

CONNECTICUT TAX INCIDENCE

DECEMBER 2014



STATE OF CONNECTICUT
DEPARTMENT OF REVENUE SERVICES
KEVIN B. SULLIVAN
COMMISSIONER



STATE OF CONNECTICUT

DEPARTMENT OF REVENUE SERVICES

More than just revenue, taxes are means to policy ends.

As Commissioner of the Department of Revenue Services (DRS), I am committed to making our agency a more active resource to the Governor and General Assembly in developing and evaluating state tax policy. When analysis informs tax policy, the resulting revenue system is more likely to support the broader economic and general public policy goals of state government.

In 2013, DRS welcomed the Connecticut General Assembly's legislative charge and funding to develop a tax incidence study and report the results to the Finance, Revenue, and Bonding Committee by December 31, 2014 and biennially thereafter. As such, this first report addresses overall and separate incidence for state taxes and property taxes. DRS administers all but the Property Tax, collected at the local level with oversight by the Office of Policy and Management's (OPM) Intergovernmental Policy Division. DRS appreciates OPM's collaboration for purposes of the Property Tax data and analysis included in this report. DRS also engaged Chainbridge Software LLC as its consultant in developing its tax incidence model.

Tax incidence analysis is an important tool. It is a way to look at the distribution of overall and separate tax impact. It offers guidance to policymakers but does not, in and of itself, offer judgments relative to tax policy. In that spirit, this report avoids policy commentary. Instead, DRS is available to assist the Governor and General Assembly in sorting out the policy implications.

We are pleased to provide this report. We hope that it will serve as a meaningful benchmark and helpful policy tool.

Respectfully submitted,

Kevin B. Sullivan
Commissioner

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EXECUTIVE SUMMARY

This report addresses the overall incidence of the Personal Income Tax, Sales and Excise Taxes, Corporation Business Tax, Property Tax, Gift and Estate Tax, Insurance Taxes and the Real Estate Conveyance Tax, in addition to analyzing each tax separately. The 2011 tax year was used for all tax data. The objective is to provide data that can be analyzed by policymakers and the public. This is the first incidence analysis conducted by the Department of Revenue Services and will serve as the basis for future analyses.

This report measures the tax incidence on Connecticut households. Over 1.5 million households were identified. Of the \$21.1 billion in tax revenue collected from the aforementioned taxes, \$3.6 billion is exported out of Connecticut and \$17.5 billion is identified as the incidence on Connecticut households. The \$17.5 billion was analyzed using both income and population deciles.

This report:

- Stratifies data by income deciles which provides for an equal share of Connecticut Adjusted Gross Income (AGI), about \$151 billion, which results in approximately \$15.1 billion across each decile;

- Stratifies data by population by equally distributing the 1.5 million Connecticut households across deciles;

- Measures the effective tax rate for each decile by both population and income decile for each of the nine taxes examined;

- Uses the Suits Index to measure the progressivity or regressivity of each of the taxes covered as well as an overall measurement of the combined taxes; and

- Examines the distribution of tax incidence among labor, consumers, owners of capital, and owners of land.

CHAPTER I

DETERMINING TAX INCIDENCE

Tax incidence is a method of analysis that examines the impact of taxation. This tax incidence report is concerned with the ultimate impact on Connecticut households. There are two guiding principles to understanding tax incidence. First, tax liability is not the same as tax incidence. Second, tax liabilities are shifted within Connecticut between businesses and consumers.

A household's tax liability would be comprised of income, sales and property taxes, to name a few. A business' tax liability would be comprised of taxes such as the corporation business tax, sales tax and property tax but, for pass-through entities, also the personal income tax. Households tend to bear the full impact of their tax liabilities. Businesses distribute their tax impact through consumer pricing, or workforce-related practices.

The Department of Revenue Services (DRS) tax incidence model measures the overall tax incidence of Connecticut taxes on Connecticut households. This tax incidence report analyzes the results of the interplay of tax impacts and provides an overview of Connecticut's overall tax environment.

Department of Revenue Services Model:

The DRS model uses three steps to determine tax incidence:

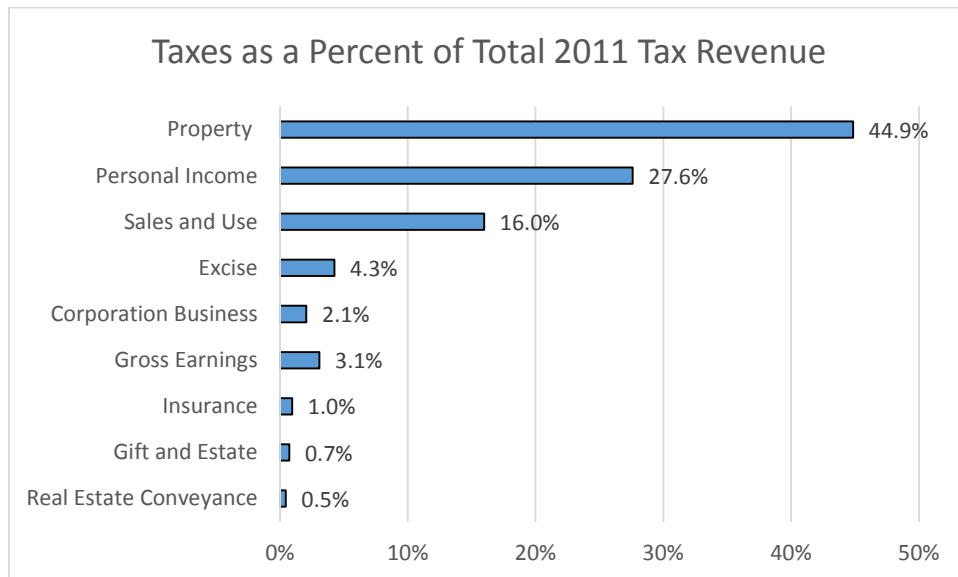
Step One: Determine the liability of the taxes.

The total liability for these taxes in 2011 was \$21.1 billion. The liabilities for nine categories of taxes are shown in Table I-A and Figure I-A. The methodology section of the report describes how this data was obtained.

Table I-A

Tax	2011 Tax Revenue
Property	\$ 9,462,527,843
Personal Income	5,824,641,823
Sales and Use	3,371,512,188
Excise	897,657,610
Corporation Business	436,221,135
Gross Earnings	651,104,381
Insurance	201,626,750
Gift and Estate	154,419,940
Real Estate Conveyance	97,416,759
TOTAL	\$21,097,128,429

Figure I-A



Step Two: Determine the effect of shifting business taxes.

This step makes economic assumptions as to how and at what rate businesses shift their tax impact. A portion of the \$21.1 billion tax liability borne by out-of-state residents and businesses is not analyzed as part of the tax incidence as it does not affect Connecticut households. (Additional information can be found in the Methodology section.)

Step Three: Allocate the shifted taxes to households.

Table I-B and Figure I-B show the tax incidence on Connecticut households for the nine tax categories. The total tax incidence analyzed is \$17.5 billion. \$3.6 billion is borne by out-of-state residents and businesses and is not considered part of the impact on Connecticut households. (Additional information can be found in the Methodology section.)

Table I-B

Tax	2011 Overall CT Household Tax Incidence
Property	\$ 7,315,228,919
Personal Income	5,824,641,823
Sales and Use	2,560,318,367
Excise	702,557,830
Gross Earnings	465,513,433
Corporation Business	190,004,214
Insurance	166,530,388
Gift and Estate	152,506,220
Real Estate Conveyance	76,813,873
TOTAL	\$17,454,115,067

Figure I-B

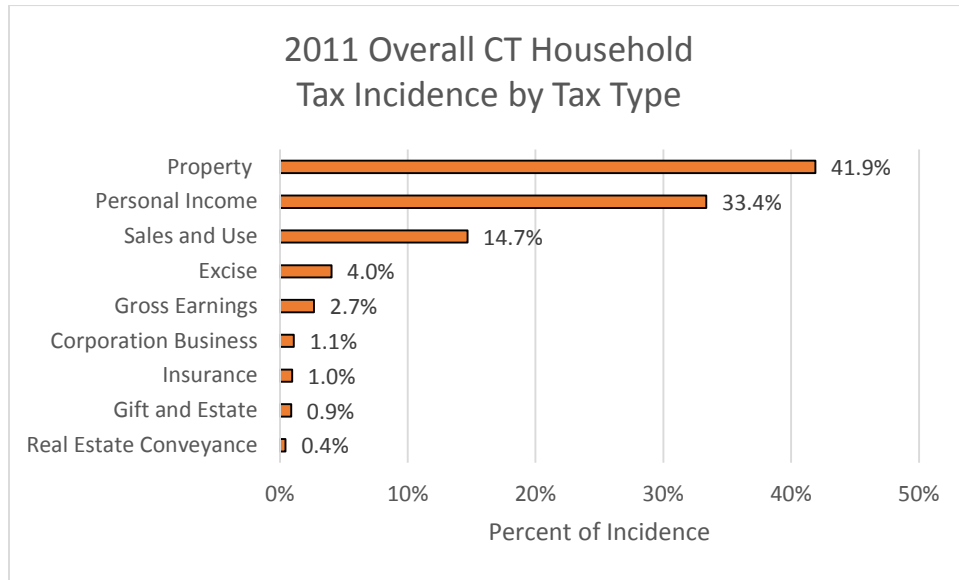


Table I-C shows the amount of Connecticut tax impact on Connecticut households (\$17.5 billion) and the amount of taxes exported out of Connecticut (\$3.6 billion). This report discusses only the impact of \$17.5 billion in taxes on Connecticut households.

Table I-C

Tax	2011 Tax Revenue	2011 Overall CT Household Tax Incidence	Amount Exported	Percent Exported
Property	\$ 9,462,527,843	\$ 7,315,228,919	\$2,147,298,924	22.7%
Personal Income	5,824,641,823	5,824,641,823	-	0.0%
Sales and Use	3,371,512,188	2,560,318,367	811,193,821	24.1%
Excise	897,657,610	702,557,830	195,099,780	21.7%
Corporation Business	436,221,135	190,004,214	246,216,921	56.4%
Gross Earnings	651,104,381	465,513,433	185,590,948	28.5%
Insurance	201,626,750	166,530,388	35,096,362	17.4%
Gift and Estate	154,419,940	152,506,220	1,913,720	1.2%
Real Estate Conveyance	97,416,759	76,813,873	20,602,886	21.2%
TOTAL	\$21,097,128,429	\$17,454,115,067	\$3,643,013,362	17.3%

GLOSSARY

This report uses many terms for analysis which are defined below.

Base Year: The DRS model uses data from the 2011 tax year. At the time of implementation, 2011 was the most recent year for which DRS was able to obtain federal income tax data to match with state income tax data. The matching process is described in the report's methodology section. 2011 was subsequently used as the base year across all taxes for a complete and uniform analysis.

Income Classification: The model and report's output is classified in terms of Connecticut Adjusted Gross Income (AGI), line 5 of the CT-1040. Connecticut AGI is the common form of measurement and analysis that the DRS reports on. Federal AGI is the starting point for calculating Connecticut income tax. Connecticut AGI is computed after certain modifications are applied to a filer's federal AGI. DRS' tax incidence model does not analyze Nonresident and Part-Year Resident (CT-NR/PY) data.

Household Units and Sample Size: A Connecticut household is this report's unit of analysis. This report defines households as a taxable family as defined by the U.S. Census. The model used 1,501,282 Connecticut households with an aggregate Connecticut AGI of \$151 billion as the baseline for the analysis.

Income Deciles and Population Deciles: This report uses both income deciles and population deciles for its analysis. In both instances, the data is divided into ten stratified groupings.

Income deciles stratify Connecticut's households in terms of income with the lowest 10% of Connecticut AGI in the first decile and the highest 10% of Connecticut AGI in the tenth decile. The first decile has the largest amount of households while the tenth decile has the smallest amount of households.

Population deciles divide the number of households into ten equal populations stratified by income. The first decile represents the bottom 10% of Connecticut AGI and the tenth decile represents the top 10% of Connecticut AGI. Income progressively increases in each decile from the first to the tenth.

Progressivity and the Suits Index: This report utilizes the Suits Index to gauge the progressivity of each tax and Connecticut's taxes overall. The Suits Index is a statistical, non-binary measure of progressivity ranging from negative one to one where regressive taxes have negative values, progressive taxes have positive values and a proportional tax would be equal to zero. The degree of a tax's progressive or regressive nature increases the further it is from zero.

The most progressive tax with a Suits Index of 1.0 would have the single Connecticut household with the highest Connecticut AGI paying all of the taxes. Likewise, the most regressive tax would have a Suits Index of -1.0 and have the single Connecticut household with the lowest

Connecticut AGI paying all of the taxes. In reality, neither of those scenarios would exist and the Suits Index indicators for Connecticut's taxes will lie somewhere on the spectrum between 1.0 and -1.0.

The DRS model uses a full-sample Suits Index that accounts for each Connecticut income tax filer in the model. The full-sample Suits Index provides a more robust and targeted analysis as it takes into account all points of data, as opposed to other levels of analysis which may only compute the Suits Index based on aggregated population or income decile data.

The Suits Index can be used to compare relative progressivity between taxes within Connecticut. In future reports, this indicator can be used as a tool to longitudinally analyze progressivity of individual taxes and the overall tax incidence.

Effective Tax Rates: An effective tax rate is the ratio of a household's taxes paid to their Connecticut AGI. This report uses effective tax rates to analyze tax incidence and the dispersion of a tax's impact across income and population deciles.

Incidence Shifting: This report analyzes how the impact of tax incidence is borne after taxes have been shifted as follows:

- Capital – The impact borne by the owners of capital, such as owners of corporate stock.
- Consumption – The impact borne by consumers in the form of higher prices of goods and services.
- Labor – The impact borne by labor to offset corporate tax liability through things like salary and workforce decreases.
- Land – The impact borne by the owners of land that is not residential or land use property.
- Residential Property – The impact borne by residential property owners.
- Land Use – The impact borne by the owners of land use properties.
- Motor Vehicles – The impact borne by the owners of motor vehicles.

Additionally, the Personal Income, Gift and Estate taxes are borne entirely by the resident filers of those taxes. This rationale is described in the report's methodology section.

CHAPTER II

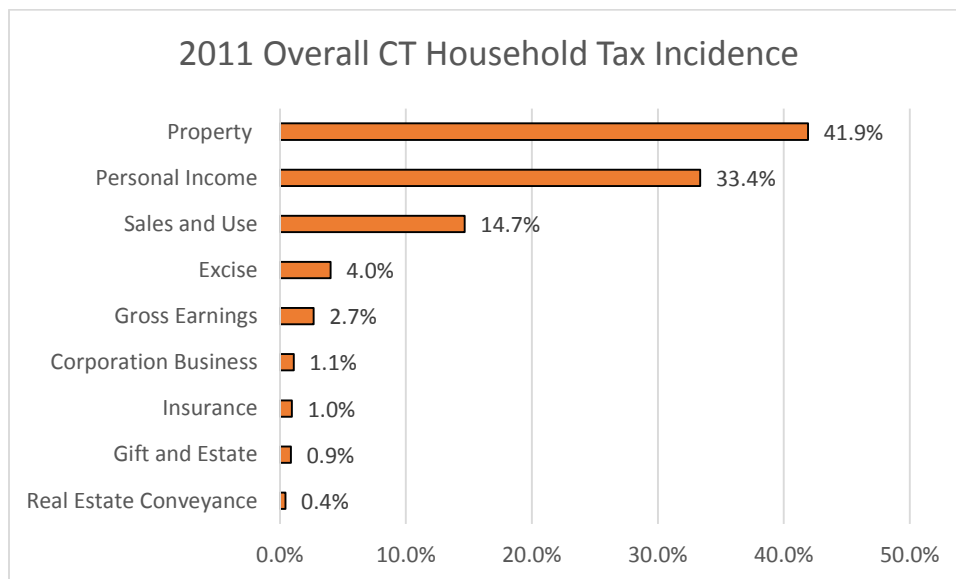
CONNECTICUT HOUSEHOLD OVERALL TAX INCIDENCE

This report analyzes the \$17.5 billion tax impact on Connecticut households in 2011. The methodology section describes how the \$17.5 billion borne by Connecticut households was arrived at and the shifting that takes place both within and outside of the state. Table II-A and Figure II-A show the incidence of Connecticut taxation by tax type on Connecticut households.

