



**STATE OF CONNECTICUT**  
**DEPARTMENT OF REVENUE SERVICES**  
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February 28, 2022

I am pleased to provide you with the 2022 Tax Incidence report as prescribed by Connecticut General Statute Sec. 12-7c. Although issued in 2022 it is important to note that this report uses data from calendar year 2019. Consistent with the authority in Connecticut General Statute Sec. 12-7c., the department retained Accenture LLP to prepare this study.

It is the department's hope that this report will serve as a useful tool for policy makers.

Respectfully submitted,

A handwritten signature in black ink that reads "Mark D. Boughton". The signature is written in a cursive style.

Mark D. Boughton,  
Commissioner



# Connecticut Tax Incidence Study – Tax Year 2019

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## **Executive Summary**

As required by Connecticut General Statute (CT Gen Stat) § 12-7c (2019), this study reports on the overall incidence of the following tax types for Tax Year 2019: Sales and Use Tax; Excise Tax; Personal Income Tax; Property Tax; and Corporation Business Tax for Tax Year 2019 as defined in the glossary. It provides an analysis of each tax type as well as the estimated overall Economic (i.e., Final) Incidence on Individual Tax Filers (ITFs) and corporations. Across all tax types, this study uses a post-credit analysis. This means that all credits and deductions are applied prior to analysis. For example, the Personal Income Tax analysis accounts for the Earned Income Tax Credit in tables shown later in the report. It is important to note that this study does not account for non-tax revenue such as fees, fines, or other service charges. It does not account for the effects of Covid-19 because this study is done for a period of time prior to the Covid-19 pandemic.

This report is foundational to the Connecticut Department of Revenue Services' (DRS) commitment to providing a view of tax incidence bi-annually as mandated by the enabling legislation. This report provides a view of incidence for the period from 1/1/2019 to 12/31/2019. In the future, DRS intends to utilize its new Research, Analytics, and Forecasting (RAF) Division to provide comparative analysis, trend analysis, and multi-variate economic modeling to account for even more factors that contribute to the overall landscape of tax incidence in Connecticut. At the time of this report, the creation of that unit is in its nascent stages. There is no one size fits all model for measuring tax incidence and DRS is committed to utilizing the RAF unit to develop this type of economic model based on the unique attributes of the Connecticut economy. For more details on CT Gen Stat § 12-7c (2019), please see the [Legislative Mandate section](#) of this document

Utilizing data from the Connecticut Department of Revenue Services, Connecticut Office of Policy and Management, and the United States Census Bureau, this study creates a model of ITF spending by tax type in order to calculate the tax burden on ITFs.

The key findings from this study are:

- The estimated ITF Economic Tax Incidence by Adjusted Gross Income (AGI) decile, in terms of the calculated taxes paid as a percentage of income, indicates that lower income deciles bear a greater relative tax burden than higher income deciles, while higher income ITF deciles pay taxes at much larger amounts per ITF than lower-income ITFs.
- Estimations of the Personal Income Tax in Connecticut can be described as roughly proportional, when reviewing AGI Deciles 2 to 9. Between AGI Deciles 2 and 9, this study calculated a 1.1% difference in taxes paid as a percentage of income.
- For Corporation Business Tax, the State's change to a single-sales factor apportionment and market-based sourcing has contributed to the fact that more taxes are being received from corporations that are not located in Connecticut relative to previous years. Almost 71% of the Corporation Business Tax was exported in 2019, meaning that companies that are not located in Connecticut but sell goods and services here paid more of the Corporation Business Tax than Connecticut-based corporations.
- The State has taken positive steps towards a more progressive Sales and Use Tax with the introduction of varied rates. This is reflected in overall ITF incidence with a more even distribution of Sales and Use Tax as a percent of the total tax burden.

- Corporations with gross receipts larger than \$1 billion per year pay 54% of the Corporation Business Taxes collected as seen in Figure 8.
- Property Tax and Personal Income Tax remain the largest burden on Connecticut ITFs overall.
- While this report assumes the burden of Excise Tax is ultimately borne by the consumer, the State has implemented exemptions for local corporations such as breweries and wineries in order to decrease the Excise Tax due for selling products and as a means of reducing barriers to entry for local corporations across the State.

In the Supplemental Economic Scenario in which only 50% of the legal incidence from businesses are shifted to ITFs, ITFs are estimated to pay \$23B in total economic tax incidence, which amounts to a 4% decrease compared to the total estimated taxes paid in the 100% Pass-Through Model of \$24 billion, as depicted in Figures 26 and 27. This is a supplemental view provided for the newly created RAF unit to further investigate in their journey to create a highly trained model specific to Connecticut.

This study does not conduct any forecasting or trend analysis, and consequently it does not reference or capture progress the State has continued to make on tax policy between Tax Year 2019 and now, nor from the 2014 Tax Incidence Study to 2019. This study does not account for the effects caused by the Covid-19 pandemic throughout calendar year 2020 and into 2021.

## **I. Glossary**

**Corporations:** For this report, it is defined as any entity that filed a CT1120 or CT1120-CU form.

**Consumer Expenditure Survey (CES):** as prepared by the United States Bureau of Labor Statistics. The survey provides information on expenditures, income, and demographics characteristics of US consumers.

**Decile:** Decile is a statistical measure with data sorted into ten equal parts. As defined by CT Gen Stat § 12-7c (2019), tax incidence is divided into deciles which are distributed at intervals of ten percentage points. Deciles were created by dividing total AGI by ten.

**Economic Incidence:** The burden of tax borne by the ability for one party to shift the cost of the tax plus the cost of the good onto another party.

**Excise Tax:** The IRS defines excise taxes as “taxes that are imposed on various goods, services and activities. Such taxes may be imposed on the manufacturer, retailer or consumer, depending on the specific tax”<sup>1</sup>. The following are the excise taxes imposed by the State of Connecticut: Alcohol, Admissions, Cigarettes, E-Cigarette products, Motor Fuel, and Tobacco Products Tax.

**Exported Tax:** This report defines exported tax as the tax paid by corporations that file using an address outside of the state or country. For Corporation Business Tax (Corporation Business Tax?) specifically, the approach looked at "resident" Connecticut corporations by excluding corporations that reported an external address.

**Individual Tax Filer (ITF):** In this report an ITF is defined as any person or persons who have jointly filed an CT-1040 or CT-1040NPY form. This can include multiple people in an ITF or an individual filer of the Connecticut Income Tax Return.

**Legal Incidence:** The burden of tax borne by the party that pays for the tax to the state or municipal government.

**Long-Run:** a theoretical concept of economics where all factors are variable. *Note: there is no exact definition of long-run because the context in which this idea is applied may change the precise definition.*

**Property Tax:** Property Tax is levied at the municipal level and is defined as the Personal Property Tax, Motor Vehicle Tax including Supplemental Motor Vehicle Tax, and Real Property Tax.

**Short-Run:** a theoretical concept of economics where at least one input is fixed, and other inputs are variable. *Note: there is no exact definition of short-run because the context in which this idea is applied may change the precise definition.*

**Tax Paid as % of Income:** Tax paid as a percentage of the total. This is used in this report for individual or groups of taxes.

**Tax Year 2019:** 12 consecutive months beginning January 1, 2019 and December 31, 2019.

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<sup>1</sup> <https://www.irs.gov/corporations/small-corporations-self-employed/excise-tax>



## **II. A Note Regarding Income Deciles 1 and 10**

Throughout the report, the first and tenth deciles should be viewed through the appropriate lens. It is important to understand that the first and tenth deciles are not always indicative of the overall aggregate trend. For the trendline view of a tax, Deciles 2-9 provide a clearer picture of incidence. This phenomenon occurs for three reasons:

1. The first, and most important, data consideration is by nature of how the income deciles are calculated via legislative mandate, where the first decile has two very different types of people – filers that are low wage earners and filers that may have reported business or capital losses for income tax purposes. Although this report has removed filers with negative AGI, some filers may have an income of zero because of capital or business losses reported. Therefore, these types of filers are included in Decile 1.
2. Not all income or ITFs can be identified. Extremely low income ITFs that have not filed a Connecticut Personal Income Tax return (the CT-1040 form) may not have been included in the study. Any supplemental income from government programs for nutritional support, housing assistance, health care, or other programs may not have been fully identified because this is not necessary information for purposes of filing the CT-1040.
3. This report uses the Consumer Expenditure Survey (CES) to impute ITF spending profiles in order to overcome impossibilities of matching data between the CT-1040 used to create the income deciles and other tax data. The inability to match data of this type is common across tax incidence studies and in turn, using the Consumer Expenditure Survey (CES) remains the best measure to date. However, the Consumer Expenditure Survey often experiences underreporting of income particularly for low-income ITFs. Therefore, while the taxable consumption imputed from the CES data may be overstated for low-income ITFs, and it is impossible to determine by how much<sup>2</sup>.

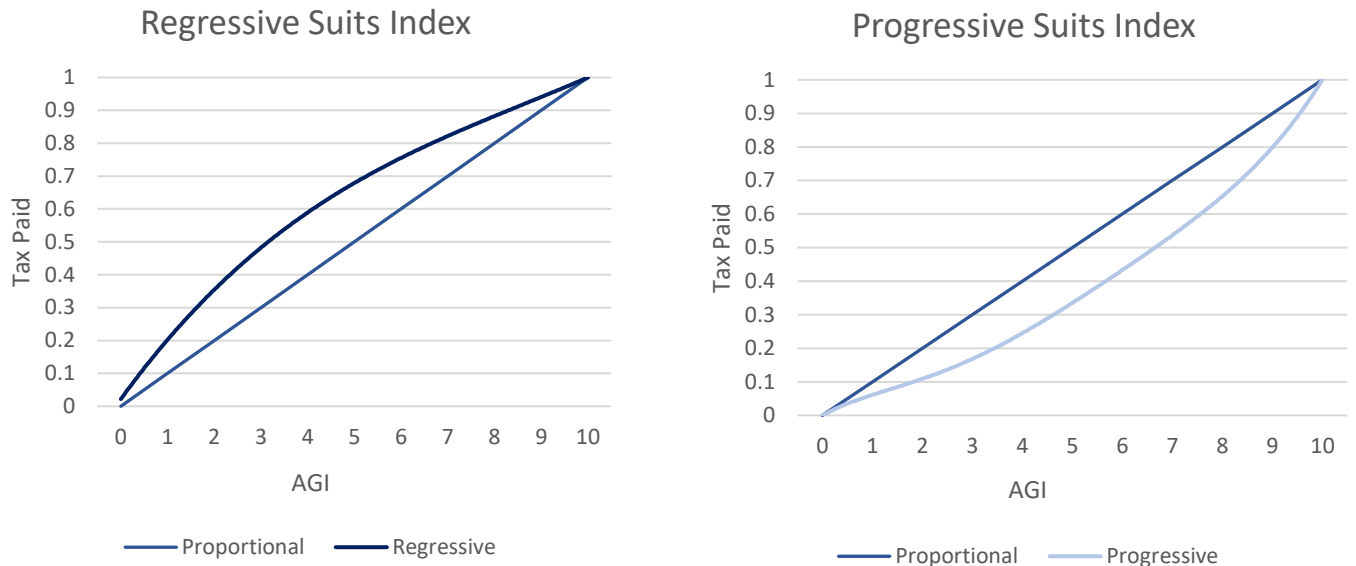
The first and tenth decile need to remain in the study to be able to calculate a full-sample Suits Index as well as accurately distribute income across the statutorily required ten deciles in CT Gen Stat § 12-7c (2019).

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<sup>2</sup> This is a common phenomenon seen in other Tax Incidence studies, particularly the Minnesota Tax Incidence Studies which are widely regarded as the “Gold Standard” for tax incidence studies.

### III. Suits Index Review

A common practice in tax policy is using the Suits Index<sup>3</sup> to measure changes over time or to compare the relative progressivity of a specific tax. The Suits Index is calculated by using a Lorenz type curve to plot the area under a proportional line. The figure below shows an example of Lorenz curves in relation to a line of equality – the proportional line – when plotting the data points to calculate the Suits Index.



That calculation provides a ratio on a scale from -1 to 1. A perfectly regressive tax would equal a score of -1 and a perfectly progressive tax would equal a score of 1. A perfectly proportional tax, for example a flat income tax where each person pays an equal fraction of income, would have a Suits Index score of zero.

While this report does provide Suits Indices as a means of measurement, there are often items the Suits Index cannot account for when measuring overall progressivity or regressivity such as non-tax revenue, tax exemptions, and supplemental income via nutritional programs or other targeted interventions.

Consistent with the Connecticut Tax Incidence Report of 2014, the last such report produced, this report does not include a Suits Index for business tax incidence. Gross receipts brackets of corporations tend to grow exponentially, which distorts the Suits Index and would provide an inaccurate picture. This happens for Gross Receipts more than Income Deciles because the ten deciles provide ten concrete points of equal AGI, whereas for Gross Receipts the receipt amounts are far more hyperbolic so approximately 80% of the tax paid axis would be attributed to by the last few corporations with extremely large receipts.

<sup>3</sup> Suits, D. B. (1977). Measurement of Tax Progressivity. *The American Economic Review*, 67(4), 747–752. <http://www.jstor.org/stable/1813408>



## **IV. Legal Incidence vs. Economic Incidence**

This study examines tax incidence for income tax filers (ITFs) and corporations, in accordance with the enabling legislation, CT Gen Stat § 12-7c (2019). For this study, “Tax Incidence” as referenced in the enabling legislation was interpreted as Legal Incidence, which is where the tax burden legally falls on entities (ITFs, corporations) that must pay the government. This is often the initial incidence. This study also provides an estimated calculation of Economic Incidence for ITFs, and an examination of which factors into ITFs the costs from corporations’ Legal Tax Incidence costs passed through to employees and consumers in the form of higher prices for goods and services, lower wages, or other adjustments. This is often referred to as the Final Incidence. In many views, legal incidence is irrelevant to economic incidence because economic incidence demonstrates where the final burden lies in a tax system.

Consistent with the previous report, this report takes a long-run economic view that corporations pass through tax costs onto consumers. In the long-run, prices are elastic in a competitive, capitalist society and supply chain costs, while over time factoring in efficiencies, will include tax costs (e.g. corporate, property, sales and excise, etc.) which are passed through to consumers.

All taxes referenced in the enabling legislation were aggregated and analyzed first for the Legal Incidence of taxes on both ITFs and corporations. Subsequently, the study calculated the Economic Incidence on ITFs using an approach consistent with economic theory from other Tax Incidence studies across the United States as well as the previous Connecticut Tax Incidence Report issued in 2014.

This report uses a four-step approach to comply with the statute:

1. Calculate ITF Legal Tax Incidence
2. Calculate Corporations Legal Tax Incidence
3. Calculate ITF Economic Tax Incidence
4. Calculate Corporations Economic Tax Incidence (aka, the Remaining Costs)

Many economists agree that the rate at which corporations pass costs onto consumers is between 50% and 100%. This report provides estimates of ITF Economic Incidence on a 100% Tax Pass Through Model that shifts all business taxes onto ITFs, as the previous report did, as a means of indicating what might be the most conservative view of tax burden on ITFs.

