
- Peter MacLaren (West Hill House B&B)
- Richard McGuire, (Town of Williston)
- Mill Moore (Vermont Independent Schools Association)
- Josh Palace
- John Pelletier (Center for Financial Literacy, Champlain College)
- George Putnam
- Charles Safford
- Samantha Sheehan (Vermont Businesses for Social Responsibility)
- Stephen Soule
- Evan Teich (Town of Essex)
- Stephanie Yu (Public Assets Institute)

Survey responses can be found here:
https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/bbc7c97322/Survey-responses-updated-as-of-1-9-20.pdf

Additional Acknowledgements

The Commission could not conduct its analyses without the support of staff and consultants from the Legislative Joint Fiscal Office, Vermont Department of Taxes, and other state agencies who provide crucial data and input. The Commission thanks Staff Director Seán Sheehan, Staff Associate Sorsha Anderson, and Consultant Susan Mesner for their assistance. Finally, in addition to the people listed in this appendix above and in Appendix 6-2 who testified, the Commission thanks Senators Randy Brock and Ann Cummings, Representative Ancel, State Treasurer Beth Pearce, and Tom Kavet, the Legislature's Economist, for providing crucial insights through verbal testimony.

Appendix 1-3. Public Feedback on Report Draft and Commissioner Responses

The Commission is grateful for the following Vermonters who took time to review our draft final report and offer feedback. We appreciate the compliments, we discussed the critiques, we made changes when we felt we could improve upon our draft report, and we attempted to address their questions and concerns in the document linked below.

- Debra Behm, CPA, CFP
- Joseph Bilodeau, CPA CGMA
- Betsy Bishop, Vermont Chamber of Commerce
- Leslie Blow
- Cynthia Browning
- Austin Robert Davis, Lake Champlain Chamber
- Gloria Flinn
- Karen Horn, Vermont League of Cities and Towns
- Kristine Lott, Mayor of Winooski
- John McClaughry, Ethan Allen Institute
- Mike McClintock
- Christopher Plumpton, CPA, MBA, CGMA
- Aly Richards, Let's Grow Kids
- Peter Tucker, Vermont Association of Realtors

Public feedback and Commission responses are posted here:
https://ljfo.vermont.gov/assets/Subjects/Commission-Resources/2e9de91694/Public-feedback-and-TSC-response.pdf

Appendix 6-1. Other Structural Models Evaluated

Chapter 6 discusses the Commission's recommendation for all Vermont residents (owners and renters) to pay an education based on income. Below we discuss four other models that we considered.

1. Changing to a Direct Homestead Tax

This model represents a minor change in the current system. Homeowners would pay the lesser of a tax on their housesite or a tax on their income. The tax would be paid directly, without a credit in the following year.

Purpose: To make the relationship between what you vote and what you pay clear and direct. A homeowner could go to town meeting and know what the school tax would be, given the budget. The credit would be replaced by a direct tax.

Recommendation: The Commission feels this would reduce the complexity of the current system, but we recommend additional changes.

FY 22 example. (School budget voted in March 2021 for 2021-2022 school year)

Homeowner's education housesite tax bill calculated as the lesser of education property tax and education income tax

Property	**OR**	**Income**
Property Tax Assessment as of April 1 2021[16] equalized with CLA determined December 2020		Income for CY 2020, filed in April 2021
X		X
Spending per pupil FY22 / yield FY22 (property rate)		Spending per pupil FY22 / (Income rate[17] X yield FY22) (income rate)

1. The budget presentation to voters includes estimated property rate and income rate so people can estimate what their tax bill will be if the budget is approved.
2. Education taxes on housesites are paid to the State. The town does not send out education bills for declared housesites.

[16]The state applies the CLA determined in December of 2020 to the equalized rates to determine actual rates to be applied to the 2021 house site value. In towns that are reappraising in 2021, a hybrid CLA is calculated (as is done currently). This means that, for most house sites, it is the 2020 house value that is used.

[17]To simplify link between spending and tax rates, there would be one yield for both property and income. The income percent (now 2%) would be adjusted annually (instead of the income yield).

3. Homeowners file their 2020 household income and their SPAN with their Vermont income tax form by April 2021 as they do now.
4. Homeowners pay estimated taxes (or withholding) to the State between April 2021 and April 2022.

Reconciliation takes place in April 2022. If the filer has overpaid, a credit would be issued; if the filer has underpaid, a payment would be due.

The town sends education property tax bills for all non-housesite property at the non-homestead education rate. The $225,000 housesite cap would be eliminated so there would not be a jump in tax bills as households exceed the $90,000 income mark. Housesite property could be defined as it is currently, or it could have a maximum value, indexed to some measure of appreciation.

For simplicity, the household income would not be adjusted for household size, although a case could be made for reducing the taxable income to account additional household members. As the filing status and number of exemptions already appear on the income tax form, no new paperwork would be required.

The circuit breaker program could be changed to a sliding scale program to avoid two issues with current law: it creates a sudden jump in tax bills when incomes exceed $47,000, and it insulates eligible taxpayers from the tax consequences of the budget vote. For example, homeowners could pay 50% of the district rate at incomes of 0, rising to 100% for incomes of $50,000. There would be no separate paperwork needed; there would be no credit coming a year later.

Pros:

- Strengthens link between local vote and local tax bill
- Consolidates the spending and revenue resulting from one school year to one fiscal year so Education Spending and Tax rates are in sync
- Eliminates the taxpayer confusion resulting from the adjustment
- Reduces administrative work of municipal governments
- Shifts the focus to what is a fair tax amount to pay, rather than what is a fair subsidy
- Eliminates tax jump at incomes of $90,000
- Makes only minor changes to current law

Cons:

- Does not address other issues with current law. In particular, it does not change the complexity of having both a property and income tax, and it does not reduce the regressivity in the high-income range.
- May increase need for a stabilization reserve as not all income tax filings will be processed by the time the Legislature adjourns
- The state (and not the local tax collector) would deal with delinquencies

2. School Income Tax (Renters Excluded)

This alternative would eliminate the option of paying an education property tax on the housesite; for each housesite, the education tax would be based on the income of household members. The tax would be paid directly; there would be no credit.

Purpose: To simplify current law by taxing all homestead owners on income and eliminating the property tax option as well as the credit.

Recommendation: This approach is not recommended by the Commission as an end goal. However, in concert with data collection, analysis and study of a residential education income tax that would incorporate renters, it could be an intermediate step.

FY 21 example. (School budget voted in March 2021 for 2021-2022 school year)

School Income Tax (Renters Excluded)
Income for CY 2020, filed in April 2021
X
Spending per pupil FY22 / (Income rate X yield FY22)

1. The budget presentation to voters includes estimated income rate so people can estimate what their tax bill will be if the budget is approved.
2. The town does not send out education bills for declared house sites. Instead, the owner files with the State.
3. Homeowners file the 2020 housesite declaration, including the names of household members, with their Vermont income tax form by April 2021 as they do now. The education tax could be based on a compiled household income as it is now, or separately on the AGI of each filing unit.
4. Installment payments, estimated taxes, or withholding would be paid to the State between April 2021 and April 2022.
5. Reconciliation takes place in April 2022. If the filer has overpaid, a credit would be issued; if the filer has underpaid, a payment would be due.

The town sends education property tax bills for all non-housesite property at the non-homestead education rate.

Housesite property could be defined as it is currently, or it could have a maximum value, indexed to some measure of appreciation.

The tax could be based on household income as it is now. However, it would be simpler to have the tax based on the AGI. In the case of multiple filing units in the household, the AGI for each filing unit would be taxed separately instead of being compiled into a household income. For simplicity, the tax would not be adjusted for household size, although a case could be made for doing so. As the filing status and number of

exemptions already appear on the income tax form, no new paperwork would be required.

If the Legislature feels there should be a maximum education tax, this could be set at a certain income level as is done with the social security tax.

If the Legislature feels the tax is too high for lower-income households, the district rate can be phased in smoothly rather than using the current circuit breaker. For example, homeowners could pay 50% of the district rate at incomes of 0, rising to 100% for incomes of $100,000. There would be no separate paperwork needed; there would be no credit. This could be designed to avoid two issues with the current circuit breaker: it creates a sudden jump in tax bills when incomes exceed $47,000, and it insulates eligible taxpayers from the tax consequences of the budget vote.

Pros:

- Provides meaningful property tax relief for more homeowners
- Strengthens link between local vote and local tax bill
- Consolidates the spending and revenue resulting from one school year to one fiscal year so Education Spending and Tax rates are in sync
- Eliminates the taxpayer confusion resulting from the adjustment
- Reduces administrative work of municipal governments
- Shifts the focus to what is a fair tax amount to pay, rather than what is a fair subsidy
- Eliminates tax jump at incomes of $90,000
- Reduces regressivity that now occurs at high incomes

Cons:

- More likely to influence high-income homeowners to choose another state as their residence, or find other ways to avoid the higher school tax
- May increase need for a stabilization reserve as not all income tax filings will be processed by the time the Legislature adjourns
- The state (and not the local tax collector) would deal with delinquencies

3. School Property Tax With Housesite Exemption

This would eliminate the option of paying an education tax based on income. All homesteads would be subject to an education property tax only. There would be a substantial housesite exemption to reduce the regressivity.

Purpose: To shift from the double income/property system to a property-only tax in order to make the locally voted education tax simpler, clearer to taxpayers, easily administered, and similar to education taxes in other states.

Recommendation: The Commission does not recommend this approach. We found that the adjustment needed to make the system equitable was substantial and this approach would only add another level of complexity to the current system.

FY 21 example. (School budget voted in March 2021 for 2021-2022 school year)

Local Education Homestead Property Tax
(Property Tax Assessment as of April 1 2021[18] equalized with CLA determined December 2020
Less
Homestead Exemption)
X
Spending per pupil FY22 / yield FY22 (property rate)

1. The budget presentation to voters includes estimated property tax rate so people can estimate what their tax bill will be if the budget is approved.
2. All residents file their homestead declaration and SPAN with their Vermont income tax form by April 2021 as they do now to be eligible for the exemption.
3. The state notifies the town of the declarations filed, as it does now.
4. The state exemption amount is adjusted by the 2020 CLA and subtracted from the listed value of each homestead property by the local listers.
5. Residents pay the local Education Homestead Property Tax to the town.

Pros:

- Strengthens link between local vote and local tax bill, for homeowners
- Consolidates the spending and revenue resulting from one school year to one fiscal year so Education Spending and Tax rates are in sync
- Eliminates the taxpayer confusion resulting from the adjustment
- Eliminates household income calculation, except for households applying for circuit breaker
- Shifts the focus to what is a fair tax amount to pay, rather than who should get a subsidy
- Eliminates tax jump at incomes of $90,000
- Will not affect behavior of high-income homeowners
- Simplifies local administration
- Eliminates state administration of the Property Tax Adjustment

[18]The state applies the CLA determined in December of 2020 to the equalized rates to determine actual rates to be applied to the 2021 house site value. In towns that are reappraising in 2021, a hybrid CLA is calculated (as is done currently). This means that, for most house sites, it is the 2020 house value that is used.

Cons:

- More regressive than current system
- Would require income-based program to reduce regressivity. This would reintroduce complexity of the current double property/income tax

This approach was originally suggested for simplicity. It was intended to eliminate the need for using both income and property filings to determine the tax bill. The approaches the Commission considered moved to income; this approach moved to property.

The original idea was to use a generous and uniform housesite exemption to reduce the property tax. The concept was that a flat exemption would counteract the regressivity of the property tax because it would represent a larger proportion of the value of lower-value houses than of higher value ones. The exemption would replace the current income-based credit and circuit breaker.

The Vermont Department of Taxes estimated that a homestead property tax with a flat exemption of $65,000 would bring in roughly the same amount of revenue as the current system does. But, a quick look at the results indicated a substantial and regressive shift in tax burden. The total education tax on households with incomes less than $100,000 would increase by about $50 million; the tax on households with higher incomes would decrease by the same amount. Although the $65,000 exemption did moderate the regressivity of the property tax, it was still a step in the wrong direction.

To further counteract this regressivity without resorting to incorporating income in the process, the Commission considered phasing out the amount of the exemption based on the value of the housesite. However, it was quickly apparent that the distribution of house values by income, as illustrated earlier, was too variable to make this approach effective. The Commission concluded that overcoming the regressivity would require correcting the property tax with an income screen. This would reinstate the complexity it was designed to eliminate.

4. Uniform State School Income Tax

This would replace local school homestead taxes with a uniform state income tax. The state would distribute revenue to the school districts based on a needs-based formula.

Purpose: To shift responsibility for taxing and distribution of funds to the State.

Recommendation: The Commission does not recommend this model, believing that benefits of local democracy outweigh the benefits of having a uniform education tax.

FY 21 example. (School budget voted in March, 2021 for 2021-2022 school year)

State Education Residential Tax
Income as of Dec. 31 2020, filed in April 2021
X
Uniform state income tax rate(s) FY22[19]

1. There could be a budget presentation to district voters but it would not affect their tax bills.
2. Education taxes on income are paid to the State. The town does not send out education bills for declared house sites.
3. Funds would be distributed to school districts based on categorical grants, formulas, and weighted students.
4. Homeowners file their 2020 household income and their homestead declaration and SPAN with their Vermont income tax form by April 2021 as they do now.
5. Homeowners pay estimated taxes (or withholding) to the State between April 2021 and April 2022.
6. Reconciliation takes place in April 2022. The education income tax (on the 2020 household income) is compared with the education taxes paid through withholding, and either a credit is issued or a payment is due.

Pros:

- Allows legislature to control spending
- Allows state to control student equity through the distribution of revenue
- Horizontal equity would be perceived as fair as the rate in all districts would be the same
- Because it would be a uniform statewide tax, it could be made more progressive by using brackets or a sliding scale to determine each taxpayer's liability.
- Consolidates the spending and revenue resulting from one school year in one fiscal year so Education Spending and Tax rates are in sync
- Eliminates the taxpayer confusion resulting from the adjustment
- Shifts the focus to what is a fair tax amount to pay, rather than who should get a subsidy
- Could eliminate tax jump at incomes of $90,000
- Could reduce the regressivity that now occurs at high incomes

Cons:

- Loss of local control
- Weakens community connection to schools and local democracy

[19] Because this would not vary by district, it would be possible to make the tax more progressive than the current method. For example, there could be brackets or a sliding scale. This could then eliminate the circuit breaker program.

- The Legislature would deal with pleas for more money and proposals to tweak pupil weighting, to add special categorical grants, etc. This would make it likely that it would become more complex each year.
- Not likely to have public support

The Commission looked at this option because of testimony received. Several legislators felt that the current system does not give the Legislature enough control over spending. Others sensed that the State was in the process of taking more and more control away from local districts, so ceding taxing authority was not a huge step.

On the other hand, many people defended local control of schools, pointing out it can strengthen both the schools and democracy. The principle of subsidiarity--assigning the responsibility for a public function to the lowest level of government that can competently fulfill it—is not just a quaint Vermont tradition. The principle has been accepted internationally and incorporated in the charter of the European Union (European Union, 2016). In Vermont, local citizens are involved in their schools, serve on school boards, elect their school directors, and approve local budgets. By tying the voters' tax bills directly to the budgets approved, public accountability is more direct than in government functions supported by other state taxes.

