Not as High as You Think:
New Hampshire's
Property Tax Burden

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TRADITIONAL MEASURES OF PROPERTY TAX BURDEN

Two commonly reported measures of property tax burden allow comparison across states: property taxes per capita and property taxes per $1,000 personal income. In 2005, according to these measures, New Hampshire had the third largest property tax burden per capita at $2,034 per capita and the highest property tax burden as a share of personal income in the nation at $54.11 per $1,000 personal income.

Limitations of Traditional Measures of Property Tax Burdens

Both traditional measures of property tax burdens have serious flaws. They ignore that the property tax base includes a number of components beyond residential property. States and communities levy property taxes on commercial, industrial, and utility properties. They levy property taxes on farms and vacant land. A number of states tax personal property in addition to real property.[1] Within the category of residential property, one can distinguish between homesteads, vacation property, and residential rental property. Simply put, property taxes impose different burdens on state residents depending upon which part of the property tax base is taxed. First we will consider the case of second homes; next we will consider the case of commercial and industrial property.

Second Homes Owned by Citizens of Other States

Traditional measures of property tax burden do not distinguish between primary homes of state residents and second homes owned by residents of other states within the general category of residential property. To the extent that second homes are owned by non-residents, a large second home presence in a state's housing stock distorts the traditional measures of property tax burden. In calculating property taxes per capita or property taxes per $1,000 personal income, taxes paid by non-residents are included in the total tax liability, but the population or personal income of the same non-residents are not included in the population or personal income totals used to calculate these traditional measures of tax burden. This makes property tax burdens in states with a high proportion of second homes owned by nonresidents appear higher than they actually are.

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[1] Real property is land and structures. Personal property includes such things as automobiles, boats, bank accounts, stocks, and bonds, depending upon the state. Eight states do not tax personal property at all (Delaware, Hawaii, Iowa, Illinois, North Dakota, New York, Pennsylvania, and South Dakota). New Hampshire only taxes motor vehicles, not inventory and machinery and equipment. See Michael E. Bell and Charlotte Kirschner, "A Reconnaissance of Currently Available Measures of Effective Property Tax Rates," Prepared for the Lincoln Institute of Land Policy, December 14, 2007, draft.

Table 1 presents Census data on the relative importance of second homes by state. We see three states in the Northeast with residential housing stocks with the highest share of second homes in the country – Maine (15.6 percent), New Hampshire (10.3 percent) and Vermont (14.6 percent). In New Hampshire, the percentage of housing consisting of second homes is over three times the U.S. average. Unfortunately no data are available that distinguish between second homes owned by in-state and out-of-state owners. However, unless all second homes are owned by in-state residents (which is very unlikely), those states with a high proportion of second homes will appear to have higher property tax burdens than they should when property tax burden is measured in the traditional manner.

Table 1
Share of State Residential Housing
Stock Consisting of Second Homes
by State, 2000

Top Ten States

Maine	15.6%
Vermont	14.6%
New Hampshire	10.3%
Alaska	8.3%
Delaware	7.6%
Florida	6.6%
Arizona	6.5%
Wisconsin	6.1%
Montana	5.9%
Hawaii	5.6%
U.S. Average	3.1%

Source: U.S. Census, Historical Census of Housing Tables.

Property Taxation of Commercial and Industrial Property

A second problem is differences in the composition of a state's property tax base (specifically the share of a state's property tax base accounted for by commercial and industrial properties) make cross-state comparisons of per capita property taxes and property taxes per $1,000 personal income difficult to interpret. Commercial and industrial properties incur property tax liabilities included in traditional measures of property tax burdens – property taxes per capita and property taxes per $1,000 state personal income – that are not typically paid by state residents out of state personal income.

It is often argued that corporations do not pay property taxes, people do. The challenge is determining which people bear the burden of corporate taxes: consumers, employees, or stockholders. Corporations may be able to pass the cost of doing business, including property taxes paid, forward to customers in their product prices. If a company is successful in that strategy, and it only sells to customers in state, then such property taxes would be paid by residents out of the personal income of those who choose to buy the products. But to the extent such taxes are exported to out-of-state customers taxes will not be entirely paid by residents out of state personal income. Thus, the larger the share of the property tax base attributable to commercial and industrial property, the more likely it will be that commercial and industrial property taxes will be paid by non-residents thereby undermining the value of traditional measures of property tax burdens.

To the extent that a company's property taxes cannot be shifted forward to consumers through product prices, the firm may shift them backward to employees or, failing that, the firm will incur lower profits thereby impacting those who hold shares of the company. In any case, variations in the share of the property tax base due to commercial and industrial properties among states reduces the reliability of cross state comparisons of property tax burdens based on traditional measures of property taxes per capita or property taxes per $1,000 personal income.