This report also provides a supplemental view in which corporate property taxes are passed through onto ITFs at 50%, which is referred to as the 50% Tax Pass Through Model. This supplemental view indicates a more moderate shift of corporate tax incidence and provides a secondary lens for readers to view incidence. These estimates may help provide the new RAF unit with two data points to calibrate a more Connecticut specific economic model in the future.

Additionally, according to a 2018 study from the Institution on Taxation and Economic Policy, the national average for non-tax revenue as a percent of a state’s revenue is 30%. Non-tax revenue can include fees, fines, service charges, or any other monies that are collected by a state or local government outside of the tax code. Of all states in the nation, Connecticut has the lowest amount of non-tax revenue as a percent of state revenue at 17%<sup>4</sup>. This means that Connecticut has the lowest amount of additional

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<sup>4</sup> <https://itep.sfo2.digitaloceanspaces.com/whopays-ITEP-2018.pdf>

fees or service charges that residents would be required to pay in addition to their taxes. When looking at incidence as a whole, this is a component that should be considered as stakeholders will look to draw trends and comparisons between Connecticut and other states.

## V. Legal Tax Incidence of Individual Tax Filers (ITF)

As mentioned previously, this report provides a view of the legal, or initial, incidence for Connecticut ITFs. Of the taxes enumerated in CT Gen Stat § 12-7c (2019), only Personal Income Tax and Property Tax are borne initially by ITFs for the purpose of legal incidence. When purchasing items subject to the Sales and Use Tax or the Excise Tax, ITFs would pay those taxes. Corporations, however, are the entities that “write the check” to the State for those taxes paid on purchase. Thus, for purposes of this section, Sales and Use Tax and Excise Tax are not analyzed however, they are analyzed in the 100% Tax Pass Through Model in Section VII of this report.

The key takeaways for ITF Legal Tax Incidence are:

1. Estimates of the Personal Income Tax in Connecticut can be described as roughly proportional, based on a review of the relatively flat amounts — only a 1.1% difference — from Deciles 2 to 9 for Personal Income Tax Paid as a Percentage of Adjusted Gross Income (AGI), referred to in Figure 1 below as “Tax as a % of Income”. The calculations also indicate that the middle Deciles 4-7 have similar percentages of tax paid by decile.

2. Estimates of Property Tax in Connecticut can be described as regressive, similar to property taxes in many states, as indicated by the declining amounts in Deciles 2 to 9 for Property Tax as a % of Income in Figure 4.

### A. Personal Income Tax

The Personal Income Tax Rates are listed below for single/married filing separate, married filing jointly, and head of household filings. A shift in tax policy was codified and enacted in 2012 with additional adjustments made to top income brackets starting in 2015 when the State increased the number of brackets as well as the rates to the current tax structure seen in Table 4. While there have been no other significant changes in Income Tax policy at the State level since the previous report, there were likely changes at the municipal level.

| <b>Connecticut – Single/Married Filing Separate Filing Tax Brackets</b> |               |          |
|---|---------------|----------|
| Tax Bracket Number  | Tax Bracket   | Tax Rate |
| 1   | \$0.00+       | 3%       |
| 2   | \$10,000.00+  | 5%       |
| 3   | \$50,000.00+  | 5.5%     |
| 4   | \$100,000.00+ | 6%       |
| 5   | \$200,000.00+ | 6.5%     |
| 6   | \$250,000.00+ | 6.9%     |
| 7   | \$500,000.00+ | 6.99%    |
| <b>Connecticut – Married Filing Jointly Tax Brackets</b>                |               |          |
| Tax Bracket Number  | Tax Bracket   | Tax Rate |
| 1   | \$0.00+       | 3%       |
| 2   | \$20,000.00+  | 5%       |
| 3   | \$100,000.00+ | 5.5%     |
| 4   | \$200,000.00+ | 6%       |

|  |                    |                 |
|--|--------------------|-----------------|
| 5  | \$400,000.00+      | 6.5%            |
| 6  | \$500,000.00+      | 6.9%            |
| 7  | \$1,000,000.00+    | 6.99%           |
| <b>Connecticut – Head of ITF Filing Tax Brackets</b> |                    |                 |
| <b>Tax Bracket Number</b>                            | <b>Tax Bracket</b> | <b>Tax Rate</b> |
| 1  | \$0                | 3%              |
| 2  | \$16,001           | 5%              |
| 3  | \$80,001           | 5.5%            |
| 4  | \$160,001          | 6%              |
| 5  | \$320,001          | 6.5%            |
| 6  | \$400,001          | 6.9%            |
| 7  | \$800,001          | 6.99%           |

Table 1 – TY2019 Personal Income Tax Rates

Non-Resident filers are excluded from this report and therefore the report pertains to Connecticut residents and part year residents only. Part-year residents are included in the report based on their income earned in Connecticut for Tax Year 2019.

As seen in Figures 1 and 2, estimates of the Personal Income Tax in Connecticut can be described as roughly proportional, when reviewing Deciles 2 to 9. Between Deciles 2 and 9 there is a 1.1 percentage point difference in taxes paid. The calculations also indicate that the middle Deciles 4-7 have similar percentages of tax paid by decile.

| Personal Income Tax: Income Deciles |                 |                |                           |                         |                    |                |                |
|-------------------------------------|-----------------|----------------|---------------------------|-------------------------|--------------------|----------------|----------------|
| Deciles                             | % of Population | Population     | Total Income              | Income Tax              | Tax as % of Income | Minimum Income | Maximum Income |
| Decile 1                            | 48.73%          | 850332         | 17,931,989,586.66         | 130,254,632.66          | 0.73%              | \$0            | \$44,758       |
| Decile 2                            | 17.66%          | 308221         | 17,932,010,869.61         | 653,900,966.73          | 3.65%              | \$44,758       | \$74,688       |
| Decile 3                            | 11.44%          | 199666         | 17,931,947,541.06         | 777,386,112.35          | 4.34%              | \$74,688       | \$107,823      |
| Decile 4                            | 8.15%           | 142306         | 17,931,979,743.48         | 846,105,473.91          | 4.72%              | \$107,823      | \$148,081      |
| Decile 5                            | 5.94%           | 103736         | 17,931,894,255.00         | 864,345,561.99          | 4.82%              | \$148,081      | \$205,199      |
| Decile 6                            | 4.12%           | 71895          | 17,931,986,369.66         | 859,945,756.96          | 4.80%              | \$205,200      | \$316,507      |
| Decile 7                            | 2.45%           | 42689          | 17,931,886,737.00         | 869,551,486.03          | 4.85%              | \$316,513      | \$602,253      |
| Decile 8                            | 1.13%           | 19672          | 17,931,167,314.00         | 906,174,018.00          | 5.05%              | \$602,263      | \$1,631,362    |
| Decile 9                            | 0.33%           | 5746           | 17,928,620,786.00         | 856,255,010.00          | 4.78%              | \$1,631,481    | \$8,246,680    |
| Decile 10                           | 0.04%           | 772            | 17,936,570,349.00         | 983,175,398.00          | 5.48%              | \$8,249,490    | \$387,821,183  |
| <b>Total</b>                        | <b>100.00%</b>  | <b>1745035</b> | <b>179,320,053,551.47</b> | <b>7,747,094,416.63</b> | <b>4.70%</b>       |                |                |

Figure 1 – shows the income decile distribution and Taxes Paid as a Percentage of Income for the Personal Income Tax. It also shows the income ranges for each decile.

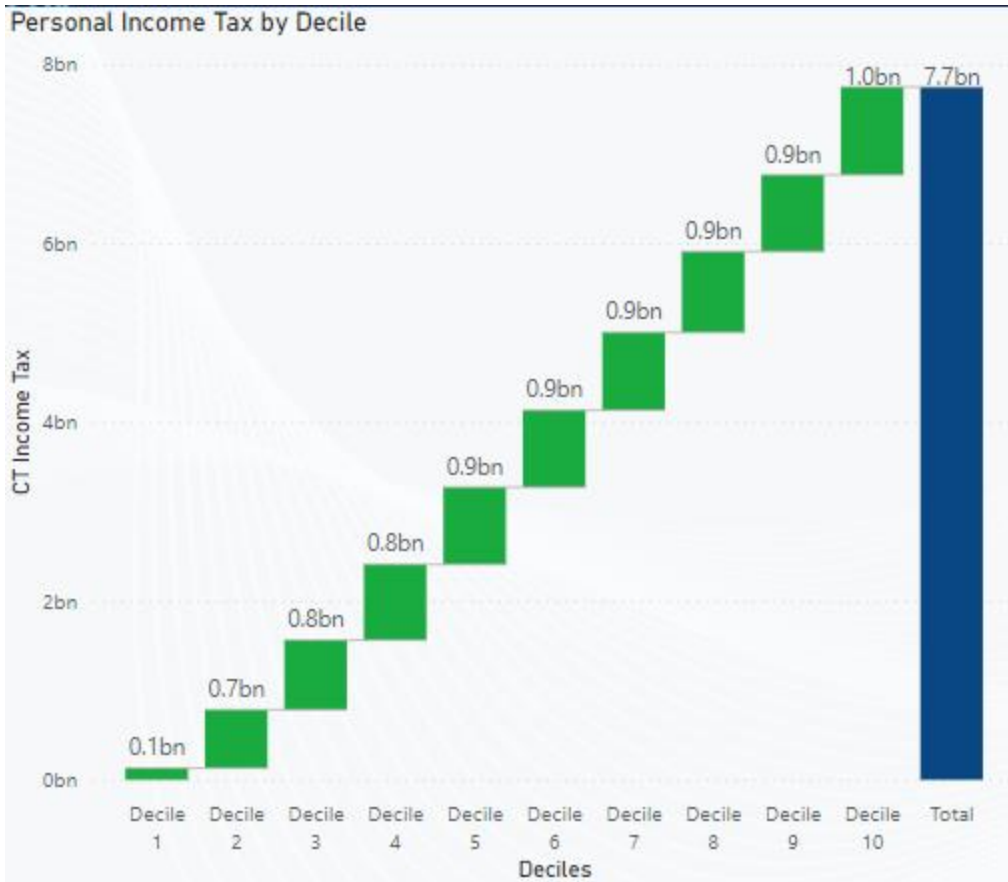


Figure 2 – shows the Income Tax paid by Decile as a portion of the Total Income Tax Paid.

As seen in Figure 2, Decile 2 has a total CT Income Tax Paid of \$0.7 billion, Deciles 3-4 both have \$0.8 billion, and Deciles 5-9 have \$0.9 billion reflecting the roughly proportional nature of the Income Tax in Connecticut. This is reflected in the relatively proportional value of 0.13 for the Personal Income Tax Suits Index.

Connecticut mitigates the effects of the Personal Income Tax with various credits and subtractions. One example is the state’s Earned Income Tax Credit. This credit is available for working families with low to moderate income in order to reduce their tax burden. It is accounted for in this study. There are also subtraction modifications on interest income from U.S. treasury bonds and pension income, which also can lower the tax burden. In addition, the alternative minimum tax requires taxpayers, typically high-income earners, to pay at least a minimum tax. This effect is reflected in the income deciles shown in Figure 1 and the Suits Index value shown in Figure 3.



Figure 3 – Suits Index for Personal Income Tax.

## B. Property Tax

Property Taxes in Connecticut, as in many states, pay for municipal services such as education, public safety, and infrastructure. The Department of Revenue Services (DRS) does not administer the Property Tax. The State of Connecticut authorizes municipalities to tax property, including real estate, motor vehicles, business-owned personal property and some personal property that individuals own. In Connecticut, each municipality administers its own property tax, and conducts property valuations and sets mill rates (the tax rate per \$1,000 of property value) with oversight from the Connecticut Office of Policy and Management. Municipalities in Connecticut must reevaluate property values at least once every five years.

State law governs the way a town or city assessor determines property assessments and the procedures that tax collectors use to collect property taxes. The property tax is *ad valorem* or based on a property's value, but 30% of the value is statutorily excluded from the tax assessment. This report conducts its analysis on that assessed value as determined by the municipalities rather than the fair market value, which is the price for which a property would change ownership. It should be noted that some Connecticut municipalities separate out the cost for fire protection, as well as the additional costs for running a borough within a town. This cost is determined through a separate mill rate. As an example, Simsbury has a 1.19 mill rate of cost for fire protection that is aggregated to the total tax bill. These costs are included in this report's calculations.

Estimates of Property Tax in Connecticut can be described as regressive, like property taxes in many states, when reviewing the declining amount of estimated Taxes Paid as a Percentage of Income in Deciles 2 to 9 in Figure 4 below. In the ITF income deciles shown below, Deciles 2-4 pay 45% of the total property taxes paid. This condition is not unique to Connecticut; the Institute of Taxation and Economic Policy (ITEP) 2018 "Who Pays" Report<sup>5</sup> shows that 45 states have similar structures for Property Tax. Connecticut also provides a property tax program for elderly or disabled citizens whose incomes do not exceed specified limits. It is accounted for in the study.

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<sup>5</sup> <https://itep.sfo2.digitaloceanspaces.com/whopays-ITEP-2018.pdf>



## Income Deciles: Property Tax

| Deciles      | Population     | Total AGI                 | Total Property Tax Paid | Decile Contribution to Total Tax | Tax as % of Income |
|--------------|----------------|---------------------------|-------------------------|----------------------------------|--------------------|
| Decile 1     | 850332         | 17,931,989,586.66         | 2,385,129,946.37        | 27.97%                           | 13.30%             |
| Decile 2     | 308221         | 17,932,010,869.61         | 1,645,759,973.96        | 19.30%                           | 9.18%              |
| Decile 3     | 199666         | 17,931,947,541.06         | 1,078,390,820.66        | 12.64%                           | 6.01%              |
| Decile 4     | 142306         | 17,931,979,743.48         | 1,116,449,202.72        | 13.09%                           | 6.23%              |
| Decile 5     | 103736         | 17,931,894,255.00         | 624,519,853.63          | 7.32%                            | 3.48%              |
| Decile 6     | 71895          | 17,931,986,369.66         | 587,349,667.50          | 6.89%                            | 3.28%              |
| Decile 7     | 42689          | 17,931,886,737.00         | 503,442,572.10          | 5.90%                            | 2.81%              |
| Decile 8     | 19672          | 17,931,167,314.00         | 335,628,381.40          | 3.94%                            | 1.87%              |
| Decile 9     | 5746           | 17,928,620,786.00         | 167,814,190.70          | 1.97%                            | 0.94%              |
| Decile 10    | 772            | 17,936,570,349.00         | 83,907,095.35           | 0.98%                            | 0.47%              |
| <b>Total</b> | <b>1745035</b> | <b>179,320,053,551.47</b> | <b>8,528,391,704.39</b> | <b>100.00%</b>                   | <b>7.81%</b>       |

Figure 4 – Suits Index for Personal Income Tax.