Table II-A

Tax	2011 Overall CT Household Tax Incidence
Property	\$ 7,315,228,919
Personal Income	5,824,641,823
Sales and Use	2,560,318,367
Excise	702,557,830
Gross Earnings	465,513,433
Corporation Business	190,004,214
Insurance	166,530,388
Gift and Estate	152,506,220
Real Estate Conveyance	76,813,873
TOTAL	\$17,454,115,067

Figure II-A



Taxes that DRS collects account for \$10.1 billion of the overall incidence. The Property Tax, which is collected by municipalities, has the largest tax impact on Connecticut households. The Property Tax's \$7.3 billion impact equates to almost 42% of the entire tax incidence. The Personal Income Tax accounts for one-third of the tax incidence, Sales and Use is almost 15% and Excise Taxes are 4%. Together, these tax categories account for 94% of the overall incidence of Connecticut taxes in Connecticut.

The remaining six percent of tax incidence is from the Corporation Business, Gross Earnings, Insurance, Gift and Estate, and Real Estate Conveyance Taxes. Overall, the Corporation Business tax represents only about one percent of the total tax incidence.

The report examines the incidence of the tax by stratifying the data in two ways: by income decile and by population decile.

CONNECTICUT HOUSEHOLD INCIDENCE - INCOME DECILE ANALYSIS

The data was stratified by income deciles, where each decile has an equal share of the aggregate Connecticut AGI. This results in a greater amount of households clustered in the lower income deciles. Table II-B shows the income decile breakdown by 2011 Connecticut AGI. Each decile has about \$15.1 billion in aggregate Connecticut AGI. The chart also shows the effective tax rate for each decile and the overall effective tax rate of 11.57%.

Table II-B: Incidence by Income Deciles

Decile	2011 Connecticut AGI	Households	Aggregate CT AGI	Total CT Tax Burden	% of Total CT Tax Burden	Overall Effective Tax Rate
1	up to \$47,948	725,202	\$15,103,112,547	\$ 3,551,623,136	20.4%	23.62%
2	47,949 - 74,427	251,321	15,103,182,979	2,100,593,754	12.0%	13.93%
3	74,428 - 101,827	173,126	15,103,113,264	2,014,520,578	11.5%	13.35%
4	101,828 - 134,527	129,303	15,102,288,605	1,942,718,571	11.1%	12.87%
5	134,528 - 182,087	97,426	15,103,013,303	1,801,490,280	10.3%	11.93%
6	182,088 - 287,629	67,958	15,102,959,408	1,589,293,086	9.1%	10.53%
7	287,630 - 612,040	37,893	15,104,085,522	1,363,120,986	7.8%	9.03%
8	612,041 - 2,019,383	15,050	15,103,068,542	1,161,320,404	6.7%	7.69%
9	2,019,384 - 13,194,828	3,646	15,113,849,361	982,396,335	5.6%	6.50%
10	13,194,829 and up	357	15,090,190,108	947,037,937	5.4%	6.28%
TOTAL		1,501,282	\$151,028,863,639	\$17,454,115,067	100.0%	11.57%

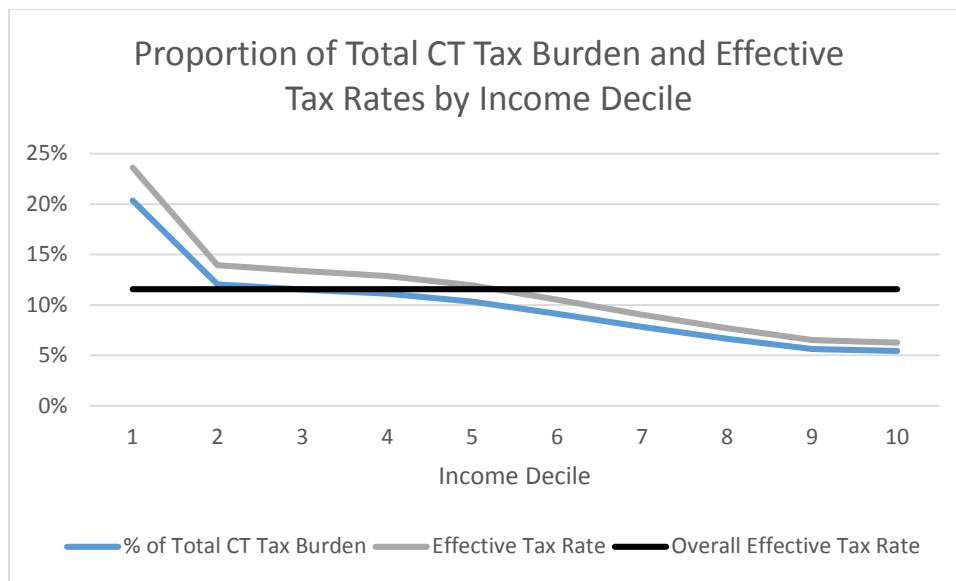
Income Decile Household Distribution: More than 48% of Connecticut households are contained in the first income decile, compared to only 0.02% of households contained in the tenth decile. The number of households decreases with each successive income decile as

Connecticut AGI increases. It should be noted that the significant number of households in the first decile includes Connecticut residents who do not meet the threshold to file in Connecticut but file at the federal level.

The first five deciles contain all households with Connecticut AGIs of up to \$182,087. Almost 92% of households are contained in this half. Deciles six through ten, which have Connecticut AGIs of \$182,088 and greater, account for only the remaining eight percent.

Income Decile Tax Impact & Overall Effective Tax Rate: The income deciles exhibit a negative relationship between Connecticut AGI and both tax impact and effective tax rate. As AGI increases, tax impacts and the respective effective tax rates decrease. Figure II-B shows this relationship.

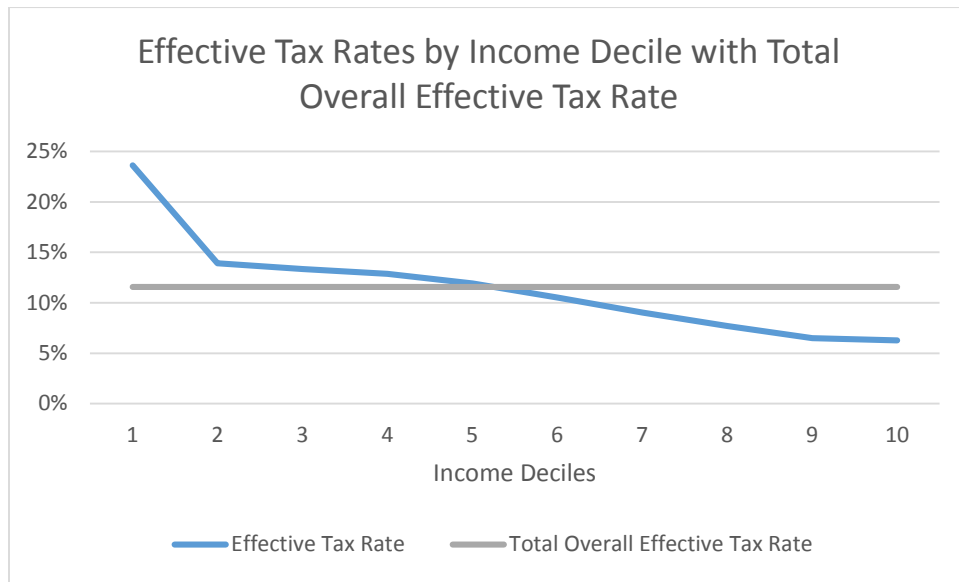
Figure II-B



The portion of the total tax impact is greatest in the first decile at more than 20% and lowest in the tenth decile at 5.4%. There is a downward trend in each decile's share of total Connecticut tax impact from the first to the tenth decile.

The effective tax rate by income decile exhibits a similar trend to the proportion of tax incidence by decile. The effective tax rate is highest in the first decile at 23.6%, lowest in the tenth decile at 6.3%, and decreases in each decile from the first to the tenth. The first through the fifth deciles are all above the 11.57% overall effective tax rate while the sixth through tenth deciles are all below the overall effective tax rate. These trends are shown in Figure II-C.

Figure II-C



This data can also be analyzed in terms of the number of households responsible for each decile of total Connecticut tax incidence. In the tenth income decile, the top 357 households, 0.02% of Connecticut households, have an average tax incidence of more than \$2.65 million. In comparison, the first income decile has 752,202 households, more than 48% of Connecticut's households, with an average tax incidence of about \$4,900.

CONNECTICUT HOUSEHOLD INCIDENCE - POPULATION DECILE ANALYSIS

The data was stratified by Population, which equally distributes the number of households among ten deciles. This results in Connecticut AGI increasing in each decile from the first to the tenth decile. Table II-C shows the population decile breakdown by household. Each decile contains just over 150,000 households.

Table II-C: Incidence by Population Deciles

Decile	2011 Connecticut AGI	Households	Aggregate CT AGI	Total CT Tax Burden	% of Total CT Tax Burden	Overall Effective Tax Rate
1	up to \$5,532	150,200	\$ 147,242,742	\$ 989,881,505	5.7%	**
2	5,533 - 16,245	150,063	1,656,113,142	439,383,210	2.5%	26.62%
3	16,246 - 26,511	150,127	3,214,379,161	588,847,703	3.4%	18.37%
4	26,512 - 37,419	150,219	4,783,322,948	747,337,535	4.3%	15.67%
5	37,420 - 50,198	150,033	6,551,395,173	961,904,432	5.5%	14.72%
6	50,199 - 64,971	150,129	8,581,638,624	1,199,411,989	6.9%	13.99%
7	64,972 - 84,935	150,127	11,187,844,749	1,526,305,871	8.7%	13.66%
8	84,936 - 112,904	150,128	14,695,567,114	1,952,390,475	11.2%	13.30%
9	112,905 - 165,393	150,128	20,325,378,589	2,513,939,114	14.4%	12.38%
10	165,394 and up	150,128	79,885,981,397	6,534,713,231	37.4%	8.18%
TOTAL		1,501,282	\$151,028,863,639	\$17,454,115,067	100.0%	11.57%

***This figure has been removed as it reflects an overstated value resulting from Connecticut residents who file federal but not state income tax returns.*

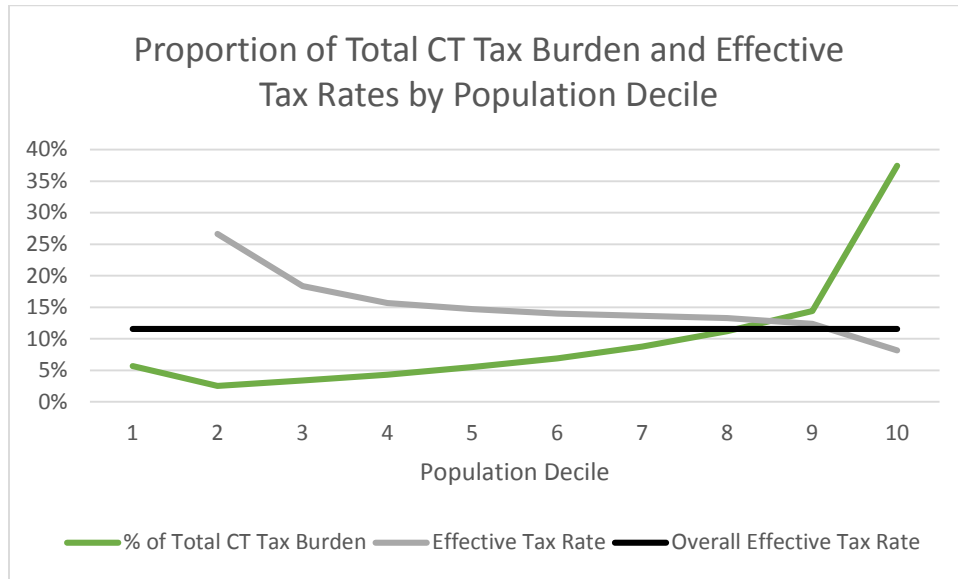
Population Decile Household Distribution: More Connecticut residents file federal income tax returns than state returns because of the higher state filing threshold. The effect of this is evident in the first population decile of overall tax incidence. The result is an overstated effective tax rate. For this reason, the first population decile will not be analyzed as was done for income deciles. Instead, the second and the tenth deciles will be compared.

The second population decile contains households with Connecticut AGI from \$5,533 to \$16,245. This decile represents only about one percent of the total aggregate Connecticut AGI and two-and-a-half percent of the total Connecticut tax impact. In contrast, the tenth decile represents households with Connecticut AGI of \$165,394 and up. These households account for almost 53% of the total aggregate Connecticut AGI and more than 37% of the total Connecticut tax impact.

Households in deciles one through five have Connecticut AGIs of up to \$50,198 and contribute about 21% of the total Connecticut tax incidence. Households in deciles six through ten with AGIs of \$50,199 and higher contribute more than 78% of the total Connecticut tax incidence.

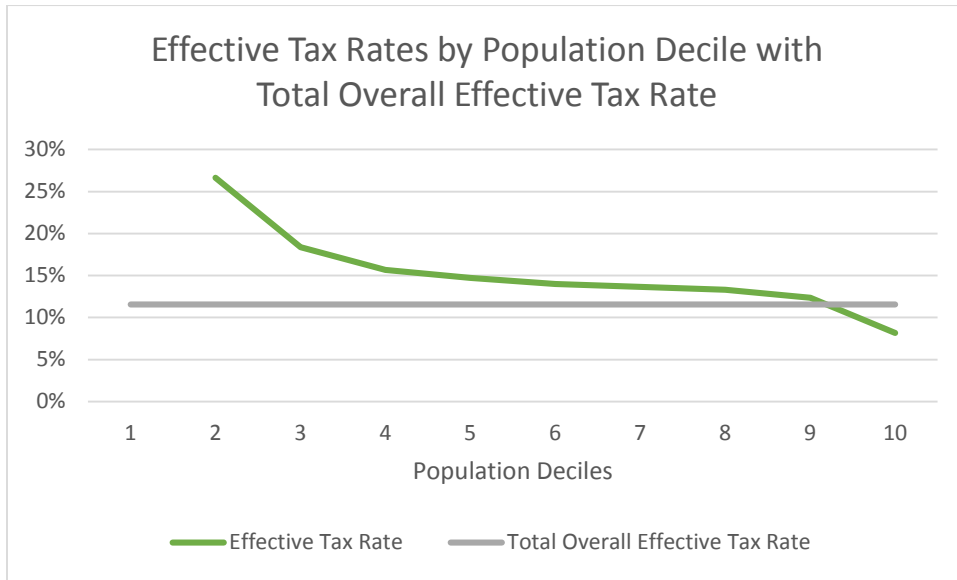
Population Decile Tax Impact & Overall Effective Tax Rate: Figure II-D shows the relationship in population deciles between the overall tax impact and overall effective tax rates. As Connecticut AGI and total Connecticut tax incidence increase, overall effective tax rates decrease.

Figure II-D



With the exception of the first decile, the proportion of total Connecticut tax impact rises in each population decile from the second decile at 2.5% to the tenth decile at 37.4%. Conversely, with the exception of the first decile, the effective tax rates by decile decrease in each population decile from the second decile at 26.6% to the tenth decile at 8.2%. The tenth population decile is the only decile that is below the overall effective tax rate of 11.57%. Figure II-E shows the effective tax rate by decile compared to the overall effective tax rate.

