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The Great Tax Divide:
New Hampshire's Retail Oasis vs. Maine's Retail Desert

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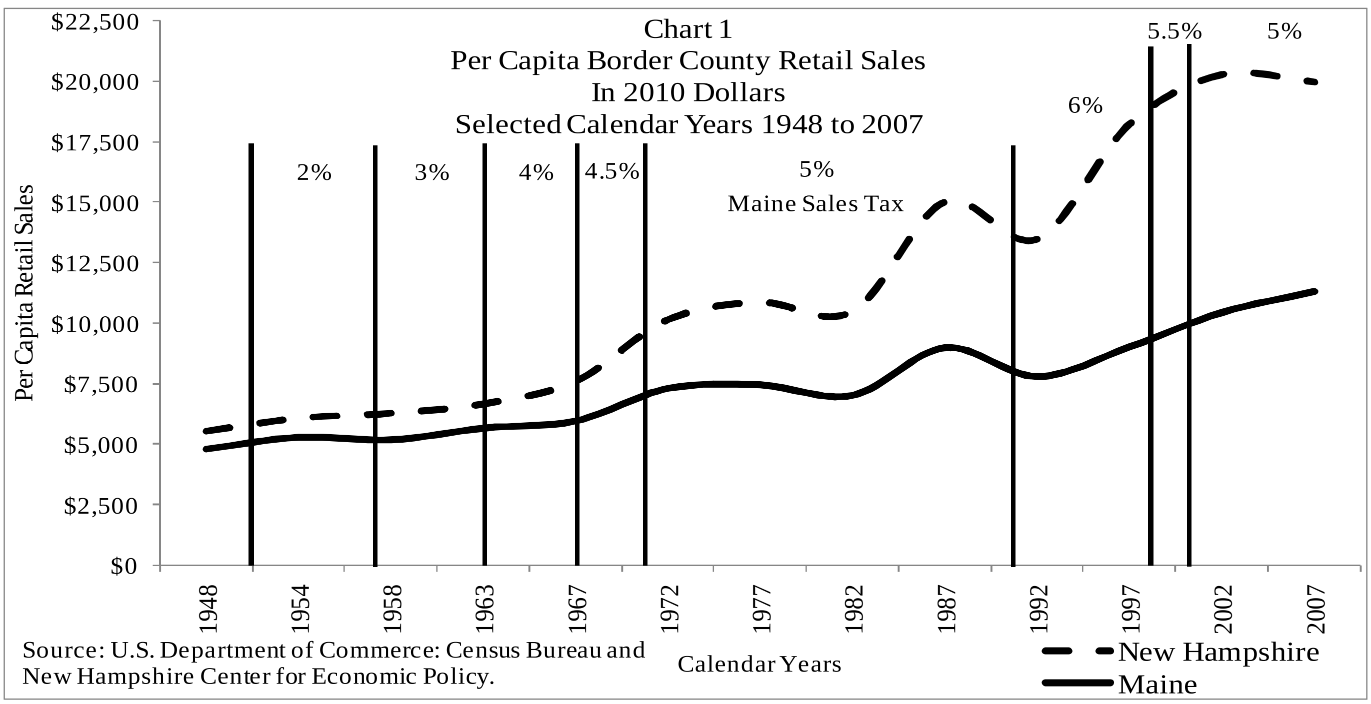
New Hampshire earns the reputation as a business-friendly state, and one reason is that retailers have an advantage over competitors who are forced to collect sales taxes in Maine (5 percent), Vermont (6 percent), and Massachusetts (6.25 percent). To simplify the comparison, this study will focus on Maine, and some policies that are in stark contrast with New Hampshire's.

First of all, the states are polar opposites when it comes to tax policy. Maine has one of the nation's highest total tax burdens, at 12.6 percent of personal income (6th highest) while New Hampshire has one of the lowest, at 8.7 percent (49th highest). These 3.9 percentage points represent one of, if not the, largest tax differentials between any two states in the country.

The proximity of Maine's larger counties with key retail centers in New Hampshire create opportunities for Mainers to escape their higher taxes. The most obvious way is cross-border shopping, which occurs up and down the New Hampshire-Maine border.[1] This study adds to this research by utilizing retail data from the U.S. Census Bureau over the last 60 years.[2]

Mainers "vote with their feet" via cross-border shopping in response to their high sales tax, cigarette tax, gasoline tax, bottle tax and alcohol taxes (beer, wine and liquor). Additionally, retailing in New Hampshire was given a significant boost in the early 1990's when the tax code was reformed by instituting the Business Enterprise Tax in place of other job-killing taxes.

Chart 1 shows that per-capita retail sales in the adjacent border counties of New Hampshire and Maine have been diverging ever since Maine adopted the sales tax in 1951. By 2007, the retail gap was $8,660 per person ($19,976 versus $11,316). If Maine had the same level of retail activity as New Hampshire, retail sales would have been up to $2.2 billion higher - to $5.1 billion from $2.9 billion. This would have created thousands of jobs… but instead, those dollars and jobs flow to New Hampshire.[3]



Source: U.S. Department of Commerce: Census Bureau and New Hampshire Center for Economic Policy.