Deciles 2-9 have the largest Property Tax Paid as a Percentage of Income by Decile, while Deciles 3 and 4 have similar percentages, as do Deciles 5-7. It is difficult to attribute how accurate the findings are for Decile 1 is in this case for reasons stated prior in the Note Regarding Income Deciles 1 and 10.

### Property Tax Total - Residential Only

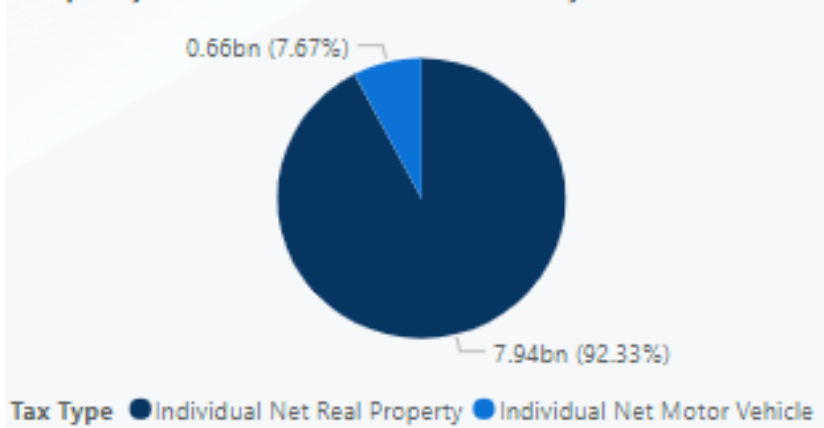


Figure 5 – Property Tax breakdown for Residential Property Tax.

### Suits Value for Property Tax

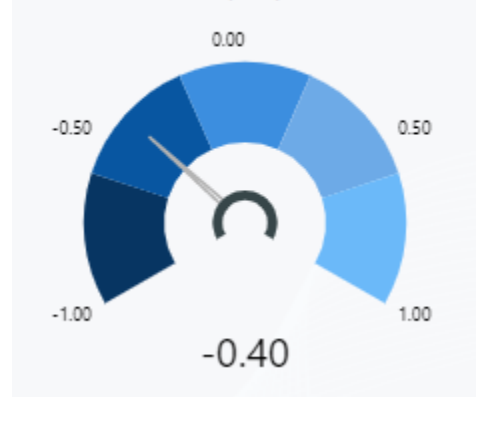


Figure 6 – Suits Index for Property Tax borne by households.

As seen in Figure 5, individual property owners carry the largest share of the Connecticut Property Tax incidence through the Real Property Tax. This tax burden is reflected with a Suits Index of -0.40. To improve data collection and reporting, municipalities may wish to consider these recommendations:

- Work with the State Assessor’s Association to learn what improvements can be made with their data to create a clearer picture of home values<sup>6</sup>.

<sup>6</sup> Some municipalities already implement this, However, standardization across the State may be necessary.

- Work with the State of Connecticut and OPM to standardize data collection based on census tract, socio-demographics, Connecticut tax brackets, and other levels of granularity not currently available<sup>7</sup>.

The Recommendations section provides more detail on how to best capture Property Tax data from municipalities.

## **VI. Legal Tax Incidence of Corporations**

This section reviews the legal tax incidence borne by corporations selling goods and services in Connecticut. Of the taxes enumerated in CT Gen Stat § 12-7c (2019), Property Tax, Corporation Business Tax, Sales and Use Tax, and Excise Tax are reported in this study as initially incident on corporations for the purpose of legal incidence as seen in Figure 7.

However, only Property Tax and Corporation Business Tax are detailed further by gross receipts because of data limitations with Sales and Use Tax and Excise Tax data. This report recognizes that corporations bear legal incidence of the Sales and Use and Excise Tax, and corporations “write the check” to government for these tax types however, in practice, consumers (i.e., ITFs) pay the sales, use, and excise taxes at time of purchase, and in this sense, bear the Economic Incidence of such taxes. This report mirrors that practice by calculating a 100% tax pass-through of Sales and Use Tax and Excise Tax from businesses to ITFs. That view of economic incidence can be found in the ITF Economic Tax Incidence section.

| Type of Tax     | Sum of Taxes            |
|-----------------|-------------------------|
| Corporation Tax | 171,856,496.53          |
| Excise Tax      | 911,656,991.49          |
| Property Tax    | 1,810,995,828.77        |
| Sales Tax       | 4,770,934,683.84        |
| <b>Total</b>    | <b>7,665,444,000.64</b> |

*Figure 7 – Business legal incidence broken out by the different tax types.*

Key takeaways for Business Legal Incidence are:

- Corporations with gross receipts larger than \$1 billion per year pay 54% of the Corporation Business Taxes collected as seen in Figure 8.
- For corporations with gross receipts in excess of \$1 billion per year, the Corporate Business Tax rises proportionally in relation to the size of the corporation. That is, the larger the corporation, the larger the proportion of such corporations’ Corporation Business Taxes is as a percentage of its overall legal tax incidence.
- Property Tax is levied at a local level and varies widely for local corporations. It is the largest incidence for corporations with gross receipts less than \$500,000/year.

<sup>7</sup> OPM is currently working on a project to standardize parcel data to reach some of these levels of granularity.

## A. Corporation Business Tax

As required by the legislation, this report analyzed Corporation Business Tax by Gross Receipts. The Corporation Business Tax in Connecticut is determined by the greater of the Net Income Base and the Capital Base. For corporations whose total income exceed \$100 million, they are also liable for a surtax equivalent to 10% of their calculated tax before credits and tax credit recaptures.

| Gross Receipts: Corporation Business Tax |                                |  |                                   |
|--|--------------------------------|--|-----------------------------------|
| Bracket                                  | Corporation Tax as % of Income | Decile Contribution to Total Corporation Tax | Average of Balance of Tax Payable |
| 1(100k)                                  | 1.62%                          | 1.28%  | \$595                             |
| 2(500k)                                  | 0.68%                          | 4.17%  | \$1,747                           |
| 3(1M)                                    | 0.33%                          | 2.15%  | \$2,334                           |
| 4(10M)                                   | 0.25%                          | 12.86%                                       | \$7,846                           |
| 5(50M)                                   | 0.10%                          | 9.72%  | \$22,484                          |
| 6(250M)                                  | 0.02%                          | 6.40%  | \$25,951                          |
| 7(500M)                                  | 0.02%                          | 4.74%  | \$58,611                          |
| 8(1B)                                    | 0.01%                          | 3.86%  | \$68,412                          |
| 9(>1B)                                   | 0.00%                          | 54.82%                                       | \$384,525                         |

Figure 8 – Corporation Business Tax by Gross Receipts.

The total Corporation Business Tax payable to the State by Connecticut corporations amounts to \$171 million in 2019, although this figure does not include taxes paid by non-resident corporations, which are not in scope for this study. This figure is lower than the total State collections that may be reported in other reports because it is the amount of Corporation Business Tax by business in Connecticut. Please reference Figure 39 in the Detailed Methodology section for additional information.

When looking at the 9<sup>th</sup> bracket of Figure 8 (Corporations with a Gross Receipts greater than \$1B/year) there are a few reasons why the values may appear to be magnified. First, much of the data is a result of self-reporting that can potentially lead to some discrepancies between a corporation’s balance of tax payable and their gross receipts. Second, not all corporations pay their taxes based on their gross receipts and sales. Corporation Business Tax can be computed based on net income or capital of entity, meaning that certain organizations may have reported net zero sales but would still have a considerable balance of tax payable.

It is important to note for this iteration of the Tax Incidence Study that between 2016 and 2017, the legislature passed significant changes to the Corporation Business Tax via the Apportionment Legislation.<sup>8</sup> The effects of those changes are seen in the data presented throughout this section. One of the most notable changes is the change from a three-factor apportionment regime to a single sales factor apportionment. Prior to this change, many businesses computed their tax based on three factors that included property, payroll, and sales. Connecticut sales are also determined using a market-based approach rather than a cost of performance approach. The changes to a single-sales apportionment and

<sup>8</sup> For purposes of this report, Apportionment Legislation refers to 2015 CT Pub. Acts 1, § 40 (Dec. Spec. Sess.) and 2016 CT Pub. Acts 3, § 199 (May. Spec. Sess.), which amended CT Gen. Stat. § 12-218 (Corporation Business Tax), and 2016 CT Pub. Acts 3, § 200 (May. Spec. Sess.), which amended CT Gen. Stat. § 12-711 (Income Tax)

market based approach aligns the business’ tax obligation with the market(s) in which said corporation operates. The result of these changes, in the way corporations are taxed in Connecticut is a shift in the tax incidence away from companies located in Connecticut to those corporations that are located out of the state.

Additionally, the State moved from a separate filing regime to a combined unitary system as of January 1<sup>st</sup>, 2016 - as seen with the creation of the CT-1120CU form. This change also contributed to the exportation of taxes allowing companies to file under one parent company as opposed to filing multiple separate returns. Some of these significant changes as were previously mentioned are the transition to a market-based approach for sales and a combined unitary system.

**Business Tax Total by NAICS Sector**

To understand the Corporation Business Tax landscape, this study reviewed the number of corporations and tax payable by NAICS<sup>9</sup> sector. It is important to note that \$57.3 million of the total \$171.9 million total tax payable belongs to “Unassigned”. Because NAICS codes are self-reported, about a third corporations fall under “Unassigned”.

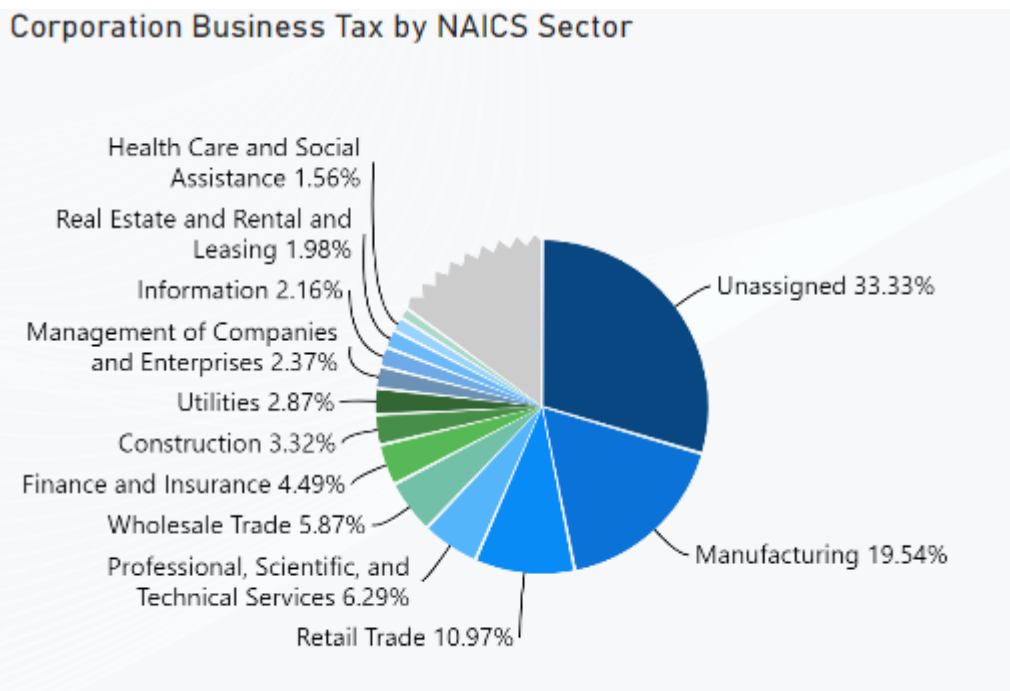


Figure 9 – Corporation Business Tax Paid by NAICS Sectors.

<sup>9</sup> NAICS stands for North American Industry Classification System and operates as a federal reporting tool. Companies self-select their required NAICS code based on the description that matches their operation.

The industry sector with the largest reported tax payable is “Manufacturing”, as shown in Figure 9. The industry sectors with the largest number of corporations are “Professional, Scientific, and Technical Services” and “Retail Trade” as referenced in Figure 10. While this report looks at an aggregate NAICS level, a review of the sectors in Figure 9 may give an indication of tax payable in notable subsectors.

| Corporation Business Tax by NAICS Sector                                 |                              |                        |
|--|------------------------------|------------------------|
| Definition   | Total Balance of Tax Payable | Number of Corporations |
| Public Administration  | 8,476.76                     | 7                      |
| Mining, Quarrying, and Oil and Gas Extraction                            | 42,494.90                    | 12                     |
| Arts, Entertainment, and Recreation                                      | 231,620.16                   | 202                    |
| Educational Services   | 310,347.40                   | 86                     |
| Agriculture, Forestry, Fishing and Hunting                               | 340,457.36                   | 79                     |
| Transportation and Warehousing   | 1,342,084.25                 | 297                    |
| Unclassified   | 1,418,901.21                 | 318                    |
| Accommodation and Food Services  | 1,617,206.52                 | 761                    |
| Other Services (except Public Administration)                            | 1,679,435.23                 | 1502                   |
| Administrative and Support and Waste Management and Remediation Services | 2,049,429.69                 | 422                    |
| Health Care and Social Assistance  | 2,688,962.77                 | 814                    |
| Real Estate and Rental and Leasing                                       | 3,398,061.20                 | 954                    |
| Information  | 3,713,976.97                 | 228                    |
| Management of Companies and Enterprises                                  | 4,071,889.85                 | 108                    |
| Utilities  | 4,935,224.67                 | 26                     |
| Construction   | 5,707,902.05                 | 1409                   |
| Finance and Insurance  | 7,712,254.45                 | 654                    |
| Wholesale Trade  | 10,081,450.60                | 805                    |
| Professional, Scientific, and Technical Services                         | 10,808,871.04                | 1817                   |
| Retail Trade   | 18,850,543.91                | 1532                   |
| Manufacturing  | 33,572,395.33                | 1159                   |
| Unassigned   | 57,274,510.22                | 656                    |
| <b>Total</b>   | <b>171,856,496.53</b>        | <b>13848</b>           |

Figure 10 – Balance of Tax Payable by Corporation NAICS Sector.

## B. Property Tax

Corporations with gross receipts less than \$500,000 per year pay over 62% of the total Property Taxes collected from corporations, as shown in Figure 11 below. Corporations with gross receipts less than \$1 million per year pay over 80% of total Property Taxes collected from corporations. However, it must be noted that this study can only analyze Property Tax at the current granularity of the available data. For example, it is difficult to analyze a large corporation with multiple locations throughout the State when the available data are prepared on an aggregated town level.