Although the Commission received complaints about local control, no one expressed support for eliminating it.

Appendix 6-2. Presentations and Testimony on Education Finance and Property Taxes

In evaluating education finance and property tax issues, this Commission heard foundational presentations from the Legislative Joint Fiscal Office and Vermont Department of Taxes, received written and verbal testimony from a variety of Vermonters, convened an online panel discussion, and conducted additional research and analysis.

Foundational Presentations

Legislative Joint Fiscal Office

- Introduction to Vermont's Education Finance System - https://ljfo.vermont.gov/assets/Uploads/954aca7798/Introduction_to_Vermont_s_Education_Finance_System_-_January.pdf
- June 2019 Presentation on Education Finance – https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-06-24/d0b7b9e5f3/TSC_june24_19-cw_6_24_19-v2.pdf
- Requested Updates to June 2019 Presentation -- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-07-30/387de4dd60/Homestead-Education-Tax-Data-follow-up-7-30-2020.pdf

Vermont Department of Taxes

- Comparing Vermont Property Taxes to Peer States - https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/6702da4555/Comparing-VT-Property-Taxes-to-NE-NY-One-Pager_V12.pdf
- Education Fund and Education Finance Fact Sheet - https://tax.vermont.gov/sites/tax/files/documents/FS-1259.pdf
- Herculean Task of Understanding VT's Ed Prop Taxes - https://www.youtube.com/watch?v=uHWLnYwcYbE

Testimony

Dozens of Vermonters took time out of their schedules to speak to the Commission about issues related to education finance and property taxes during 2019 and 2020.

Jamey Fidel (Vermont Natural Resources Council), Todd Heyman (Fat Sheep Farm), Nick Richardson (Vermont Land Trust), and Tom Vickery testified about appraisals, the Use Value Appraisal Program (Current Use), and/or the equalization study.

Representatives Scott Beck, Cynthia Browning and Charles Kimbell, Paul Cillo and Stephanie Yu (Public Assets Institute), Jeff Fannon (Vermont-NEA), Jeff Francis (Vermont Superintendents Association), Nicole Mace (Vermont School Boards Association), John McLaughry (Ethan Allen Institute), and Jeanne Montross (Helping Overcome Poverty's Effects) testified on student equity, taxpayer equity, significant cost drivers, income

sensitivity, the homestead education tax, how the yields and Common Level of Appraisal are presented to voters, and related issues.

Carolyn Dawes (Barre City Clerk/Treasurer), Jake Feldman, Jill Remick, and Christie Wright (Vermont Department of Taxes), Karen Horn (Vermont League of Cities and Towns), Mark Perrault (Legislative Joint Fiscal Office), Lucrecia Wonsor (Killington Town Clerk/Treasurer) testified about policy and administrative considerations from the state and local perspectives.

In addition, testimony from Rep. Ancel, Sen. Cummings, and Treasurer Pearce and others touched upon education finance and related topics, such as teacher pensions and capital costs, but were primarily focused on the revenue system more broadly.

Panel Discussion

In March 2020, the Commission's scheduled in-person Education Finance event in Randolph was cancelled due to COVID. In June, Jeff Francis, Dan French (Agency of Education), and Bill Mathis (National Education Policy Center) joined the commissioners for an online panel discussion which can be found here:
https://www.youtube.com/watch?v=RhnD6Vk89eY

Written Testimony

In addition to verbal testimony, several Vermonters provided written testimony which can be found here:

Rep. Scott Beck

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/a6d304cef6/Representativ-Beck-memo-to-the-TSC.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/9595308601/Representative-Beck-Analysis-on-H.198.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/e9c862b006/Representative-Beck-H.198.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-09-23/85d5b2781c/Representative-Beck-TSC-Testimony_Sept-23.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-07-09/2c5662ba4d/Scott-Beck-Ed-Funding-Recs.pdf

Rep. Cynthia Browning

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/af6040a698/EdFinRefTSCRevMemo11320.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-08-31/0cbe7be4b8/TSCBrowningMemo83120.pdf

Paul Cillo, Stephanie Yu (Public Assets Institute)

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/6bd7bbbc88/taxcommission-PAI-HANDOUTfinal.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/38715f467f/Public-Assets-testimony-to-the-TSC.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/50aa75b1af/Education-Fund-revenue-mix.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/41312bd6ec/Volatility.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-08-31/d25454cff9/Ed-Funding-002.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-09-14/18a7416781/Sept-11-2020-TSC-letter.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-09-14/77c0e19fb2/Kleppner-Analysis-of-Education-Income-Tax-Critiques-with-Public-Assets-comments-8-31-20.pdf

Jeff Fannon (Vermont-NEA)

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/8857407e7b/Tax-Structure-Commission-Testimony-Final.pdf

Jake Feldman (Vermont Department of Taxes)

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/9872e3ca90/Why-not-pay-for-education-with-an-income-tax_2.pdf

Jamey Fidel (Vermont Natural Resources Council)

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-09-23/12dab5b8e3/1_PDFsam_Jamey-Fidel-VNRC-Tax-Structure-Commission-Report.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-09-23/9b9722db26/14_PDFsam_Jamey-Fidel-VNRC-Tax-Structure-Commission-Report.pdf

Jeff Francis (Vermont Superintendents Association)

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-09-23/56d7c307c9/Testimony-to-the-Vermont-Tax-Structure-Commission-September-23-2019.pdf

Todd Heyman (Fat Sheep Farm)

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-09-23/56d7c307c9/Testimony-to-the-Vermont-Tax-Structure-Commission-September-23-2019.pdf

Karen Horn (Vermont League of Cities and Towns)

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-12-14/c930e6bc4b/VLCT-December-2020.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-12-14/3469f27a5d/Billing-and-Collecting-Property-Taxes-11-20-2020.pdf

- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/682033ca37/LOT-2019.pdf
- https://ljfo.vermont.gov/assets/Subjects/Public-Feedback/cedaf4690f/VLCT-local-revenue-reform.pdf

Rep. Charles Kimbell
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-09-23/56d7c307c9/Testimony-to-the-Vermont-Tax-Structure-Commission-September-23-2019.pdf

Nicole Mace (Vermont School Boards Association)
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/62bc235907/Nicole-Mace-Testimony-to-the-Tax-Structure-Commission.pdf

Bill Mathis (National Education Policy Center)
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-06-11/1740edd2fd/Tax-Commissioner-Questions-for-the-2.pdf

John McLaughry (Ethan Allen Institute)
- http://www.ethanallen.org/pdf/educationreport_2009.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/4b66057c10/John-McCalughry-Articles.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/119ca7a8e0/John-McClaughry-Testimony-to-the-Tax-Structure-Commission.pdf

Doug McKain
- https://ljfo.vermont.gov/assets/Subjects/Public-Feedback/bb4495054c/McKain-Letter.pdf

Nick Richardson
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-09-23/9f192ceae2/Vermont-Tax-Structure-Commission-Testimonay.pdf

Tom Vickery
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/8e695fa82b/Tom-Vickery-Testimony-on-VT-Current-Use-Program.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/7e2ec264a1/Tom-Vickery-Spreadsheet-on-VT-Education-Tax-Burdens.pdf
- https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-08-29/8b8ba2357f/Tom-Vickery-Letter-from-Stowe-Board-of-Listers.pdf

Additional Research and Analysis Considered by This Commission

- Legislative Initiatives Related to Changing the Education Financing System, 1994-1998
  https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2019-06-24/2e5ca32749/Ed-finance-reform-bills-1995-96_1997-98.pdf

- States with Statewide Property Tax - https://ljfo.vermont.gov/assets/Uploads/cf1cbc0db8/GENERAL-339740-v1-States-with-statewide-education-tax.pdf
- Summary of BRTSC's Alternatives to Then-Current Taxation of Homestead Property - https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/7921712fdf/BRTSC-models-of-ed-finance.pdf
- State Approaches to Statewide Funding for Education and Property Tax Relief - https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/32b63c9879/State-Approaches-to-Education-Finance-and-Property-Tax-1-13.pdf
- State Electronic Administration, Billing & Collection of the Statewide Education Tax Issues for Discussion/Further Research *(2012 analysis from Legislative Joint Fiscal Office)* https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/41ae4f4519/GENERAL-274245-v1-State_collection_and_billing_of_education_tax.pdf
- Analysis of an Income-Based Education Property Tax for Vermonters *(2006 analysis from Legislative Joint Fiscal Office)* https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/4731b14f7d/GENERAL-209865-v1-Study_of_Proposal_1.pdf
- Report on the Implementation of Senate Bill No. 175 of 2016 *(analysis from Legislative Joint Fiscal Office)* https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-01-13/f6550e5f4f/GENERAL-320634-v1-Final_Version_of_S175_Report.pdf
- NH Commission to Study School Funding Progress Report https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-08-19/3242bb734a/NH-Commission-to-Study-School-Funding-Progress-Report.pdf
- Income and Property Tax Bases – https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-08-19/eb4bbda325/Property-and-Income-Tax-Bases-Aug2020-DRAFT.pdf
- Initial Analysis of Homestead Exemption *(analysis from Vermont Department of Taxes)* - https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-08-31/af14e7adfa/Initial-analysis-of-homestead-exemption-v2.pdf
- Property Tax Circuit Breaker Considerations - https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-08-31/9eb9e1610f/Property-Tax-Circuit-Breaker-Considerations.pdf
- Clarifying Income and Property Portions of Homestead Tax *(data from Legislative Joint Fiscal Office)* - https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2020-11-23/4758d7b42f/Clarifying-Income-and-Property-Portions-of-Homestead-Tax.pdf
- Aggregate Income Tax Rates & Comparison of Income/Property Taxes - https://ljfo.vermont.gov/assets/Meetings/Tax-Structure-Commission/2021-01-04/7f4a245e19/Aggregate-State-Income-Tax.pdf

Appendix 7-1. Services Sector Recommendations

Recommendations of Services to Tax and Not Tax

The following list of services are sorted according to this Commission's recommendations:

A) Services currently taxed in Vermont: recommend to maintain
B) Services currently taxed in Vermont: recommend to tax when the sale is to a consumer, exempt when the sale is to a business
C) Services currently taxed in Vermont: recommend to exempt
D) Services not taxed in Vermont: recommend to tax when provided to consumers, not when provided to businesses
E) Consumer services not taxed in Vermont: recommend to tax
F) Services not currently taxed in Vermont: recommend maintaining exemption

	2012 NAIC	A. Services currently taxed in Vermont: recommend to maintain		# of states taxing
1	56191	Gift and package wrapping service		22
2	812199/713940	Health clubs, tanning parlors, reducing salons		23
3	5112	Software - package or canned program		47
4	541511/2	Software - modifications to canned program		28
5	5112	Software - Downloaded		34
6	4512	Books - Downloaded		28
7	443142	Music - Downloaded		28
8	443142	Movies/Digital Video - Downloaded		28
9	518210	Streaming Music/Audio Services new		16
10	518210	Streaming Video Services new		17
11	711212	Pari-mutuel racing events.		26
12	71311	Amusement park admission & rides		36
13	71399	Billiard parlors		28
14	71395	Bowling alleys		28
15	517110	Cable TV services		26
16	517110	Direct Satellite TV		25
17	711190/711310	Circuses and fairs -- admission and games		34
18	713910/40	Membership fees in private clubs.		22

19	7111	Admission to cultural events		31
20	711211	Admission to professional sports events		36
21	53223	Rental of DVD/tapes for home viewing [includes delivery by mail or vending machine]		45
22	5322	Personal property, short term (generally)		45
23	5322	Personal property, long term (generally)		45
24	532411	Aircraft rental to individual pilots, short term		39
25	532411	Aircraft rental to individual pilots, long term		39
26		Custom fabrication labor		38
27		Repair material, generally		47
28		Taxidermy		26
29	532111	Short term automobile rental		48
30	72111/9	Hotels, motels, lodging houses		51
	2012 NAIC	**B. Services currently taxed in Vermont: recommend to tax when the sale is to a consumer, exempt when the sale is to a business**		**# of states taxing**
31	5171	Intrastate telephone & telegraph		42
32	5171	Interstate telephone & telegraph		26
33	51721	Cellular telephone services		43
34	2211	Electricity		36
35	22121	Natural gas		37
36	484240	Other fuel (including heating oil)		37
37	561439	Photocopying services		43
38	81292	Photo finishing		44
39	32311	Printing		46
	2012 NAIC	**C. Services currently taxed in Vermont: recommend to exempt**	**Reason for exemption**	**# of states taxing**
40	54143	Commercial art and graphic design.	Business input	22

41	54189	Sign construction and installation	Business input	32
42	532310	Rental of hand tools to licensed contractors.	Business input	44
43	532412	Bulldozers, draglines and const. mach., short term	Business input	44
44	532412	Bulldozers, draglines and const. mach., long term	Business input	44
	2012 NAIC	**D. Services not taxed in Vermont: recommend to tax when provided to consumers, not when provided to businesses**	**Taxed by neighbors (NE+NY)**	**# of states taxing**
45	532112	Long term automobile lease	CT, MA, ME, NH, NY, RI	42
46		Custom processing (on customer's property)	CT, NY, RI	27
47		Welding labor (fabrication and repair	CT, NY	32
48	561730	Landscaping services (including lawn care)	CT, NY	21
49	4931	Automotive storage	CT, NY	18
50	2382	Carpentry, painting, plumbing and similar trades	CT	13
51	238910	Construction service (grading, excavating, etc.)	CT	11
52	237110	Water well drilling	CT	10
53	49313	Food storage		9
54	49312	Fur storage	NY	15
55	53113	Mini -storage	CT, NY	12
56	49312	Cold storage		12
57	71393/81 1490	Marina Service (docking, storage, cleaning, repair)	NY	15
58	48833	Marine towing service (incl. tugboats)	NY	8
59	56151	Travel agent services		4
60	488991	Packing and crating	CT	11
61	5221	Service charges of banking institutions		3
62	524	Insurance services		7
63	52392/3	Investment counseling		6
64	52312	Loan broker fees		3
65	5312	Property sales agents (real estate or personal)		5

66	541191	Real estate title abstract services	NY	7
67	561740	Carpet and upholstery cleaning -- residential	CT, NY	20
68	523930	Debt counseling	CT	7
69	812331	Diaper service		22
70	56179	Swimming pool cleaning & maintenance	CT, NY	19
71	541213	Tax return preparation		6
72	56199	Water softening and conditioning	NY	16
73	54141	Interior design and decorating	NY	10
74	561710	Exterminating (includes termite services) -- residential	CT, NY	20
75	561611	Private investigation (detective) services	CT, NY	17
76	517919	Internet Service Providers-Dialup		8
77	517110	Internet Service Providers-DSL or other broadband		9
78	519190	Other Electronic Goods - Downloaded	CT, ME	23
79	811192	Automotive washing and waxing	CT, NY	24
80	488410	Automotive road service and towing services	CT, NY	20
81	81119	Auto service. except repairs, incl. painting & lube	CT, NY	25
82	81293	Parking lots & garages	CT, NY	21
83	811198	Automotive rustproofing & undercoating	CT, NY	26
84	5412	Accounting and bookkeeping		5
85	54131	Architects		5
86	54111	Attorneys		5
87	54133	Engineers		5
88	54137	Land surveying		7
89	48532	Limousine service (with driver)		17
90	811	Repair labor, generally	CT, NY	25
91	488190	Labor charges on repair of aircraft		15
92		Labor charges - repairs to interstate vessels		11
93		Labor charges - repairs to intrastate vessels	NY	21
94	811111	Labor charges on repairs to motor vehicles	CT, NY	23
95	81121	Labor on radio/TV repairs; other electronic equip.	CT, NY	25
96	8114	Labor charges - repairs other tangible personal property	CT, NY	25