As an example consider Massachusetts and Iowa, which in 2005 ranked 16th and 18th among the states in terms of state and local property tax collections per $1,000 of personal income. In Massachusetts 84.6 percent of property tax revenues are derived from residential property, while in Iowa only 43.5 percent of property tax revenues are derived from residential property.

If one adjusts for differences in the composition of property tax base across states by excluding all non-residential property tax revenue from the burden calculations, the relative burdens of the two states change markedly. Instead of having nearly identical property tax burdens, Massachusetts' burden is more than double Iowa's.[2]

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[2] In the traditional statistics, Massachusetts' state and local property taxes per $1,000 of personal income for FY05 are $38.59 and Iowa's are $36.20. Multiplying the Massachusetts' figure by .846 (the percentage of revenues derived from residential properties) and the Iowa figure by .435 (the percentage of revenues derived from residential properties), Massachusetts' state and local residential property tax burden per $1,000 of personal income falls to $32.65 and Iowa's burden falls to $15.75. In the first set of figures, the property tax burden in Massachusetts was seven percent higher than in Iowa; in the second set of figures the property tax burden in Massachusetts was 107 percent higher than in Iowa. Equivalent figures are not available for New Hampshire.

Unfortunately, data on the breakdown of state property tax base by land use type is not readily available for many states, including New Hampshire. For information on some states which shows the great variability in the division of the state's property tax base between residential and commercial/industrial property see the appendix.

General Critique of Traditional Measures

When calculating the burden of a tax, the traditional practice is to compare the tax liability (or taxes collected) of a particular tax to some measure of the base of that tax. For example, if one divides total individual income taxes paid by household income the result is a measure of income tax burden, relative to the base of the tax.

The traditional measures of property tax burden discussed above mix apples and oranges by comparing property taxes collected to either population or to personal income, neither of which is related to the base of the property tax – assessed value of property. We now turn to "effective tax rates," which are a more appropriate way of measuring property tax burdens in which tax liability is compared to the value of the tax base.

EFFECTIVE TAX RATES FOR SELECTED CITIES IN NEW HAMPSHIRE

A more appropriate measure of property tax burdens is known as an "effective tax rate." This measure compares property tax liabilities to the ideal tax base, which is market value of the property. The Minnesota Taxpayers Association undertakes an annual study of effective tax rates across the 50 states.[3]

The Minnesota Taxpayers Association study includes four distinct classes of property using a standard set of assumptions about their "true" market values and the split between real and personal property. The tax is calculated for a low-value and high-value parcel in the largest urban area of each state and the District of Columbia, plus the tax for a typical rural area in each state. The four hypothetical properties examined in the report are residential homesteads, commercial property, industrial property, and apartments. The tax liability, calculated as described in the appendix, is then divided by the estimated market value of each property to obtain an effective tax rate for each property.

The Minnesota Taxpayers Association's study includes Manchester as the urban area in New Hampshire. Carrying out the above calculations for the residential properties included in the report, the effective tax rate in Manchester is somewhat above the national average effective tax rate, but well below the

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[3] Minnesota Taxpayers Association, *50-State Property Tax Comparison Study, Payable Year 2006,* April 2007.

relative rankings suggested by the traditional measures of tax burden discussed above. Specifically, for urban residential property valued at $150,000 the effective tax rate is 1.483 percent (ranked 13th nationally); for the $300,000-valued property the effective tax rate is 1.483 percent (ranked 15th nationally); and for the median-valued residential property in Manchester the effective tax rate is 1.483 percent (ranked 13th nationally).

Table 2 lists the effective tax rates for Manchester, New Hampshire in 2006, and Manchester's rank among the largest cities in each state.[4] As the table below indicates, Manchester ranks from 13th to 45th in property tax burden among the largest city in each state, depending upon whether the effective tax rate being computed is for residential (homestead or apartment), commercial, or industrial property.[5]

Table 2 Effective Property Tax Rates by Land Use Class in New Hampshire					
Area	Type of Property	Value of Property	Net Tax	Effective Tax Rate	Rank
Urban	Homestead	$150,000	$2,225	1.483%	13
Urban	Homestead	$300,000	$4,450	1.483%	15
Urban	Homestead	Median Value	$4,003	1.483%	13
Urban	Commercial	$100,000	$1,483	1.236%	40
Urban	Commercial	$1 million	$14,832	1.236%	40
Urban	Commercial	$25 million	$370,807	1.236%	40
Urban	Industrial	$100,000[6]	$1,483	0.742%	45
Urban	Industrial	$1 million	$14,832	0.742%	45
Urban	Industrial	$25 million	$370,807	0.742%	45
Urban	Apartment	$600,000	$8,899	$1.413%	29
Source: Minnesota Taxpayers Association, 2007.					