What is *The Great Tax Divide?*

Over the last several decades, New Hampshire and Maine have developed different philosophies about the levels of state-provided services their citizens are willing to finance, and these respective funding needs are clear in the states' tax policies. Maine people pay higher taxes. In addition to the high state income tax (8.5 percent for average and above incomes), Maine has high taxes on retail sales, tobacco, gasoline, a bottle deposit/tax, and alcohol taxes on beer, wine and liquor. These high taxes create incentives for Maine shoppers to cross the border to New Hampshire and save money.

This Cross-Border Shopping is a textbook case of public policy having a direct (but unintended) influence on citizens' behavior, as they take a trip to save real cash.

The Sales Tax:

Chart 2 shows New Hampshire's and Maine's sales tax rate over the FY 1948 to present time period examined in this study. Maine's sales tax was first enacted in 1951 at 2 percent. Over the next 20 years, the sales tax rate steadily rose until hitting 5 percent in 1970 - or 2.5 times higher the original 2 percent tax rate.

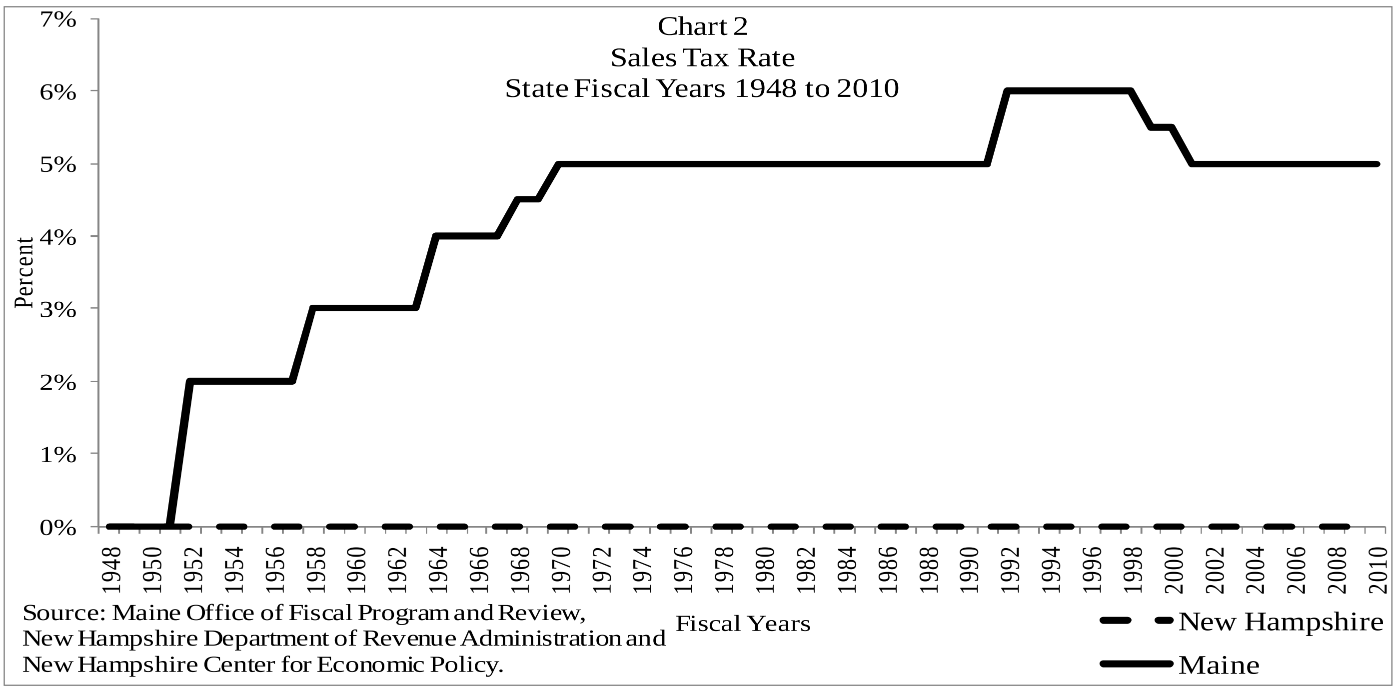
For most of the next 40 years, the sales tax rate has stood at 5 percent except for one episode during the 1990's. The 1991 recession had caused a steep drop-off in state tax revenue and, in response, a temporary increase of 1 percentage point in the sales tax was enacted. The tax increase was to be automatically reversed if certain revenue conditions were met. Those conditions were met in the late 1990's and early 2000's resulting in a return to the 5 percent tax rate, where it has stayed to this day.

In stark contrast, New Hampshire does not levy a broad-based sales tax which creates a significant incentive for Mainers to shop in New Hampshire. Calculating the built-in advantage for New Hampshire businesses is simple because it equals Maine's sales tax rate. The sales tax savings that Mainers would enjoy by cross-border shopping equals the amount to be spent multiplied by 5 percent - for example, every $100 spent yields $5 in sales tax savings.