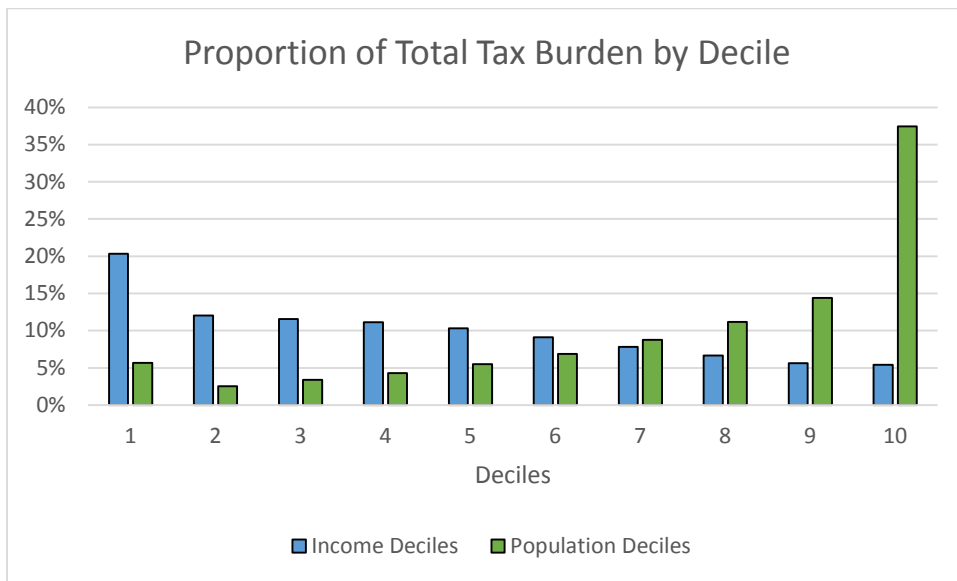
Figure II-E



COMPARING INCOME & POPULATION DECILES

The Relationship of the total tax impact on income and population deciles is shown in Figure II-F.

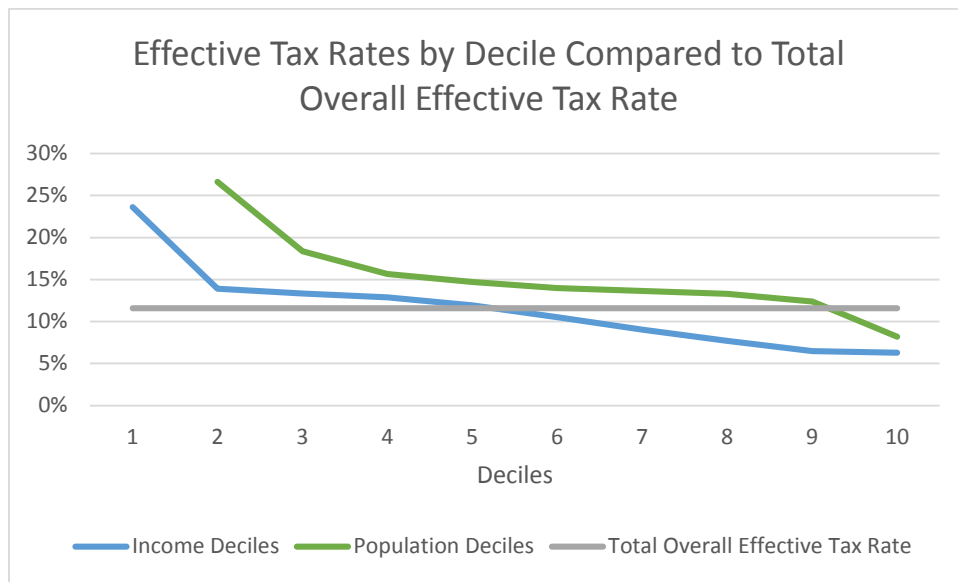
Figure II-F



Income deciles have a negative relationship with Connecticut AGI as the proportion of total tax impact by decile decreases as Connecticut AGI increases. Population deciles have a positive relationship with Connecticut AGI as the share of the total Connecticut tax impact increases with Connecticut AGI.

On the other hand, the effective tax rates by income and population decile exhibit similar trends, as seen in Figure II-G.

Figure II-G



The effective tax rates by both income and population decile are greater in the lower deciles and have a decreasing progression into the higher deciles. The strength of the tenth population decile shows as it is the only population decile below the 11.57% overall effective tax rate. The first five income deciles all have effective tax rates above 11.57% while the second five deciles all have effective tax rates below 11.57%.

PROGRESSIVITY

The overall impact of Connecticut’s tax system on Connecticut households is slightly regressive at -0.22. The Suits Index is a non-binary measure of progressivity that ranges from negative one to one. Regressive taxes have negative values, progressive taxes have positive values, and a proportional tax would have a value of zero. The degree of a tax’s progressive or regressive

nature increases the further the value is from zero. The methodology section describes the implementation of the Suits Index. Table II-D shows the range of taxes on the Suits Index.

Table II-D

Tax Type	Suits Index
Property	-0.39
Personal Income	0.11
Sales and Use	-0.39
Excise	-0.67
Corporation Business	-0.02
Gross Earnings	-0.38
Insurance	-0.35
Gift and Estate	0.76
Real Estate Conveyance	-0.14
TOTAL	-0.22

The Personal Income Tax (0.11) and the Gift and Estate Tax (0.76) are the only two taxes classified as progressive. Some of the many items that contribute to the progressivity of the Personal Income Tax are its graduated rates that increase with Connecticut AGI, tax recapture at higher AGI levels, the Earned Income Tax Credit, and the automatic credits based on AGI that phase out at higher income levels. The Gift and Estate Tax is the most progressive tax due to its \$2 million threshold. The incidence of the Gift and Estate Tax is borne entirely by the tenth population decile and the eighth through tenth income deciles.

Excise Taxes (-0.67), which include alcohol, cigarettes and tobacco and motor fuels, are the most regressive. Like the Sales and Use Tax (-0.39), Excise Taxes have a regressive nature since the taxes are levied at the same rate for every consumer regardless of income. Households with lower Connecticut AGIs spend a larger share of their income on Excise and Sales and Use Taxes than households with larger Connecticut AGIs.

INCIDENCE

The impact of Connecticut's tax incidence and the portion that each category bears is shown in Table II-E. Taxes are borne by labor, owners of capital, consumers and owners of land. The Property Tax is also borne by the owners of motor vehicles and land use. The Personal Income Tax and the Gift and Estate Tax are entirely borne by the respective tax's filers. None of the categories are mutually exclusive. For instance, the incidence of tax on a Connecticut household will be borne across many of the categories.

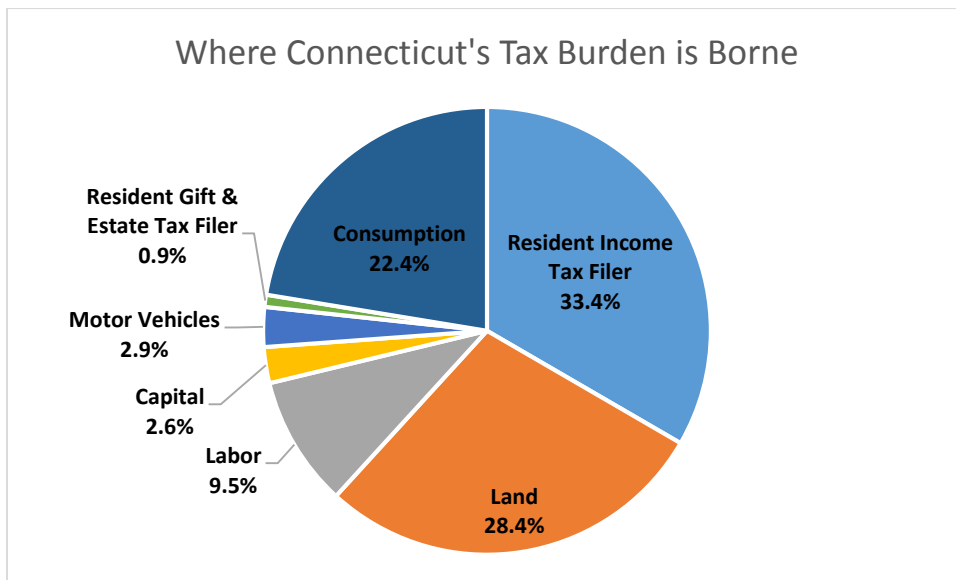
Table II-E

Burden of Incidence	Amount	Percent
Labor	\$ 1,650,035,512	9.5%
Capital	453,840,082	2.6%
Consumption	3,912,663,941	22.4%
Land	4,959,289,784	28.4%
Motor Vehicles	501,137,704	2.9%
Resident Income Tax Filer	5,824,641,823	33.4%
Resident Gift & Estate Tax Filer	152,506,220	0.9%
TOTAL	\$17,454,115,067	100.0%

One-third of Connecticut's tax incidence is borne by Connecticut resident Personal Income filers. The second largest is borne by the owners of land at more than 28%. Connecticut's consumers bear the third largest impact through higher prices at more than 22% of Connecticut's tax incidence. In all, 84% of the Connecticut's tax incidence is borne by Personal Income Tax filers, land owners, and consumers.

Owners of capital bear 2.6% of the tax incidence on Connecticut's households, 9.5% is borne by labor, and resident filers of the Gift and Estate Tax represent less than 1%. Figure II-H shows the distribution of the tax incidence.

Figure II-H



CHAPTER III: TAX TYPE ANALYSIS

Property Tax

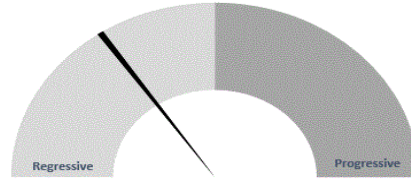
There are 169 cities and towns in Connecticut. Each provides various services, such as public school education, police and fire protection and public road maintenance. To a large extent, the property tax finances these services. Connecticut state law authorizes the taxation of property, including real estate, motor vehicles, business-owned personal property and some personal property that individuals own. Local governmental officials administer the property assessment and taxation. State law governs the manner in which a town or city assessor determines property assessments and the procedures that tax collectors use to collect property taxes. State law also authorizes property tax exemptions, credits and abatements. It should be noted that this report also considers the impact with respect to other property taxing entities, such as boroughs.

All taxable property is assessed in accordance with state statute so that each property owner is responsible for their fair share of the total property tax. The property tax is *ad valorem* or based on a property's value but 30% of the value is statutorily excluded from tax assessment.

Connecticut municipalities reported a total of 1,367,464 real properties for grand list year 2011. Residential properties accounted for 1,176,623 or 86 percent of this total. As the following analysis reflects, residential property owners carry the largest share of the Connecticut property tax incidence.

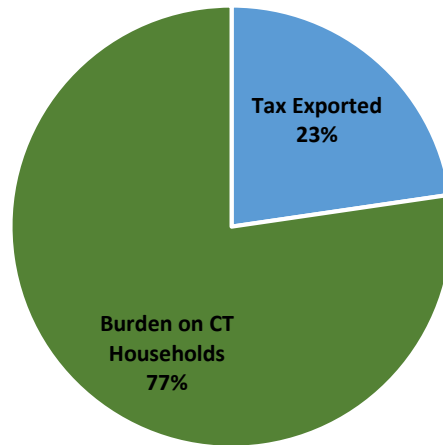
Property Tax: General Overview

Suits Index	-0.39
Overall Effective Tax Rate	4.84%
% of Total CT Tax Burden	41.91%



Property Tax Burden (in millions)		
Property Tax Total	Tax Exported	Burden on CT Households
\$9,462.5	\$2,147.3	\$7,315.2

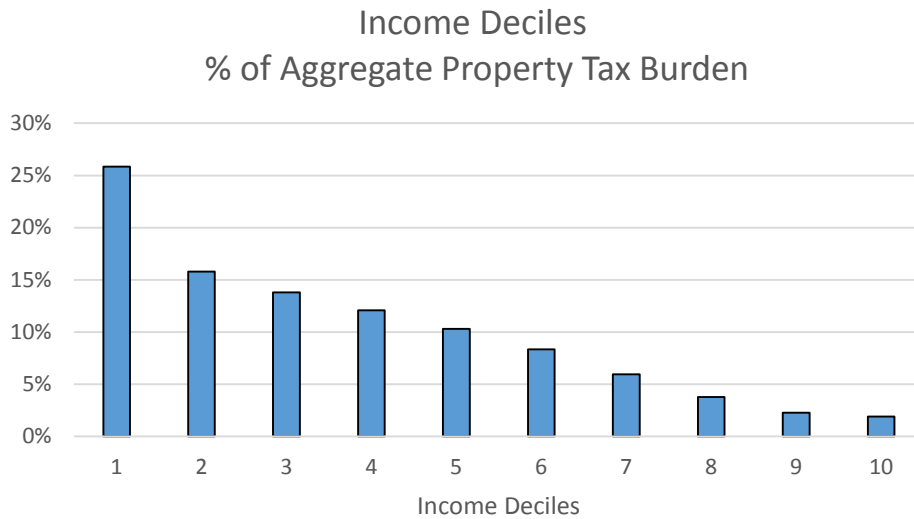
**Property Tax
CT Resident Burden Vs. Exported**



- More than three-quarters of the Property Tax’s liability is retained in the state and impacts Connecticut households.
- The Property Tax has the largest tax impact on Connecticut households with an incidence of more than \$7.3 billion.
- The Property Tax accounts for more than 40% of the total Connecticut tax incidence.
- The portion that is exported can be attributed to things such as out-of-state residents who own property in Connecticut and business’ consumer activity from other states.
- The Property Tax is moderately regressive as indicated by a Suits Index of -0.39.

Property Tax: Income Deciles

Decile	Households	Aggregate CT AGI	Aggregate Property Tax Burden	% of Aggregate Property Tax Burden	Property Effective Tax Rate
1	725,202	\$ 15,103,112,547	\$1,891,446,502	25.9%	12.52%
2	251,321	15,103,182,979	1,155,842,404	15.8%	7.65%
3	173,126	15,103,113,264	1,008,197,182	13.8%	6.68%
4	129,303	15,102,288,605	882,596,703	12.1%	5.84%
5	97,426	15,103,013,303	752,605,941	10.3%	4.98%
6	67,958	15,102,959,408	609,183,682	8.3%	4.03%
7	37,893	15,104,085,522	435,618,721	6.0%	2.88%
8	15,050	15,103,068,542	274,668,774	3.8%	1.82%
9	3,646	15,113,849,361	166,577,761	2.3%	1.10%
10	357	15,090,190,108	138,491,249	1.9%	0.92%
TOTAL	1,501,282	\$151,028,863,639	\$7,315,228,919	100.0%	4.84%



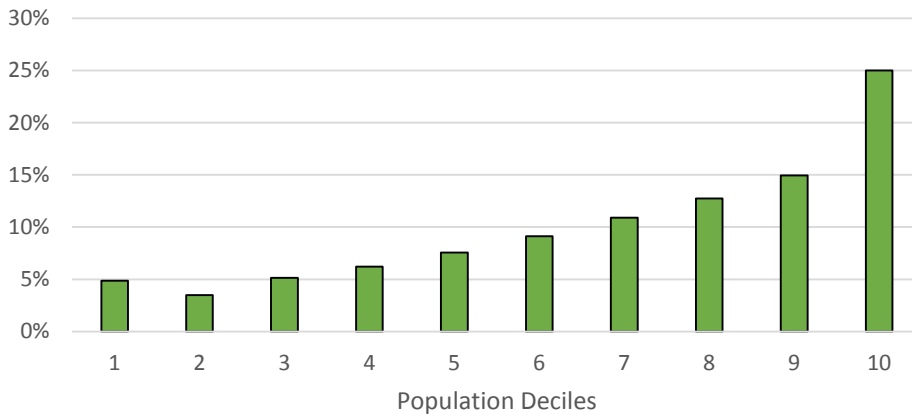
The Property Tax’s impact and effective tax rates decrease in each decile from the first to the tenth as Connecticut AGI increases. The first income decile bears more than 25% of the property tax incidence and has an effective tax rate of 12.5%. The tenth decile accounts for just under two percent of the total property tax incidence and has an effective tax rate of less than one percent.