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[4] For some tables, additional cities for Illinois and New York were added so that rankings total 53. We have adjusted the rankings so that each table is comparable: there are 50 states represented and the District of Columbia.

[5] The appendix includes a similar table for rural properties, Table A-2. The rural location in New Hampshire is Auburn. That table shows that New Hampshire ranks between 24th and 45th among the states in its effective property tax rates on a typical rural location. For a very useful overview of the history of the property tax in New Hampshire, with another view of tax rates see Richard W. England, "Population Growth, Local Government Budgets, and the Property Tax in New Hampshire," *State Tax Notes*, January 21, 2008.

[6] The industrial tax rates listed assume that 50% of the property is personal property. Alternative estimates are available that assume that 60% of the property is personal property. This does not materially affect Manchester's rankings.

The question naturally arises whether Manchester is representative of the state of New Hampshire. For example, can we conclude based on Manchester residential homestead data that urban residential property tax burdens in New Hampshire rank between 13th and 15th among the 50 states?

Table 3 shows effective property tax rates for a $300,000-valued residential property in the eight largest cities and towns in New Hampshire. Effective tax rates range from 1.233 percent in Salem to 2.099 percent in Derry. The weighted average of these most populated towns in the state is 1.686 percent. Using this weighted average instead of Manchester's effective tax rate alone changes New Hampshire's rank among the 50 states very slightly, from 15 to 13.

Table 3 Effective Property Tax Rates for Largest Cities & Towns in New Hampshire[7]		
City	**True Market Value**	**Effective Tax Rate**
Concord	$300,000	1.874%
Derry	$300,000	2.099%
Dover	$300,000	1.769%
Manchester	$300,000	1.616%
Merrimack	$300,000	1.702%
Nashua	$300,000	1.637%
Rochester	$300,000	1.707%
Salem	$300,000	1.233%
Source: Author calculations using data from NH Dept of Revenue, NH Office of Energy and Planning State Data Center.		

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[7] In addition to information from the Minnesota report citied above, data on property tax rates and equalization ratios were obtained from the New Hampshire Department of Revenue Administration web site.

Another question is which cities across the country have higher effective property tax rates than Manchester, New Hampshire. Table 4 shows the cities with the top 15 effective tax rates for homestead properties, using the three different measures of property tax burdens listed in Table 2. Detroit's effective tax rate for each of the three measures of homestead property is 3.334 percent; Manchester's by comparison is 1.483 percent.

	$150,000 Valued Property	$300,000 Valued Property	Median-Valued Home
	Table 4		
	Rankings of Effective Tax Rates for Homestead Properties, Largest City in Each State		
1	Michigan (Detroit)	Michigan (Detroit)	Michigan (Detroit)
2	Pennsylvania (Philadelphia)	Pennsylvania (Philadelphia)	Pennsylvania (Philadelphia)
3	Wisconsin (Milwaukee)	Wisconsin (Milwaukee)	Wisconsin (Milwaukee)
4	Texas (Houston)	Texas (Houston)	Texas (Houston)
5	Nebraska (Omaha)	New Jersey (Newark)	New Jersey (Newark)
6	North Dakota (Fargo)	Nebraska (Omaha)	Nebraska (Omaha)
7	Connecticut (Bridgeport)	North Dakota (Fargo)	North Dakota (Fargo)
8	New Jersey (Newark)	Connecticut (Bridgeport)	Connecticut (Bridgeport)
9	Maryland (Baltimore)	Maryland (Baltimore)	Maryland (Baltimore)
10	Tennessee (Memphis)	Tennessee (Memphis)	Tennessee (Memphis)
11	Iowa (Des Moines)	Iowa (Des Moines)	Iowa (Des Moines)
12	Indiana (Indianapolis)	Indiana (Indianapolis)	Illinois (Chicago)
13	**New Hampshire (Manchester)**	Florida (Jacksonville)	**New Hampshire (Manchester)**
14	Vermont (Burlington)	Illinois (Chicago)	Vermont (Burlington)
15	Missouri (Kansas City)	**New Hampshire (Manchester)**	Maine (Portland)
Source: Minnesota Taxpayers Association 2007, 17-18			

WHAT DO YOU GET FOR YOUR REAL ESTATE TAXES?

Because taxes are paid to receive government services, a natural question emerges: what do residents of New Hampshire receive in return for their property tax payments?

Property taxes are used predominantly by local governments to finance schools, police and fire protection, trash collection, street maintenance, and public recreation, among other services. For most of these services there is no way to compare quality from state to state.

However, nearly half of total property tax dollars collected in the United States is used to finance K-12 education and one can compare education quality among the states. (In New Hampshire about 2/3rds of total property tax payments are used to pay for elementary and secondary schools.[8]) Therefore, when considering what taxpayers receive for their tax payments, we will focus on K-12 education.