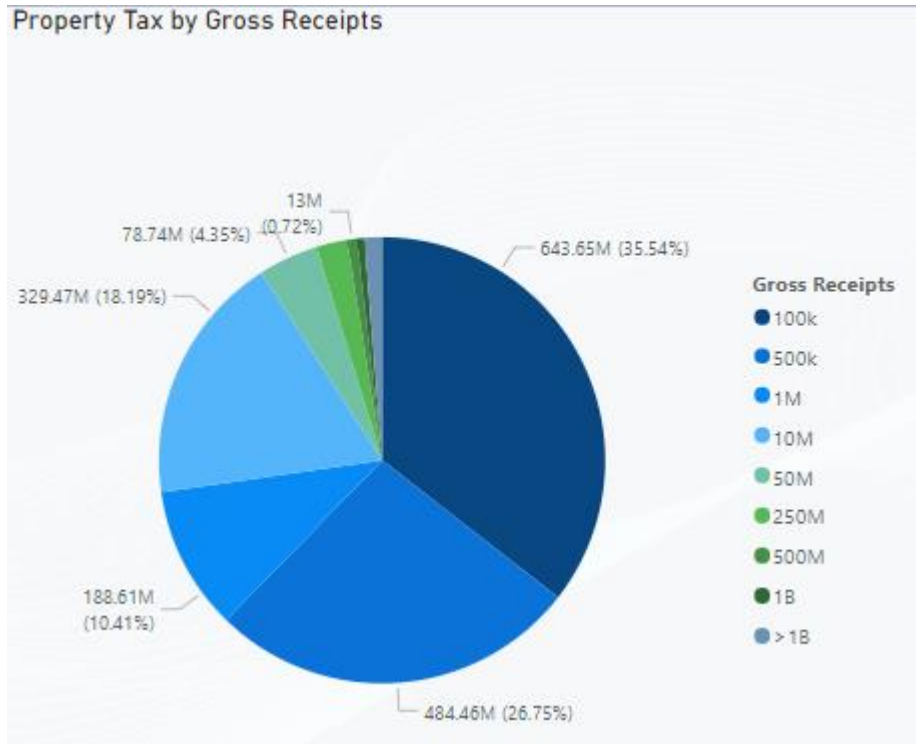


Figure 11 – Property Tax distribution by Gross Receipt brackets.

Corporations with gross receipts of \$1 billion per year or more pay 1.27% of all Property Tax paid by corporations that operate in Connecticut, as seen in Figure 12 below. However, these are likely corporations with national or multi-national operations that may not have significant brick-and-mortar operations in the State, as noted with a total count of 205. It is difficult to deduce a clearer picture of total property tax incidence for these types of corporations because this report is limited to incidence within the State of Connecticut.

Corporations pay less in Property Tax than ITFs: \$1.8 billion compared to \$8 Billion, respectively. Despite this difference, there are similarities in corporation Property Tax and ITF Property Tax. The largest corporations by income pay relatively less property taxes, on a percentage of income basis, than small corporations. Similarly, ITFs with large incomes pay relatively less property taxes, on a percentage of income basis, than lower income ITFs. This parallelism indicates that the property tax on corporations in Connecticut is also regressive, much like the ITF property tax. Again, this is not a condition unique to Connecticut and exists in other states.



| Gross Receipts: Property Tax |              |                 |                         |                                   |
|------------------------------|--------------|-----------------|-------------------------|-----------------------------------|
| Values                       | Population   | % of Population | Property Tax            | Bracket Contribution to Total Tax |
| 100k                         | 5271         | 34.58%          | 643,648,696.52          | 35.54%                            |
| 500k                         | 4086         | 26.81%          | 484,463,186.04          | 26.75%                            |
| 1M                           | 1579         | 10.36%          | 188,606,596.64          | 10.41%                            |
| 10M                          | 2801         | 18.38%          | 329,465,577.94          | 18.19%                            |
| 50M                          | 715          | 4.69%           | 78,737,854.71           | 4.35%                             |
| 250M                         | 378          | 2.48%           | 40,530,298.51           | 2.24%                             |
| 500M                         | 120          | 0.79%           | 12,995,829.90           | 0.72%                             |
| 1B                           | 87           | 0.57%           | 9,505,259.19            | 0.52%                             |
| >1B                          | 205          | 1.34%           | 23,042,529.32           | 1.27%                             |
| <b>Total</b>                 | <b>15242</b> | <b>100.00%</b>  | <b>1,810,995,828.77</b> | <b>100.00%</b>                    |

Figure 12 – Property Tax amount by gross receipts.

## **VII. Economic Tax Incidence**

As mentioned earlier, this report reviews the economic, or final, tax incidence on Connecticut ITFs. This report takes a long-run economic view that corporations pass through tax costs onto consumers: in the long-run prices are elastic in a competitive, capitalist society and supply chain costs, while over time factoring in efficiencies, will include tax costs (e.g., corporate, property, sales and excise, etc.) as pass-throughs to consumers.

However, this report does provide a supplemental view of a 50% tax pass-through model for corporations and ITFs in Section VIII, which indicates a more moderate shift of corporations taxes. It provides a secondary lens for readers to view incidence and is aligned with studies and economic opinion that generally find the rate at which corporations pass tax costs onto consumers is between 50% and 100%.

### **A. 100% Tax Pass Through Model**

The following section demonstrates the results of a 100% tax pass-through model to calculate a total ITF economic tax incidence.

The key takeaways for ITF Economic Tax Incidence are:

- The estimated ITF Economic Tax Incidence by AGI decile, in terms of the calculated taxes paid as a percentage of income, indicates that lower income deciles bear a greater burden than higher income deciles, while higher income ITF deciles pay much larger amounts of taxes than lower-income ITFs.
- Estimates of the Personal Income Tax in Connecticut can be described as roughly proportional, when reviewing AGI Deciles 2 to 9. Between Deciles 2 and 9, this study calculated a 1.1% difference in taxes paid as a percentage of income.
- Property Tax and Personal Income Tax remain the largest burden on Connecticut ITFs overall.
- As discussed in more detail in the Sales and Use Tax analysis, the State has taken steps towards a more progressive Sales and Use Tax. This is reflected in overall ITF incidence with a more proportional distribution of Sales and Use Tax as a percent of total tax burden.
- The four lowest-income decile ITFs are estimated to bear the Economic Incidence for nearly 66% of the total excise taxes in Connecticut.
- In the Supplemental Economic Scenario, in which only 50% of a businesses' legal incidence taxes, are entirely shifted to ITFs, ITFs are estimated to pay \$23 billion in total economic tax incidence, which amounts to a 4% decrease compared to the total estimated taxes paid in the 100% Pass-Through Model of \$24 billion, as shown in Figures 27 and 28.

#### **1. Total ITF Economic Tax Incidence**

To calculate ITF Economic Tax Incidence, the report compiled the results from each tax type: Personal Income Tax, Property Tax, Sales & Use Tax, Excise Tax and Corporation Business Tax into Figures 13 and 14 below. To calculate the Suits Index value for overall ITF incidence, the report adds the individual Suits Index values found in the Analysis by Tax Type sections. The ITF tax Economic Incidence Suits Index is seen in Figure 15. It should be noted, in Figure 14 the sum of taxes is what was used in this

study's calculations, but the revenue collected by the State is more. Refer to the DRS Annual Report and relevant OPM reports for the total tax collections for Personal Income Tax and Property Tax for each category. The difference in total tax collections between the DRS Annual Report or the OPM reports is due to the various data considerations outlined in the Detailed Methodology section.

When looking at ITF tax Economic Incidence in Figure 13, the estimated taxes paid as a percentage of income by AGI deciles indicates that lower deciles bear a greater burden than higher income deciles, while higher income ITF deciles pay much larger amounts of taxes per ITF than lower-income ITFs.

### Income Deciles: Overall View

| Deciles      | Population       | % of Population | Total Income             | Total Tax                  | Tax as % of Income | Decile Contribution to Total Tax |
|--------------|------------------|-----------------|--------------------------|----------------------------|--------------------|----------------------------------|
| Decile 1     | 850,332          | 48.73%          | \$17,931,989,587         | \$4,655,334,440.40         | 25.96%             | 19.45%                           |
| Decile 2     | 308,221          | 17.66%          | \$17,932,010,870         | \$3,506,397,592.06         | 19.55%             | 14.65%                           |
| Decile 3     | 199,666          | 11.44%          | \$17,931,947,541         | \$2,780,137,612.52         | 15.50%             | 11.61%                           |
| Decile 4     | 142,306          | 8.15%           | \$17,931,979,743         | \$2,820,737,159.04         | 15.73%             | 11.78%                           |
| Decile 5     | 103,736          | 5.94%           | \$17,931,894,255         | \$2,193,557,269.38         | 12.23%             | 9.16%                            |
| Decile 6     | 71,895           | 4.12%           | \$17,931,986,370         | \$2,057,010,494.61         | 11.47%             | 8.59%                            |
| Decile 7     | 42,689           | 2.45%           | \$17,931,886,737         | \$1,856,457,455.69         | 10.35%             | 7.75%                            |
| Decile 8     | 19,672           | 1.13%           | \$17,931,167,314         | \$1,611,436,992.16         | 8.99%              | 6.73%                            |
| Decile 9     | 5,746            | 0.33%           | \$17,928,620,786         | \$1,269,704,270.46         | 7.08%              | 5.30%                            |
| Decile 10    | 772              | 0.04%           | \$17,936,570,349         | \$1,190,156,832.74         | 6.64%              | 4.97%                            |
| <b>Total</b> | <b>1,745,035</b> | <b>100.00%</b>  | <b>\$179,320,053,551</b> | <b>\$23,940,930,119.05</b> | <b>15.78%</b>      | <b>100.00%</b>                   |

Figure 13 – Overall Tax Paid by Income Deciles in the 100% Pass-Through Model.

### ITF Overall Taxes

| Type of Tax         | Sum of Taxes        | Decile Contribution to Total Taxes |
|---------------------|---------------------|------------------------------------|
| Corporation Tax 100 | \$171,856,496.99    | 0.72%                              |
| Excise Tax          | \$911,656,991.49    | 3.81%                              |
| Income Tax          | \$7,747,094,416.63  | 32.36%                             |
| Property Tax 100    | \$10,339,387,530.11 | 43.19%                             |
| Sales Tax           | \$4,770,934,683.84  | 19.93%                             |
| <b>Total</b>        |                     | <b>100.00%</b>                     |

Figure 14 – Sum of taxes by tax type for individual tax filers

Figure 15 shows the Suits Index and the estimated total of taxes paid relative to each tax type in this 100% Pass-Through Model. As seen in Figures 14, 16, and 18, Property Tax and Income Tax are the largest tax burdens on Connecticut ITFs overall.

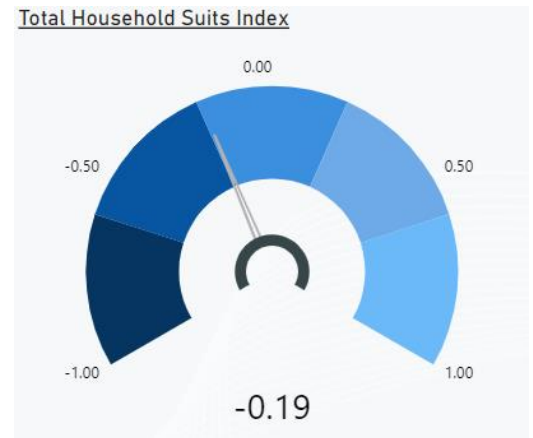


Figure 15 - Suits Index for Overall Households.

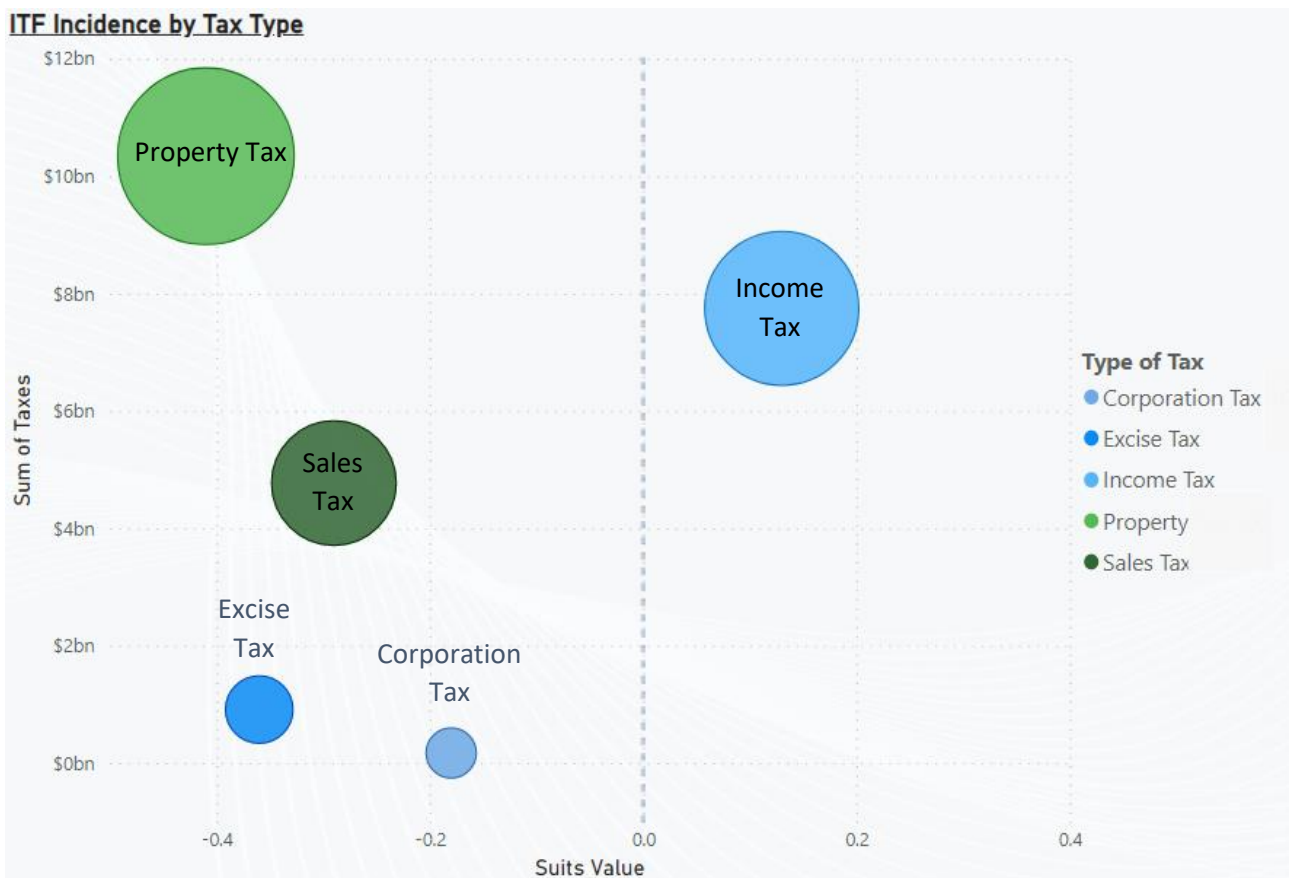


Figure 16 – Sum of taxes by tax type organized by Suits Index value.

When looking at a breakdown of the taxes collected by DRS as shown in Figure 17 below, it can be observed that there is relative parity between the 10 deciles. It is when you Property Tax is included, as reflected in Figure 18, that the data begin to show a less progressive picture. Notably, the large skew towards Decile 1 is not entirely due to the tax itself but rather to a few factors that contribute to the first decile bearing a large burden. As mentioned previously there are almost three times as many filers in the first decile as the second, and there may be people falling under the umbrella of the first deciles who have had their income offset by capital losses or business losses.