Property Tax: Population Deciles

Decile	Households	Aggregate CT AGI	Aggregate Property Tax Burden	% of Aggregate Property Tax Burden	Property Effective Tax Rate
1	150,200	\$ 147,242,742	\$ 356,237,745	4.9%	**
2	150,063	1,656,113,142	254,258,053	3.5%	15.35%
3	150,127	3,214,379,161	375,216,711	5.1%	11.67%
4	150,219	4,783,322,948	455,595,466	6.2%	9.52%
5	150,033	6,551,395,173	553,435,444	7.6%	8.45%
6	150,129	8,581,638,624	666,948,254	9.1%	7.77%
7	150,127	11,187,844,749	797,372,519	10.9%	7.13%
8	150,128	14,695,567,114	933,168,626	12.8%	6.35%
9	150,128	20,325,378,589	1,093,903,193	15.0%	5.38%
10	150,128	79,885,981,397	1,829,092,908	25.0%	2.29%
TOTAL	1,501,282	\$151,028,863,639	\$7,315,228,919	100.0%	4.84%

***This figure has been removed as it reflects an overstated value resulting from Connecticut residents who file federal but not state income tax returns.*

Population Deciles
% of Aggregate Property Tax Burden



The Property Tax’s population deciles, with the exception of the first decile, have a positive relationship with Connecticut AGI: the percent of aggregate property tax by decile increases as Connecticut AGI increases into the tenth decile. Effective tax rates by decile have a negative relationship as they are highest in the lower income deciles and lowest in the higher income deciles. The effective tax rates range from more than 15% in the second decile to about 2.3% in the tenth decile.

Property Tax: Division of Connecticut Incidence

Labor	\$1,273,180,818	17.4%
Capital	318,045,197	4.3%
Consumption	326,895,751	4.5%
Land	18,764,449	0.3%
Residential	4,862,081,644	66.5%
Land Use	15,123,356	0.2%
Motor Vehicles	501,137,704	6.9%
Total	\$7,315,228,919	100.0%

Two-thirds of the Property Tax are borne by owners of residential property and about 7% is borne by owners of motor vehicles. A total of 17.4% has been shifted onto labor. The remaining 9.3% has been borne by the owners of capital and land, by consumers, and through land use.

Personal Income Tax

Connecticut imposes a tax on income earned by resident individuals, trusts, and estates. Nonresidents and part-year resident individuals, trusts and estates are also subject to the tax on income derived from or connected with sources within the State. Connecticut taxable income is defined as adjusted gross income for federal tax purposes with certain modifications and exemptions.

Connecticut's tax is levied upon Connecticut taxable income, as defined above.

For the tax year commencing January 1, 2011 the following rates and personal exemptions applied:

Filing Status	Rate and Basis
Single and Married	3% on the first \$10,000 of Connecticut Taxable Income
Filing Separately	5% on the excess over \$10,000, but not over \$50,000
	5.5% on the excess over \$50,000, but not over \$100,000
	6% on the excess over \$100,000, but not over \$200,000
	6.5% on the excess over \$200,000, but not over \$250,000
	6.7% on the excess over \$250,000
Head of Household	3% on the first \$16,000 of Connecticut Taxable Income
	5% on the excess over \$16,000, but not over \$80,000
	5.5% on the excess over \$80,000, but not over \$160,000
	6% on the excess over \$160,000, but not over \$320,000
	6.5% on the excess over \$320,000, but not over \$400,000
	6.7% on the excess over \$400,000
Joint Filers	3% on the first \$20,000 of Connecticut Taxable Income
	5% on the excess over \$20,000, but not over \$100,000
	5.5% on the excess over \$100,000, but not over \$200,000
	6% on the excess over \$200,000, but not over \$400,000
	6.5% on the excess over \$400,000, but not over \$500,000
	6.7% on the excess over \$500,000

Exemptions

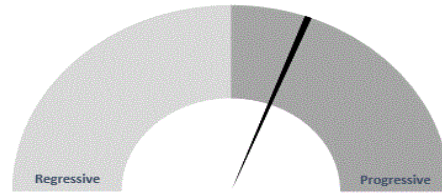
- \$13,000 for single filers for the 2011 taxable year. For taxpayers with Connecticut AGI in excess of \$26,000, the exemption decreases by \$1,000 for each \$1,000 increase in Connecticut AGI. The exemption is phased out at \$37,000 (Exemption is \$14,500 for the 2014 tax year);
- \$12,000 for married persons filing separately and filing separately for Connecticut only. For taxpayers with Connecticut AGI in excess of \$24,000, the exemption decreases by

\$1,000 for each \$1,000 increase in Connecticut AGI. The exemption is phased out at \$35,000;

- \$19,000 for heads of household. For taxpayers with a Connecticut AGI in excess of \$38,000, the exemption decreases by \$1,000 for each additional \$1,000 of Connecticut AGI. There is no exemption if the taxpayer earns more than \$56,000; and
- \$24,000 for married persons filing jointly, filing jointly for Connecticut only, or qualifying widow(er) with dependent child. The exemption for joint filers decreases by \$1,000, for taxpayers whose Connecticut AGI exceeds \$48,000, for each \$1,000 increase in Connecticut AGI. The exemption is phased out at \$71,000.

Personal Income Tax: General Overview

Suits Index	0.11
Overall Effective Tax Rate	3.86%
% of Total CT Tax Burden	33.37%

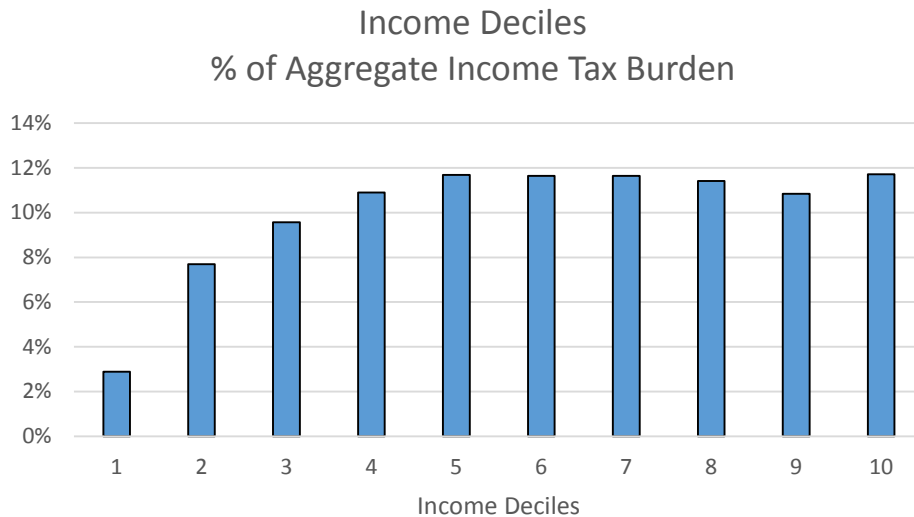


Personal Income Tax Burden (in millions)		
Personal Income Tax Total	Tax Exported	Burden on CT Households
\$5,824.6	\$0	\$5,824.6

- The data shows the overall effective tax rate to be 3.86%.
- The Personal Income tax represents 33.37% of the total Connecticut tax incidence.
- The Suits Index of 0.11 indicates that the tax is relatively progressive. Generally, the effective income tax rate increases as income increases.

Personal Income Tax: Income Deciles

Decile	Households	Aggregate CT AGI	Aggregate Personal Income Tax Burden	% of Aggregate Personal Income Tax Burden	Personal Income Effective Tax Rate
1	725,202	\$ 15,103,112,547	\$ 167,930,084	2.9%	1.11%
2	251,321	15,103,182,979	447,998,114	7.7%	2.97%
3	173,126	15,103,113,264	557,520,752	9.6%	3.69%
4	129,303	15,102,288,605	634,719,356	10.9%	4.20%
5	97,426	15,103,013,303	680,731,439	11.7%	4.51%
6	67,958	15,102,959,408	678,464,449	11.6%	4.49%
7	37,893	15,104,085,522	678,122,063	11.6%	4.49%
8	15,050	15,103,068,542	664,977,183	11.4%	4.40%
9	3,646	15,113,849,361	631,618,050	10.8%	4.18%
10	357	15,090,190,108	682,560,332	11.7%	4.52%
TOTAL	1,501,282	\$151,028,863,639	\$5,824,641,823	100.0%	3.86%

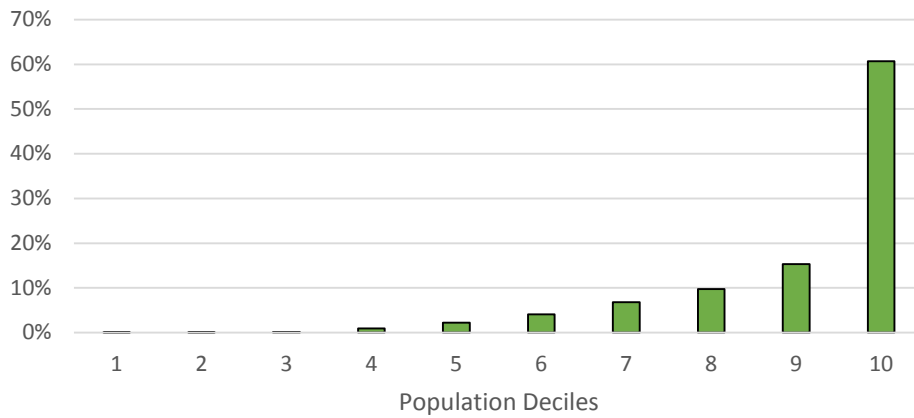


The 357 households in the tenth income decile represent 11.72% of the aggregate income tax impact whereas the 725,202 households in the first decile represent only 2.88% of the aggregate income tax impact.

Personal Income Tax: Population Deciles

Decile	Households	Aggregate CT AGI	Aggregate Personal Income Tax Burden	% of Aggregate Personal Income Tax Burden	Personal Income Tax Effective Tax Rate
1	150,200	\$ 147,242,742	\$ 303,381	0.01%	0.21%
2	150,063	1,656,113,142	254,499	0.00%	0.02%
3	150,127	3,214,379,161	8,353,204	0.14%	0.26%
4	150,219	4,783,322,948	56,063,768	0.96%	1.17%
5	150,033	6,551,395,173	130,739,076	2.24%	2.00%
6	150,129	8,581,638,624	239,048,791	4.10%	2.79%
7	150,127	11,187,844,749	395,507,941	6.79%	3.54%
8	150,128	14,695,567,114	567,755,942	9.75%	3.86%
9	150,128	20,325,378,589	892,167,367	15.32%	4.39%
10	150,128	79,885,981,397	3,534,447,855	60.68%	4.42%
TOTAL	1,501,282	\$151,028,863,639	\$5,824,641,823	100.00%	3.86%

Population Deciles
% of Aggregate Income Tax Burden



The tenth population decile accounts for 60.68% of the aggregate Connecticut income tax incidence for 2011. Conversely, the first decile represents only 0.01% of the aggregate Connecticut income tax incidence for 2011.

Sales and Use Tax

Connecticut levies a sales and use tax on the gross receipts of retailers from the sale of tangible personal property at retail, from the rental or leasing of tangible personal property, and on the gross receipts from the rendering of certain enumerated services. There are no local sales taxes in Connecticut. A large share of on-line retail sales by remote sellers continues to elude state sales tax collection and remittance, leaving the impact to in-state buyers through use tax that has significantly low levels of taxpayer compliance.

Generally, all sales, leases, and rentals of goods in Connecticut are subject to a 6.35% sales and use tax when the title of goods transfers from the seller to the buyer in Connecticut. Exceptions are sales specifically exempt from tax and sales made for resale.

Services are generally not subject to sales and use taxes unless specifically enumerated as taxable by statute.

Connecticut's Sales and Use Tax rates as of July 1, 2011 are shown below. Please note that prior to July 1, 2011, the general Sales and Use Tax rate was 6% and 12% on room occupancy.

6.35% on the gross receipts from the sale, rental or leasing of tangible personal property, and the rendering of certain business services (general rate);

7%

- Most motor vehicles with a sales price of more than \$50,000;
- Items of jewelry with a sales price of more than \$5,000; and;
- Articles of clothing or footwear or a handbag, luggage, umbrella, wallet or watch, with a price of more than \$1,000.

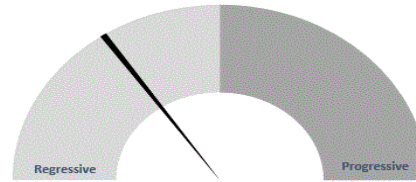
1% on computer and data processing services;

9.35% for the rental or leasing of a passenger motor vehicle for a period of 30 consecutive calendar days or less;

15% on the rental of rooms in a hotel or lodging house.

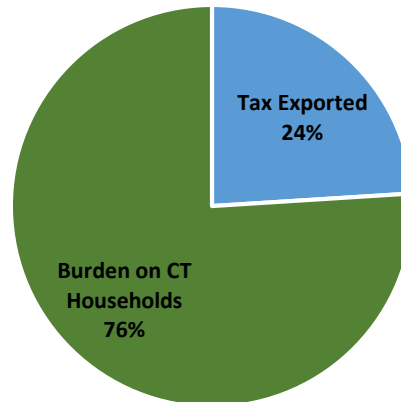
Sales and Use Tax: General Overview

Suits Index	-0.39
Overall Effective Tax Rate	1.7%
% of Total CT Tax Burden	14.67%



Sales and Use Tax Burden (in millions)		
Sales and Use Tax Total	Tax Exported	Burden on CT Households
\$3,371.5	\$811.2	\$2,560.3

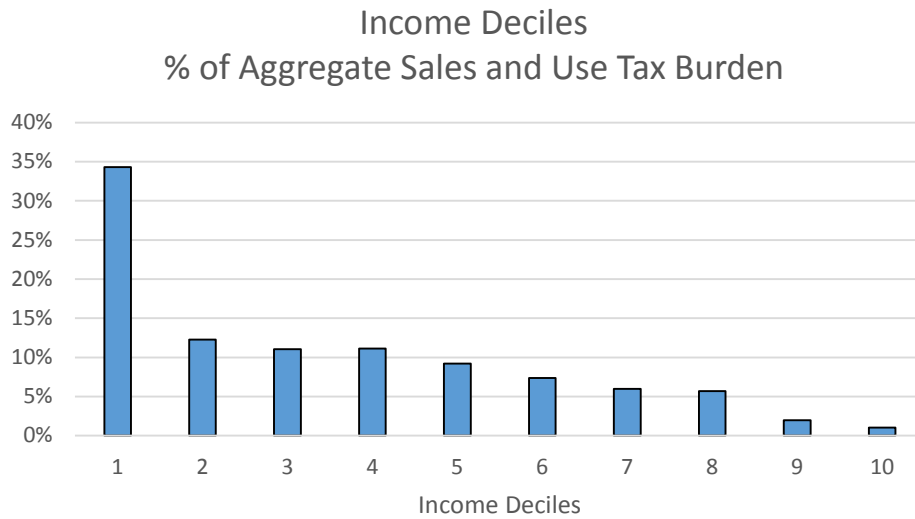
**Sales and Use Tax
CT Households Burden vs. Exported**



- 24% of the Sales and Use Tax was exported.
- The Suits Index of -0.39 for this tax indicates that the tax is regressive.