97	236118	Labor - repairs or remodeling of real property	CT, NY	14
98		Labor charges on repairs delivered under warranty		7
99	524128	Service contracts sold at the time of sale of TPP	CT, NY	33
100		Installation charges by persons selling property	NY	23
101		Installation charges - other than seller of goods	NY	19
102	445210	Custom meat slaughtering, cutting and wrapping	NY	14
103	561612	Security services	CT, NY	19
104	326212/811198	Tire recapping and repairing	CT, NY	28
105	56172	Window cleaning	CT, NY	19
106	519190	Information services	CT, NY	15
107	4931	Automotive storage		18
108	2213	Water		18
109	22132	Sewer and refuse		14
110	56199	Water softening and conditioning		16
111	532112	Long term automobile lease		42
112	48121	Chartered flights (with pilot)		7
113		Welding labor (fabrication and repair)		32
114	441110	New Car Dealers -- labor/warranty/service contracts -- personal	299,162,994, 329,947	24,5, 32
115	811121	Automotive body, paint, and interior		25
116	811191	Automotive oil change & lubrication shops		25
117	811122	Auto glass replacement shops, cars & light truck		24
118	447190	Other gasoline stations		24
119	811122	Auto glass replacement shops, other vehicles		24
120	811113	Auto transmission repair		24
121	441121	Used car dealers labor		24
122	441310	Auto parts & accessories -- labor		24
123	447110	Gas station c-store -- labor		24
124	447111	Gas station c-store -- car wash		24
125	812321	Drycleaning and laundry except coin op		22
126	454311	Heating oil dealers -- residence		15
127	811413	Appliance repair and maintenance		24
128		Software as a service -- Remote Access to Hosted Software		15
129		Software as a service -- Cloud Storage/Backup		8

130		Cloud computing services - Provision of Virtual Computing Capacity		9
131	442210	Floor covering stores -- labor		23
132	812930	Parking lots/garages		21
133	443112	Radio/TV/electronics stores -- service contracts		32
134	441320	Tire dealers -- labor		28
135	713920	Marinas -- docking/storage/utilities		16
136	811420	Reupholstery and furniture repair		24
137	451110	Sporting goods stores -- labor		24
138	443112	Radio/TV/electronics stores -- labor		24
139	442210	Floor covering stores -- delivery & installation		23
140	442110	Furniture stores -- labor		24
141	442110	Furniture stores -- delivery charges		23
142	811212	Computer/office equip repair & maintenance		24
143	454312	LPG bottle dealers -- labor		15
144	812320	Drycleaning and laundry except coin op -- garment alteration/repair		22
145	444220	Nursery/garden center/farm supply stores -- labor		24
146	713930	Marinas -- maintenance/repair of equipment		24
147	442210	Floor covering stores -- repair work		24
148	485310	Taxi Service		8
149	561510	Travel agencies		4
150	561730	Landscaping services -- snowplowing		
151	561790	Other services to buildings/dwellings -- chimney cleaning/snow removal		
152	562111	Solid waste collection		10
153	562920	Materials recovery facilities		10
154	562991	Septic tank maintenance/portolet rental		10
155	541110	Offices of lawyers		5
156	541211	Offices of CPAs		5
157	541330	Engineering services		5
158	541340	Drafting services -- architectural		5
159	541219	Other accounting services -- tax plan/prep/etc		5
160	541350	Building inspection services		5
161	541370	Surveying & mapping except geophysical		7
162	54140	Interior design services		10
163	541620	Environmental consulting services		7
164	81232	Laundry and dry cleaning services, non-coin op		21
165	444210	Outdoor power equipment stores -- labor		24
166	485320	Limosine service		16

	2012 NAIC	E. Consumer services not taxed in Vermont: recommend to tax	Taxed by neighbors (NE+NY)	# of states taxing
167	812910	Pet care except vet services	CT, NY, RI	20
168	11521	Horse boarding and training (not race horses)	NY	9
169	541940	Veterinary services -- household pets		5
170	49311	Household goods storage		14
171	22132	Residential Sewer and refuse	NY	11
172	812111/2	Barber shops and beauty parlors		7
173	81299	Dating services	CT	8
174	713990	Fishing and hunting guide services		11
175	81149	Garment services (altering & repairing)	CT	20
176	81231	Laundry and dry cleaning services, coin-op		5
177	812199	Massage services	CT	11
178	611610/20	Personal instruction (dance, golf, tennis, etc.)		6
179	81143	Shoe repair		21
180	532220	Formal wear and costume rental	CT, NY	39
181	713990	Admission to school and college sports events	CT, NY	21
182	6212	Dentists		4
183	6215	Medical test laboratories		4
184	62311	Nursing services out-of-hospital		4
185	6211	Physicians		4
186	7212	Trailer parks - overnight		29
187	811490	Other household goods repair/maintenance		24
188	721211	RV parks and campgrounds		27
189	811211	Consumer electronics repair/maintenance		24
190	812113	Nail salons		7
191	81219	Diet/weight reduction services		7
192	812210	Funeral homes and services		13
193	812220	Cemetaries and crematoria		13
194	811411	Home & garden equipment repair/maintenance		24
195	443111	Household appliance store -- labor		24
196	441221	Motorcycle, ATV, and personal boat dealers -- service contracts		32
197	441210	RV dealers -- labor		24
198	453910	Pet and pet supply stores -- services		18
199	448310	Jewelry stores -- labor		24

200	441221	Motorcycle, ATV, and personal boat dealers -- service contracts		32
201	441222	Boat dealers -- labor		24
202	451140	Musical instrument and supply stores -- labor		24
203	713920	Skiing facilities -- maintenance & repair of skis		24
204	811111	General automotive repair -- repair/maintain motorcycles & boats		25
205	713920	Skiing facilities -- instruction/spa services		22
206	611699	All other misc schools and instruction		
207	611620	Sports and recreation instruction		22
208	611170	Educational support services/consulting		
209	611691	Exam preparation and tutoring		
210	611670	Fine arts schools		
211	713990	All other amusements and recreation industries		
212	561520	Tour operators		4
	2012 NAIC	**F. Services not currently taxed in Vermont: recommend maintaining exemption**	**Reason for exemption**	
213	561421	Telephone answering service	Business input	20
214	11511	Soil prep., custom baling, other ag. services	Business input	4
215	21311	Metal, non-metal and coal mining services	Business input	6
216	541360	Seismograph & Geophysical Services	Business input	7
217	213112	Oil Field Services	Business input	12
218	32312	Typesetting service; platemaking for the print trade	Business input	23
219	237/238	Gross Income of Construction Contractors		11
220	485	Income from intrastate transportation of persons		14
221	485113	Local transit (intra-city) buses		5
222	492	Intrastate courier service		6
223	492	Interstate air courier (billed in-state)		0
224	5313	Real estate management fees (rental agents)		5
225	523999	Tickertape reporting (financial reporting)		10
226	81221	Income from funeral services		13
		Sales of advertising time or space:		
227	54185	Billboards		4
228	54184	Radio & television, national advertising		2

229	54184	Radio & television, local advertising		4
230	54184	Newspaper		4
231	54184	Magazine		4
232	54181	Advertising agency fees (not ad placement)		11
233	561613	Armored car services		18
234	81299	Bail bond fees		4
235	56144	Check & debt collection		8
236	812331	Commercial linen supply		34
237	56145	Credit information, credit bureaus		13
238	56131	Employment agencies		11
239	561720	Maintenance and janitorial services		19
240	541820	Lobbying and consulting		7
241	541910	Marketing		6
242	541199	Process server fees		6
243	541820	Public relations, management consulting		7
244	56141/561492	Secretarial and court reporting services		8
245	561422	Telemarketing services on contract		6
246	56132	Temporary help agencies		10
247	54138	Test laboratories (excluding medical)		8
248	0	Software - custom programs - material		20
249	541511	Software - custom programs - professional serv.		14
250	518210	Data processing services		11
251	518210	Mainframe computer access and processing serv.		11
252	518210	Online Data processing services		11
253	71312	Coin operated video games		15
254	71312	Pinball and other mechanical amusements		17
255	51212	Rental of films and tapes by theaters		9
256	336611	Labor - repairs to commercial fishing vessels		15
257	488210	Labor charges on repairs to railroad rolling stock		12
258		Custom processing		27
		TAXATION OF CLOUD COMPUTER SERVICES		

259		Software as a Services, Generally (Remote Access to Hosted Software)		14
260		- Remote Access to Hosted Custom Applications		14
261		Infrastructure as Service, Generally		8
262		- Business Cloud Storage/Backup		9
263		- Business Data Warehouses		8
264		- Ecommerce Site/Webserver Hosting		9
265	531130	Lessors of miniwarehouses/self-storage		13
266	811310	Commercial and industrial machinery -- repair/maintenance		24
267	531120	Lessors of nonresidential buildings, excluding mini/self-store		13
268	531110	Lessors of residential buildings -- apartments, houses, etc		13
269	531190	Lessors of other real estate		13
270	813910	Business associations		
271	813410	Civic and social organizations -- membership & gaming services		
272	813920	Professional organizations -- membership services		
273	813311	Human rights organizations -- membership services		
274	813312	Environment, conservation, and wildlife orgs -- membership services		
275	813319	Other social advocacy organizations -- membership services		
276	511110	Newspaper publishers		
277	541380	Testing laboratories		7

Figure 25 Data from "Sales Taxation of Services" (Federation of Tax Administrators, 2017).

Thirty-six Services Not Taxed in Vermont That Are Taxed in at Least One New England State

Table below shows the sales tax rate (%) on services in each New England state as well as the number of states in the U.S. that tax each service.

	CT	NY	RI	ME	MA*	NH	States in U.S. w/ tax
# of these 36 services taxed by each state	**34**	**31**	**8**	**5**	**1**	**1**	
Long term automobile lease	6.35	4	7	5.5	6.25	9	42
Custom processing (on customer's property)	6.35	4	7				27
Pet grooming	6.35	4	7				20
Income from intrastate transportation of persons	6.35	4	7				14
Telephone answering service	6.35	4	7				20
Welding labor (fabrication and repair)	6.35	4					32
Landscaping services (including lawn care)	6.35	4					21
Automotive storage	6.35	4					18
Mini -storage	6.35	4					12
Water			7	5.5			10
Electricity			4	5.5			36
Carpet and upholstery cleaning	6.35	4					20
Swimming pool cleaning & maintenance	6.35	4					19
Tuxedo rental	6.35	4					40
Advertising agency fees (not ad placement)	6.35			5.5			11
Armored car services	6.35	4					18
Exterminating (includes termite services)	6.35	4					20
Private investigation (detective) services	6.35	4					17
Security services	6.35	4					19
Tire recapping and repairing	6.35	4					19
Window cleaning	6.35	4					19
Information services	1	4					15
Mainframe computer access and processing serv.	1		7				11
Other Electronic Goods - Downloaded	1			5.5			23
Automotive washing and waxing.	6.35	4					24
Automotive road service and towing services	6.35	4					20
Auto service. except repairs, incl. painting & lube	6.35	4					25
Parking lots & garages	6.35	4					21
Automotive rustproofing & undercoating.	6.35	4					26
Admission to school and college sports events	10	4					21
Repair labor, generally	6.35	4					25
Labor charges on repairs to motor vehicles	6.35	4					23
Labor on radio/TV repairs; other electronic equip.	6.35	4					25
Labor charges - repairs other tangible property	6.35	4					25
Labor - repairs or remodeling of real property	6.35	4					14
Service contracts sold at the time of sale of TPP.	6.35	4					33

Figure 26 Data from "Sales Taxation of Services" (Federation of Tax Administrators, 2017).

Appendix 7-2. Number of Services Taxed by Category & State

The following data comes from the Survey of Services Taxation (Federation of Tax Administrators, 2017). For details on which services in each category are taxes in which, see: https://www.taxadmin.org/sales-taxation-of-services

	Agricultural Services	Industrial and mining services	Construction	Utilities	Transportation	Storage	F.I.R.E.	Personal services	Business services	Computer services	Computer Online Services	Automotive services	Admissions and amusements	Professional services	Leases	Fabrication, repair, installation	Miscellaneous	**TOTAL Non-exempt entries**
AL	0	0	0	12	0	0	0	1	6	3	6	0	10	0	2	1	1	42
AK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
AR	2	0	0	16	1	2	0	7	12	1	0	5	12	0	2	11	2	73
AZ*	1	2	4	12	5	6	0	2	7	0	5	1	9	0	3	2	1	60
CA	0	1	0	2	0	0	0	2	7	1	0	1	1	0	2	3	1	21
CO	0	0	0	4	0	0	0	1	2	0	4	0	2	0	2	3	1	19
CT	2	4	4	10	2	3	0	9	21	6	8	5	10	0	4	10	1	99
DE	5	4	4	9	4	6	5	20	34	6	8	5	10	9	3	19	1	152
DC	1	1	0	14	2	2	1	9	17	6	4	4	10	0	3	14	3	91
FL	0	0	0	9	0	6	0	4	11	0	2	4	13	0	2	15	3	69
GA	0	0	0	10	3	0	0	4	5	2	0	0	8	0	3	1	0	36
HI	5	4	4	16	7	6	7	20	34	8	6	5	14	9	3	18	1	167
ID	0	1	0	0	0	0	0	3	4	0	4	0	9	0	2	6	1	30
IL	0	0	0	12	0	0	0	2	1	1	1	1	9	0	1	1	0	29
IN	1	0	0	12	0	1	0	4	3	1	5	0	3	0	2	1	3	36
IA	2	0	3	10	1	3	2	15	17	0	1	5	13	0	3	13	1	89
KS	2	2	3	10	2	0	0	10	9	1	1	4	13	0	1	15	1	74
KY	0	0	0	11	0	0	0	2	4	1	6	0	8	0	1	4	3	40
LA*	0	1	0	10	0	2	0	8	5	3	5	3	9	0	1	13	0	60
ME	0	0	0	10	0	0	0	1	6	0	5	0	3	0	2	4	2	33
MD*	0	0	0	5	1	0	0	3	13	1	0	0	11	0	1	4	1	40