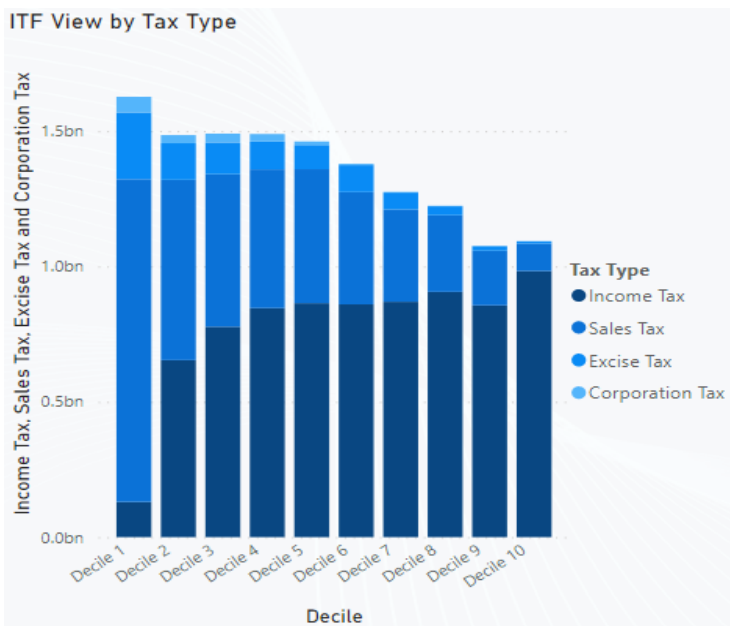


Figure 17 – Breakdown of tax types collected by DRS at 100% pass-through.

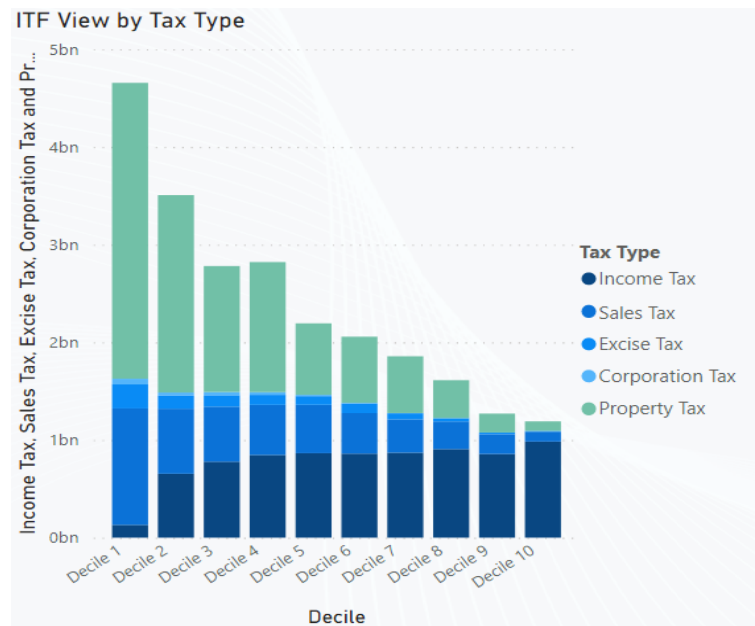


Figure 18 – Total tax paid by tax type for individual tax filers.

## 2. Personal Income Tax as Part of ITF Economic Incidence

Because Personal Income Tax is always borne by ITFs, its legal incidence is the same as its economic incidence. Please see the prior ITF Legal Incidence - Personal Income Tax section for more details.

## 3. Sales and Use Tax as Part of ITF Economic Incidence

Generally, the sale, lease, or rental of tangible personal property and taxable services in Connecticut are subject to Sales and Use Tax unless specifically exempt by statute. There are no local sales taxes in Connecticut. The Sales and Use Tax rates can be found in Table 1. For purposes of this report, Room Occupancy Tax is included in the Sales and Use Tax calculations because it is a transactional tax.

Generally, Sales and Use is a regressive tax, but Connecticut has taken several policy steps towards making its Sales and Use tax more progressive. Some of these policies include the introduction of a

variety of rates, particularly the 7.75% luxury tax, and the many different exemptions that are available, including exemptions on children’s car seats, clothing, and groceries.

| <b>Sales and Use Tax Rates</b> |  |
|--------------------------------|--|
| 6.35%                          | Gross receipts from the sale, rental or leasing of tangible personal property, and the rendering of certain services (general rate);   |
| 7.35%                          | As of October 1 <sup>st</sup> , 2019, Meals and certain drinks are subject to an additional 1% rate of tax for a total effective tax rate of 7.35%.  |
| 7.75%                          | <ul style="list-style-type: none"> <li>• Most motor vehicles with a sales price of more than \$50,000.</li> <li>• Items of jewelry with a sales price of more than \$5,000.</li> <li>• Articles of clothing or footwear or a handbag, luggage, umbrella, wallet, or watch, with a price of more than \$1,000.</li> </ul> |
| 1.0%                           | Computer and data processing services.   |
| 2.99%                          | Sales and purchases of vessels, motors for vessels, and trailers used for transporting a vessel.   |
| 4.5%                           | Sale of a motor vehicle to a nonresident member of the United States armed forces serving on active duty in Connecticut.   |
| 9.35%                          | Rental or leasing of a passenger motor vehicle for a period of 30 consecutive calendar days or less.   |

Table 2 – lists the various Sales and Use Tax rates levied by the State.

**Income Deciles: Sales and Use Tax**

| Deciles      | Population     | % of Population | Total AGI           | Total Sales & Occupancy Tax | Tax as % of Income |
|--------------|----------------|-----------------|---------------------|-----------------------------|--------------------|
| Decile 1     | 850332         | 48.73%          | 17931989587         | 1,192,078,557.61            | 6.65%              |
| Decile 2     | 308221         | 17.66%          | 17932010870         | 666,054,552.93              | 3.71%              |
| Decile 3     | 199666         | 11.44%          | 17931947541         | 563,589,974.94              | 3.14%              |
| Decile 4     | 142306         | 8.15%           | 17931979743         | 512,590,667.11              | 2.86%              |
| Decile 5     | 103736         | 5.94%           | 17931894255         | 494,927,526.08              | 2.76%              |
| Decile 6     | 71895          | 4.12%           | 17931986370         | 414,709,607.05              | 2.31%              |
| Decile 7     | 42689          | 2.45%           | 17931886737         | 341,127,759.94              | 1.90%              |
| Decile 8     | 19672          | 1.13%           | 17931167314         | 283,130,207.87              | 1.58%              |
| Decile 9     | 5746           | 0.33%           | 17928620786         | 201,787,406.37              | 1.13%              |
| Decile 10    | 772            | 0.04%           | 17936570349         | 100,938,423.94              | 0.56%              |
| <b>Total</b> | <b>1745035</b> | <b>100.00%</b>  | <b>179320053552</b> | <b>4,770,934,683.84</b>     | <b>3.63%</b>       |

Figure 19 – Sales and Use Tax by Income Deciles.

Estimates of the Sales and Use Tax<sup>10</sup> incidence on ITFs indicate that most of the Sales and Use Tax is borne by ITFs in the lower income deciles. Calculations show that the first three deciles paid the majority of the Sales and Use taxes in the State.

<sup>10</sup> Other consumption-based taxes in this study are the Excise Tax and Occupancy Tax.



The Suits Index shows a moderately regressive value of -0.29 in Figure 21.

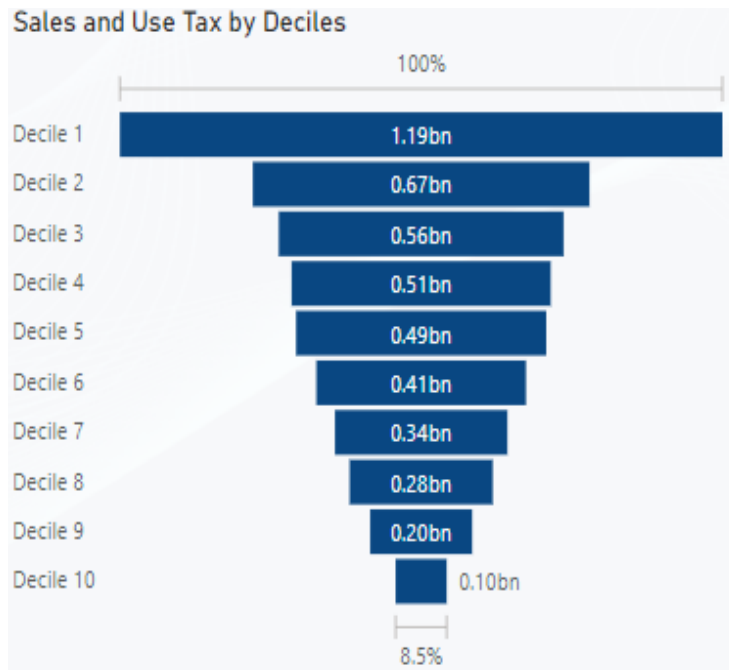


Figure 20 – Sales and Use tax broken out by Income Deciles.

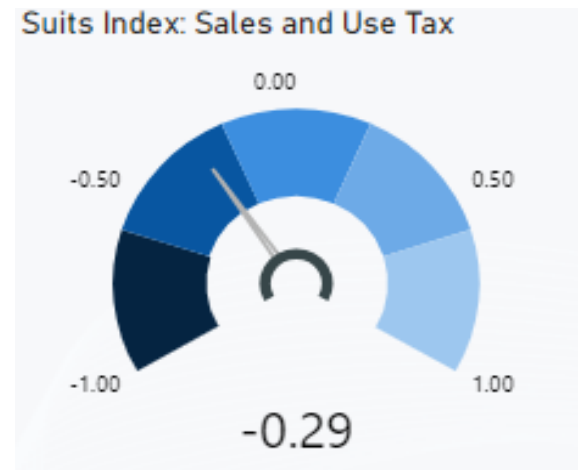


Figure 21 – Suits Index for Sales and Use Tax.

#### 4. Excise Tax as Part of ITF Economic Incidence

The following are the Excise taxes imposed by the State of Connecticut: Alcohol, Admissions, Cigarettes, E-Cigarette products, Motor Fuel, and Tobacco Products Tax. While the initial Legal Incidence of these excise taxes is borne by corporations, the Economic Incidence is borne by consumer (i.e., ITFs). This analysis combines all Excise Taxes into an aggregate view. To examine a summary of various collected excise taxes, please refer to the DRS Annual Report.<sup>11</sup>

In recent years, Connecticut has made several changes across the different components that make up Excise Tax. With regards to the taxes on Alcohol, adjustments were made to, such as the addition of a new rate, and the reduction of tax on craft beer sold at breweries to reduce barriers to entry for local beer manufacturers. Similarly, for the Cigarettes and Tobacco excise tax, the T21 initiative raised the legal age at which tobacco products can be purchased, which may have reduced related tax revenues. Rate changes were also made that affect the tax burden on each individual and the taxation of Electronic-Cigarettes (E-Cigarettes).

Consumers and government can seek refunds on Motor Fuels excise taxes by using the AU724 form for Off Highway, Governmental, and School Bus use. All of these refunds were included in the analysis for the report. The Diesel rate was raised to 45.6 cents per gallon as of July 1<sup>st</sup>, 2019.

The Admissions Tax is a tax imposed on the admission to places of entertainment or recreation. It was changed in 2021 to apply to only movie theaters that charge more than \$5. In future reports the Admissions Tax contribution likely will show reductions over the 2019 calculations in this report.

<sup>11</sup> <https://portal.ct.gov/-/media/DRS/Research/annualreport/DRS-FY20-Annual-Report.pdf>

The total Excise Taxes paid across all Connecticut ITFs in 2019 is nearly \$912 million for this report. The four lowest-income deciles pay nearly 66% of the Total Excise Taxes in Connecticut. The weighted average of all ITFs paying Excise Taxes, as a percentage of their incomes, is 0.77%.

### Income Deciles: Excise Tax

| Deciles      | Population     | Total AGI           | Excise Tax            | Tax as % of Income |
|--------------|----------------|---------------------|-----------------------|--------------------|
| Decile 1     | 850332         | 17931989587         | 246,464,271.19        | 1.37%              |
| Decile 2     | 308221         | 17932010870         | 135,230,707.60        | 0.75%              |
| Decile 3     | 199666         | 17931947541         | 117,117,706.03        | 0.65%              |
| Decile 4     | 142306         | 17931979743         | 102,684,767.84        | 0.57%              |
| Decile 5     | 103736         | 17931894255         | 89,502,441.13         | 0.50%              |
| Decile 6     | 71895          | 17931986370         | 99,430,822.79         | 0.55%              |
| Decile 7     | 42689          | 17931886737         | 62,477,598.30         | 0.35%              |
| Decile 8     | 19672          | 17931167314         | 33,354,774.94         | 0.19%              |
| Decile 9     | 5746           | 17928620786         | 16,926,766.87         | 0.09%              |
| Decile 10    | 772            | 17936570349         | 8,467,134.80          | 0.05%              |
| <b>Total</b> | <b>1745035</b> | <b>179320053552</b> | <b>911,656,991.49</b> | <b>0.77%</b>       |

Figure 22 shows tax incidence by income, every ten percentage points for Excise Tax.

As required by CT Gen Stat § 12-7c (2019), this section uses the same approach to estimate Excise Tax incidence across income deciles. Figure 22 demonstrates the gradual decline from Decile 2 to 9 of Excise Taxes paid by ITFs.

Connecticut’s Excise Tax is shown with a Suits Index of -0.36 as shown in Figure 23. Excise taxes in general do not rise significantly as income rises, and this is reflected in the Suits Index for Excise Tax.

### Alcohol

Alcohol Taxes are imposed on all distributors of alcoholic beverages for the sale of alcoholic beverages within Connecticut. Each month, distributors must report the total number of gallons of every alcoholic beverage sold, opening and closing inventories, and the amount of tax due. Sales of alcoholic beverages also are subject to the Sales and Use Tax, which is accounted for in the ITF Economic Incidence.

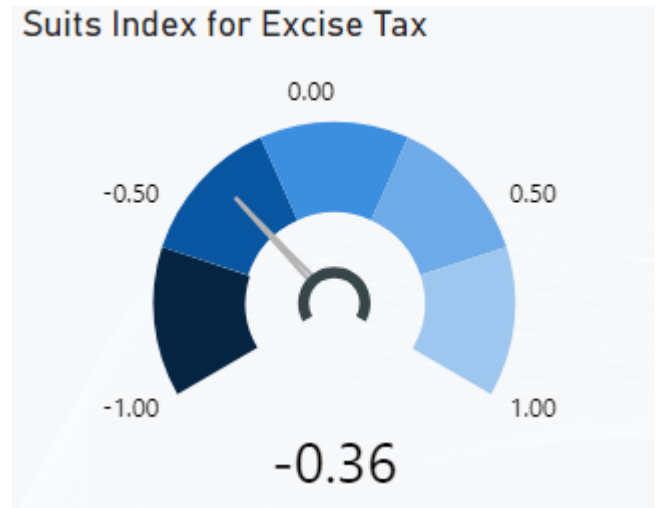


Figure 23 – Suits Index for Excise Tax.