Sales and Use Tax: Income Deciles

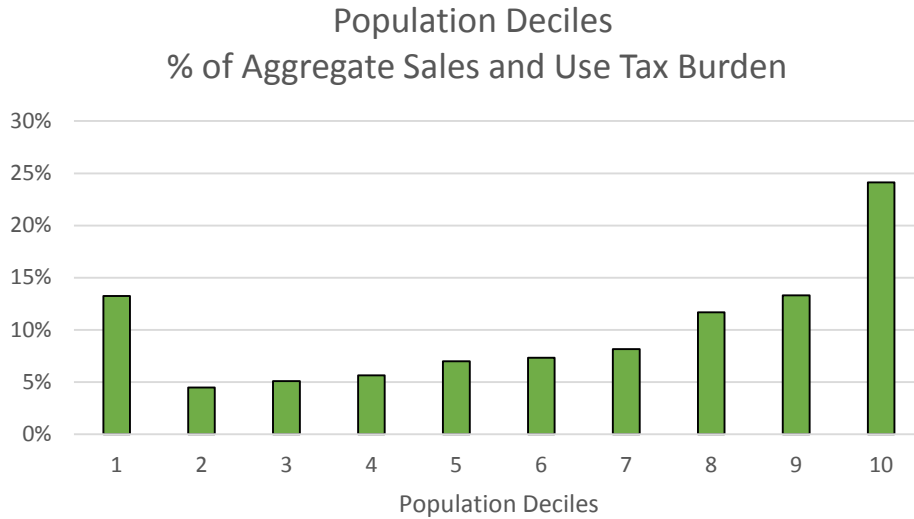
Decile	Households	Aggregate CT AGI	Aggregate Sales and Use Tax Burden	% of Aggregate Sales and Use Tax Burden	Sales and Use Effective Tax Rate
1	725,202	\$ 15,103,112,547	\$ 878,244,594	34.3%	5.81%
2	251,321	15,103,182,979	314,760,326	12.3%	2.08%
3	173,126	15,103,113,264	283,152,449	11.1%	1.87%
4	129,303	15,102,288,605	285,094,956	11.1%	1.89%
5	97,426	15,103,013,303	235,725,564	9.2%	1.56%
6	67,958	15,102,959,408	188,515,434	7.4%	1.25%
7	37,893	15,104,085,522	152,976,906	6.0%	1.01%
8	15,050	15,103,068,542	145,529,245	5.7%	0.96%
9	3,646	15,113,849,361	50,317,880	2.0%	0.33%
10	357	15,090,190,108	26,001,014	1.0%	0.17%
TOTAL	1,501,282	\$151,028,863,639	\$2,560,318,367	100.0%	1.70%



The top three income deciles together bear less than 9% of the aggregate Sales and Use tax incidence.

Sales and Use Tax: Population Deciles

Decile	Households	Aggregate CT AGI	Aggregate Sales and Use Tax Burden	% of Aggregate Sales and Use Tax Burden	Sales and Use Effective Tax Rate
1	150,200	\$ 147,242,742	\$ 339,143,149	13.2%	230.33%
2	150,063	1,656,113,142	114,294,470	4.5%	6.90%
3	150,127	3,214,379,161	130,272,178	5.1%	4.05%
4	150,219	4,783,322,948	144,080,593	5.6%	3.01%
5	150,033	6,551,395,173	178,850,302	7.0%	2.73%
6	150,129	8,581,638,624	187,558,643	7.3%	2.19%
7	150,127	11,187,844,749	208,914,507	8.2%	1.87%
8	150,128	14,695,567,114	299,115,480	11.7%	2.04%
9	150,128	20,325,378,589	340,524,716	13.3%	1.68%
10	150,128	79,885,981,397	617,564,328	24.1%	0.77%
TOTAL	1,501,282	\$151,028,863,639	\$2,560,318,367	100.0%	1.70%



Sales and Use Tax: Division of CT Tax Incidence

Labor	\$ 148,079,131	5.78%
Capital	34,652,065	1.35%
Consumption	2,376,125,512	92.81%
Land	1,461,659	0.06%
Total	\$2,560,318,367	100.0%

Most of this tax impact is borne by the consumption component.

Excise Taxes

There are several taxes included in this category. They are described below.

Alcoholic Beverages Tax:

A tax is imposed on all distributors of alcoholic beverages on the sale of alcoholic beverages within Connecticut. Sales of alcoholic beverages are also subject to the Sales and Use Tax.

Rates:

Beer	\$7.20 per barrel (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 gallon
Distilled Liquor	\$5.40 per gallon
Liquor Coolers	\$2.46 per gallon

Cigarette Tax:

A tax is imposed on all cigarettes sold in Connecticut. Sales of cigarettes are also subject to the Sales and Use Tax.

Rate: The cigarette tax is 170 mills per cigarette or \$3.40 per pack of twenty.

Tobacco Products Tax:

A 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.

Rates: 50% of the wholesale sales price, except that the tax on cigars is not to exceed 50¢ per cigar. Snuff tobacco products are taxed at a rate of \$1.00 per ounce.

Motor Vehicles Fuels Tax:

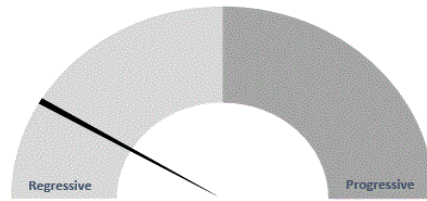
Motor fuel used or sold in Connecticut is subject to the Motor Vehicles Fuels Tax. "Fuel" includes gasoline, diesel, gasohol, propane, or any combustible gas or liquid that generates the power needed to propel a motor vehicle.

Rate:

Gasoline/Gasohol	25¢
Diesel (effective 7/1/11 through 6/30/12)	46.2¢
Natural Gas or Propane	26¢

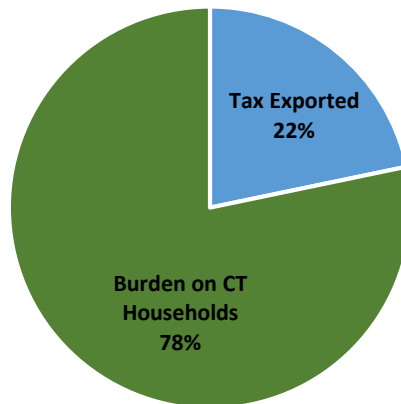
Excise Taxes: General Overview

Suits Index	-0.67
Overall Effective Tax Rate	0.47%
% of Total CT Tax Burden	4.03%



Excise Taxes Burden (in millions)		
Excise Taxes Total	Tax Exported	Burden on CT Households
\$897.7	\$195.1	\$702.6

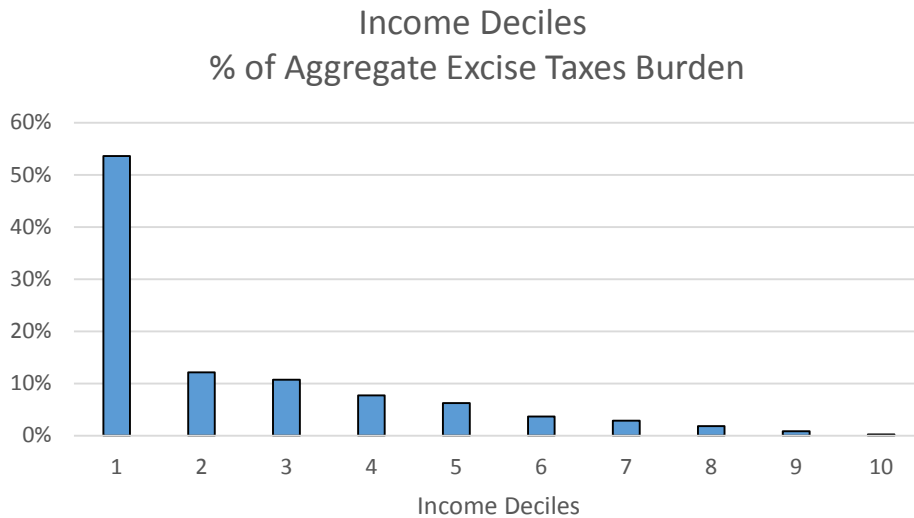
**Excise Taxes
CT Households Burden vs. Exported**



- 22% of Excise Taxes were exported.
- Excise Taxes represent 4.03% of total Connecticut tax incidence.
- The Suits Index of -0.67 indicates that Excise Taxes are regressive. 94.4% of Excise Taxes are borne by consumers.

Excise Taxes: Income Deciles

Decile	Households	Aggregate CT AGI	Aggregate Excise Taxes Burden	% of Aggregate Excise Taxes Burden	Excise Taxes Effective Tax Rate
1	725,202	\$ 15,103,112,547	\$376,731,508	53.6%	2.49%
2	251,321	15,103,182,979	85,317,542	12.1%	0.56%
3	173,126	15,103,113,264	75,457,080	10.7%	0.50%
4	129,303	15,102,288,605	54,295,793	7.7%	0.36%
5	97,426	15,103,013,303	43,791,882	6.2%	0.29%
6	67,958	15,102,959,408	25,921,329	3.7%	0.17%
7	37,893	15,104,085,522	20,308,675	2.9%	0.13%
8	15,050	15,103,068,542	13,027,688	1.9%	0.09%
9	3,646	15,113,849,361	5,844,898	0.8%	0.04%
10	357	15,090,190,108	1,861,435	0.3%	0.01%
TOTAL	1,501,282	\$151,028,863,639	\$702,557,830	100.00%	0.47%

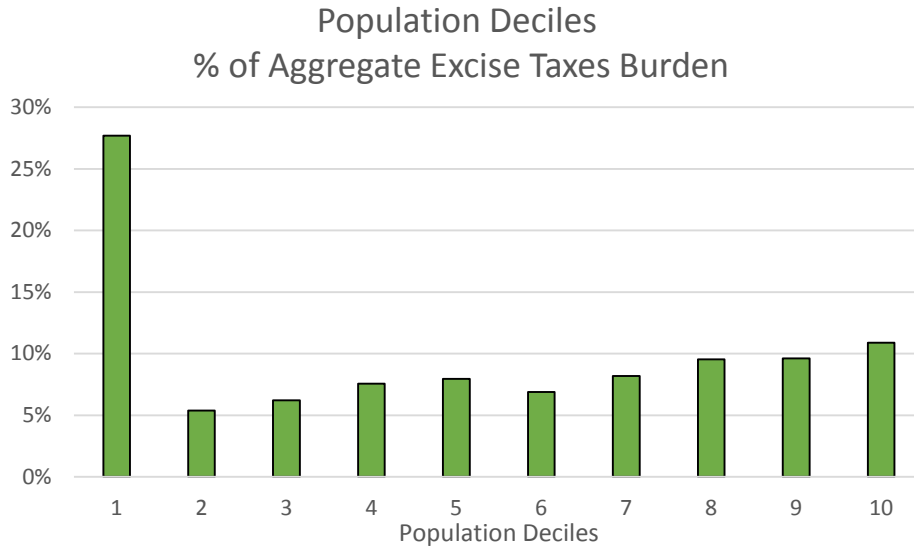


53.62% of the aggregate Excise Tax impact is borne by the lowest income decile, which represents 752,202 households.

Excise Taxes: Population Deciles

Decile	Households	Aggregate CT AGI	Aggregate Excise Taxes Burden	% of Aggregate Excise Taxes Burden	Excise Taxes Effective Tax Rate
1	150,200	\$ 147,242,742	\$194,593,461	27.7%	**
2	150,063	1,656,113,142	37,865,218	5.4%	2.29%
3	150,127	3,214,379,161	43,757,214	6.2%	1.36%
4	150,219	4,783,322,948	53,193,386	7.6%	1.11%
5	150,033	6,551,395,173	55,828,241	8.0%	0.85%
6	150,129	8,581,638,624	48,490,663	6.9%	0.57%
7	150,127	11,187,844,749	57,604,641	8.2%	0.51%
8	150,128	14,695,567,114	67,117,677	9.6%	0.46%
9	150,128	20,325,378,589	67,551,840	9.6%	0.33%
10	150,128	79,885,981,397	76,555,489	10.9%	0.10%
TOTAL	1,501,282	\$151,028,863,639	\$702,557,830	100.0%	0.47%

***This figure has been removed as it reflects an overstated value resulting from Connecticut residents who file federal but not state income tax returns.*



27.7% of the aggregate Excise Tax incidence was borne by the first population decile.

Excise Taxes: Division of CT Tax Incidence

Labor	\$ 39,402,882	5.6%
Capital	0	0%
Consumption	662,933,047	94.3%
Land	221,990	0.03%
Total	\$702,557,830	100.0%

Labor and consumers bear almost 100% of the impact of Excise Taxes – a much higher percentage than most other taxes.

Gross Earnings

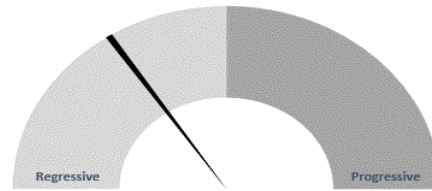
A tax is imposed on the gross earnings of gas, electric distribution, community antenna (cable TV), satellite, certified competitive video service providers, and railroad companies. The rates are as follows:

Community Antenna TV*	5.25%
Certified Competitive Video Service Provider*	5.25%
Satellite TV*	5.25%
Railroad	2 - 3.5%
Gas Companies	5%
Gas sales to residential customers	4%
Electric Distribution Companies	6.8% for residential customers 8.5% for nonresidential customers (other than manufacturers)

* Certified Competitive Video Service Providers, Community Antenna TV, and Satellite TV service providers are subject to a 5% tax plus an additional 0.25% tax for a total tax rate equal to 5.25%. The additional tax is used to fund the Public, Educational and Governmental Programming and Education Technology Investment Account.

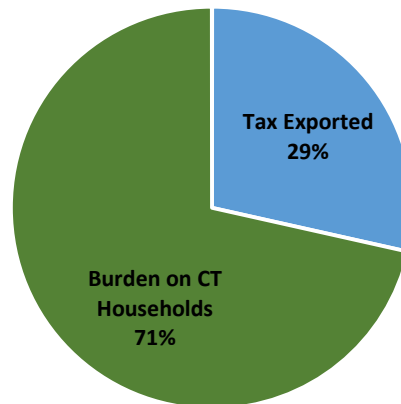
Gross Earnings Taxes: General Overview

Suits Index	-0.38
Overall Effective Tax Rate	0.31%
% of Total CT Tax Burden	2.67%



Gross Earnings Taxes Burden (in millions)		
Gross Earnings Taxes Total	Tax Exported	Burden on CT Households
\$651.1	\$185.6	\$465.5

Gross Earnings Taxes CT Households Burden vs. Exported

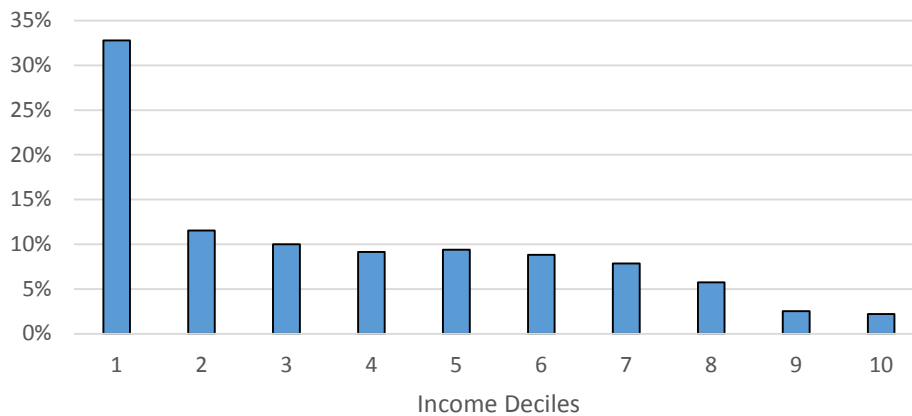


- 29% of the gross earnings tax was exported.
- Gross Earnings Taxes had an effective tax rate of 0.31%.
- Gross Earnings Taxes represented 2.67% of total Connecticut tax incidence.
- The Suits Index of -0.38 indicates that the tax is fairly regressive. 83.5% of the impact of Gross Earnings Taxes are borne by consumers.