	Agricultural Services	Industrial and mining services	Construction	Utilities	Transportation	Storage	F.I.R.E.	Personal services	Business services	Computer services	Computer Online Services	Automotive services	Admissions and amusements	Professional services	Leases	Fabrication, repair, installation	Miscellaneous	**TOTAL Non-exempt entries**
MA*	0	0	0	9	0	0	0	1	4	0	1	0	1	0	1	2	0	19
MI	0	1	0	12	0	0	0	2	7	1	1	0	1	0	1	1	0	27
MN	2	1	0	15	0	0	0	8	11	0	6	4	12	0	2	6	0	67
MS	2	3	4	10	1	5	0	5	8	3	7	4	11	0	2	13	1	79
MO	0	0	0	8	1	0	0	1	2	1	0	0	10	0	1	0	0	24
MT	0	0	1	12	0	0	1	0	0	0	0	0	1	0	2	0	0	17
NE	2	1	0	14	0	0	0	10	14	3	6	4	12	0	2	12	1	81
NV	0	0	0	0	3	0	0	1	4	0	0	2	7	0	2	2	0	21
NH	0	0	0	6	0	0	0	1	0	0	0	0	0	0	1	0	1	9
NJ	3	0	1	12	1	6	2	6	17	1	4	5	7	0	1	15	3	84
NM*	3	4	4	16	8	6	6	20	32	8	6	5	14	9	4	18	1	164
NY	3	0	0	5	3	4	2	5	13	1	1	5	6	0	2	14	0	64
NC	0	1	1	12	0	0	0	7	8	0	6	3	9	0	1	14	0	62
ND	0	0	0	4	0	0	0	1	4	2	1	0	8	0	2	0	0	22
OH	1	1	0	8	2	5	0	11	14	5	8	4	13	0	3	11	0	86
OK*	0	0	0	9	1	1	0	3	5	1	0	1	10	0	2	0	0	33
OR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PA	2	0	0	9	1	0	0	5	16	4	8	4	2	0	1	14	1	67
RI*	1	0	0	11	2	0	0	1	6	2	1	0	5	0	2	3	3	37
SC	0	0	0	4	0	0	0	6	7	4	2	0	10	0	2	1	3	39
SD	4	4	4	14	5	5	7	19	28	8	8	5	13	5	4	18	1	152
TN	1	0	0	11	1	1	0	10	7	3	6	5	12	0	2	14	3	76
TX	2	2	3	12	1	2	2	10	14	8	8	1	12	1	1	10	1	90
UT	1	2	0	7	2	0	0	8	6	0	5	4	11	0	2	15	1	64
VT	0	0	0	9	0	0	0	2	5	1	6	0	11	0	1	2	0	37
VA	0	1	0	1	0	0	0	3	4	0	0	0	1	0	2	4	1	17
WA	5	4	4	16	7	6	8	20	33	8	8	5	13	9	3	16	2	167

Appendix 7-2. Number of Services Taxed by Category & State

	Agricultural Services	Industrial and mining services	Construction	Utilities	Transportation	Storage	F.I.R.E.	Personal services	Business services	Computer services	Computer Online Services	Automotive services	Admissions and amusements	Professional services	Leases	Fabrication, repair, installation	Miscellaneous	**TOTAL Non-exempt entries**
WV	3	1	1	8	4	6	3	18	27	4	5	5	13	1	3	13	0	115
WI	3	1	0	11	2	1	0	10	8	3	7	5	14	0	3	13	1	82
WY	0	1	0	10	3	1	0	7	5	4	5	4	6	0	4	16	0	66

Figure 27 Data from "Sales Taxation of Services" (Federation of Tax Administrators, 2017).

* Indicates state did not respond to 2017 survey. 2007 responses are shown.

Appendix 7-3. Major Categories of Vermont Consumer Spending Not Currently Subject to Sales Tax

Economic category	Annual Vermont consumer spending	% of total
Health Care not currently subject to the Provider Tax	$2,395,322,000	30.2%
Groceries	$2,102,500,000	26.5%
Education	$984,600,000	12.4%
Residential energy	$702,500,000	8.9%
Clothing	$503,333,000	6.3%
Automotive services	$316,000,000	4.0%
Services not related to personal property	$283,333,000	3.6%
Professional services	$143,333,000	1.8%
Related to personal property besides cars	$133,333,000	1.7%
Hair, Skin, & Nails	$125,000,000	1.6%
Veterinary services	$83,333,000	1.1%
Household Services	$75,000,000	0.9%
Funeral	$25,000,000	0.3%
Travel	$16,667,000	0.2%
Newspapers	$39,833,000	0.5%
Sales of mobile/modular homes	$5,000,000	0.1%
Total	**$7,934,087,000**	**100.0%**

Figure 28 Data from "Provider Taxes Overview" (Langweil & Carbee, 2020), "GDP and Personal Income" (U.S. Bureau of Economic Analysis), Sales Tax on Services Study (Feldman, Dooley, & Morgan, Sales Tax on Services Study, 2016), 2019 Vermont Tax Expenditure Report (Feldman, Schickner, Stein, Campbell, & Dickerson, 2019), and Vermont 2020 (Agency of Commerce and Community Development, 2016).

Appendix 7-4. Consumer Expenditure by Income Decile

Table 1110. Deciles of income before taxes: Annual expenditure means, shares, standard errors, and coefficients of variation, Consumer Expenditure Survey, 2019

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Number of consumer units (in thousands)	132,242	13,221	13,146	13,216	13,171	13,293	13,285	13,240	13,135	13,192	13,344
Lower limit	n.a.	n.a.	$12,926	$22,488	$32,662	$43,432	$56,470	$72,233	$92,021	$120,727	$169,726
Consumer unit characteristics:											
Income before taxes											
Mean	$82,852	$6,268	$17,823	$27,642	$37,910	$49,578	$63,972	$81,821	$105,052	$141,980	$294,483
SE	1,973.48	188.18	186.83	259.81	269.95	345.37	526.92	469.36	520.66	904.74	13,571.53
CV(%)	2.38	3.00	1.05	.94	.71	.70	.82	.57	.50	.64	4.61
Income after taxes											
Mean	71,487	6,386	18,120	28,230	37,675	46,829	59,421	74,234	93,571	122,353	226,602
SE	1,312.27	204.45	261.73	264.91	334.79	530.17	545.93	511.12	545.46	875.30	8,373.87
CV(%)	1.84	3.20	1.44	.94	.89	1.13	.92	.69	.58	.72	3.70
Age of reference person	51.6	51.7	61.4	57.4	52.5	50.5	48.3	47.9	47.5	48.7	49.8
Average number in consumer unit:											
People	2.5	1.5	1.7	2.0	2.3	2.4	2.6	2.8	2.9	3.1	3.2
Children under 18	.6	.3	.3	.4	.6	.5	.6	.7	.7	.8	.8
Adults 65 and older	.4	.3	.6	.6	.5	.5	.4	.3	.3	.2	.2
Earners	1.3	.4	.5	.7	1.0	1.2	1.5	1.7	1.9	2.1	2.1
Vehicles	1.9	.9	1.1	1.5	1.7	1.8	2.1	2.2	2.4	2.8	2.9
Percent distribution:											

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Reference person:											
Men	48	38	36	40	45	49	48	54	55	56	58
Women	52	62	64	60	55	51	52	46	45	44	42
Housing tenure:											
Homeowner	64	35	51	56	54	60	64	71	74	82	89
With mortgage	37	12	14	19	23	31	38	50	54	63	68
Without mortgage	27	23	37	37	32	28	26	22	20	19	22
Renter	36	65	49	44	46	40	36	29	26	18	11
Race of reference person:											
Black or African-American	13	25	16	17	14	12	14	11	9	11	5
White, Asian, and all other races	87	75	84	83	86	88	86	89	91	89	95
Hispanic or Latino origin of reference person:											
Hispanic or Latino	14	13	13	16	17	17	16	14	11	11	6
Not Hispanic or Latino	86	87	87	84	83	83	84	86	89	89	94
Education of reference person:											
Elementary (1-8)	3	5	4	3	4	3	2	2	2	1	a/
High school (9-12)	30	43	48	43	37	32	28	24	20	14	8
College	67	51	48	53	59	65	70	74	78	85	91
Never attended and other	a/	1	1	a/	a/	a/	a/	a/	a/	a/	a/
At least one vehicle owned or leased	89	60	76	87	92	92	95	95	97	98	97
Average annual expenditures											
Mean	$63,036	$25,856	$31,499	$37,131	$43,822	$49,367	$56,720	$66,435	$75,945	$96,913	$145,967
SE	578.05	950.88	944.79	771.36	684.71	724.87	990.71	1,080.90	909.12	1,230.88	2,778.82
CV(%)	.92	3.68	3.00	2.08	1.56	1.47	1.75	1.63	1.20	1.27	1.90
Food											

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Mean	8,169	3,938	4,861	5,169	6,550	7,100	7,909	8,733	9,428	12,080	15,881
Share	13.0	15.2	15.4	13.9	14.9	14.4	13.9	13.1	12.4	12.5	10.9
SE	118.61	165.85	423.12	173.35	238.93	272.60	262.51	257.52	275.67	258.38	372.99
CV(%)	1.45	4.21	8.71	3.35	3.65	3.84	3.32	2.95	2.92	2.14	2.35
Food at home											
Mean	4,643	2,513	3,065	3,261	4,084	4,255	4,588	4,961	5,435	6,627	7,628
Share	7.4	9.7	9.7	8.8	9.3	8.6	8.1	7.5	7.2	6.8	5.2
SE	79.34	113.01	328.69	123.64	191.20	162.54	171.81	207.55	220.95	167.18	261.72
CV(%)	1.71	4.50	10.72	3.79	4.68	3.82	3.74	4.18	4.07	2.52	3.43
Cereals and bakery products											
Mean	583	342	405	400	532	485	612	609	712	810	924
Share	.9	1.3	1.3	1.1	1.2	1.0	1.1	.9	.9	.8	.6
SE	9.87	17.93	51.40	16.02	26.22	25.07	28.75	23.74	34.73	31.33	39.98
CV(%)	1.69	5.25	12.70	4.01	4.93	5.17	4.70	3.90	4.88	3.87	4.33
Cereals and cereal products											
Mean	184	110	101	116	168	158	192	182	231	280	298
Share	.3	.4	.3	.3	.4	.3	.3	.3	.3	.3	.2
SE	4.00	9.34	6.50	7.40	9.20	10.90	15.49	11.31	14.20	17.03	19.93
CV(%)	2.18	8.52	6.45	6.40	5.48	6.90	8.09	6.22	6.15	6.08	6.68
Bakery products											
Mean	400	232	304	284	364	327	420	427	481	529	626
Share	.6	.9	1.0	.8	.8	.7	.7	.6	.6	.5	.4
SE	7.87	10.84	49.78	13.67	20.32	17.65	19.78	16.82	25.86	23.13	28.76
CV(%)	1.97	4.67	16.37	4.82	5.58	5.40	4.71	3.94	5.38	4.37	4.60
Meats, poultry, fish, and eggs											
Mean	980	535	650	748	884	931	973	1,107	1,094	1,390	1,490
Share	1.6	2.1	2.1	2.0	2.0	1.9	1.7	1.7	1.4	1.4	1.0
SE	29.01	32.76	79.51	39.49	56.28	54.94	59.28	160.60	58.30	62.73	81.71
CV(%)	2.96	6.12	12.24	5.28	6.36	5.90	6.09	14.51	5.33	4.51	5.49
Beef											
Mean	270	134	177	172	213	273	245	387	294	382	424
Share	.4	.5	.6	.5	.5	.6	.4	.6	.4	.4	.3

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
SE	18.61	14.06	22.83	15.37	20.07	23.06	17.43	153.79	25.71	26.39	47.17
CV(%)	6.89	10.46	12.90	8.94	9.40	8.45	7.11	39.69	8.74	6.90	11.12
Pork											
Mean	187	117	144	166	171	182	204	183	202	243	253
Share	.3	.5	.5	.4	.4	.4	.4	.3	.3	.3	.2
SE	6.76	13.47	29.21	16.17	15.77	18.00	22.14	13.41	14.60	13.56	23.58
CV(%)	3.62	11.47	20.28	9.73	9.19	9.91	10.83	7.32	7.22	5.57	9.33
Other meats											
Mean	129	70	76	96	120	119	142	133	153	182	199
Share	.2	.3	.2	.3	.3	.2	.3	.2	.2	.2	.1
SE	4.51	9.16	7.53	10.08	12.61	16.34	16.97	13.06	11.95	17.84	16.56
CV(%)	3.49	13.18	9.85	10.54	10.47	13.75	11.96	9.79	7.83	9.78	8.31
Poultry											
Mean	189	99	113	158	179	174	183	200	226	270	289
Share	.3	.4	.4	.4	.4	.4	.3	.3	.3	.3	.2
SE	3.99	9.24	9.76	19.83	13.81	14.08	15.04	15.29	15.57	21.06	15.46
CV(%)	2.11	9.37	8.66	12.53	7.72	8.08	8.23	7.65	6.89	7.79	5.36
Fish and seafood											
Mean	147	74	95	114	143	128	139	146	156	236	238
Share	.2	.3	.3	.3	.3	.3	.2	.2	.2	.2	.2
SE	5.94	11.19	20.27	19.18	14.96	14.59	14.09	14.58	17.93	24.38	16.29
CV(%)	4.05	15.04	21.38	16.86	10.44	11.39	10.17	10.00	11.50	10.34	6.86
Eggs											
Mean	58	41	45	43	57	55	61	57	63	76	87
Share	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1
SE	1.85	3.66	6.20	4.06	4.35	3.78	4.70	3.60	3.05	4.70	6.19
CV(%)	3.17	8.96	13.90	9.52	7.66	6.83	7.77	6.28	4.81	6.20	7.10
Dairy products											
Mean	455	251	299	319	385	408	462	468	529	662	764
Share	.7	1.0	1.0	.9	.9	.8	.8	.7	.7	.7	.5
SE	7.20	16.02	24.44	16.10	17.63	17.29	25.91	16.86	28.98	18.40	32.63
CV(%)	1.58	6.38	8.17	5.04	4.58	4.24	5.61	3.60	5.48	2.78	4.27
Fresh milk and cream											

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Mean	140	94	104	106	122	133	136	145	164	181	217
Share	.2	.4	.3	.3	.3	.3	.2	.2	.2	.2	.1
SE	3.07	8.39	14.72	7.57	6.13	7.70	7.52	5.32	8.14	8.70	11.68
CV(%)	2.19	8.90	14.14	7.17	5.03	5.80	5.51	3.65	4.96	4.80	5.37
Other dairy products											
Mean	315	157	195	214	263	275	326	323	365	481	546
Share	.5	.6	.6	.6	.6	.6	.6	.5	.5	.5	.4
SE	5.41	10.42	15.04	12.82	15.20	12.52	22.56	15.16	23.64	15.20	24.83
CV(%)	1.72	6.64	7.71	6.00	5.78	4.55	6.93	4.70	6.48	3.16	4.55
Fruits and vegetables											
Mean	876	458	567	622	782	833	849	900	1,041	1,235	1,475
Share	1.4	1.8	1.8	1.7	1.8	1.7	1.5	1.4	1.4	1.3	1.0
SE	19.96	23.25	41.09	30.63	43.15	47.71	40.08	32.63	53.84	46.36	64.00
CV(%)	2.28	5.07	7.25	4.93	5.52	5.73	4.72	3.63	5.17	3.76	4.34
Fresh fruits											
Mean	322	157	196	224	293	293	318	334	375	453	573
Share	.5	.6	.6	.6	.7	.6	.6	.5	.5	.5	.4
SE	8.07	10.70	18.51	13.71	21.80	19.43	17.19	15.82	22.75	23.05	27.38
CV(%)	2.51	6.80	9.43	6.12	7.45	6.64	5.40	4.74	6.06	5.09	4.78
Fresh vegetables											
Mean	295	157	174	218	261	293	271	300	365	428	487
Share	.5	.6	.6	.6	.6	.6	.5	.5	.5	.4	.3
SE	8.67	14.28	11.34	18.83	15.96	20.16	17.68	17.98	24.70	18.91	24.10
CV(%)	2.93	9.11	6.50	8.63	6.13	6.89	6.53	5.98	6.76	4.42	4.95
Processed fruits											
Mean	112	60	92	73	98	101	108	115	127	159	190
Share	.2	.2	.3	.2	.2	.2	.2	.2	.2	.2	.1
SE	3.37	6.84	18.19	6.23	9.24	9.58	7.91	7.19	8.63	9.11	16.54
CV(%)	3.00	11.39	19.79	8.56	9.43	9.49	7.29	6.27	6.82	5.74	8.69
Processed vegetables											
Mean	147	84	104	107	131	146	151	151	174	195	224
Share	.2	.3	.3	.3	.3	.3	.3	.2	.2	.2	.2