This report accounts for the rate change seen across Alcohol Beverages Taxes in 2019 because it looks at total tax paid in Tax Year 2019. The rate changes can be seen in Tables 3 and 4 below.

| <b>Alcohol Beverages Tax Rates<br/>Through September 30, 2019</b> |                                   |
|---|-----------------------------------|
| Beer  | \$7.20 per barrel<br>(31 gallons) |
| Beer  | 24¢ per gallon                    |
| Still Wines   | 72¢ per gallon                    |
| Small Wineries  | 18¢ per gallon                    |
| Sparkling Wines   | \$1.80 per gallon                 |
| Alcohol   | \$5.40 per proof<br>gallon        |
| Distilled Liquor  | \$5.40 per gallon                 |
| Liquor Coolers  | \$2.46 per gallon                 |

*Table 3 – lists the Alcoholic Beverage tax rates by Alcohol type through 09/30/2019.*

| <b>Alcohol Beverages Tax Rates<br/>Effective October 1, 2019</b> |                                   |
|--|-----------------------------------|
| Beer   | \$7.20 per barrel<br>(31 gallons) |
| Beer   | 24¢ per gallon*                   |
| Cider  | \$7.92 per barrel                 |
| Cider  | 26¢ per gallon                    |
| Still Wines  | 79¢ per gallon                    |
| Small Wineries   | 20¢ per gallon                    |
| Sparkling Wines  | \$1.98 per gallon                 |
| Alcohol  | \$5.94 per proof<br>gallon        |
| Distilled Liquor   | \$5.94 per gallon                 |
| Liquor Coolers   | \$2.71 per gallon                 |

*Table 4 – lists the Alcoholic Beverage tax rates by Alcohol type effective 10/01/2019.*

### Admissions and Dues

Connecticut's Admissions and Dues Tax applies to most admission charges at corporations that operate in physical locations in Connecticut amusement, entertainment, or recreation. The tax applies to movies, theaters, sporting events, concerts, amusement parks, and similar places and events, with certain exceptions. A partial listing of Admissions and Dues Tax rates is shown below. For a complete list of physical locations where this tax is applied, see the DRS FY20 Annual Report<sup>12</sup>.

- Admissions 5% of sales occurring on or after July 1, 2019, but prior to July 1, 2020, for any event at Dunkin Donuts Park [Exempt as of July 1, 2020.]
- 6% of the admissions charge to motion picture shows.
- 7.5% of the admission charges made on or after July 1, 2019, but prior to July 1, 2020, for the specified events and venues.
- 5% of the admission charges made on or after July 1, 2020, for the venues and events listed above.
- 10% of the admission charge to any other place of amusement, entertainment, or recreation.
- 10% of membership dues or initiation fees to any social, athletic, or sporting club organization.

### Cigarettes

A tax is imposed on all cigarettes sold in Connecticut. The cigarette tax is 217.5 mills per cigarette or \$4.35 per pack of twenty.

### Electronic Cigarettes

The tax is imposed on the first sale or use in Connecticut of any electronic cigarette product at a rate of either:

- \$0.40 per milliliter of the electronic cigarette liquid contained within an electronic cigarette product that is prefilled, sealed by the manufacturer, and not intended to be refillable.
- 10% of the wholesale sales price of any other electronic cigarette product. This tax went into effect October 1, 2019, providing the report a limited amount of time for data collection. Future iterations of this report should expect an increase in the percentage as part of the whole from Electronic Cigarettes.

### Tobacco

An Excise Tax is imposed on all non-cigarette tobacco products such as cigars, stogies, snuff, pipe and chewing tobacco. The tax is imposed when the tobacco products are manufactured, imported, or purchased by distributors. Distributors must be licensed annually and remit the tax monthly.

| <b>Tobacco Products Tax Rates Effective December 1, 2017</b> |  |
|--|--|
| Tobacco  | 50% of the wholesale sales price                             |
| Cigars   | 50% of the wholesale sales price not to exceed 50c per cigar |
| Snuff  | \$3.00 per ounce   |

*Table 5 – effective rates for Tobacco products.*

<sup>12</sup> <https://portal.ct.gov/-/media/DRS/Research/annualreport/DRS-FY20-Annual-Report.pdf>

## Motor Fuel

Motor fuel used or sold in Connecticut is subject to the Motor Vehicle Fuels Tax. "Fuel" includes gasoline, diesel, gasohol, propane, or any combustible gas or liquid that generates the power needed to propel a motor vehicle.

| <b>Motor Fuel Tax Rates Effective December 1, 2017</b> |       |
|--|-------|
| Gasoline   | 25¢   |
| Gasohol  | 25¢   |
| Diesel Fuel 7/1/18 – 6/30/19                           | 43.9¢ |
| Diesel Fuel 7/1/19-6/30/20                             | 46.5¢ |
| Natural Gas or Propane                                 | 26¢   |

Table 6 – effective rates for Motor Fuels as of 12/01/2017.

### 1. Property Tax as Part of ITF Economic Incidence

Combining ITF and business legal incidence, Property Tax aggregates to over \$10 billion in Property Tax paid in the State. In the ITF income deciles shown in Figure 24 below, Deciles 2-4 pay about 45% of the total property taxes paid. This is a result of individuals already bearing a majority of the Property Tax burden. In this scenario, Deciles 2-4 also pay the highest Property Tax Paid as a Percentage of Income by Decile, ranging from 11.27% (compared to the legal incidence of 9.18%) to 7.19% (compared to the legal incidence of 6.01%) of income. The estimated weighted average by population of Property Tax Paid as a Percentage of Income for all CT ITFs is 9.83%.

#### Income Deciles: Property Tax

| Deciles      | Population       | Total Income              | Property Tax             | Decile Contribution to Total Tax | Tax as % of Income |
|--------------|------------------|---------------------------|--------------------------|----------------------------------|--------------------|
| Decile 1     | 850,332          | 17,931,989,586.66         | 3,028,755,211.88         | 29.29%                           | 16.89%             |
| Decile 2     | 308,221          | 17,932,010,869.61         | 2,021,126,970.37         | 19.55%                           | 11.27%             |
| Decile 3     | 199,666          | 17,931,947,541.06         | 1,289,474,459.99         | 12.47%                           | 7.19%              |
| Decile 4     | 142,306          | 17,931,979,743.48         | 1,331,496,417.55         | 12.88%                           | 7.43%              |
| Decile 5     | 103,736          | 17,931,894,255.00         | 731,945,182.30           | 7.08%                            | 4.08%              |
| Decile 6     | 71,895           | 17,931,986,369.66         | 677,806,250.80           | 6.56%                            | 3.78%              |
| Decile 7     | 42,689           | 17,931,886,737.00         | 580,976,786.40           | 5.62%                            | 3.24%              |
| Decile 8     | 19,672           | 17,931,167,314.00         | 387,317,857.60           | 3.75%                            | 2.16%              |
| Decile 9     | 5,746            | 17,928,620,786.00         | 193,658,928.80           | 1.87%                            | 1.08%              |
| Decile 10    | 772              | 17,936,570,349.00         | 96,829,464.40            | 0.94%                            | 0.54%              |
| <b>Total</b> | <b>1,745,035</b> | <b>179,320,053,551.47</b> | <b>10,339,387,530.11</b> | <b>100.00%</b>                   | <b>9.83%</b>       |

Figure 24 – Shows tax incidence by income, every ten-percentage point, for Property tax

Property Tax reflects a Suits Index of -0.41. The difference in Suits Indices between legal and economic incidence is modest when comparing to the legal incidence of -0.40, suggesting that the initial incidence levied at the municipal level is the most significant burden on individuals, rather than the burden shifted onto individuals by corporations.



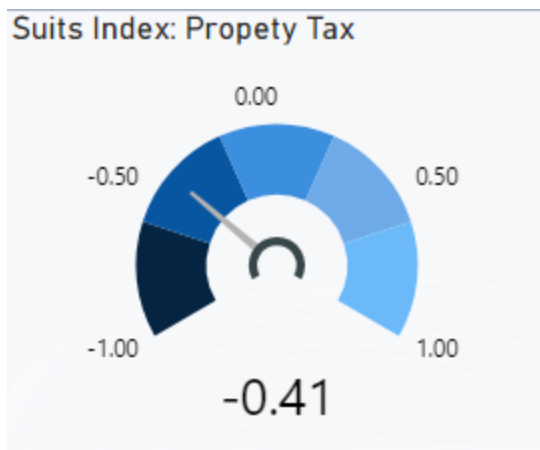


Figure 25 – Suits Index for Property Tax borne by households.

## 2. Corporation Business Tax as Part of ITF Economic Incidence

As noted earlier, corporations can shift the burden of their taxes onto ITFs. To examine this shift, the analysis reviews the allocation of Corporation Business Tax to Connecticut ITFs.

| Income Deciles: Corporation Business Tax |                  |                     |                       |                               |
|--|------------------|---------------------|-----------------------|-------------------------------|
| Deciles                                  | Population       | AGI                 | Corporation Tax       | Tax as % of Income by Deciles |
| Decile 1                                 | 850,332          | 17931989587         | 57,781,767.06         | 0.32%                         |
| Decile 2                                 | 308,221          | 17932010870         | 30,084,394.43         | 0.17%                         |
| Decile 3                                 | 199,666          | 17931947541         | 32,569,359.20         | 0.18%                         |
| Decile 4                                 | 142,306          | 17931979743         | 27,859,832.62         | 0.16%                         |
| Decile 5                                 | 103,736          | 17931894255         | 12,836,557.88         | 0.07%                         |
| Decile 6                                 | 71,895           | 17931986370         | 5,118,057.02          | 0.03%                         |
| Decile 7                                 | 42,689           | 17931886737         | 2,323,825.02          | 0.01%                         |
| Decile 8                                 | 19,672           | 17931167314         | 1,460,133.75          | 0.01%                         |
| Decile 9                                 | 5,746            | 17928620786         | 1,076,158.42          | 0.01%                         |
| Decile 10                                | 772              | 17936570349         | 746,411.60            | 0.00%                         |
| <b>Total</b>                             | <b>1,745,035</b> | <b>179320053552</b> | <b>171,856,497.00</b> | <b>0.20%</b>                  |

Figure 26 – Breaks out tax incidence by income, every ten-percentage point, for Corporation Business Tax

To calculate incidence for ITF's when looking at the Corporation Business Tax, a model was developed using Consumer Expenditure Survey (CES) data to analyze pre-tax sales amounts and associate it with the Corporation Business tax reported in the 2019 CT-1120 and the CT-1120 CU forms. The Corporation Business Tax has been in place for decades and therefore it is projected corporations have assimilated the tax into their initial pricing. An analysis on dividends was also computed, though not used. It is not possible to assess what portion of dividends are borne from Connecticut corporations. When examining the distribution of the Corporation Business Tax in Figure 26, the analysis finds that a large portion of the burden falls among



Decile 1. This can be attributed to the inflated values in the first decile from low wage earners and filers reporting business losses. The more indicative view of tax incidence is in Deciles 2-4 which show a gradual decline of “Tax as % of Income by Deciles”

## **VIII. ITF and Corporation Economic Tax Incidence: Supplemental Scenario**

The following section demonstrates the results of a 50% tax pass-through model. Because it is not a 100% shift, as seen previously, it demonstrates the total economic incidence for corporations as well as ITFs. *This model is not used for the overall findings of the report. Rather, it is included to help provide the new DRS RAF unit with more data points for the development of a calibrated Connecticut economic tax shifting model in the future.*

### **A. 50% Pass-Through: ITF Economic Tax Incidence**

#### **1. Overall View at 50% Pass-Through**

In this Supplemental Scenario, ITFs pay \$23 billion in total economic tax incidence, which amounts to a 4% decrease compared to the total estimated taxes paid in the 100% Pass-Through Model of \$24 billion, as depicted in Figures 27 and 28. Similar to the 100% Pass-Through scenario, the analysis finds that taxes collected by DRS are relatively evenly distributed among the deciles.

#### **Income Deciles: Overall View**

| Deciles      | Population       | % of Population | Total Income             | Total Tax                | Tax as % of Income |
|--------------|------------------|-----------------|--------------------------|--------------------------|--------------------|
| Decile 1     | 850,332          | 48.73%          | \$17,931,989,587         | 4,304,630,924.11         | 24.01%             |
| Decile 2     | 308,221          | 17.66%          | \$17,932,010,870         | 3,303,671,896.64         | 18.42%             |
| Decile 3     | 199,666          | 11.44%          | \$17,931,947,541         | 2,658,311,113.25         | 14.82%             |
| Decile 4     | 142,306          | 8.15%           | \$17,931,979,743         | 2,699,283,635.31         | 15.05%             |
| Decile 5     | 103,736          | 5.94%           | \$17,931,894,255         | 2,133,426,326.11         | 11.90%             |
| Decile 6     | 71,895           | 4.12%           | \$17,931,986,370         | 2,009,223,175.01         | 11.20%             |
| Decile 7     | 42,689           | 2.45%           | \$17,931,886,737         | 1,816,528,436.48         | 10.13%             |
| Decile 8     | 19,672           | 1.13%           | \$17,931,167,314         | 1,584,862,187.49         | 8.84%              |
| Decile 9     | 5,746            | 0.33%           | \$17,928,620,786         | 1,256,243,822.35         | 7.01%              |
| Decile 10    | 772              | 0.04%           | \$17,936,570,349         | 1,183,322,442.49         | 6.60%              |
| <b>Total</b> | <b>1,745,035</b> | <b>100.00%</b>  | <b>\$179,320,053,551</b> | <b>22,949,503,959.23</b> | <b>14.87%</b>      |

*Figure 27 – Breaks out tax incidence by income, every ten-percentage point, for Individual Tax Filers at 50% pass through.*

| ITF Overall Taxes  |                    |                                    |
|--------------------|--------------------|------------------------------------|
| Type of Tax        | Sum of Taxes       | Decile Contribution to Total Taxes |
| Corporation Tax 50 | \$85,928,248.50    | 0.37%                              |
| Excise Tax         | \$911,656,991.49   | 3.97%                              |
| Income Tax         | \$7,747,094,416.63 | 33.76%                             |
| Property Tax 50    | \$9,433,889,618.77 | 41.11%                             |
| Sales Tax          | \$4,770,934,683.84 | 20.79%                             |
| <b>Total</b>       |                    | <b>100.00%</b>                     |

Figure 28 – Sum of taxes by tax type for individual tax filers at 50% pass-through.