Gross Earnings Taxes: Income Deciles

Decile	Households	Aggregate CT AGI	Aggregate Gross Earnings Taxes Burden	% of Aggregate Gross Earnings Taxes Burden	Gross Earnings Effective Tax Rate
1	725,202	\$ 15,103,112,547	\$152,664,986	32.8%	1.01%
2	251,321	15,103,182,979	53,667,223	11.5%	0.36%
3	173,126	15,103,113,264	46,610,080	10.0%	0.31%
4	129,303	15,102,288,605	42,603,136	9.2%	0.28%
5	97,426	15,103,013,303	43,725,802	9.4%	0.29%
6	67,958	15,102,959,408	40,978,850	8.8%	0.27%
7	37,893	15,104,085,522	36,541,943	7.8%	0.24%
8	15,050	15,103,068,542	26,746,005	5.7%	0.18%
9	3,646	15,113,849,361	11,770,478	2.5%	0.08%
10	357	15,090,190,108	10,204,931	2.2%	0.07%
TOTAL	1,501,282	\$151,028,863,639	\$465,513,433	100.0%	0.31%

Income Deciles
% of Aggregate Gross Earnings Taxes Burden



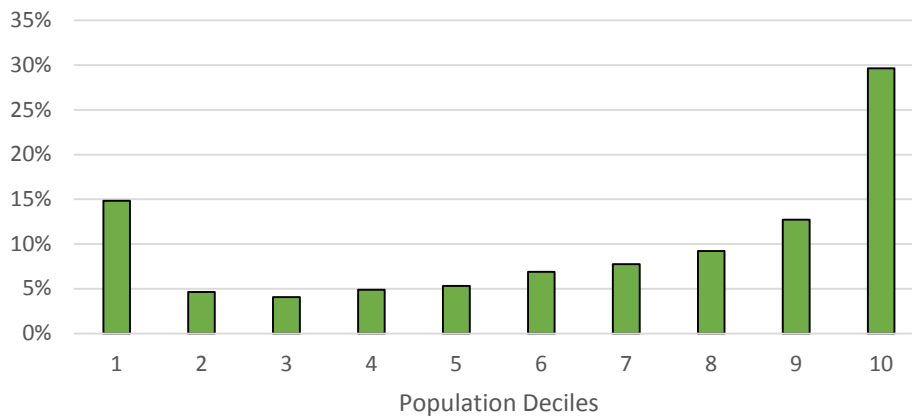
54.33% of the impact of the aggregate Gross Earnings Tax is borne by the first three income deciles. 10.47% of the impact of the aggregate Gross Earnings Tax is borne by the top three deciles.

Gross Earnings Taxes: Population Deciles

Decile	Households	Aggregate CT AGI	Aggregate Gross Earnings Taxes Burden	% of Aggregate Gross Earnings Taxes Burden	Gross Earnings Taxes Effective Tax Rate
1	150,200	\$ 147,242,742	\$ 69,069,904	14.8%	**
2	150,063	1,656,113,142	21,545,962	4.6%	1.30%
3	150,127	3,214,379,161	18,948,096	4.1%	0.59%
4	150,219	4,783,322,948	22,772,551	4.9%	0.48%
5	150,033	6,551,395,173	24,703,012	5.3%	0.38%
6	150,129	8,581,638,624	32,127,334	6.9%	0.37%
7	150,127	11,187,844,749	36,125,104	7.8%	0.32%
8	150,128	14,695,567,114	42,973,307	9.2%	0.29%
9	150,128	20,325,378,589	59,267,344	12.7%	0.29%
10	150,128	79,885,981,397	137,980,818	29.6%	0.17%
TOTAL	1,501,282	\$151,028,863,639	\$465,513,433	100.0%	0.31%

***This figure has been removed as it reflects an overstated value resulting from Connecticut residents who file federal but not state income tax returns.*

Population Deciles
% of Aggregate Gross Earnings Taxes Burden



The tenth population decile was responsible for 29.64% of the impact of the aggregate Gross Earnings Tax. The top three population deciles account for 51.60% of the aggregate Gross Earnings Tax impact.

Gross Earnings Taxes: Division of CT Tax Incidence

Labor	\$ 55,540,501	11.9%
Capital	21,122,755	4.5%
Consumption	388,479,626	83.5%
Land	370,551	0.1%
Total	\$465,513,433	100.0%

Only 4.5% of the overall Gross Earnings tax impact is borne by owners of capital. 95.4% of the Gross Earnings Tax impact is borne by labor and consumers.

Corporation Business Tax

A corporation carrying on or doing business in Connecticut is subject to the Corporation Business Tax. Most corporations in Connecticut must file returns and pay corporation business tax although some corporations are exempt. Corporations must calculate their tax under two alternate methods and remit the higher tax. If a corporation owes less than \$250 under both methods, it pays the minimum tax of \$250.

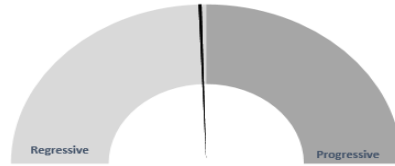
The method under which most Corporation Business Tax revenue is derived is the Net Income Base. Connecticut Net Income is taxed at the rate of 7.5%. Connecticut uses a three factor apportionment method with a double-weighted sales factor to determine the portion of a corporation's income taxable in the state. Special single-factor apportionment rules are provided for manufacturers, broadcasters and financial service companies.

The second and alternate method corporations must compute their tax under is the Capital Base. The capital base is taxed at a rate of 3.1 mils (\$0.0031) per dollar. Under the capital base method, a corporation is limited to a maximum tax of \$1,000,000.

Business tax credits allow a corporation to reduce its tax liability. Business tax credits may not reduce a corporation's tax liability below \$250 and may not exceed 70% of the amount of tax due from the taxpayer prior to the application of the tax credits. The Corporation Business Tax incidence described in this report is net of business tax credits.

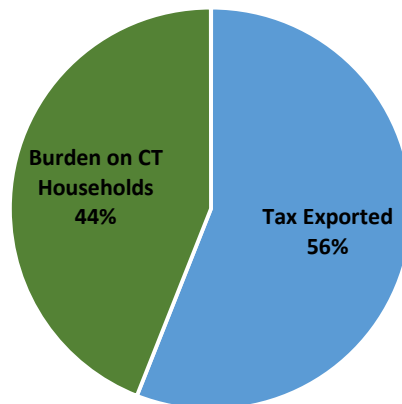
Corporation Business Tax: General Overview

Suits Index	-0.02
Overall Effective Tax Rate	0.13%
% of Total CT Tax Burden	1.09%



Corporation Business Tax Burden (in millions)		
Corporation Business Tax Total	Tax Exported	Burden on CT Households
\$436.2	\$246.2	\$190.0

Corporation Business Tax CT Households Burden vs. Exported

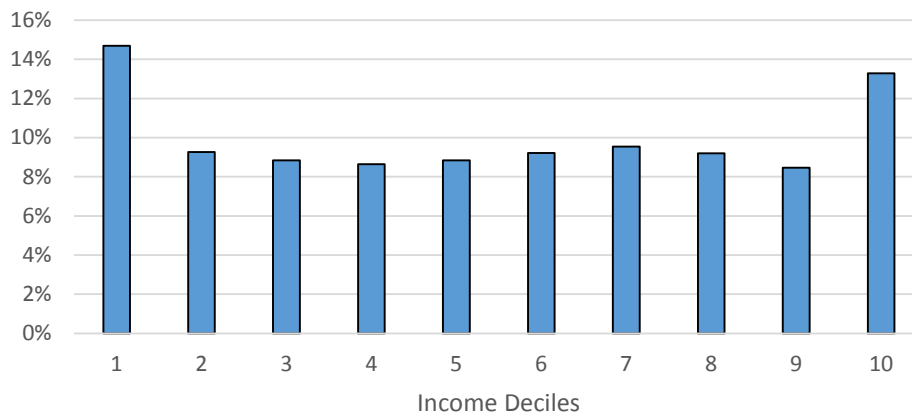


- 56% of the Corporation Business Tax was exported.
- The Corporation Business Tax represents 1.09% of the total Connecticut tax incidence.
- The Suits Index of -0.02 for this tax indicates that the tax is slightly regressive. Although a 34.8% proportion of the tax is borne by the owners of capital, nearly half of the liability is borne by labor inputs.

Corporation Business Tax: Income Deciles

Decile	Households	Aggregate 2011 CT AGI	Aggregate Corporation Business Tax Burden	% of Aggregate Corporation Business Tax Burden	Corporation Business Tax Effective Rate
1	725,202	\$ 15,103,112,547	\$ 27,906,164	14.7%	0.18%
2	251,321	15,103,182,979	17,589,836	9.3%	0.12%
3	173,126	15,103,113,264	16,795,418	8.8%	0.11%
4	129,303	15,102,288,605	16,435,302	8.6%	0.11%
5	97,426	15,103,013,303	16,800,979	8.8%	0.11%
6	67,958	15,102,959,408	17,509,587	9.2%	0.12%
7	37,893	15,104,085,522	18,141,466	9.5%	0.12%
8	15,050	15,103,068,542	17,482,013	9.2%	0.12%
9	3,646	15,113,849,361	16,093,893	8.5%	0.11%
10	357	15,090,190,108	25,249,558	13.3%	0.17%
TOTAL	1,501,282	\$151,028,863,639	\$190,004,214	100.0%	0.13 %

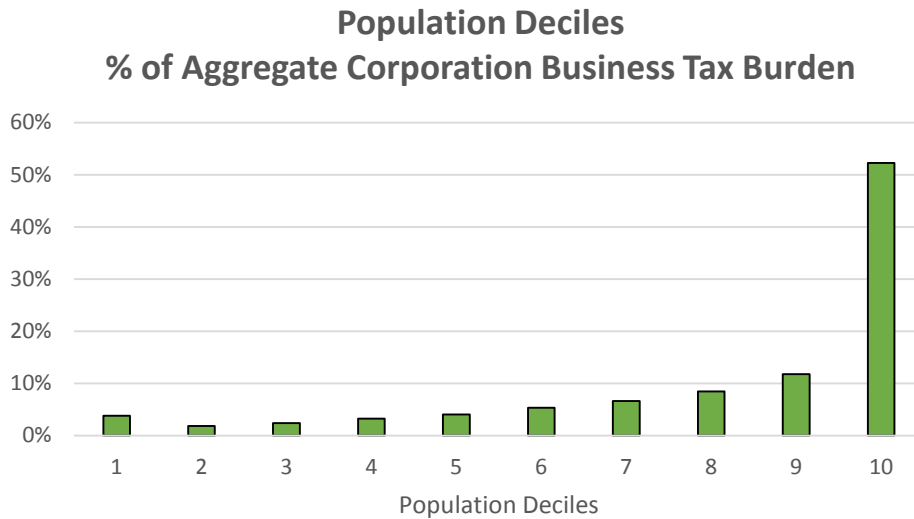
Income Deciles
% of Aggregate Corporation Business Tax Burden



The 357 households in the tenth income decile account for 13.3% of the aggregate Corporation Business Tax incidence.

Corporation Business Tax: Population Deciles

Decile	Households	Aggregate CT AGI	Aggregate Corporation Business Tax Burden	% of Aggregate Corporation Business Tax Burden	Corporation Business Tax Effective Rate
1	150,200	\$ 147,242,742	\$ 7,267,076	3.8%	4.94%
2	150,063	1,656,113,142	3,513,508	1.8%	0.21%
3	150,127	3,214,379,161	4,595,202	2.4%	0.14%
4	150,219	4,783,322,948	6,223,385	3.3%	0.13%
5	150,033	6,551,395,173	7,747,109	4.1%	0.12%
6	150,129	8,581,638,624	10,155,916	5.3%	0.12%
7	150,127	11,187,844,749	12,646,062	6.7%	0.11%
8	150,128	14,695,567,114	16,142,136	8.5%	0.11%
9	150,128	20,325,378,589	22,418,076	11.8%	0.11%
10	150,128	79,885,981,397	99,295,744	52.3%	0.12%
TOTAL	1,501,282	\$151,028,863,639	\$190,004,214	100.0%	0.13 %



The tenth population decile was responsible for 52.9% of the aggregate Connecticut Adjusted Gross Income in 2011. 52.3% of the aggregate Corporation Business tax impact was borne by this decile.

Corporation Business Tax: Division of CT Tax Incidence

Labor	\$ 90,671,515	47.7%
Capital	66,211,282	34.8%
Consumption	31,938,933	16.8%
Land	1,182,484	0.6%
Total	\$190,004,214	100.0%

Owners of capital bear a higher percentage of the Corporation Business tax than most of Connecticut's other taxes.

Corporation Business Tax Impact by NAICS Sector

	Count	Total Corporation Tax	Total Tax Exported	Total CT Burden
11 Agriculture, Forestry, Fishing and Hunting	147	\$ 510,317	\$ 234,823	\$ 275,494
21 Mining	48	1,238,156	123,389	1,114,767
22 Utilities	97	5,433,632	1,197,358	4,236,274
23 Construction	3,202	6,162,778	1,816,142	4,346,636
31-33 Manufacturing	3,910	86,309,836	56,708,806	29,601,030
42 Wholesale Trade	2,583	28,615,326	23,750,721	4,864,605
44-45 Retail Trade	3,514	41,402,364	31,465,796	9,936,567
48-49 Transporting and Warehousing	790	6,324,712	3,330,076	2,994,636
51 Information	906	26,076,133	6,047,641	20,028,491
52 Finance and Insurance	2,748	51,913,106	39,453,960	12,459,145
53 Real Estate and Rental and Leasing	3,826	12,754,927	2,805,936	9,948,991
54 Professional, Scientific and Tech Services	6,185	28,475,076	4,201,077	24,273,998
55 Management of Companies and Enterprises	853	37,385,551	8,336,791	29,048,760
56 Administrative and Support Services	1,335	7,502,425	1,842,389	5,660,036
61-62 Education, Health Care and Social Assistance	1,880	6,086,792	1,695,977	4,390,815
71 Arts, Entertainment, and Recreation	453	850,890	241,687	609,203
72 Accommodation and Food Services	990	2,505,644	1,407,513	1,098,132
81-92 Other Services	3,657	6,867,227	904,093	5,963,134
Other	4,296	79,806,244	60,652,745	19,153,498
Total	41,420	\$436,221,135	\$246,216,921	\$190,004,214

Insurance Taxes

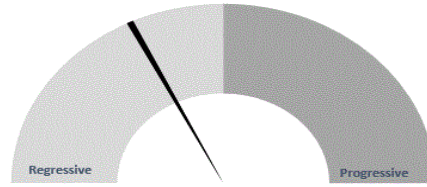
Insurance companies, domestic and foreign, are taxed in Connecticut on the total net direct premiums received from policies written on property or risks within the State. Total net direct subscriber charges received on any new or renewal contract or policy by a health care center are also taxed. The State also imposes a tax on premiums for unauthorized insurance. Specifically, insureds who procure nonadmitted insurance are required to remit tax on premiums paid to a nonadmitted insurer. Additionally, risk retention groups are required to pay tax on premiums collected on coverages within the State. Captive insurance companies are now allowed to operate within Connecticut. A captive insurance company is a company that is created and wholly owned by one or more non-insurance companies to insure the risks of its owners as a type of self-insurance.

Basis and Rate

- 1.75% of net direct premiums received by domestic and foreign insurance companies.
- 4% of gross premiums charged by nonadmitted/unauthorized insurers; and
- 1.75% of net direct subscriber charges of health care centers.