Although no test is perfect, the best means of comparing education quality among the 50 states is scores on the National Assessment of Educational Progress (NAEP). This test has been referred to as the "gold standard" by which to judge education attainment. Passage of the No Child Left Behind Act mandated that all states participate in the NAEP. Table 5 shows New Hampshire's scores and how New Hampshire ranks relative to other states.

Table 5 New Hampshire's National Assessment of Educational Progress Test Scores, 2007		
	Percent Scoring at or above Basic	Rank among the 50 states
4th Grade Math	91.3	2nd
4th Grade English	76.0	3rd
8th Grade Math	77.6	10th
8th Grade English	81.9	7th
Source: National Assessment of Educational Progress		

As the chart shows, New Hampshire test scores in English and Mathematics rank between 2nd and 10th among the 50 states. According to this measure, New Hampshire's property tax payments help finance a public education system that is better than at least 40 states in the nation.

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[8]Computed from figures derived from New Hampshire Department of Education web site table: "Valuations, Property Tax Assessments and Tax Rates of School Districts, 2005-2006." The computation added local education taxes and the state education property tax to obtain total taxes used to fund K-12 education. Property taxes that did not fund education were used by municipalities or counties.

CONCLUSION

This paper takes a new look at property tax burdens in New Hampshire. It argues that conventional measures of New Hampshire's property tax burden overstate its magnitude. When property taxes are compared to property values, at least a dozen states have property tax burdens higher than New Hampshire. Although New Hampshire's property tax burden is above average compared to the rest of the U.S. by some measures, the quality of the educational system funded by these taxes is well above average.

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Composition of State Property Tax Bases

We went to state websites to determine what data were available on the composition of a state's property tax base, specifically the breakdown of the total property tax base by major land uses—residential, commercial, and industrial. The degree of detail supplied varied substantially across individual states. Data in Table A-1 illustrate the degree of detail available and the variation in the residential share of state property tax base across eleven states. The residential share of the state property tax base varies from nearly 85 percent in Massachusetts to just 43 percent in Mississippi. The commercial and industrial share of property tax base in these sample states ranged from 31 percent to 13 percent. Five of the eleven states did not provide sufficient detail to easily determine the share of the state's property tax base attributable to commercial and industrial properties. Data on the breakdown of state property tax base by land use type was not readily available on state websites for Maine, New Hampshire and Vermont.

Table A-1		
Composition of Property Tax Base by Land Use Type		
(Selected States)		
State	**Residential Share of State Property Tax Base (%)**	**Commercial/Industrial Share of State Property Tax Base (%)**
Florida	80.6	15.9
Georgia	52.2	30.7
Indiana	62.2	31.3
Iowa	43.5	29.6
Kansas	45.1	20.5
Kentucky	67.2	NA
Mississippi	42.5	NA
Maine	NA	NA
Massachusetts	84.6	13.2
New Hampshire	NA	NA
Vermont	NA	NA
Source: Individual state websites.		

Methodology of Minnesota Taxpayers' Association study

The researchers assume that the property tax calculation has five distinct components:

1. a "true" market value (TMV);
2. a local sales ratio (SR);
3. a statutory classification system or other provisions that effectively determine the proportion of the assessor's estimated market value that is taxable (CR);
4. the total local property tax rate (TR); and
5. applicable property tax credits (C).

Accordingly, the net property tax liability for an individual property is calculated as:

$$\text{Net Property Tax} = (\text{TMV} \times \text{SR} \times \text{CR} \times \text{TR}) - \text{C}$$

The property tax is calculated in this manner for residential properties in each city at particular market values (e.g., $150,000). The tax liability, calculated as described above, is then divided by the estimated market value of each property to obtain an effective tax rate for each property.

Table A-2 Effective Property Tax Rates by Land Use Class in New Hampshire					
Area	**Type of Property**	**Value of Property**	**Net Tax**	**Effective Tax Rate**	**Rank**
Rural	Homestead	$150,000	$1,900	1.267%	24
Rural	Homestead	$300,000	$3,801	1.267%	24
Rural	Commercial	$100,000	$1,267	1.056%	37
Rural	Commercial	$1 million	$12,668	1.056%	38
Rural	Commercial	$25 million	$316,712	1.056%	38
Rural	Industrial	$100,000[9]	$1,267	0.633%	45
Rural	Industrial	$1 million	$12,668	0.633%	45
Rural	Industrial	$25 million	$316,712	0.633%	45
Rural	Apartment	$600,000	$7,601	$1.207%	29
Source: Minnesota Taxpayers Association, 2007.					

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[9] The industrial tax rates listed assume that 50% of the property is personal property. Alternative estimates are available that assume that 60% of the property is personal property. This does not materially affect Manchester's rankings.