Appendix 7-4. Consumer Expenditure by Income Decile

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
SE	4.49	7.68	7.36	7.20	10.53	13.76	9.99	9.97	12.29	12.65	19.81
CV(%)	3.06	9.14	7.08	6.76	8.05	9.40	6.61	6.62	7.06	6.50	8.83
Other food at home											
Mean	1,749	927	1,145	1,172	1,501	1,598	1,692	1,877	2,059	2,531	2,976
Share	2.8	3.6	3.6	3.2	3.4	3.2	3.0	2.8	2.7	2.6	2.0
SE	30.05	51.17	150.91	50.16	82.20	64.88	69.09	70.13	88.96	79.78	120.71
CV(%)	1.72	5.52	13.18	4.28	5.48	4.06	4.08	3.74	4.32	3.15	4.06
Sugar and other sweets											
Mean	165	83	107	111	133	147	170	172	191	255	280
Share	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.2
SE	4.21	9.90	11.90	8.87	12.17	9.84	14.61	11.79	12.49	23.46	19.26
CV(%)	2.55	11.89	11.08	7.96	9.16	6.70	8.57	6.87	6.55	9.18	6.88
Fats and oils											
Mean	115	65	83	78	106	107	112	114	134	154	195
Share	.2	.2	.3	.2	.2	.2	.2	.2	.2	.2	.1
SE	3.71	5.92	19.71	7.27	7.86	9.69	9.01	8.42	8.95	6.96	12.59
CV(%)	3.23	9.17	23.79	9.37	7.45	9.06	8.04	7.36	6.66	4.52	6.46
Miscellaneous foods											
Mean	952	490	607	634	823	850	896	1,039	1,126	1,415	1,633
Share	1.5	1.9	1.9	1.7	1.9	1.7	1.6	1.6	1.5	1.5	1.1
SE	17.32	31.52	73.04	33.39	47.23	36.63	44.26	50.91	63.24	49.05	70.57
CV(%)	1.82	6.44	12.03	5.27	5.74	4.31	4.94	4.90	5.61	3.47	4.32
Nonalcoholic beverages											
Mean	455	267	326	321	395	446	460	487	531	616	700
Share	.7	1.0	1.0	.9	.9	.9	.8	.7	.7	.6	.5
SE	12.19	16.91	53.10	22.91	27.75	26.85	19.73	27.90	25.08	28.98	41.77
CV(%)	2.68	6.34	16.29	7.15	7.02	6.02	4.29	5.73	4.72	4.70	5.97
Food prepared by consumer unit on out-of-town trips											
Mean	62	23	21	28	45	47	54	65	77	90	169
Share	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
SE	2.60	5.79	4.23	5.19	9.52	5.09	6.02	5.53	6.51	6.54	12.34

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
CV(%)	4.19	25.16	19.89	18.61	21.31	10.78	11.23	8.50	8.45	7.26	7.30
Food away from home											
Mean	3,526	1,424	1,795	1,909	2,466	2,845	3,321	3,772	3,992	5,453	8,253
Share	5.6	5.5	5.7	5.1	5.6	5.8	5.9	5.7	5.3	5.6	5.7
SE	66.85	111.01	179.35	106.28	120.77	177.40	182.89	151.59	155.34	145.46	286.16
CV(%)	1.90	7.79	9.99	5.57	4.90	6.24	5.51	4.02	3.89	2.67	3.47
Alcoholic beverages											
Mean	579	189	228	258	404	420	462	646	671	1,014	1,495
Share	.9	.7	.7	.7	.9	.9	.8	1.0	.9	1.0	1.0
SE	22.67	25.90	75.45	35.38	36.21	40.69	47.43	66.24	54.86	68.22	115.62
CV(%)	3.91	13.68	33.13	13.69	8.95	9.69	10.28	10.25	8.18	6.73	7.73
Housing											
Mean	20,679	10,587	12,478	14,043	15,569	17,165	18,985	21,613	23,617	29,271	43,257
Share	32.8	40.9	39.6	37.8	35.5	34.8	33.5	32.5	31.1	30.2	29.6
SE	195.28	321.35	339.25	278.05	218.66	275.57	447.36	363.87	278.26	502.57	883.88
CV(%)	.94	3.04	2.72	1.98	1.40	1.61	2.36	1.68	1.18	1.72	2.04
Shelter											
Mean	12,190	6,661	7,366	8,347	9,053	10,051	11,040	12,553	13,621	17,223	25,855
Share	19.3	25.8	23.4	22.5	20.7	20.4	19.5	18.9	17.9	17.8	17.7
SE	143.71	253.12	276.83	254.69	187.64	241.40	287.14	282.43	239.48	414.11	658.43
CV(%)	1.18	3.80	3.76	3.05	2.07	2.40	2.60	2.25	1.76	2.40	2.55
Owned dwellings											
Mean	6,797	2,069	2,829	3,361	3,543	4,531	5,327	7,270	8,193	11,949	18,792
Share	10.8	8.0	9.0	9.1	8.1	9.2	9.4	10.9	10.8	12.3	12.9
SE	100.15	198.95	170.95	159.81	170.56	191.83	216.38	252.74	238.01	395.95	606.00
CV(%)	1.47	9.62	6.04	4.76	4.81	4.23	4.06	3.48	2.90	3.31	3.22
Mortgage interest and charges											
Mean	2,760	670	562	949	1,057	1,651	2,171	3,227	3,748	5,263	8,246
Share	4.4	2.6	1.8	2.6	2.4	3.3	3.8	4.9	4.9	5.4	5.6
SE	48.36	119.95	68.12	81.75	72.57	78.54	115.32	139.26	139.54	209.47	319.17
CV(%)	1.75	17.90	12.12	8.62	6.87	4.76	5.31	4.32	3.72	3.98	3.87

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Property taxes											
Mean	2,159	722	950	1,223	1,263	1,478	1,641	2,080	2,576	3,587	6,035
Share	3.4	2.8	3.0	3.3	2.9	3.0	2.9	3.1	3.4	3.7	4.1
SE	41.20	52.47	59.60	64.11	62.81	68.04	72.35	74.93	104.37	154.53	235.15
CV(%)	1.91	7.26	6.27	5.24	4.97	4.60	4.41	3.60	4.05	4.31	3.90
Maintenance, repairs, insurance, other expenses											
Mean	1,879	676	1,317	1,189	1,223	1,402	1,515	1,963	1,870	3,098	4,510
Share	3.0	2.6	4.2	3.2	2.8	2.8	2.7	3.0	2.5	3.2	3.1
SE	65.13	82.40	125.94	95.02	98.29	114.38	133.43	133.27	165.50	277.86	410.74
CV(%)	3.47	12.19	9.56	7.99	8.04	8.16	8.81	6.79	8.85	8.97	9.11
Rented dwellings											
Mean	4,432	4,155	4,293	4,621	5,058	4,983	5,133	4,517	4,440	3,836	3,284
Share	7.0	16.1	13.6	12.4	11.5	10.1	9.0	6.8	5.8	4.0	2.2
SE	89.41	177.93	273.63	224.23	201.54	186.19	255.31	263.88	284.89	329.30	433.43
CV(%)	2.02	4.28	6.37	4.85	3.98	3.74	4.97	5.84	6.42	8.58	13.20
Other lodging											
Mean	961	438	244	365	453	537	580	765	987	1,438	3,779
Share	1.5	1.7	.8	1.0	1.0	1.1	1.0	1.2	1.3	1.5	2.6
SE	38.93	117.65	36.12	49.31	50.55	62.09	61.06	77.02	82.75	78.69	220.93
CV(%)	4.05	26.88	14.80	13.52	11.17	11.57	10.52	10.07	8.38	5.47	5.85
Utilities, fuels, and public services											
Mean	4,055	2,277	2,747	3,295	3,552	3,747	4,033	4,447	4,781	5,420	6,231
Share	6.4	8.8	8.7	8.9	8.1	7.6	7.1	6.7	6.3	5.6	4.3
SE	32.23	92.14	60.66	54.38	63.97	49.12	58.89	78.72	75.42	84.79	92.03
CV(%)	.79	4.05	2.21	1.65	1.80	1.31	1.46	1.77	1.58	1.56	1.48
Natural gas											
Mean	416	220	298	349	360	366	368	439	472	547	740
Share	.7	.8	.9	.9	.8	.7	.6	.7	.6	.6	.5
SE	10.72	15.91	16.38	20.01	18.36	19.54	18.39	23.51	20.93	18.77	27.42
CV(%)	2.58	7.24	5.49	5.73	5.10	5.34	5.00	5.36	4.44	3.43	3.71
Electricity											
Mean	1,472	965	1,133	1,332	1,370	1,403	1,488	1,567	1,607	1,780	2,066

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Share	2.3	3.7	3.6	3.6	3.1	2.8	2.6	2.4	2.1	1.8	1.4
SE	17.96	46.20	32.60	29.70	30.83	23.87	36.90	34.46	35.73	27.72	49.52
CV(%)	1.22	4.79	2.88	2.23	2.25	1.70	2.48	2.20	2.22	1.56	2.40
Fuel oil and other fuels											
Mean	113	62	76	97	105	74	98	112	129	155	224
Share	.2	.2	.2	.3	.2	.1	.2	.2	.2	.2	.2
SE	6.57	13.13	11.50	16.03	13.19	12.69	12.63	18.51	14.25	23.47	23.24
CV(%)	5.81	21.34	15.21	16.59	12.56	17.23	12.91	16.54	11.02	15.16	10.38
Telephone services											
Mean	1,409	672	816	994	1,182	1,321	1,472	1,629	1,797	2,044	2,156
Share	2.2	2.6	2.6	2.7	2.7	2.7	2.6	2.5	2.4	2.1	1.5
SE	13.37	26.08	23.79	23.83	33.93	24.67	32.04	39.63	37.20	38.24	38.03
CV(%)	.95	3.88	2.92	2.40	2.87	1.87	2.18	2.43	2.07	1.87	1.76
Residential phone service, VOIP, and phone cards											
Mean	191	146	225	214	183	167	180	171	185	206	234
Share	.3	.6	.7	.6	.4	.3	.3	.3	.2	.2	.2
SE	6.01	11.26	9.44	12.89	9.18	9.36	8.24	10.92	10.50	12.46	10.35
CV(%)	3.15	7.73	4.19	6.03	5.03	5.62	4.58	6.40	5.68	6.05	4.43
Cellular phone service											
Mean	1,218	526	591	781	999	1,154	1,292	1,459	1,612	1,838	1,922
Share	1.9	2.0	1.9	2.1	2.3	2.3	2.3	2.2	2.1	1.9	1.3
SE	15.53	23.26	25.21	24.24	34.38	23.39	32.94	39.28	38.02	39.01	35.56
CV(%)	1.28	4.42	4.27	3.11	3.44	2.03	2.55	2.69	2.36	2.12	1.85
Water and other public services											
Mean	645	359	425	522	535	584	608	700	776	895	1,045
Share	1.0	1.4	1.3	1.4	1.2	1.2	1.1	1.1	1.0	.9	.7
SE	16.30	29.88	22.23	21.11	23.93	19.75	20.24	26.80	30.20	44.49	36.92
CV(%)	2.53	8.33	5.23	4.04	4.47	3.38	3.33	3.83	3.89	4.97	3.53
Household operations											
Mean	1,570	519	750	832	1,044	1,161	1,232	1,577	1,767	2,431	4,358
Share	2.5	2.0	2.4	2.2	2.4	2.4	2.2	2.4	2.3	2.5	3.0
SE	35.31	43.08	56.11	37.79	60.90	49.30	41.04	90.85	90.95	80.30	222.94

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
CV(%)	2.25	8.30	7.48	4.54	5.83	4.25	3.33	5.76	5.15	3.30	5.12
Personal services											
Mean	489	53	102	142	232	282	282	451	660	896	1,774
Share	.8	.2	.3	.4	.5	.6	.5	.7	.9	.9	1.2
SE	27.62	18.27	36.81	25.71	53.58	54.95	31.33	63.71	91.05	86.82	183.52
CV(%)	5.65	34.17	36.27	18.07	23.13	19.50	11.09	14.12	13.81	9.69	10.34
Other household expenses											
Mean	1,081	466	649	690	813	879	950	1,126	1,108	1,535	2,584
Share	1.7	1.8	2.1	1.9	1.9	1.8	1.7	1.7	1.5	1.6	1.8
SE	20.55	38.48	40.53	27.96	24.79	30.28	32.99	63.88	27.99	54.15	94.01
CV(%)	1.90	8.26	6.25	4.05	3.05	3.45	3.47	5.68	2.53	3.53	3.64
Housekeeping supplies											
Mean	766	408	452	563	611	666	732	853	848	1,093	1,426
Share	1.2	1.6	1.4	1.5	1.4	1.3	1.3	1.3	1.1	1.1	1.0
SE	18.22	34.97	50.61	58.93	53.35	43.02	63.44	70.01	63.47	76.78	107.86
CV(%)	2.38	8.58	11.19	10.47	8.73	6.46	8.66	8.21	7.49	7.02	7.56
Laundry and cleaning supplies											
Mean	185	119	130	133	183	158	198	189	192	267	283
Share	.3	.5	.4	.4	.4	.3	.3	.3	.3	.3	.2
SE	7.37	17.08	15.14	13.16	20.10	14.64	15.20	24.36	20.07	31.96	34.21
CV(%)	3.98	14.35	11.64	9.87	11.00	9.25	7.68	12.88	10.45	11.97	12.10
Other household products											
Mean	458	210	231	319	338	413	429	511	525	670	929
Share	.7	.8	.7	.9	.8	.8	.8	.8	.7	.7	.6
SE	16.59	19.74	31.18	40.65	37.31	38.61	58.46	61.29	41.49	61.83	101.75
CV(%)	3.62	9.41	13.48	12.76	11.03	9.35	13.62	11.98	7.90	9.23	10.95
Postage and stationery											
Mean	122	79	91	111	90	95	105	152	130	156	214
Share	.2	.3	.3	.3	.2	.2	.2	.2	.2	.2	.1
SE	6.49	16.97	19.40	34.68	14.52	12.15	11.66	21.19	28.73	23.68	18.06
CV(%)	5.30	21.51	21.31	31.20	16.06	12.83	11.10	13.91	22.10	15.18	8.43