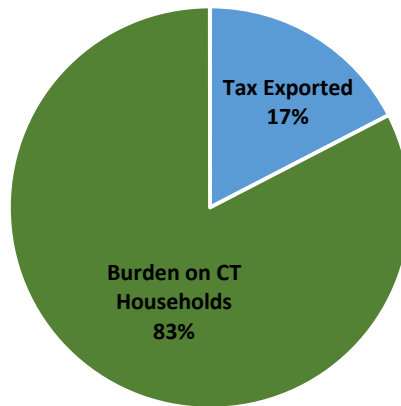
Insurance Taxes: General Overview

Suits Index	-0.35
Overall Effective Tax Rate	0.11%
% of Total CT Tax Burden	0.95%



Insurance Taxes Burden (in millions)		
Insurance Taxes Total	Tax Exported	Burden on CT Households
\$201.6	\$35.1	\$166.5

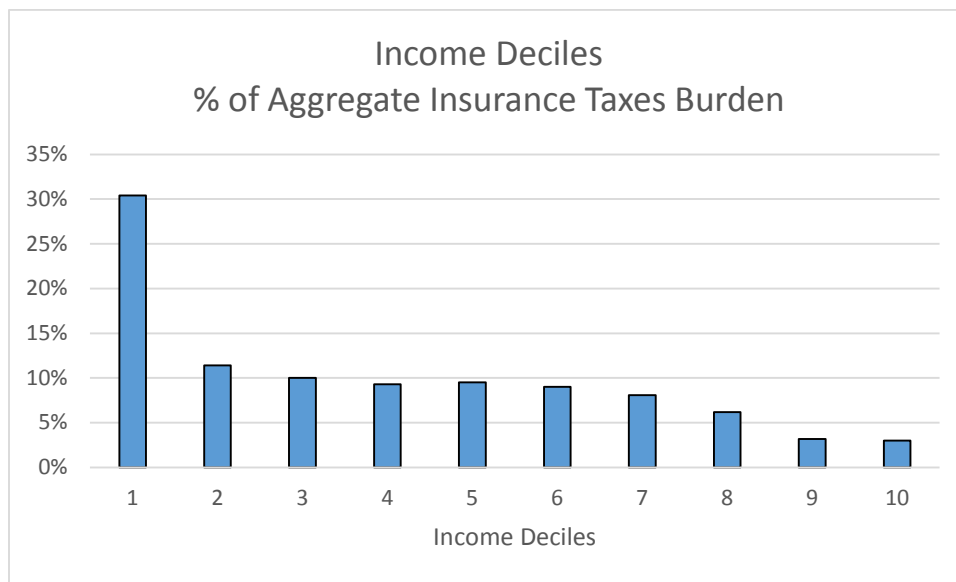
**Insurance Taxes
CT Households Burden vs. Exported**



- 17% of the Insurance Taxes were exported.
- Insurance Taxes represents 0.95% of the total Connecticut tax incidence.
- The Suits Index of -0.35 indicates that the taxes are is fairly regressive.

Insurance Taxes: Income Deciles

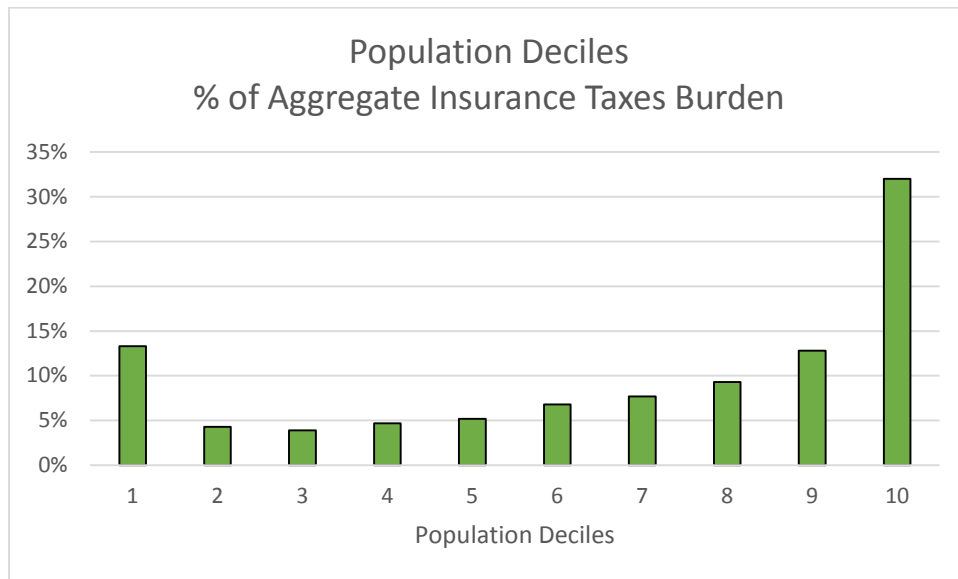
Decile	Households	Aggregate CT AGI	Aggregate Insurance Taxes Burden	% of Aggregate Insurance Taxes Burden	Insurance Effective Tax Rate
1	725,202	\$ 15,103,112,547	\$ 50,631,438	30.4%	0.34%
2	251,321	15,103,182,979	18,946,474	11.4%	0.13%
3	173,126	15,103,113,264	16,695,480	10.0%	0.11%
4	129,303	15,102,288,605	15,421,922	9.3%	0.10%
5	97,426	15,103,013,303	15,788,497	9.5%	0.10%
6	67,958	15,102,959,408	14,950,929	9.0%	0.10%
7	37,893	15,104,085,522	13,521,650	8.1%	0.09%
8	15,050	15,103,068,542	10,280,989	6.2%	0.07%
9	3,646	15,113,849,361	5,296,075	3.2%	0.04%
10	357	15,090,190,108	4,996,933	3.0%	0.03%
TOTAL	1,501,282	\$151,028,863,639	\$166,530,388	100.0%	0.11%



Deciles one through three account for more than half of the aggregate Insurance Taxes incidence.

Insurance Taxes: Population Deciles

Decile	Households	Aggregate CT AGI	Aggregate Insurance Taxes Burden	% of Aggregate Insurance Taxes Burden	Insurance Taxes Effective Tax Rate
1	150,200	\$ 147,242,742	\$ 22,130,368	13.3%	15.03%
2	150,063	1,656,113,142	7,079,402	4.3%	0.43%
3	150,127	3,214,379,161	6,433,607	3.9%	0.20%
4	150,219	4,783,322,948	7,848,369	4.7%	0.16%
5	150,033	6,551,395,173	8,688,628	5.2%	0.13%
6	150,129	8,581,638,624	11,283,381	6.8%	0.13%
7	150,127	11,187,844,749	12,875,903	7.7%	0.12%
8	150,128	14,695,567,114	15,493,114	9.3%	0.11%
9	150,128	20,325,378,589	21,371,639	12.8%	0.11%
10	150,128	79,885,981,397	53,325,979	32.0%	0.07%
TOTAL	1,501,282	\$151,028,863,639	\$166,530,388	100.0%	0.11%



The tenth population decile accounts for 32.0% of the aggregate Insurance Taxes.

Insurance Taxes: Division of CT Tax Incidence

Labor	\$ 31,988,084	19.2%
Capital	10,742,673	6.5%
Consumption	123,395,571	74.1%
Land	404,060	0.2%
Total	\$166,530,388	100.0%

Payers of Insurance Taxes are passing most of the tax onto other sectors. 93.3% of the tax incidence is borne by labor and consumers and only 6.5% by owners of capital.

Gift and Estate Tax

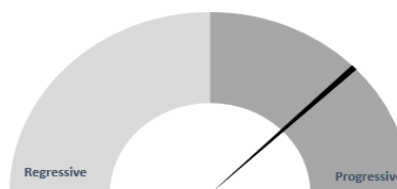
Resident and nonresident estates of decedents are liable for the Connecticut Estate Tax on the amount of their Connecticut taxable estate that exceeds \$2 million.

“Connecticut taxable estate” is defined as the sum of the total value of the decedent’s federal gross estate, less allowable deductions, plus the aggregate amount of Connecticut taxable gifts made on or after January 1, 2005. A credit is granted for gift taxes previously paid; however, the credit cannot exceed the amount of the Connecticut estate tax.

For Connecticut taxable gifts, a donor must pay Connecticut gift tax if the aggregate amount of Connecticut taxable gifts made on or after January 1, 2005, exceeds \$2 million. “Connecticut taxable gifts” are defined as taxable gifts as determined for federal gift tax purposes. They include gifts of: Connecticut real property; tangible personal property situated within Connecticut; or intangible personal property made by Connecticut residents.

Gift and Estate Tax: General Overview

Suits Index	0.76
Overall Effective Tax Rate	0.10%
% of Total CT Tax Burden	0.87%



Gift and Estate Tax Burden (in millions)		
Gift and Estate Tax Total	Tax Exported	Burden on CT Households
\$154.4	\$1.9	\$152.5

- The Gift and Estate Tax due from nonresident estates with property located in Connecticut comprises the amount of tax exported.
- The Gift and Estate Tax represents 0.87% of the total Connecticut tax incidence.
- The Suits Index of 0.76 for this tax indicates that the tax is very progressive. The impact of this tax is entirely borne by the households in the top three income deciles.

Gift and Estate Tax: Income Deciles

Decile	Households	Aggregate CT AGI	Aggregate Gift and Estate Tax Burden	% of Aggregate Gift and Estate Tax Burden	Effective Gift and Estate Tax Rate
1	725,202	\$ 15,103,112,547	\$ 0	0.0%	0.00%
2	251,321	15,103,182,979	0	0.0%	0.00%
3	173,126	15,103,113,264	0	0.0%	0.00%
4	129,303	15,102,288,605	0	0.0%	0.00%
5	97,426	15,103,013,303	0	0.0%	0.00%
6	67,958	15,102,959,408	0	0.0%	0.00%
7	37,893	15,104,085,522	0	0.0%	0.00%
8	15,050	15,103,068,542	3,094,900	2.0%	0.02%
9	3,646	15,113,849,361	93,042,286	61.0%	0.62%
10	357	15,090,190,108	56,369,034	37.0%	0.37%
TOTAL	1,501,282	\$151,028,863,639	\$152,506,220	100.0%	0.10%

**Income Deciles
% of Aggregate Gift and Estate Tax Burden**



The incidence of this tax is entirely borne by the households in the top three income deciles.

Gift and Estate Tax: Population Deciles

Decile	Households	Aggregate CT AGI	Aggregate Gift and Estate Tax Burden	% of Aggregate Gift and Estate Tax Burden	Effective Gift and Estate Tax Rate
1	150,200	\$ 147,242,742	\$ 0	0.0%	0.00%
2	150,063	1,656,113,142	0	0.0%	0.00%
3	150,127	3,214,379,161	0	0.0%	0.00%
4	150,219	4,783,322,948	0	0.0%	0.00%
5	150,033	6,551,395,173	0	0.0%	0.00%
6	150,129	8,581,638,624	0	0.0%	0.00%
7	150,127	11,187,844,749	0	0.0%	0.00%
8	150,128	14,695,567,114	0	0.0%	0.00%
9	150,128	20,325,378,589	0	0.0%	0.00%
10	150,128	79,885,981,397	152,506,220	100.0%	0.19%
TOTAL	1,501,282	\$151,028,863,639	\$152,506,220	100.0%	0.10%

The impact of this tax is entirely borne by the households in the top population decile.

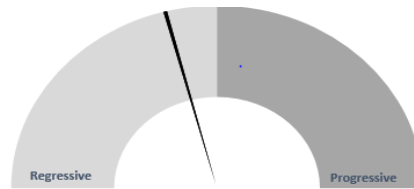
Real Estate Conveyance Tax

The State of Connecticut imposes a tax on the conveyance of real property. The tax is assessed on the full purchase price of the property and the rate is determined by the classification of the property being conveyed. Payment of the tax is the responsibility of the seller of the property and must be paid before the deed can be recorded.

Rate as of July 1, 2011	State Rate
Unimproved Land	0.75%
Nonresidential property other than Unimproved Land	1.25%
Residential Dwelling:	
Portion \$800,000 or less	0.75%
Portion that exceeds \$800,000	1.25%
Residential Property other than Residential Dwelling	0.75%
Delinquent Mortgage	0.75%

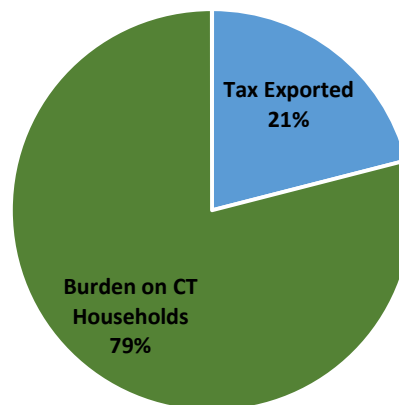
Real Estate Conveyance Tax: General Overview

Suits Index	-0.14
Overall Effective Tax Rate	0.05%
% of Total CT Tax Burden	0.44%



Real Estate Conveyance Tax Burden (in millions)		
Real Estate Conveyance Tax Total	Tax Exported	Burden on CT Households
\$97.4	\$20.6	\$76.8

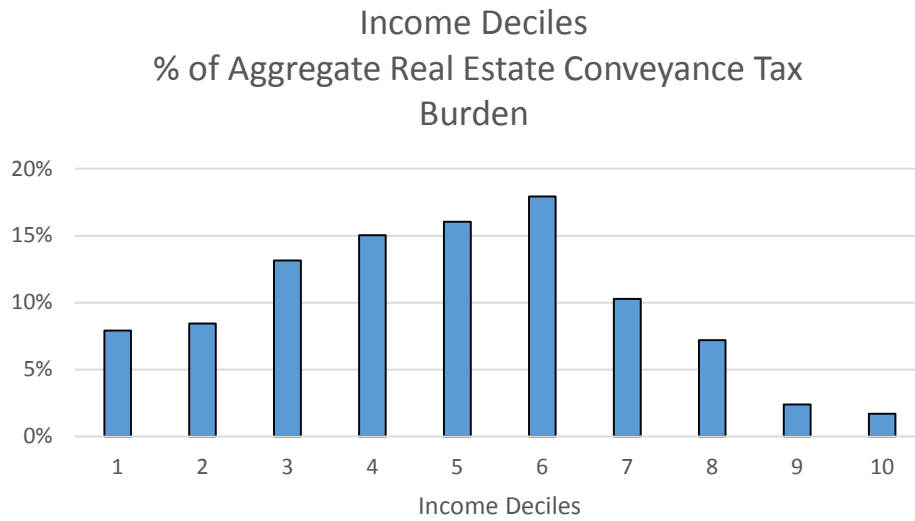
Real Estate Conveyance Tax CT Households Burden vs. Exported



- 21% of the Real Estate Conveyance Tax was exported.
- The Real Estate Conveyance Tax represents 0.4% of the total Connecticut tax incidence.
- The Suits Index of -0.14 indicates that the Real Estate Conveyance tax is slightly regressive.

Real Estate Conveyance Tax: Income Deciles

Decile	Households	Aggregate CT AGI	Aggregate Real Estate Conveyance Tax Burden	% of Aggregate Real Estate Conveyance Tax Burden	Real Estate Conveyance Effective Tax Rate
1	725,202	\$ 15,103,112,547	\$ 6,067,859	7.9%	0.04%
2	251,321	15,103,182,979	6,471,834	8.4%	0.04%
3	173,126	15,103,113,264	10,092,137	13.1%	0.07%
4	129,303	15,102,288,605	11,551,403	15.0%	0.08%
5	97,426	15,103,013,303	12,320,176	16.0%	0.08%
6	67,958	15,102,959,408	13,768,827	17.9%	0.09%
7	37,893	15,104,085,522	7,889,564	10.3%	0.05%
8	15,050	15,103,068,542	5,513,607	7.2%	0.04%
9	3,646	15,113,849,361	1,835,016	2.4%	0.01%
10	357	15,090,190,108	1,303,450	1.7%	0.01%
TOTAL	1,501,282	\$151,028,863,639	\$76,813,873	100.0%	0.05%

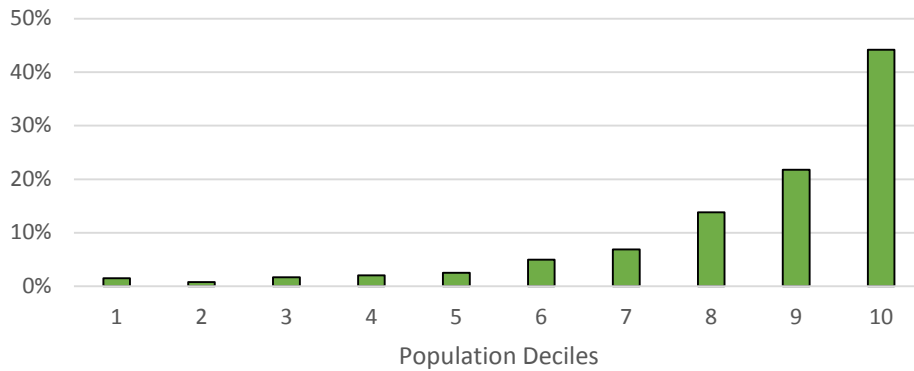


This tax falls primarily on those households in the third through sixth income deciles.