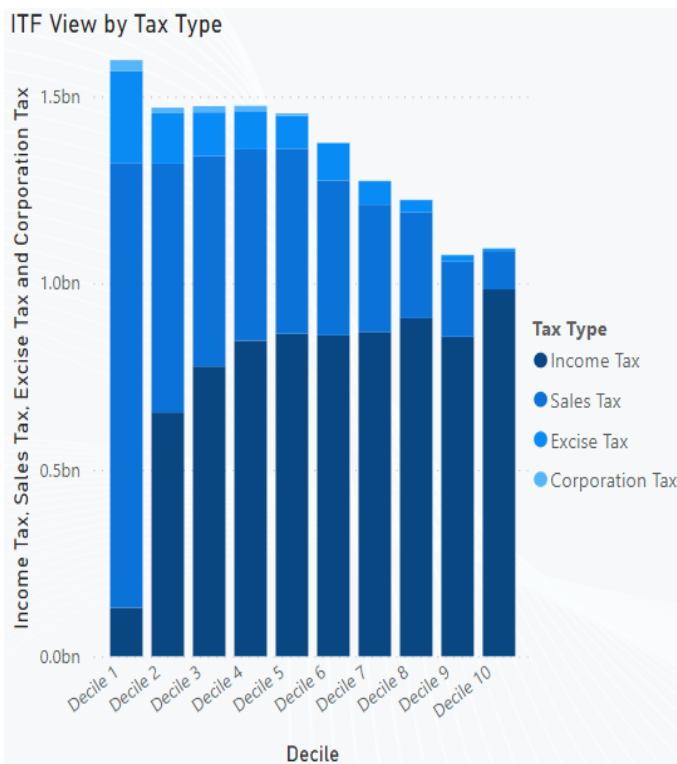


Figure 29 – View of tax types collected by CT DRS by Decile in the 50% pass-through scenario.

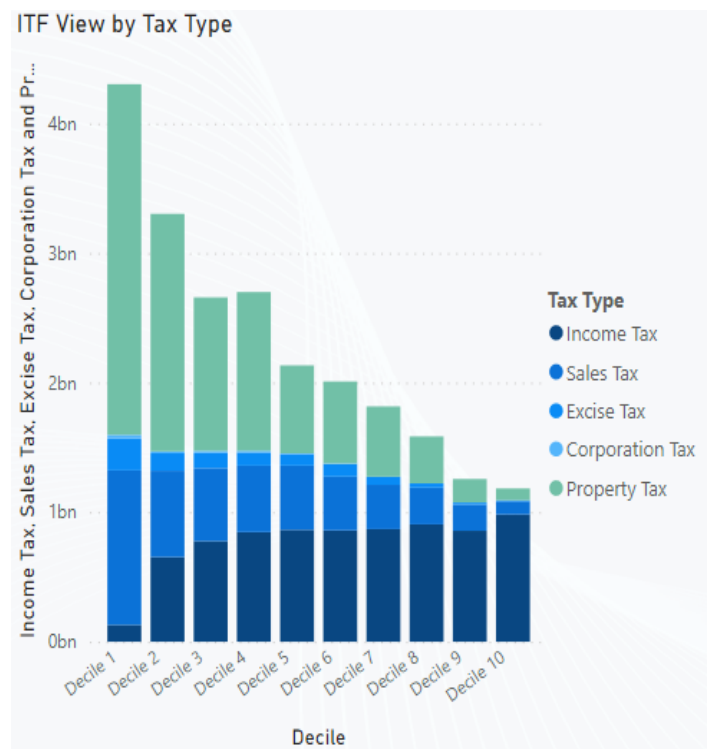


Figure 30 – View of tax types as a part of total tax for individual tax filers in the 50% pass-through scenario.

## 2. Personal Income Tax

Because Personal Income Tax is always borne by ITFs, its legal incidence is the same as its economic incidence. Please refer to the prior ITF Legal Incidence – Personal Income Tax section for more details.

## 3. Sales and Use Tax, Excise Tax

Given the economic literature in this subset of economics, and 100% Pass-Through model for Sales and Use Tax mentioned earlier, this supplemental analysis continues to calculate Sales and

Use Tax and Excise Tax as a cost shifted entirely to consumers. Please refer to the prior section for the incidence of Sales and Use Tax and Excise Tax on ITFs.

#### 4. Corporation Business Tax

With a 50% pass through view in this Supplemental Scenario, ITFs bear an additional \$86 million of the Corporation Business Tax. This is an additional 0.36% of the total economic incidence for ITFs.

| Income Deciles: Corporation Business Tax |                  |                     |                      |                    |
|--|------------------|---------------------|----------------------|--------------------|
| Deciles                                  | Population       | AGI                 | CT Tax Paid          | Tax as % of Income |
| Decile 1                                 | 850,332          | 17931989587         | 28,890,883.53        | 0.16%              |
| Decile 2                                 | 308,221          | 17932010870         | 15,042,197.22        | 0.08%              |
| Decile 3                                 | 199,666          | 17931947541         | 16,284,679.60        | 0.09%              |
| Decile 4                                 | 142,306          | 17931979743         | 13,929,916.31        | 0.08%              |
| Decile 5                                 | 103,736          | 17931894255         | 6,418,278.94         | 0.04%              |
| Decile 6                                 | 71,895           | 17931986370         | 2,559,028.51         | 0.01%              |
| Decile 7                                 | 42,689           | 17931886737         | 1,161,912.51         | 0.01%              |
| Decile 8                                 | 19,672           | 17931167314         | 730,066.87           | 0.00%              |
| Decile 9                                 | 5,746            | 17928620786         | 538,079.21           | 0.00%              |
| Decile 10                                | 772              | 17936570349         | 373,205.80           | 0.00%              |
| <b>Total</b>                             | <b>1,745,035</b> | <b>179320053552</b> | <b>85,928,248.50</b> | <b>0.10%</b>       |

Figure 31 – Shows tax incidence by income, every ten-percentage point, for Corporation Business Tax

#### 5. Property Tax

The ITF income deciles, shown in Figure 32, include the business legal incidence taxes in this 50% Pass-Through Model. Deciles 2-4 pay about 45% of the total Property Tax paid - identical to the 45% calculated in the ITF Property Tax Legal Incidence view and 100% Pass Through Model.

In this hypothetical scenario, Deciles 2-4 also pay the highest Property Tax Paid as a Percentage of Income by Decile, ranging from 10.22% to 6.83% of income. The estimated weighted average Property Tax Paid as a Percentage of Income for all CT ITFs is 8.82%.

Further, ITFs are estimated to pay \$9.4B in Property Tax in this scenario. Which amounts to an 8.8% decrease compared to the total estimated taxes paid in the 100% Pass Through Model of \$8.5 billion.

### Income Deciles: Property Tax

| Deciles      | Population       | Total Income              | Property Tax            | Decile Contribution to Total Tax | Tax as % of Income |
|--------------|------------------|---------------------------|-------------------------|----------------------------------|--------------------|
| Decile 1     | 850,332          | 17,931,989,586.66         | 2,706,942,579.13        | 28.69%                           | 15.10%             |
| Decile 2     | 308,221          | 17,932,010,869.61         | 1,833,443,472.17        | 19.43%                           | 10.22%             |
| Decile 3     | 199,666          | 17,931,947,541.06         | 1,183,932,640.33        | 12.55%                           | 6.60%              |
| Decile 4     | 142,306          | 17,931,979,743.48         | 1,223,972,810.14        | 12.97%                           | 6.83%              |
| Decile 5     | 103,736          | 17,931,894,255.00         | 678,232,517.97          | 7.19%                            | 3.78%              |
| Decile 6     | 71,895           | 17,931,986,369.66         | 632,577,959.70          | 6.71%                            | 3.53%              |
| Decile 7     | 42,689           | 17,931,886,737.00         | 542,209,679.70          | 5.75%                            | 3.02%              |
| Decile 8     | 19,672           | 17,931,167,314.00         | 361,473,119.80          | 3.83%                            | 2.02%              |
| Decile 9     | 5,746            | 17,928,620,786.00         | 180,736,559.90          | 1.92%                            | 1.01%              |
| Decile 10    | 772              | 17,936,570,349.00         | 90,368,279.95           | 0.96%                            | 0.50%              |
| <b>Total</b> | <b>1,745,035</b> | <b>179,320,053,551.47</b> | <b>9,433,889,618.77</b> | <b>100.00%</b>                   | <b>8.82%</b>       |

Figure 32 – Breaks out tax incidence by income, every ten-percentage point, for Property Tax

## B. Corporations’ Economic Tax Incidence – The Remaining Costs for Corporations

In this Supplemental Scenario, if 50% of costs are shifted to ITFs, there is a remainder of costs absorbed by corporations. The following section outlines the data views of those remaining costs.

### Gross Receipts: Overall View

| Values       | Population    | Receipts                      | Total Corporation Tax   |
|--------------|---------------|-------------------------------|-------------------------|
| >1B          | 205           | \$1,835,688,689,043.00        | \$58,625,621.97         |
| 1B           | 87            | \$63,081,242,312.00           | \$8,070,620.49          |
| 250M         | 378           | \$47,100,456,853.00           | \$25,766,844.68         |
| 500M         | 120           | \$42,901,490,322.00           | \$10,571,360.40         |
| 50M          | 715           | \$15,758,675,214.00           | \$47,721,632.73         |
| 10M          | 2,801         | \$8,708,752,460.00            | \$174,881,044.18        |
| 1M           | 1,579         | \$1,128,935,225.65            | \$97,050,643.03         |
| 500k         | 4,086         | \$1,045,799,884.18            | \$245,805,228.42        |
| 100k         | 5,271         | \$135,921,170.94              | \$322,933,166.76        |
| <b>Total</b> | <b>15,242</b> | <b>\$2,015,549,962,484.77</b> | <b>\$991,426,162.65</b> |

Figure 33 – Shows Total of Corporation and Property Tax by Gross Receipt brackets

### Corporation Tax by Tax Brackets

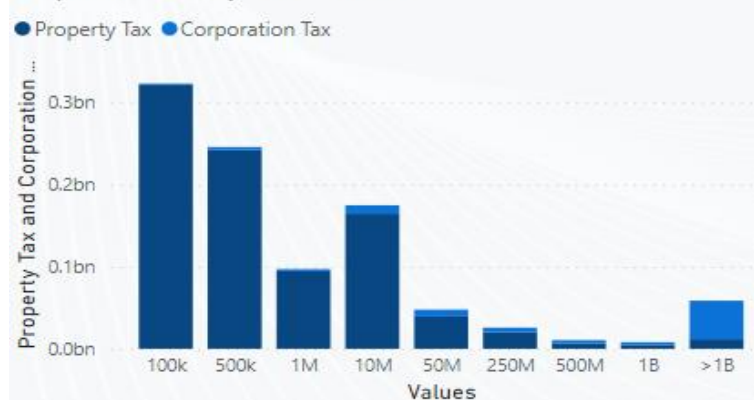


Figure 34 – View of overall tax by Property and Corporation Tax.



## 1. Corporation Business Tax

With the remaining amount of Corporation Business Tax, there are nominal amounts remaining for corporations as a % of gross receipts.

| Gross Receipts: Corporation Tax |  |  |                                   |
|---------------------------------|--|--|-----------------------------------|
| Bracket                         | Decile Contribution to Total Corporation Tax | Corporation Tax as % of Gross Receipts | Average of Balance of Tax Payable |
| 1(100k)                         | 1.28%  | 0.81%                                  | 297.35                            |
| 2(500k)                         | 4.17%  | 0.34%                                  | 873.37                            |
| 3(1M)                           | 2.15%  | 0.16%                                  | 1,167.22                          |
| 4(10M)                          | 12.86%                                       | 0.13%                                  | 3,923.11                          |
| 5(50M)                          | 9.72%  | 0.05%                                  | 11,241.86                         |
| 6(250M)                         | 6.40%  | 0.01%                                  | 12,975.70                         |
| 7(500M)                         | 4.74%  | 0.01%                                  | 29,305.36                         |
| 8(1B)                           | 3.86%  | 0.00%                                  | 34,206.09                         |
| 9(>1B)                          | 54.82%                                       | 0.00%                                  | 192,262.68                        |

Figure 35 – Breaks out tax incidence by income, every ten-percentage points, for Corporation Tax.

## 2. Property Tax

In this supplemental scenario, the distribution seen in “Bracket Contribution to Total Tax” remains the same despite the total Property Tax amount being split roughly in half from \$1.8 billion to \$905 million.

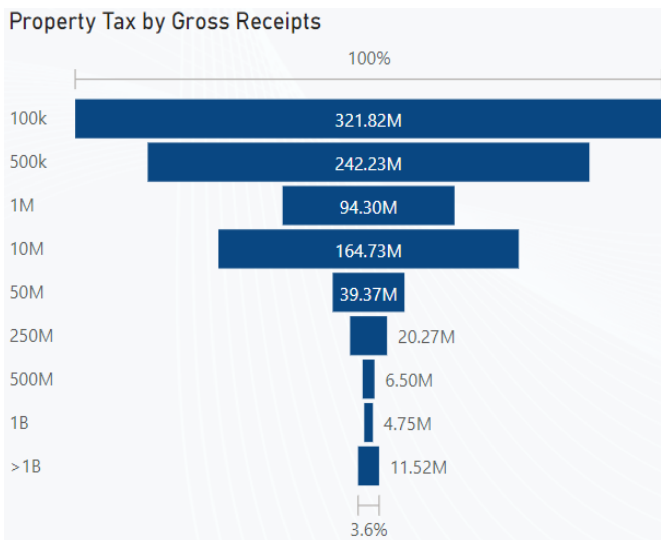


Figure 36 – Distribution of property tax by gross receipt brackets.

| Gross Receipts: Property Tax |              |                 |                       |                                   |
|------------------------------|--------------|-----------------|-----------------------|-----------------------------------|
| Values                       | Population   | % of Population | Property Tax          | Bracket Contribution to Total Tax |
| 100k                         | 5271         | 34.58%          | 321,824,348.26        | 35.54%                            |
| 500k                         | 4086         | 26.81%          | 242,231,593.02        | 26.75%                            |
| 10M                          | 2801         | 18.38%          | 164,732,788.97        | 18.19%                            |
| 1M                           | 1579         | 10.36%          | 94,303,298.32         | 10.41%                            |
| 50M                          | 715          | 4.69%           | 39,368,927.36         | 4.35%                             |
| 250M                         | 378          | 2.48%           | 20,265,149.26         | 2.24%                             |
| >1B                          | 205          | 1.34%           | 11,521,264.66         | 1.27%                             |
| 500M                         | 120          | 0.79%           | 6,497,914.95          | 0.72%                             |
| 1B                           | 87           | 0.57%           | 4,752,629.60          | 0.52%                             |
| <b>Total</b>                 | <b>15242</b> | <b>100.00%</b>  | <b>905,497,914.39</b> | <b>100.00%</b>                    |

Figure 37 – Shows tax incidence by income, every ten-percentage points for Property Tax.

## **IX. Detailed Methodology**

The methodological approach taken for this report is an economic long-run view of tax incidence for tax filers within State of Connecticut in the 2019 tax year.