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Household furnishings and equipment											
Mean	2,098	723	1,162	1,006	1,309	1,540	1,948	2,183	2,601	3,103	5,386
Share	3.3	2.8	3.7	2.7	3.0	3.1	3.4	3.3	3.4	3.2	3.7
SE	68.52	68.61	134.61	59.35	81.37	113.73	466.17	178.52	159.46	210.60	282.89
CV(%)	3.27	9.49	11.58	5.90	6.21	7.39	23.93	8.18	6.13	6.79	5.25
Household textiles											
Mean	131	67	54	63	91	90	136	165	153	192	299
Share	.2	.3	.2	.2	.2	.2	.2	.2	.2	.2	.2
SE	9.98	26.93	14.51	11.96	22.01	17.26	26.00	43.35	23.80	38.66	54.61
CV(%)	7.62	40.20	26.75	19.11	24.07	19.25	19.15	26.25	15.60	20.10	18.28
Furniture											
Mean	521	148	244	284	303	347	425	565	705	770	1,411
Share	.8	.6	.8	.8	.7	.7	.8	.9	.9	.8	1.0
SE	22.45	22.31	33.15	40.54	38.40	31.91	53.50	49.46	64.51	63.29	144.66
CV(%)	4.31	15.03	13.57	14.29	12.67	9.19	12.57	8.76	9.15	8.22	10.25
Floor coverings											
Mean	25	7	9	10	15	16	19	26	22	24	102
Share	a/	a/	a/	a/	a/	a/	a/	a/	a/	a/	.1
SE	2.61	1.90	2.32	6.45	6.38	3.76	8.53	4.45	4.18	4.31	23.14
CV(%)	10.40	25.44	27.25	62.10	43.96	23.36	44.85	17.32	19.32	17.80	22.60
Major appliances											
Mean	322	85	184	157	231	256	274	306	469	457	793
Share	.5	.3	.6	.4	.5	.5	.5	.5	.6	.5	.5
SE	14.92	15.74	28.04	17.20	28.41	34.11	38.42	38.26	48.63	44.09	84.38
CV(%)	4.64	18.44	15.23	10.95	12.30	13.31	14.00	12.50	10.37	9.65	10.64
Small appliances, miscellaneous housewares											
Mean	119	58	52	58	79	86	119	120	156	194	265
Share	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
SE	6.43	11.03	6.32	7.10	9.73	9.07	16.09	10.60	19.17	24.16	36.32
CV(%)	5.42	19.13	12.14	12.31	12.39	10.51	13.54	8.85	12.28	12.46	13.70
Miscellaneous household equipment											
Mean	981	357	619	434	591	744	974	1,001	1,097	1,466	2,516

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Share	1.6	1.4	2.0	1.2	1.3	1.5	1.7	1.5	1.4	1.5	1.7
SE	60.07	46.46	132.33	41.35	74.34	87.42	461.04	155.13	103.96	187.56	229.71
CV(%)	6.12	13.03	21.37	9.52	12.59	11.74	47.32	15.49	9.48	12.80	9.13
Apparel and services		4.5%	4.2%	5.9%	7.4%						
Mean	1,883	846	791	1,101	1,390	1,355	1,705	1,976	2,513	2,759	4,376
Share	3.0	3.3	2.5	3.0	3.2	2.7	3.0	3.0	3.3	2.8	3.0
SE	68.55	143.97	101.74	123.92	111.94	153.75	125.42	207.36	276.52	221.86	252.65
CV(%)	3.64	17.03	12.86	11.25	8.05	11.35	7.36	10.49	11.00	8.04	5.77
Men and boys											
Mean	447	151	205	272	336	262	500	452	519	688	1,084
Share	.7	.6	.7	.7	.8	.5	.9	.7	.7	.7	.7
SE	26.11	23.68	70.93	42.55	48.37	41.85	59.48	111.20	94.41	91.15	118.65
CV(%)	5.84	15.72	34.59	15.64	14.41	15.96	11.89	24.60	18.18	13.24	10.94
Men, 16 and over											
Mean	348	109	170	227	251	195	372	353	395	511	887
Share	.6	.4	.5	.6	.6	.4	.7	.5	.5	.5	.6
SE	26.26	17.23	69.47	42.71	45.27	40.23	61.50	111.52	95.53	82.55	114.46
CV(%)	7.56	15.75	40.79	18.79	18.00	20.62	16.53	31.57	24.18	16.16	12.90
Boys, 2 to 15											
Mean	100	41	35	45	84	67	128	99	124	178	197
Share	.2	.2	.1	.1	.2	.1	.2	.1	.2	.2	.1
SE	4.60	14.32	7.19	6.56	16.52	8.53	16.74	11.36	14.11	23.77	24.97
CV(%)	4.61	34.73	20.68	14.66	19.65	12.73	13.05	11.50	11.35	13.38	12.68
Women and girls											
Mean	704	325	291	346	520	547	619	753	984	1,126	1,527
Share	1.1	1.3	.9	.9	1.2	1.1	1.1	1.1	1.3	1.2	1.0
SE	30.41	63.81	48.57	39.50	66.59	104.85	75.02	103.10	164.69	130.28	126.26
CV(%)	4.32	19.62	16.72	11.43	12.80	19.17	12.12	13.68	16.73	11.57	8.27
Women, 16 and over											
Mean	602	255	250	298	454	470	536	607	874	985	1,285
Share	1.0	1.0	.8	.8	1.0	1.0	.9	.9	1.2	1.0	.9
SE	27.85	54.97	47.59	36.60	66.84	101.12	73.18	76.00	168.48	126.52	115.57

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
CV(%)	4.63	21.54	19.00	12.29	14.72	21.52	13.66	12.52	19.27	12.84	8.99
Girls, 2 to 15											
Mean	102	70	40	48	66	77	83	146	110	140	242
Share	.2	.3	.1	.1	.2	.2	.1	.2	.1	.1	.2
SE	7.34	36.43	16.66	10.41	10.08	17.27	11.19	41.96	16.64	20.35	34.93
CV(%)	7.17	52.01	41.52	21.72	15.29	22.45	13.47	28.67	15.16	14.49	14.46
Children under 2											
Mean	75	28	37	58	47	80	73	81	124	112	115
Share	.1	.1	.1	.2	.1	.2	.1	.1	.2	.1	.1
SE	6.98	9.70	14.25	23.11	16.00	21.96	12.70	19.04	21.98	21.10	32.65
CV(%)	9.25	34.47	38.85	39.61	34.40	27.30	17.48	23.62	17.70	18.90	28.29
Footwear											
Mean	419	254	146	277	333	290	387	445	613	562	876
Share	.7	1.0	.5	.7	.8	.6	.7	.7	.8	.6	.6
SE	26.70	88.32	25.53	81.04	50.00	45.48	56.17	69.96	101.65	82.30	89.25
CV(%)	6.38	34.73	17.45	29.21	15.01	15.67	14.50	15.72	16.58	14.65	10.19
Other apparel products and services											
Mean	237	87	113	148	155	175	126	245	272	272	774
Share	.4	.3	.4	.4	.4	.4	.2	.4	.4	.3	.5
SE	15.94	14.38	9.64	28.52	28.38	28.21	11.08	39.53	35.79	25.24	106.29
CV(%)	6.72	16.47	8.55	19.30	18.31	16.09	8.80	16.13	13.14	9.29	13.74
Transportation											
Mean	10,742	4,195	4,970	6,169	8,155	9,318	10,381	11,741	14,089	16,920	21,386
Share	17.0	16.2	15.8	16.6	18.6	18.9	18.3	17.7	18.6	17.5	14.7
SE	194.05	497.99	300.28	418.95	388.75	577.45	437.94	553.13	730.33	691.99	844.21
CV(%)	1.81	11.87	6.04	6.79	4.77	6.20	4.22	4.71	5.18	4.09	3.95
Vehicle purchases (net outlay)											
Mean	4,394	1,525	1,969	2,262	3,123	3,983	4,030	4,866	5,810	7,355	8,971
Share	7.0	5.9	6.3	6.1	7.1	8.1	7.1	7.3	7.7	7.6	6.1
SE	187.79	420.28	268.22	373.50	380.68	563.58	396.78	545.42	679.20	684.36	854.44
CV(%)	4.27	27.55	13.62	16.51	12.19	14.15	9.85	11.21	11.69	9.30	9.52

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Cars and trucks, new											
Mean	1,960	503	836	931	1,281	1,508	1,427	2,355	2,609	3,361	4,764
Share	3.1	1.9	2.7	2.5	2.9	3.1	2.5	3.5	3.4	3.5	3.3
SE	108.02	242.97	204.41	232.81	287.98	358.48	326.29	448.33	520.54	505.91	549.02
CV(%)	5.51	48.32	24.45	25.01	22.48	23.78	22.86	19.04	19.96	15.05	11.52
Cars and trucks, used											
Mean	2,375	1,017	1,118	1,322	1,837	2,454	2,505	2,350	3,093	3,899	4,136
Share	3.8	3.9	3.6	3.6	4.2	5.0	4.4	3.5	4.1	4.0	2.8
SE	130.12	256.57	177.87	310.67	253.69	417.69	282.03	295.00	336.47	545.65	615.67
CV(%)	5.48	25.23	15.90	23.49	13.81	17.02	11.26	12.55	10.88	14.00	14.88
Other vehicles											
Mean	59	6	14	9	4	21	97	161	109	96	71
Share	.1	a/	a/	a/	a/	a/	.2	.2	.1	.1	a/
SE	14.52	5.90	10.52	8.55	3.25	13.18	43.31	106.43	57.57	57.32	52.96
CV(%)	24.68	103.28	74.52	96.85	74.88	63.01	44.65	65.93	52.84	59.86	74.73
Gasoline, other fuels, and motor oil											
Mean	2,094	983	1,012	1,403	1,800	1,900	2,259	2,481	2,706	3,138	3,246
Share	3.3	3.8	3.2	3.8	4.1	3.8	4.0	3.7	3.6	3.2	2.2
SE	21.44	51.34	31.72	39.61	43.85	43.07	46.89	57.05	55.18	61.88	72.38
CV(%)	1.02	5.22	3.13	2.82	2.44	2.27	2.08	2.30	2.04	1.97	2.23
Other vehicle expenses											
Mean	3,474	1,335	1,687	2,157	2,817	2,975	3,535	3,761	4,600	5,303	6,542
Share	5.5	5.2	5.4	5.8	6.4	6.0	6.2	5.7	6.1	5.5	4.5
SE	40.91	113.58	70.66	83.74	74.07	76.38	97.54	91.75	121.58	113.25	174.85
CV(%)	1.18	8.51	4.19	3.88	2.63	2.57	2.76	2.44	2.64	2.14	2.67
Vehicle finance charges											
Mean	252	64	74	114	162	213	276	297	385	467	463
Share	.4	.2	.2	.3	.4	.4	.5	.4	.5	.5	.3
SE	6.87	6.81	8.35	8.08	11.30	12.99	17.74	15.99	28.04	22.90	27.16
CV(%)	2.73	10.57	11.21	7.09	6.98	6.10	6.42	5.39	7.29	4.91	5.87
Maintenance and repairs											
Mean	887	387	468	627	753	732	857	944	1,103	1,319	1,669
Share	1.4	1.5	1.5	1.7	1.7	1.5	1.5	1.4	1.5	1.4	1.1

Item		All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
	SE	19.09	56.43	31.04	55.39	40.85	42.55	42.27	50.46	58.05	64.81	78.04
	CV(%)	2.15	14.57	6.63	8.84	5.42	5.81	4.93	5.34	5.26	4.91	4.68
Vehicle rental, leases, licenses, and other charges												
	Mean	790	238	298	313	535	546	719	823	1,094	1,332	1,996
	Share	1.3	.9	.9	.8	1.2	1.1	1.3	1.2	1.4	1.4	1.4
	SE	25.51	32.62	27.73	28.94	45.20	49.10	54.72	50.71	86.93	87.07	109.95
	CV(%)	3.23	13.73	9.32	9.24	8.44	8.98	7.61	6.16	7.94	6.54	5.51
Vehicle insurance												
	Mean	1,545	646	847	1,103	1,366	1,484	1,683	1,697	2,018	2,186	2,414
	Share	2.5	2.5	2.7	3.0	3.1	3.0	3.0	2.6	2.7	2.3	1.7
	SE	18.67	59.48	33.45	30.39	45.13	41.06	43.13	50.57	54.12	66.87	71.32
	CV(%)	1.21	9.21	3.95	2.75	3.30	2.77	2.56	2.98	2.68	3.06	2.95
Public and other transportation												
	Mean	781	351	303	347	416	460	558	633	972	1,123	2,627
	Share	1.2	1.4	1.0	.9	.9	.9	1.0	1.0	1.3	1.2	1.8
	SE	29.43	75.55	33.58	40.79	42.20	56.42	58.54	60.97	68.10	60.14	185.47
	CV(%)	3.77	21.52	11.10	11.76	10.15	12.26	10.49	9.64	7.00	5.35	7.06
Healthcare			4.2%	6.8%	7.3%	7.9%	8.7%	9.4%	11.4%	11.9%	13.7%	18.7%
	Mean	5,193	2,163	3,551	3,789	4,110	4,514	4,874	5,902	6,173	7,131	9,684
	Share	8.2	8.4	11.3	10.2	9.4	9.1	8.6	8.9	8.1	7.4	6.6
	SE	69.98	103.81	158.11	125.36	142.38	167.65	141.68	163.68	163.24	162.96	301.52
	CV(%)	1.35	4.80	4.45	3.31	3.46	3.71	2.91	2.77	2.64	2.29	3.11
Health insurance			4.2%	6.9%	7.5%	7.9%	8.9%	9.5%	11.3%	11.8%	13.8%	18.1%
	Mean	3,529	1,496	2,446	2,661	2,769	3,152	3,358	3,972	4,177	4,865	6,371
	Share	5.6	5.8	7.8	7.2	6.3	6.4	5.9	6.0	5.5	5.0	4.4
	SE	46.74	76.93	85.35	87.56	89.83	120.52	86.82	104.04	108.97	108.47	177.14
	CV(%)	1.32	5.14	3.49	3.29	3.24	3.82	2.59	2.62	2.61	2.23	2.78
Medical services			3.5%	5.7%	5.3%	7.2%						
	Mean	984	343	560	521	705	763	871	1,191	1,274	1,359	2,244
	Share	1.6	1.3	1.8	1.4	1.6	1.5	1.5	1.8	1.7	1.4	1.5
	SE	36.70	39.93	70.96	67.48	93.52	66.25	89.96	121.24	126.47	99.83	176.84