Real Estate Conveyance Tax: Population Deciles

Decile	Households	Aggregate CT AGI	Aggregate Conveyance Tax Burden	% of Aggregate Conveyance Tax Burden	Conveyance Effective Tax Rate
1	150,200	\$ 147,242,742	\$ 1,136,422	1.5%	0.77%
2	150,063	1,656,113,142	572,099	0.7%	0.03%
3	150,127	3,214,379,161	1,271,492	1.7%	0.04%
4	150,219	4,783,322,948	1,560,016	2.0%	0.03%
5	150,033	6,551,395,173	1,912,622	2.5%	0.03%
6	150,129	8,581,638,624	3,799,007	4.9%	0.04%
7	150,127	11,187,844,749	5,259,194	6.8%	0.05%
8	150,128	14,695,567,114	10,624,192	13.8%	0.07%
9	150,128	20,325,378,589	16,734,940	21.8%	0.08%
10	150,128	79,885,981,397	33,943,890	44.2%	0.04%
TOTAL	1,501,282	\$151,028,863,639	\$76,813,873	100.0%	0.05%

Population Deciles
% of Aggregate Real Estate Conveyance Tax Burden



The share of the Real Estate Conveyance Tax increases as income increases. Almost 80% of the Real Estate Conveyance Tax impact falls on the eighth through tenth population deciles.

Real Estate Conveyance Tax: Division of CT Tax Incidence

Labor	\$11,172,580	14.5%
Capital	3,066,110	4.0%
Consumption	2,895,501	3.8%
Land	59,679,682	77.7%
Total	\$76,813,873	100.0%

CHAPTER IV

METHODOLOGY¹

DATA MATCHING

The model matches state and federal tax data with data from national economic datasets. Matching these types of data together is necessary to build background datasets in the model which calibrate the output. Matching tax data with the economic data also allows the model to create profiles of Connecticut households imputed from individual filers; calibrate consumption and business purchases; determine elasticities and assumptions about behaviors; determine visitor activity; and gauge Connecticut's economy compared to the national economy.

Personal Income Tax: The Personal Income Tax data was created through a state and federal data match with social security numbers. Connecticut resident Form CT-1040 return data was matched with federal Form 1040 tax data from 1,904,472 Connecticut residents who file federal returns. The number of federal filers is higher than the number of Connecticut resident returns as it includes those who do not file at the state level. Non-resident and part-year resident filers (Form CT-1040 NR/PY) were not part of the sample.

After matching state and federal data, profiles of Connecticut filers were matched together into households. National economic datasets were used to associate certain filers together into likely households, (e.g. associating households with low-income college students claimed as dependents). This process resulted in the baseline of 1,501,282 Connecticut households with a total AGI of \$151.0 billion and total Connecticut Personal Income Tax of \$5.8 billion.

The Personal Income Tax data was also matched with the federal Consumer Expenditure Survey and the American Community Survey Five-Year Summary File to create the model's State Household Database. This model is used to impute consumption profiles to estimate spending habits.

Corporation Business Tax: The Corporation Business Tax data was also created by matching DRS and IRS data. The model contains data from 41,420 corporations.

¹ Methodology and related documentation has been developed by Chainbridge Software, LLC for use by the Connecticut Department of Revenue Services.

Sales and Excise Taxes: The model uses revenues from DRS receipts data. Collection numbers from 2011 were targeted to receipts data by NAICS industry codes. After targeting the receipts numbers, profiles of Connecticut households' consumer spending habits were imputed from multiple data sources from the U.S. Bureau of Economic Analysis and the U.S. Census Bureau. This method allowed the model to better determine what Connecticut households at different income levels consume.

The model also contains underlying databases that calibrated the output to Connecticut-specific business purchases, consumer (Connecticut household) and visitor purchases and assumptions on elasticity.

CALCULATING TAX INCIDENCE ON CONNECTICUT HOUSEHOLDS

The model uses three steps to calculate the shifting of taxes and arrive at the overall incidence of Connecticut taxation that is borne by Connecticut households. The steps in determining the incidence are as follows: (1) Determine the liability of each tax; (2) Determine the effect of shifting taxes from Connecticut businesses to Connecticut households; and (3) Make allocations of shifted taxes to Connecticut households.

STEP I: DETERMINE TAX LIABILITIES

The first step determines the liability of each tax in the model. This represents the amount of revenue that each tax yielded in 2011.

STEP II: DETERMINE THE EFFECT OF SHIFTING BUSINESS TAXES

The second step in analyzing the overall incidence is to determine the effect of businesses shifting their taxes. This step couples economic theory with interstate comparative statistics. This analysis is used to compare Connecticut's economy and markets by NAICS code to that of other states. These computations provide the proportion of taxes that Connecticut businesses are shifting onto consumers, labor and capital and land owners. These assumptions and calculations will ultimately provide the amount of the initial tax liability that is shifted out of the state.

The interstate comparison is a 46 state analysis that does not include Washington, Texas, Nevada, Wyoming or Washington, D.C.

Step II makes assumptions about Connecticut households and Connecticut businesses in determining, depending on the tax type, the proportion of a tax's incidence that is either shifted away from businesses, out of the state or not shifted at all.

A. Incidence of Taxes on Connecticut Households:

- The Personal Income Tax is paid by individual taxpayers and the impact resides with the individual taxpayers and ultimately Connecticut households. None of the Personal Income Tax from Connecticut CT-1040 filers is shifted and it is entirely borne by Connecticut households. The model looked only at CT-1040 filers and did not consider CT-1040 NR/PY filers to be part of the sample.
- The Gift and Estate Tax adheres to the same logic as the Personal Income Tax as the incidence resides with Connecticut households. Although the Estate Tax impact is not on a living person or entity, it is assumed that the incidence of the tax is to be applied to the deceased Connecticut resident and the portion attributed to have been from Connecticut residents is borne entirely by Connecticut households.
- Taxes on consumer purchases are borne by those consumers (Connecticut households) who purchased the items. As these purchases are made by Connecticut households, they are not shifted and are reflected as an impact on a Connecticut household. The incidence that has been determined to have been shifted from businesses onto Connecticut households is allocated proportionally in relation to a household's methodologically determined consumption.
- Taxes on household properties are borne by the owners of the property. These taxes are entirely borne on Connecticut households and none is shifted.
- The Excise Tax categories of Alcohol, Motor Fuels, Cigarette and Tobacco taxes as well as insurance policies purchased by consumers are also entirely borne by Connecticut households. Although initially paid by businesses, these purchases are considered taxes on Connecticut households.

B. Incidence of Taxes on Connecticut Businesses:

Understanding the taxes imposed on businesses and the shifting of those taxes to households is the foundation of analyzing the incidence of taxation. Mapping out the behavioral economics in the marketplace of both businesses and consumers is informative into how the ultimate impact of taxation is applied. Some of the tax that is shifted from Connecticut businesses is borne by Connecticut households while some of it is shifted out of the state. This report is concerned with the portion of taxes that are retained in Connecticut.

The general assumption is that businesses shift portions of their tax incidence from all of their taxes. Their taxes on corporate income, property and their purchases are all in some part shifted

onto consumers, labor, land and capital. The impact of shifting is reflected, for example, in higher prices of goods and services, lower wages for laborers, decreased property values and decreased stock prices.

Like households, taxes on Connecticut businesses are paired with the interstate comparative statistics which determine how Connecticut's businesses and consumers behave and make economic decisions in comparison to other states. It is important to remember that Connecticut is part of a larger economy. Connecticut businesses do not operate within a vacuum and transactions take place across state lines.

Taxes on businesses fall into two categories: taxes on intermediate goods and sales and taxes on capital goods.

- Intermediate goods and sales are any services or products that are used in the process of producing another good or service. For example, an intermediate good would be flour that a bakery uses to bake bread or gasoline that a landscaper purchases and consumes to operate their machinery. An intermediate service would be any non-tangible service that a business provides, such as advertising, accounting or consulting.
- Capital goods, or investment goods, are any long-term, tangible business asset that is depreciable and used in a business' daily operations. Examples of such items would include any owned buildings, motor vehicles, machinery and equipment, computers and other goods.

The model utilizes six assumptions about the shifting of Connecticut business taxes. These assumptions calibrate the model to allow for a more accurate output on the impact of taxation that Connecticut households face after shifting has occurred.

1. Businesses move capital to where it will yield its highest return.
2. Connecticut businesses do not operate within a vacuum. Business transactions take place both within and outside of Connecticut. Connecticut's economy is part of a much larger economy that Connecticut businesses operate in.
3. Connecticut's tax structure is ever-evolving and changing. Connecticut businesses are constantly adapting to Connecticut's and other states' tax structures.
4. Depending on the market, some Connecticut businesses have the ability to shift their taxes onto consumers in the form of higher priced goods.

5. A tax that would reduce the relative competitiveness of Connecticut businesses will be shifted onto the immobile resources businesses use in production, such as labor and capital.
6. An increase in taxes will be reflected with an increase in government spending.

A three-part division is implemented to determine the rate at which Connecticut businesses shift their taxes onto capital, labor, consumers and land. Three-part division calculates this for each industry sector by NAICS code. The three parts calculated represent the national average tax on all capital, the national sector differential borne by Connecticut consumers and the Connecticut sector differential.

1. First, the proportion of the tax that represents the national average tax on all capital which is borne by capital is calculated. This is the amount of Connecticut tax representing the national average tax rate on all capital. This figure is arrived at by determining the average national tax rate on all goods, in the specific NAICS code, across all states excluding Texas, Nevada, Washington, Wyoming and Washington, D.C.
2. Second, the proportion of the tax that represents the national sector differential which is borne by Connecticut consumers is calculated. This ratio is determined by subtracting the national average tax rate on all capital goods in the first step from the national average sales tax rate for the specific NAICS industry sector. The resulting amount is passed onto consumers by way of increased prices.
3. Third, the proportion of the tax that represents the Connecticut sector differential is calculated. This amount is represented by the difference that the average Connecticut sales tax exceeds the national average tax rate for the NAICS industry sector. This is the portion of the specified NAICS industry sector's companies that are only in competition with Connecticut companies. Some of this figure is borne by Connecticut consumers in Connecticut markets while the rest is borne by labor and landowners. The portion that is attributed to Connecticut markets results in a higher impact on consumers through higher prices. The portion that is attributed to national markets is attributed to labor.

Allocating the impact between Connecticut residents and out-of-state residents:

Some of Connecticut's tax incidence is exported to out-of-state residents and businesses. Connecticut's economy does not operate in a vacuum. Parts of the overall incidence of Connecticut's taxes fall onto out-of-state residents and out-of-state businesses. Likewise, Connecticut residents and businesses account in some part for the overall tax incidence of other

states. Connecticut residents travel through other states, make purchases as consumers in other states, may vacation outside of Connecticut and may even own a second house or other property in another state. Many Connecticut businesses engage in businesses activities outside of Connecticut, sell products in other states, have shareholders from outside of Connecticut and have physical capital and employees in other states.

The model accounts only for the incidence of Connecticut taxes on Connecticut households. The amount of taxes that are borne by out-of-state households is not part of the incidence on Connecticut households. Similarly, the amount of out-of-state taxes that are borne by Connecticut households is also not part of the incidence on Connecticut households.

Out-of-state consumers are factored into the national sector differential equation and are when businesses shift taxes and create higher prices. Visitors to Connecticut were also factored in with data from the Travel Industry Association of America through the form of in-state consumption and were determined through calculations of sales that were made to out-of-state consumers and to visitors of the state. Assumptions are made as to the proportion of sales made to out-of-state consumers and visitors which flow through to each NAICS code. These assumptions work in unison with the calculations of comparative state economics from the national economic datasets that were used.

Taxes on Intermediate Business Inputs:

Business taxes on intermediate goods and services used in production of other longer-term goods and services do not adhere to the same three-part division methodology that capital goods do. Intermediate goods, such as the flour used to bake bread or the gasoline a landscaping company uses to operate its machinery, does not raise the cost of capital – only the cost to produce the resulting product or service.

Determining the incidence of the taxes on intermediate goods and services involves two steps: calculating the portion that represents the national tax rate and calculating the portion that represents the Connecticut differential. These calculations are performed by NAICS industry sector.

1. First, the portion of the tax that represents the average national tax rate on the specified sector is calculated. Businesses shift this onto consumers in the form of increased prices for related goods and services.
2. Second, the portion that represents the Connecticut differential that is borne by Connecticut consumers in Connecticut markets and the portion that is borne by labor and landowners in national markets is calculated. The portion attributed to Connecticut

markets results in a higher incidence on consumers through higher prices while the portion attributed to national markets is attributed to labor.

STEP III: MAKE ALLOCATIONS TO CONNECTICUT HOUSEHOLDS

The final step in determining the incidence of Connecticut taxes on Connecticut households is to allocate the taxes that have been determined to be borne by consumers, labor, and the owners of capital and land to Connecticut households. The model allocates these taxes to specific households in relationship to the composition of the household profiles as was determined by the national economic datasets previously discussed. The principles for allocation are below:

- Taxes shifted onto consumers in the form of higher prices are allocated to households based on a household's relative share of total consumer expenditures based on household size and income. These numbers were calculated with data from the Consumer Expenditure Survey.
- The total tax on rental properties is shifted onto renters, the consumers of rental properties, in the form of higher rents. The portion of taxes on rental housing are distributed across all Connecticut renter households in proportion to each household's rent. Data from the U.S. Census was used in implementing this allocation.
- The impact on labor was allocated to Connecticut households in proportion to their share of income.
- Corporate capital's tax impact was allocated to Connecticut households in proportion to their capital dividends for the year. The allocation of corporate capital provides a better measure of income by accounting for capital gains and dividends.

The Corporation Business Tax shifted more than half of its initial taxes out of Connecticut. The Personal Income Tax did not shift any taxes out of Connecticut and the Gift and Estate Tax shifted only the amount attributable to out-of-state residents. All other taxes in the model exported between 17.4% and 28.5% of their initial tax impacts. In all, Connecticut retained almost 83% of its initial taxes.

CHAPTER V

DATA SOURCES

Chainbridge Software, LLC (Chainbridge) developed the model for DRS with proprietary databases utilizing data from national economic datasets. Chainbridge used the external data in conjunction with state data from DRS and OPM to build internal databases and matrices to impute Connecticut households and calibrate household and business consumption. Data was used from multiple sources, including:

- *2011 American Community Survey Five-Year Summary File*, U.S. Census Bureau
- *2011 Community Expenditure Survey*, U.S. Bureau of Labor Statistics
- *2011 County Business Patterns*, U.S. Census Bureau
- *Business Capital Flows Table Matrix*, U.S. Bureau of Economic Analysis
- Connecticut Department of Revenue Services
- Connecticut Office of Policy and Management
- *2008 & 2011 Impact of Travel on State Economies*, Travel Industry Association of America
- *2011 Intermediate Business Purchases Matrix*, U.S. Bureau of Economic Analysis
- *Personal Consumption Expenditures*, U.S. Bureau of Economic Analysis
- *2013 Minnesota Tax Incidence Study*, Minnesota Department of Revenue, Tax Research Division
- *Personal Income Ratios*, U.S. Bureau of Economic Analysis
- *Product Line Data*, U.S. Census Bureau
- U.S. Department of Agriculture