To truly capture shifting, there are a few economic concepts that are foundational to this study, enumerated below:

1. Taxes do not occur in isolation, and tax structure will evolve over time.
2. Given time, businesses can and will shift their business taxes forward to individuals in the form of higher prices to consumers or through labor.
3. Capital will always move to where it earns the highest return.

This report draws its conclusions from the most conservative estimates of tax incidence and calculates that 100% of legal tax incidence borne by businesses in the State will be shifted to consumers or tax filers for the purposes of this report. This is reflected in the 100% Pass Through Model. This position is adopted primarily from the fact that the taxes examined, as required by CT Gen Stat § 12-7c (2019), have been in place for decades and thus all have been assimilated into business operating and financial models used in this report.

In order to provide a supplemental view of incidence, 50% of the incidence for both Property Tax as well as the Corporation Business Tax is shifted onto consumers and while keeping Sales and Use Tax and Excise Tax at 100%. This is reflected in the 50% Pass Through Model.

Across all tax types, this study uses a post-credit analysis. This means that all credits and deductions are applied prior to analysis. For example, the Personal Income Tax analysis accounts for the Earned Income Tax Credit in tables shown earlier in the report.

In addition to the shifting methodology, it is important to note where data are not matched due to the realities of tax collection. As an example, while Sales Tax is collected and paid by businesses, consumers are almost universally charged sales tax at the point of sale for many goods and services. The amount of Sales Tax that each ITF pays is not captured in a comprehensive manner for all consumers across all industry sectors. Consequently, the CES data were useful to allocate an approximation of Sales Tax spent by consumers by decile.

The use of this CES data is one example of how this study used distribution models as well as additional third-party data as necessary to generate a view of tax incidence. Those data sources are detailed in section XIII. Lastly, the paragraphs below outline some limitations that required careful consideration and calculations to address. For clarity and transparency, the details for each data consideration are made by tax type and are listed in detail.

Because this report examines strictly Connecticut tax incidence, Non-Resident tax filers are excluded. Therefore, this report accounts for Connecticut residents and part year residents only. In that context, it is important to note that Non-Resident filers accounted for \$715 million in tax revenue for Connecticut in 2019. Additionally, while Non-Residents are not included in the analysis, the distribution is shown in Figure 38. Part-year residents, however, are included in the report based on their income earned in Connecticut for the 2019 tax year.



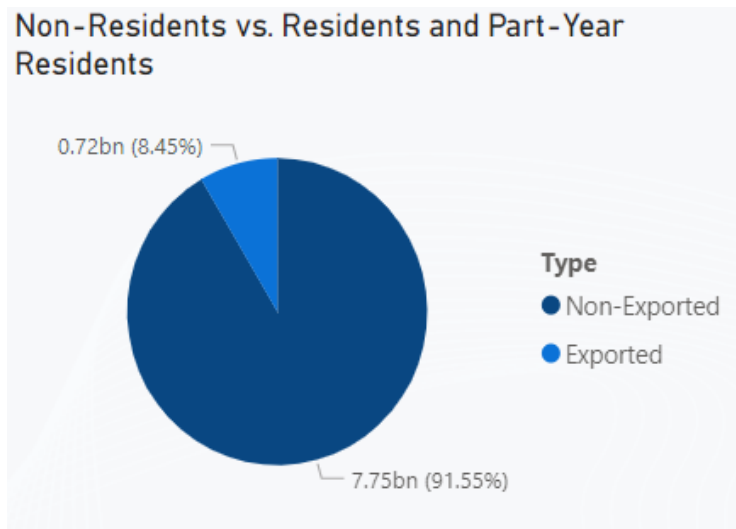


Figure 38 – Percent of Non-Resident filers vs. Resident and Part Year filers via “Non-Exported” and “Exported.”

### **Personal Income Tax Considerations**

Personal Income Tax is defined as the levy imposed on income earned by resident individuals, and part-year residents via the rates defined in Table 4 in the Personal Income Tax section. The objective of this study is to measure the burden on Connecticut residents (including part year residents). Therefore, Non-Resident filers were excluded from the analysis because they are not Connecticut residents

### **Corporation Business Tax Considerations**

To report on the tax incidence of the Corporation Business Tax for Connecticut Corporations, this report looks at a few methodological considerations. Consistent with the rest of the report, the Corporate Business Tax section is based on the net of business tax credits. The approach also looked at exported tax against taxes paid by resident corporations. Exported tax was defined as any CT-1120 or CT-1120CU filings with an “out of state” or “out of country” designation. From there, all analyses were conducted on corporations physically based in Connecticut and not the value of exported tax dollars. See Figure 39 below.

When reviewing by the North American Industry Classification System (NAICS) sectors, the classification “Unassigned” are corporations that did not self-report their NAICS code. “Unassigned” is different from “Unclassified” in that “Unclassified” corporations fall under the NAICS industry code 999999 because they are usually too new to have a NAICS industry assigned to them. NAICS codes are self-selected at the time of a business’ registration. Due to the large number of “unassigned” corporations identified in this study, DRS has actively taken steps to require NAICS code at registration.

To meet the requirements of reporting all Corporation Business Tax data against gross receipts, the report used gross receipts from schedules within the Connecticut returns.

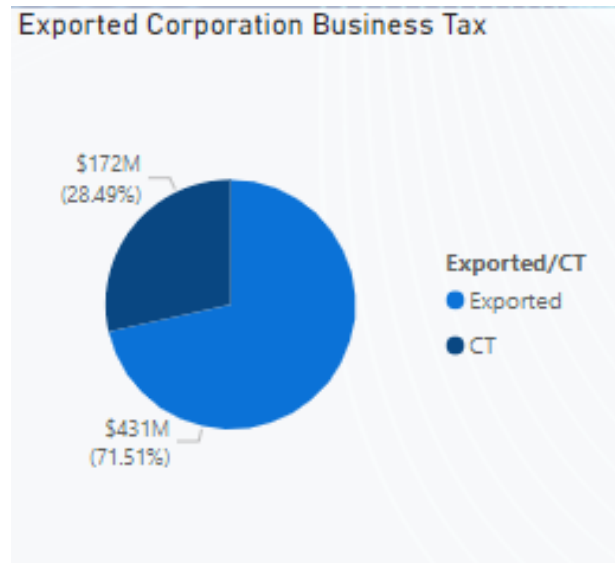


Figure 39 – Shows tax incidence by income, every ten-percentage points for Corporation Business Tax

### **Property Tax Considerations\***

For the purpose of this report, Property Tax is defined as the Personal Property Tax (borne largely by corporations), Motor Vehicle Tax including Supplemental Motor Vehicle Tax, and Real Property Tax.

Property Tax data are not collected by Department of Revenue Services (DRS). Rather, it is collected from municipalities and local councils of government (COGs) then aggregated at a State level by the Office of Policy and Management (OPM). Because of this, there are data limitations that have an impact on the ability to view tax incidence on individuals and corporations. There are four data limitations with respect to Property Tax of which readers should be aware:

1. The localized administration of Property Tax assessment and ultimately, the data collection leads to an unstandardized set of definitions of land use and zoning terminology across the 169 municipalities in Connecticut. To address this issue, data cleaning and categorization for proper attribution are required. For example, mixed use and commercial buildings may have tenants or domiciles in them. Some municipalities may capture this dual-use, others may not.
2. The only way to view out of state ownership is via the mailing address associated with a given property. This fact makes it difficult to establish residence from the ownership data.
3. The classification and documentation associated with tax exempt properties are left to the local levels to administer. This leads to some data gaps in the awareness of these tax-exempt properties because these properties also may have domiciles or other business

entities that are not contributing to a municipality's tax base or total tax levy. Thus, such taxes would not contribute to the overall tax incidence. While this may not be true of all municipalities, there is a lack of standardization for these properties.

4. The granularity of available data limits the ability to obtain and analyze a clearer picture of Property Tax incidence for corporations and individuals. To rectify these limitations, this report outlines a recommendation in the Recommendations Section.

Given these limitations, the treatment of the data to analyze Property Tax is as follows: a stratified random sample was taken of all available Property Tax Data provided by the Office of Policy and Management's publicly available data. A proportional allocation was applied to the sample across three strata of municipalities: urban, rural, and suburban to account for the diversity of type across Connecticut.

To associate income deciles with Property Tax incidence, this report uses a two-step model by utilizing the Tax Levy by Town FY2019-FY2022 data set available from OPM<sup>13</sup>. The first step determines the amount of total Property Tax paid for each town for fiscal year 2019. The second step uses mean ITF income by municipality, as provided by the United States Census Bureau<sup>14</sup> and published by the Connecticut Department of Economic and Community Development (DECD), to allocate municipalities into the appropriate income deciles. Determining income deciles of property owners is not possible from the current structure of Property Tax data that the State of Connecticut collects. In order to develop analyses at a more granular level than the Property Tax data collected by the State required for this report by CT Gen Stat § 12-7c (2019), a distribution model was applied to account for the variable nature of data points at each terminus. This distribution is similar to the one taken in prior CT TI reports.

Property Tax is paid by both corporations and ITFs. Therefore, it is important to separate the land use classifications between residential use and commercial use to determine how much tax is paid by individuals and how much is paid by corporations. In the economic long-run, corporations pass Property Tax costs onto the consumer in the form of higher prices. This report makes that assumption. However, because it cannot be assumed that Property Tax paid by individuals has a burden on corporations, when associating corporate gross receipts with Property Tax incidence, the number of commercial use properties has been separated from residential properties to apply the Property Tax paid by corporations to corporate gross receipts.

### **Sales and Use Tax, Excise Tax Considerations**

As discussed earlier, this report calculates incidence with the assumption that Sales and Use Tax is ultimately borne by the individual and as such is not reflected in the Corporate gross receipts brackets. Similarly for Excise Tax, it is initially paid by corporations, but ultimately the burden falls on individuals and is not reflected in the Corporate gross receipts brackets.

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<sup>13</sup> <https://data.ct.gov/Government/Tax-Levy-by-Town-FY-2019-2022/he33-brru>

<sup>14</sup> [https://portal.ct.gov/DECD/Content/About\\_DECD/Research-and-Publications/01\\_Access-Research/Exports-and-Housing-and-Income-Data](https://portal.ct.gov/DECD/Content/About_DECD/Research-and-Publications/01_Access-Research/Exports-and-Housing-and-Income-Data)

## **X. Recommendations**

**Recommendation #1:** It is recommended that the legislature empowers OPM to work with municipalities to standardize classifications for data collection points like land use and ownership. The Connecticut Department of Policy Management (OPM) should also consider standardized organization by census tract or zip code, in addition to by town, in order to enable a more detailed analysis of how location affects the property tax incidence on residents and part-year residents. Additionally, the legislature should work with OPM to allow for these data to be collected directly from towns to OPM. Some of this work is ongoing and OPM has made progress with both municipalities and Councils of Government (COGs) in Connecticut. To the extent that OPM may require additional resources to improve data collection, the legislature may want to inquire as to what specific enhancements or resources are necessary to bring further granularity to the existing data.

**Recommendation #2:** The legislature may want to consider adding more tax types unique to corporations in the State to CT Gen Stat § 12-7c (2019) to deepen its understanding of the business tax climate across the State. It is recommended that DRS is consulted on any changes, and that any new language is drafted in concert with the Agency.

**Recommendation #3:** A supplemental review of tax incidence by various socio-economic indicators may help the State more deeply understand how taxes affect all Connecticut residents and part-year residents rather than solely income decile. As discussed previously, each income decile is based on a calculation of total Connecticut AGI divided by ten. To create more targeted interventions via tax policy, additional analyses by town or zip code, occupation, and socio-economic factors such as race and gender may better explain how tax incidence falls on an individual. For example, income is one factor, but it can miss a truer sense of incidence as filers, who fully comply with tax law, can present a negative AGI.

**Recommendation #4:** As previously stated, DRS is developing a research unit within its agency. Known as the RAF unit, this unit will be charged with the bi-annual creation of a Connecticut Tax Incidence Study. As the unit begins taking shape there are a few recommendations to consider for future studies. The RAF should consider taking time to generate a highly calibrated Connecticut model of tax shifting. This should integrate apportionment data from business filings which may bring more granularity as to whether the incidence of exported taxes for the corporation business tax has some inelasticity within the State. The unit may want to consider listing factors that can shape the economic landscape, which in turn may place additional pressure on incidence that is borne by Connecticut ITFs. Those factors could include, but are not limited to, unemployment rate, inflation rates, and minimum wage rates. Lastly, the unit may want to look at population tables in addition to the income deciles. Population tables may provide another lens for analysis and provide more granularity. They were not included in this year's study because it exacerbated the issues noted in Deciles 1 and 10. However, this report may benefit from additional stratifications or a more focused analysis of the highest and lowest income ranges.

Recommendation #5: In future iterations of this Study, the unit may also want to consider both trend analysis over time within the State of Connecticut and comparative analyses with other states that conduct incidences studies. This will help create a consistent set of data points over time which can assist policymakers and stakeholders as these reports evolve. This is a critically important recommendation for the RAF unit to consider going forward in addition to the data collection recommendations listed prior.

## **XI. Legislative Mandate**

The Tax Incidence Study is enabled by the following legislation: CT Gen Stat § 12-7c (2019) which states:

2019 Connecticut General Statutes

Title 12 - Taxation

Chapter 201 - State and Local Revenue Services. Department of Revenue Services

Section 12-7c - Report on the overall incidence of certain taxes.

(a) The Commissioner of Revenue Services shall, on or before February 15, 2020, and biennially thereafter, submit to the joint standing committee of the General Assembly having cognizance of matters relating to finance, revenue and bonding, and post on the department's Internet web site a report on the overall incidence of the income tax, sales and excise taxes, the corporation business tax and property tax. The report shall present information on the distribution of the tax burden as follows:

(1) For individuals:

(A) Income classes, including income distribution expressed for every ten percentage points; and

(B) Other appropriate taxpayer characteristics, as determined by said commissioner.

(2) For corporations:

(A) Business size as established by gross receipts;

(B) Legal organization; and

(C) Industry by NAICS code.

(b) The Commissioner of Revenue Services may enter into a contract with any public or private entity for the purpose of preparing the report required pursuant to subsection (a) of this section.



## **XII. Data Sources**

Accenture, LLP developed the analytical model for Connecticut DRS utilizing data from DRS, OPM, and the United States Census Bureau. This report was prepared by Accenture, LLP and reviewed by DataCore Partners, LLC Chief Economist and Director of Research Don Klepper-Smith. The primary data sources are listed below:

- United States Census Bureau 2015-2019 ACS 5-year estimates<sup>15</sup>
- United States Bureau of Labor Statistics, Consumer Expenditure Survey (CES)
- Connecticut Office of Policy and Management (OPM)
  - Councils of Government (COGs) data
- Connecticut Office of the Secretary of State
- Connecticut Department of Revenue Services (DRS)

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<sup>15</sup> Note: the United States Census Bureau has stated that it anticipates the 2020 release of the 2016-2020 data to be mid-March 2020. For more information: <https://www.census.gov/newsroom/press-releases/2021/acs-5-year-estimates.html>