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
CV(%)	3.73	11.65	12.68	12.96	13.26	8.68	10.33	10.18	9.93	7.35	7.88
Drugs		5.4%	7.2%	9.1%	10.0%	9.1%	10.0%	10.4%	10.7%	13.3%	14.8%
Mean	486	263	352	442	485	442	487	503	518	648	718
Share	.8	1.0	1.1	1.2	1.1	.9	.9	.8	.7	.7	.5
SE	13.92	29.69	28.35	56.19	31.84	33.16	36.55	32.39	35.35	37.39	52.77
CV(%)	2.86	11.31	8.06	12.72	6.57	7.50	7.50	6.43	6.82	5.77	7.35
Medical supplies		3.2%	10.0%	8.6%	7.8%						
Mean	194	62	194	166	151	157	157	236	204	259	351
Share	.3	.2	.6	.4	.3	.3	.3	.4	.3	.3	.2
SE	12.17	8.01	98.63	24.71	20.56	20.83	18.43	42.78	25.10	27.77	37.64
CV(%)	6.28	12.96	50.86	14.87	13.62	13.26	11.76	18.15	12.32	10.71	10.72
Entertainment											
Mean	3,090	1,046	1,172	1,848	1,842	2,011	2,524	3,127	3,651	4,934	8,706
Share	4.9	4.0	3.7	5.0	4.2	4.1	4.5	4.7	4.8	5.1	6.0
SE	129.46	84.79	67.72	197.80	101.46	68.42	99.42	123.13	266.95	233.37	1,274.14
CV(%)	4.19	8.11	5.78	10.71	5.51	3.40	3.94	3.94	7.31	4.73	14.64
Fees and admissions											
Mean	880	185	127	244	281	390	456	714	852	1,397	4,131
Share	1.4	.7	.4	.7	.6	.8	.8	1.1	1.1	1.4	2.8
SE	124.68	29.25	18.48	43.21	23.29	36.42	28.96	46.57	63.62	102.43	1,237.59
CV(%)	14.17	15.84	14.54	17.72	8.28	9.35	6.36	6.52	7.47	7.33	29.96
Audio and visual equipment and services											
Mean	1,000	517	654	799	804	897	963	1,066	1,213	1,466	1,616
Share	1.6	2.0	2.1	2.2	1.8	1.8	1.7	1.6	1.6	1.5	1.1
SE	16.12	27.42	25.66	45.13	33.46	29.98	33.21	38.92	46.14	80.21	55.39
CV(%)	1.61	5.30	3.92	5.65	4.16	3.34	3.45	3.65	3.80	5.47	3.43
Pets, toys, hobbies, and playground equipment											
Mean	821	289	309	681	532	563	847	1,052	915	1,542	1,478
Share	1.3	1.1	1.0	1.8	1.2	1.1	1.5	1.6	1.2	1.6	1.0
SE	40.20	62.39	36.50	178.56	57.19	63.27	99.88	79.70	89.42	154.34	140.89
CV(%)	4.90	21.61	11.82	26.23	10.74	11.24	11.80	7.58	9.77	10.01	9.53

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Pets											
Mean	681	254	249	599	446	410	750	839	740	1,256	1,262
Share	1.1	1.0	.8	1.6	1.0	.8	1.3	1.3	1.0	1.3	.9
SE	40.29	62.76	34.55	182.68	56.50	45.55	103.69	83.10	79.66	138.81	133.99
CV(%)	5.92	24.67	13.88	30.50	12.67	11.10	13.82	9.91	10.77	11.05	10.62
Toys, hobbies, and playground equipment											
Mean	140	34	60	82	86	152	96	213	176	286	215
Share	.2	.1	.2	.2	.2	.3	.2	.3	.2	.3	.1
SE	11.00	8.84	16.09	25.09	23.48	41.43	14.91	38.03	25.27	53.03	31.23
CV(%)	7.85	25.75	26.95	30.71	27.22	27.21	15.48	17.83	14.38	18.54	14.49
Other entertainment supplies, equipment, and services											
Mean	389	56	82	124	224	162	259	294	670	528	1,481
Share	.6	.2	.3	.3	.5	.3	.5	.4	.9	.5	1.0
SE	34.23	11.04	27.40	48.47	74.36	30.49	50.18	44.61	227.51	85.12	283.32
CV(%)	8.80	19.84	33.56	39.02	33.17	18.85	19.37	15.16	33.94	16.12	19.13
Personal care products and services											
Mean	786	333	393	517	587	653	761	891	903	1,189	1,630
Share	1.2	1.3	1.2	1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.1
SE	13.84	24.27	28.13	34.76	35.16	36.85	44.26	41.23	34.95	43.37	86.04
CV(%)	1.76	7.29	7.15	6.73	5.99	5.64	5.82	4.63	3.87	3.65	5.28
Reading											
Mean	92	54	67	75	49	91	90	106	81	142	165
Share	.1	.2	.2	.2	.1	.2	.2	.2	.1	.1	.1
SE	6.47	17.94	14.58	17.84	6.30	29.21	16.89	12.95	12.52	21.45	16.42
CV(%)	7.03	32.93	21.70	23.75	12.90	32.09	18.85	12.22	15.42	15.12	9.97
Education											
Mean	1,443	825	709	575	407	625	749	1,022	1,357	2,583	5,543
Share	2.3	3.2	2.3	1.5	.9	1.3	1.3	1.5	1.8	2.7	3.8
SE	85.62	266.50	174.83	149.87	50.22	100.47	123.52	172.73	220.53	319.24	516.33

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
CV(%)	5.93	32.30	24.64	26.07	12.34	16.06	16.49	16.89	16.25	12.36	9.32
Tobacco products and smoking supplies											
Mean	320	290	308	313	342	346	390	394	400	267	152
Share	.5	1.1	1.0	.8	.8	.7	.7	.6	.5	.3	.1
SE	11.43	25.34	31.03	19.59	19.96	30.30	28.96	30.59	37.72	26.14	20.57
CV(%)	3.57	8.73	10.07	6.25	5.84	8.77	7.43	7.76	9.44	9.79	13.50
Miscellaneous											
Mean	899	341	482	624	740	703	1,035	848	843	1,359	2,003
Share	1.4	1.3	1.5	1.7	1.7	1.4	1.8	1.3	1.1	1.4	1.4
SE	42.52	30.98	64.88	125.66	104.49	105.56	184.17	75.34	82.53	166.11	227.74
CV(%)	4.73	9.07	13.47	20.15	14.13	15.02	17.79	8.88	9.79	12.22	11.37
Cash contributions											
Mean	1,995	542	756	1,086	1,228	1,157	1,499	1,982	2,370	3,000	6,294
Share	3.2	2.1	2.4	2.9	2.8	2.3	2.6	3.0	3.1	3.1	4.3
SE	109.43	85.00	67.66	110.13	169.77	83.90	141.10	170.26	229.85	276.32	743.61
CV(%)	5.48	15.69	8.95	10.14	13.83	7.25	9.42	8.59	9.70	9.21	11.81
Personal insurance and pensions											
Mean	7,165	507	731	1,564	2,448	3,910	5,356	7,453	9,851	14,264	25,394
Share	11.4	2.0	2.3	4.2	5.6	7.9	9.4	11.2	13.0	14.7	17.4
SE	131.08	109.18	38.79	71.31	67.12	111.60	114.08	138.42	145.73	267.96	591.41
CV(%)	1.83	21.55	5.31	4.56	2.74	2.85	2.13	1.86	1.48	1.88	2.33
Life and other personal insurance											
Mean	520	108	187	267	291	342	388	555	538	880	1,629
Share	.8	.4	.6	.7	.7	.7	.7	.8	.7	.9	1.1
SE	21.59	10.80	20.92	41.94	19.23	26.82	33.74	44.01	40.71	56.75	128.24
CV(%)	4.16	10.03	11.18	15.69	6.61	7.85	8.69	7.93	7.57	6.45	7.87
Pensions and Social Security											
Mean	6,645	399	544	1,297	2,157	3,569	4,968	6,898	9,313	13,384	23,765

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Share	10.5	1.5	1.7	3.5	4.9	7.2	8.8	10.4	12.3	13.8	16.3
SE	124.80	109.48	37.93	56.66	61.37	106.95	106.50	128.77	140.45	238.13	575.92
CV(%)	1.88	27.43	6.97	4.37	2.84	3.00	2.14	1.87	1.51	1.78	2.42
Sources of income and personal taxes:											
Money income before taxes											
Mean	$82,852	$6,268	$17,823	$27,642	$37,910	$49,578	$63,972	$81,821	$105,052	$141,980	$294,483
SE	1,973.48	188.18	186.83	259.81	269.95	345.37	526.92	469.36	520.66	904.74	13,571.53
CV(%)	2.38	3.00	1.05	.94	.71	.70	.82	.57	.50	.64	4.61
Wages and salaries											
Mean	64,708	1,777	5,078	12,890	23,111	34,239	50,447	67,453	89,337	122,319	238,804
Share	78.1	28.4	28.5	46.6	61.0	69.1	78.9	82.4	85.0	86.2	81.1
SE	1,803.94	138.28	246.18	386.96	518.33	637.89	712.42	816.68	866.36	1,387.27	11,768.28
CV(%)	2.79	7.78	4.85	3.00	2.24	1.86	1.41	1.21	.97	1.13	4.93
Self-employment income											
Mean	5,947	17	453	768	1,042	2,077	2,045	3,810	5,270	7,925	35,773
Share	7.2	.3	2.5	2.8	2.7	4.2	3.2	4.7	5.0	5.6	12.1
SE	640.92	63.08	136.02	126.50	171.39	249.02	306.92	441.73	552.57	735.21	6,312.73
CV(%)	10.78	374.08	29.99	16.46	16.44	11.99	15.01	11.59	10.49	9.28	17.65
Social Security, private and government retirement											
Mean	8,902	2,555	10,600	12,306	11,871	11,145	9,390	8,406	7,777	7,304	7,674
Share	10.7	40.8	59.5	44.5	31.3	22.5	14.7	10.3	7.4	5.1	2.6
SE	208.14	137.97	248.63	367.62	443.36	536.36	522.41	572.49	566.65	723.23	978.26
CV(%)	2.34	5.40	2.35	2.99	3.73	4.81	5.56	6.81	7.29	9.90	12.75
Interest, dividends, rental income, other property income											
Mean	1,962	87	217	477	754	1,023	943	1,182	1,811	2,978	10,067
Share	2.4	1.4	1.2	1.7	2.0	2.1	1.5	1.4	1.7	2.1	3.4
SE	199.07	45.28	60.46	80.39	117.39	136.56	140.45	156.10	293.37	474.54	1,677.73
CV(%)	10.15	52.01	27.85	16.86	15.56	13.35	14.90	13.20	16.20	15.93	16.67
Public assistance, Supplemental Security Income,											

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Supplementary Nutrition Assistance Program (SNAP)											
Mean	426	1,213	850	645	476	325	309	172	100	125	53
Share	.5	19.4	4.8	2.3	1.3	.7	.5	.2	.1	.1	a/
SE	25.76	86.97	92.91	68.61	55.62	47.92	86.94	37.82	22.66	39.13	23.21
CV(%)	6.04	7.17	10.93	10.64	11.69	14.75	28.11	21.95	22.55	31.26	43.86
Unemployment and workers' compensation, veterans' benefits, and regular contributions for support											
Mean	562	112	198	245	461	445	641	603	516	860	1,527
Share	.7	1.8	1.1	.9	1.2	.9	1.0	.7	.5	.6	.5
SE	77.21	35.74	39.97	48.49	74.20	55.98	114.34	117.80	114.35	248.67	672.87
CV(%)	13.74	31.83	20.14	19.82	16.08	12.57	17.85	19.54	22.18	28.90	44.07
Other income											
Mean	345	506	425	311	194	324	198	194	241	467	585
Share	.4	8.1	2.4	1.1	.5	.7	.3	.2	.2	.3	.2
SE	35.68	81.15	128.15	85.22	47.29	103.57	37.51	40.72	74.67	98.63	163.73
CV(%)	10.35	16.04	30.17	27.37	24.38	31.99	18.98	20.98	31.04	21.10	28.00
Personal taxes (contains some imputed values)											
Mean	11,364	-118	-297	-588	235	2,749	4,551	7,587	11,480	19,627	67,881
Share	13.7	-1.9	-1.7	-2.1	.6	5.5	7.1	9.3	10.9	13.8	23.1
SE	730.24	65.68	185.64	95.54	191.00	430.49	173.12	204.68	220.67	246.23	5,606.71
CV(%)	6.43	-55.68	-62.48	-16.25	81.19	15.66	3.80	2.70	1.92	1.25	8.26
Federal income taxes											
Mean	8,831	-80	-274	-709	-162	1,853	3,185	5,505	8,481	14,891	55,181
Share	10.7	-1.3	-1.5	-2.6	-.4	3.7	5.0	6.7	8.1	10.5	18.7
SE	627.45	52.99	182.94	84.61	163.21	354.68	115.43	173.74	150.12	185.52	5,052.26
CV(%)	7.10	-66.27	-66.84	-11.94	-100.65	19.14	3.62	3.16	1.77	1.25	9.16
State and local income taxes											
Mean	2,470	-58	-62	94	373	855	1,331	2,031	2,935	4,582	12,523
Share	3.0	-.9	-.3	.3	1.0	1.7	2.1	2.5	2.8	3.2	4.3
SE	132.55	21.57	19.42	25.96	40.72	88.94	86.66	102.15	159.31	167.06	740.07
CV(%)	5.37	-37.36	-31.29	27.65	10.92	10.41	6.51	5.03	5.43	3.65	5.91

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Other taxes											
Mean	63	20	39	27	24	41	36	51	65	153	176
Share	.1	.3	.2	.1	.1	.1	.1	.1	.1	.1	.1
SE	14.43	10.50	13.51	8.67	8.44	10.39	9.32	12.32	17.57	70.49	76.77
CV(%)	22.80	53.21	34.91	32.23	34.46	25.28	26.18	24.14	27.05	45.96	43.54
Income after taxes											
Mean	71,487	6,386	18,120	28,230	37,675	46,829	59,421	74,234	93,571	122,353	226,602
Share	86.3	101.9	101.7	102.1	99.4	94.5	92.9	90.7	89.1	86.2	76.9
SE	1,312.27	204.45	261.73	264.91	334.79	530.17	545.93	511.12	545.46	875.30	8,373.87
CV(%)	1.84	3.20	1.44	.94	.89	1.13	.92	.69	.58	.72	3.70
Addenda:											
Net change in total assets and liabilities											
Mean	$10,971	$4,786	$3,494	$1,810	$4,682	$6,577	$5,666	$4,891	$10,910	$8,585	$57,853
SE	2,278.11	2,940.15	2,971.94	1,766.28	3,609.93	4,338.08	4,685.64	4,031.55	4,486.58	7,658.56	17,495.48
CV(%)	20.77	61.43	85.06	97.61	77.11	65.96	82.70	82.43	41.12	89.21	30.24
Net change in total assets											
Mean	23,320	5,836	5,260	3,629	8,238	17,774	19,016	25,256	27,217	25,576	94,648
SE	2,064.38	2,764.41	3,152.06	1,693.11	3,520.72	4,541.91	4,719.36	4,720.55	4,060.83	7,666.06	15,360.27
CV(%)	8.85	47.37	59.93	46.66	42.74	25.55	24.82	18.69	14.92	29.97	16.23
Net change in total liabilities											
Mean	12,350	1,050	1,766	1,819	3,556	11,197	13,350	20,365	16,307	16,992	36,795
SE	1,381.57	746.21	888.85	586.50	1,505.19	2,281.66	3,126.57	4,102.41	3,094.43	4,365.85	8,978.82
CV(%)	11.19	71.08	50.33	32.24	42.33	20.38	23.42	20.14	18.98	25.69	24.40
Other financial information:											
Other money receipts											
Mean	1,201	662	990	559	591	2,156	703	1,132	674	1,124	3,392
SE	391.13	208.06	526.67	162.60	386.14	1,048.81	260.89	433.11	247.58	359.99	2,467.04
CV(%)	32.56	31.41	53.18	29.11	65.39	48.64	37.13	38.27	36.72	32.04	72.74

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
Mortgage principal paid on owned property											
Mean	-2,288	-583	-547	-952	-840	-1,386	-1,508	-2,594	-2,827	-4,414	-7,182
SE	54.74	77.51	52.50	172.71	63.36	142.79	86.23	327.22	139.05	167.04	320.09
CV(%)	-2.39	-13.30	-9.61	-18.15	-7.54	-10.30	-5.72	-12.61	-4.92	-3.78	-4.46
Estimated market value of owned home											
Mean	204,174	81,451	98,009	129,970	122,528	153,031	161,125	194,663	232,643	309,431	555,581
SE	4,271.93	8,763.68	6,025.28	8,674.64	6,568.05	10,054.93	5,969.88	5,955.78	11,366.29	11,933.04	23,634.33
CV(%)	2.09	10.76	6.15	6.67	5.36	6.57	3.71	3.06	4.89	3.86	4.25
Estimated monthly rental value of owned home											
Mean	1,097	465	625	743	731	861	933	1,139	1,272	1,652	2,532
SE	11.77	31.79	31.18	26.41	27.74	29.49	25.86	28.02	27.15	45.20	60.86
CV(%)	1.07	6.84	4.99	3.55	3.79	3.43	2.77	2.46	2.14	2.74	2.40
Gifts of goods and services, total											
Mean	1,310	408	589	567	677	919	988	1,214	1,738	1,991	3,984
SE	61.97	69.27	103.59	76.54	110.58	123.83	99.43	138.73	305.65	191.43	371.17
CV(%)	4.73	16.96	17.60	13.49	16.32	13.48	10.07	11.43	17.58	9.61	9.32
Food											
Mean	98	23	59	34	46	62	84	62	107	184	322
SE	10.44	5.98	17.49	7.33	8.73	12.57	22.53	16.63	21.64	39.29	77.86
CV(%)	10.62	25.96	29.86	21.44	19.01	20.37	26.98	26.87	20.20	21.38	24.21
Alcoholic beverages											
Mean	13	1	7	6	4	5	4	13	22	26	44
SE	2.05	.34	5.38	3.50	2.36	2.40	1.68	4.75	10.71	9.98	11.07
CV(%)	15.50	59.35	73.82	58.51	61.80	43.76	47.41	36.60	47.93	38.06	25.06
Housing											
Mean	248	113	87	136	131	179	189	284	230	398	730
SE	14.84	28.27	14.98	28.66	34.35	38.15	36.69	47.54	32.79	52.92	104.39
CV(%)	5.98	24.99	17.23	21.08	26.26	21.32	19.46	16.74	14.27	13.29	14.29
Housekeeping supplies											
Mean	28	11	11	18	24	28	25	35	31	43	51
SE	3.16	5.16	3.21	6.85	9.87	8.18	5.88	8.76	6.06	12.10	14.66

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
CV(%)	11.31	46.26	28.02	37.38	40.43	28.81	23.22	24.71	19.82	28.03	28.82
Household textiles											
Mean	15	1	8	4	3	9	46	31	19	17	17
SE	3.21	.80	5.93	2.78	2.08	4.20	22.33	16.42	7.28	6.19	14.56
CV(%)	20.91	85.30	75.18	74.33	81.02	48.57	48.73	52.57	38.48	37.36	85.63
Appliances and miscellaneous housewares											
Mean	23	11	6	14	11	13	17	30	28	39	61
SE	2.00	6.70	3.32	5.04	5.65	4.64	5.28	7.29	10.58	11.05	17.49
CV(%)	8.68	63.33	51.83	36.16	51.77	36.38	30.73	24.11	37.35	28.42	28.88
Major appliances											
Mean	9	2	3	11	3	4	3	18	7	11	27
SE	1.63	.98	2.69	4.92	2.07	2.25	1.27	6.04	4.56	4.96	14.40
CV(%)	18.64	60.33	78.56	46.42	59.03	64.00	48.16	34.29	67.16	45.79	53.65
Small appliances and miscellaneous housewares											
Mean	14	9	3	3	7	9	15	13	22	28	34
SE	1.87	6.67	1.81	1.38	5.34	4.07	5.17	3.76	9.66	10.72	9.70
CV(%)	13.10	74.40	60.63	41.26	72.03	44.03	35.54	29.84	44.84	38.18	28.79
Miscellaneous household equipment											
Mean	47	12	14	22	23	60	46	52	72	89	80
SE	5.07	5.47	4.17	9.46	7.84	32.28	9.86	12.38	17.61	14.97	13.54
CV(%)	10.77	46.33	30.18	42.17	33.53	54.16	21.35	23.83	24.29	16.83	16.97
Other housing											
Mean	135	79	47	77	70	70	54	135	79	211	522
SE	12.44	24.59	12.39	28.26	21.60	16.24	12.17	38.87	23.85	46.23	101.99
CV(%)	9.23	31.28	26.14	36.48	31.06	23.36	22.50	28.76	30.02	21.96	19.53
Apparel and services											
Mean	247	101	146	149	125	267	275	249	468	299	387
SE	23.40	27.77	35.74	38.17	22.00	96.47	48.16	44.28	183.78	52.61	67.81
CV(%)	9.49	27.39	24.52	25.59	17.67	36.12	17.53	17.79	39.29	17.60	17.53
Males, 2 and over											
Mean	57	39	43	44	21	32	97	39	77	92	90
SE	4.86	13.55	18.56	14.21	7.01	9.24	22.08	8.46	28.01	23.71	28.96

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
CV(%)	8.47	34.80	42.68	32.54	34.15	28.92	22.81	21.64	36.25	25.82	32.29
Females, 2 and over											
Mean	88	17	42	34	58	152	66	72	221	106	114
SE	17.32	4.75	14.10	12.61	17.38	89.64	18.65	22.00	152.96	25.15	29.05
CV(%)	19.63	28.64	33.72	36.99	29.90	59.12	28.28	30.41	69.22	23.64	25.45
Children under 2											
Mean	37	15	28	12	17	31	26	53	67	55	63
SE	4.42	4.39	14.04	3.99	6.18	8.45	6.83	15.94	17.99	13.48	15.71
CV(%)	12.02	29.37	50.77	33.73	36.81	27.35	26.28	29.87	26.67	24.35	24.78
Other apparel products and services											
Mean	64	31	33	60	29	53	86	84	102	45	120
SE	8.43	19.81	9.04	25.01	7.23	24.05	30.49	30.00	35.90	11.55	24.52
CV(%)	13.12	64.09	27.56	42.00	24.83	45.76	35.46	35.66	35.18	25.43	20.50
Jewelry and watches											
Mean	8	1	6	1	7	23	3	3	7	9	16
SE	2.40	.47	2.67	.64	2.77	21.31	.85	1.17	2.72	3.26	5.76
CV(%)	31.43	62.39	43.73	49.00	42.02	93.31	32.40	35.50	38.58	34.82	35.17
All other apparel products and services											
Mean	57	30	27	58	23	30	83	81	95	36	103
SE	7.59	19.79	8.79	24.86	7.14	11.63	30.54	30.07	35.62	11.14	24.29
CV(%)	13.41	65.65	32.90	42.68	31.70	39.15	36.64	37.20	37.49	30.89	23.53
Transportation											
Mean	133	54	87	37	97	107	132	83	186	258	285
SE	16.24	35.50	69.76	10.37	47.92	54.26	67.33	18.84	72.84	90.21	60.98
CV(%)	12.25	65.44	80.20	28.33	49.34	50.54	51.13	22.80	39.16	35.01	21.43
Healthcare											
Mean	38	3	26	9	70	6	14	20	50	94	91
SE	10.56	1.42	22.56	5.94	57.67	2.25	6.02	9.07	29.37	67.18	38.14
CV(%)	27.65	49.08	86.53	67.88	81.86	38.22	43.88	45.11	59.19	71.67	42.09
Entertainment											
Mean	100	21	21	69	41	86	64	114	172	162	249
SE	7.78	6.79	8.68	27.22	10.52	19.23	16.85	20.32	38.57	30.64	50.10

Item	All consumer units	Lowest 10 percent	Second 10 percent	Third 10 percent	Fourth 10 percent	Fifth 10 percent	Sixth 10 percent	Seventh 10 percent	Eighth 10 percent	Ninth 10 percent	Highest 10 percent
CV(%)	7.78	31.89	41.50	39.36	25.82	22.30	26.47	17.82	22.47	18.89	20.13
Toys, games, arts and crafts, and tricycles											
Mean	30	6	13	15	7	45	24	48	55	57	34
SE	2.93	3.09	8.56	7.28	2.08	14.65	10.72	12.11	12.14	15.65	9.68
CV(%)	9.63	51.36	66.23	49.89	29.95	32.53	44.65	25.07	22.14	27.35	28.44
Other entertainment											
Mean	70	15	8	55	34	41	40	66	117	105	215
SE	7.32	6.03	1.99	24.29	9.54	11.12	9.36	16.64	39.62	24.92	48.05
CV(%)	10.51	39.44	24.94	44.51	28.20	26.96	23.61	25.33	33.92	23.74	22.37
Personal care products and services											
Mean	21	6	17	27	14	23	28	17	25	12	39
SE	5.31	2.72	12.08	18.22	5.10	11.82	18.56	7.86	8.18	5.02	31.29
CV(%)	25.47	43.91	71.01	67.32	36.89	51.85	66.14	47.09	32.08	42.43	79.30
Reading											
Mean	3	4	1	a/	2	4	3	2	1	13	3
SE	.75	2.53	.30	.20	.86	1.74	1.80	.92	.67	5.08	1.03
CV(%)	23.69	66.99	48.78	46.60	45.23	47.35	62.47	47.61	72.64	40.45	35.46
Education											
Mean	296	37	84	44	69	125	117	277	385	420	1,392
SE	36.64	28.13	56.32	22.50	26.66	38.44	39.31	123.67	173.89	82.09	246.62
CV(%)	12.38	75.28	66.95	51.06	38.67	30.82	33.52	44.72	45.15	19.54	17.71
All other gifts											
Mean	113	45	54	56	79	55	80	94	93	126	443
SE	16.25	18.09	18.84	17.81	22.62	13.58	23.04	18.42	18.38	31.43	150.64
CV(%)	14.40	40.63	34.75	31.81	28.53	24.68	28.80	19.49	19.84	24.89	34.02

a Value is too small to display. n.a. Not applicable.

Figure 29 Table from Consumer Expenditure Survey, (U.S. Bureau of Labor Statistics, 2020)

Appendix 7-4. Consumer Expenditure by Income Decile

Appendix 7-5. Incidence of Health Care Spending in Vermont Reported for 2012, Estimated for 2017

Nominal Incidence of Total Spending on Health by Vermont Residents, 2012 and 2017

	Spending Amount (Millions)	
	2012	2017
Employer market	**$1,690**	**$2,034**
Employee premium contributions	$395	$478
Retiree premium contributions	$12	$18
Vermont employer premium contributions for Vermont residents	$1,188	$1,431
<50 workers	$284	$287
50–99 workers	$65	$76
100–499 workers	$205	$248
500+ workers	$634	$820
Out-of-state employer premium contributions for Vermont residents	$95	$107
Medicare	**$1,074**	**$1,440**
Federal Medicare spending	$873	$1,166
Medicare premium contributions	$189	$256
Medicare supplemental policies	$12	$18
Medicaid/CHIP/VHAP	**$1,246**	**$1,661**
Federal Medicaid spending	$717	$1,033
State Medicaid spending	$518	$623
Medicaid premium contributions	$11	$4
Non-group/Catamount/Exchange	**$85**	**$359**
Individual market premium contributions	$58	$221
Federal private insurance subsidies	$15	$127
State private insurance subsidies	$11	$10
Out-of-pocket	**$720**	**$944**
Insured	$686	$937
Uninsured	$34	$7
Other	**$270**	**$373**
Federal military spending	$55	$62
TRICARE premium contributions	$1	$1
Other federal spending	$138	$214
Other state spending	$76	$96
TOTAL	**$5,084**	**$6,810**

NOTES: Other federal and state spending includes DVHA appropriations, disproportionate share hospital (DSH) payments, and non-Medicaid health-related appropriations. Medicaid premium contributions are VHAP and CHIP premiums. Individual market premium contributions are non-group, Catamount, and Exchange premiums minus premium assistance tax credits.

Figure 30 Table from 2015 RAND report (Eibner, Nowak, Liu, & White, 2015)

Appendix 7-6. Vermont Sales Tax Expenditures

	Estimated Tax Expenditure			Estimated Sales
	FY 2016	FY 2017	FY 2020	FY 2020
Sales of food	**$117,260,000**	**$117,030,000**	**$126,150,000**	**$2,102,500,000**
Medical products	**$60,730,000**	**$64,300,000**	**$75,500,000**	**$1,258,333,333**
Energy purchases for a residence	**$37,800,000**	**$39,920,000**	**$42,150,000**	**$702,500,000**
Clothing and footwear	**$28,000,000**	**$28,800,000**	**$30,200,000**	**$503,333,333**
Agricultural inputs	*$18,560,000*	*$18,900,000*	*$20,380,000*	*$339,666,667*
Veterinary supplies	*$3,890,000*	*$4,230,000*	*$5,020,000*	*$83,666,667*
Energy purchases for farming	*$4,230,000*	*$4,310,000*	*$4,640,000*	*$77,333,333*
Agricultural machinery/ equipment	*$2,490,000*	*$2,510,000*	*$2,640,000*	*$44,000,000*
Admission to nonprofit museums	$2,400,000	$2,400,000	$2,600,000	$43,333,333
Newspapers	**$2,940,000**	**$2,820,000**	**$2,390,000**	**$39,833,333**
Fuels for railroads/off-road uses	*$1,990,000*	*$2,240,000*	*$2,310,000*	*$38,500,000*
Property in net metering system	$2,790,000	$1,430,000	$2,290,000	$38,166,667
Funeral charges	$1,900,000	$1,900,000	$2,000,000	$33,333,333
Rentals of washing facilities	$1,100,000	$1,100,000	$1,200,000	$20,000,000
Sales of films to movie theaters	*$800,000*	*$800,000*	*$900,000*	*$15,000,000*
Sales of mobile homes/modular housing	**$200,000**	**$200,000**	**$300,000**	**$5,000,000**
Railroad rolling stock/depreciable parts	*$200,000*	*$200,000*	*$200,000*	*$3,333,333*
TOTAL	**$287,280,000**	**$293,090,000**	**$320,870,000**	**$5,347,833,332**
Total consumer			**$281,290,000**	
Total consumer goods expenditures		**$276,690,000**		
Total consumer services expenditures		$4,600,000		
Total possible business inputs expenditures		*$36,090,000*		

Figure 31 Data from Vermont Tax Expenditures 2019 Biennial Report (Feldman, Schickner, Stein, Campbell, & Dickerson, 2019)