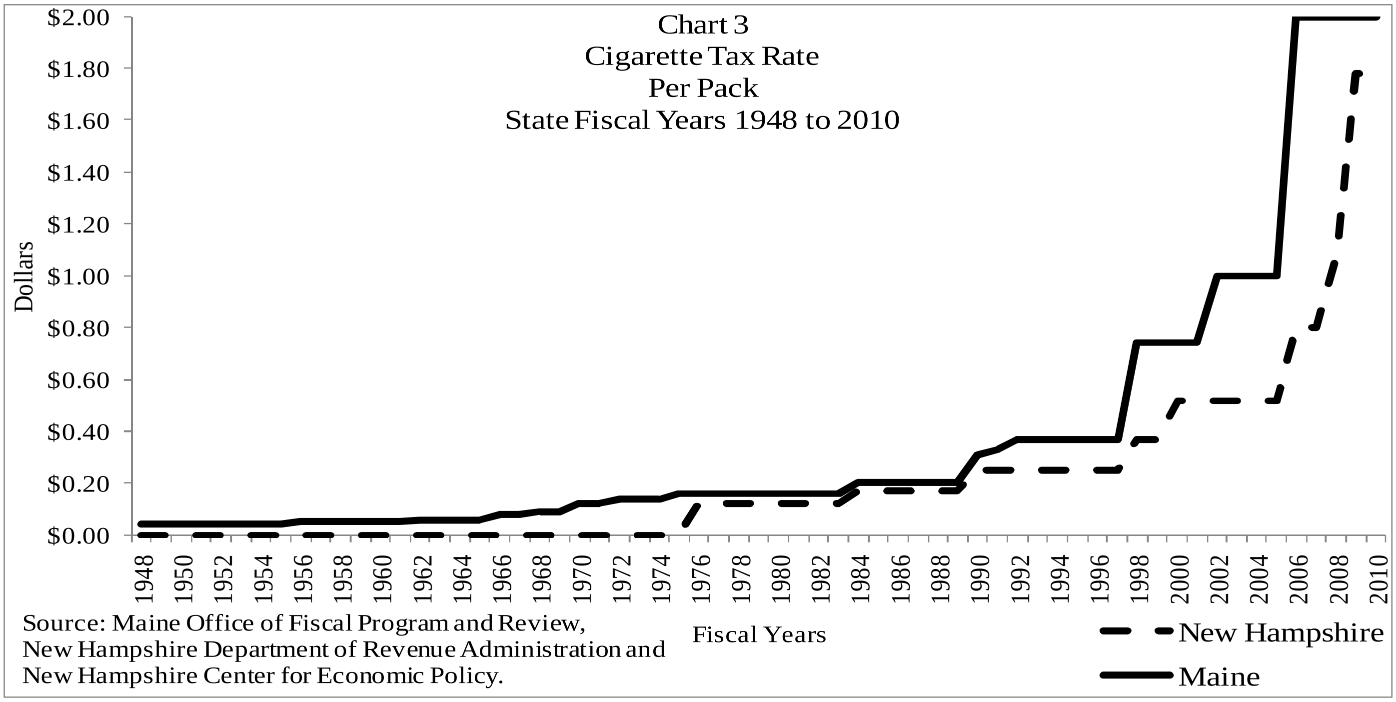
The Cigarette Tax:

Chart 3 shows New Hampshire's and Maine's cigarette tax rate over the FY 1948 to present time period examined in this study. Maine's cigarette tax was adopted in 1941 at 2 cents per pack. Over the next 50 years, Maine's cigarette tax had grown to 33 cents per pack in 1991. However, over the next 20 years, Maine's cigarette tax had soared to $2 per pack where it stands today.

New Hampshire's cigarette tax, however, has taken a very different trajectory since it was adopted in 1939. Up until FY 1975, New Hampshire's cigarette tax was based as a percentage of the selling price ranging from 15 percent to 42 percent, yielding an



Source: Maine Office of Fiscal Program and Review, New Hampshire Department of Revenue Administration and New Hampshire Center for Economic Policy.



equivalent tax rate similar to Maine's.[4] In FY 1976 New Hampshire moved to a flat 12 cents per pack and slowly increased this to 37 cents per pack by FY 1998. However, starting in FY 2000, New Hampshire's cigarette tax rate has swiftly moved upwards reaching $1.78 - where it stands today.

While both Maine's and New Hampshire's cigarette taxes have followed the same trajectory, New Hampshire has lagged Maine's ascent. As a result, a significant cigarette tax gap was created, especially after FY 1990. In addition to the cigarette tax, Maine also levies the sales tax on the purchase price of cigarettes. Since the price of cigarettes includes the cigarette tax, the sales tax results in a double tax - where the consumer is paying a tax on a tax. The end result is that the sales tax still significantly increases this tax gap.

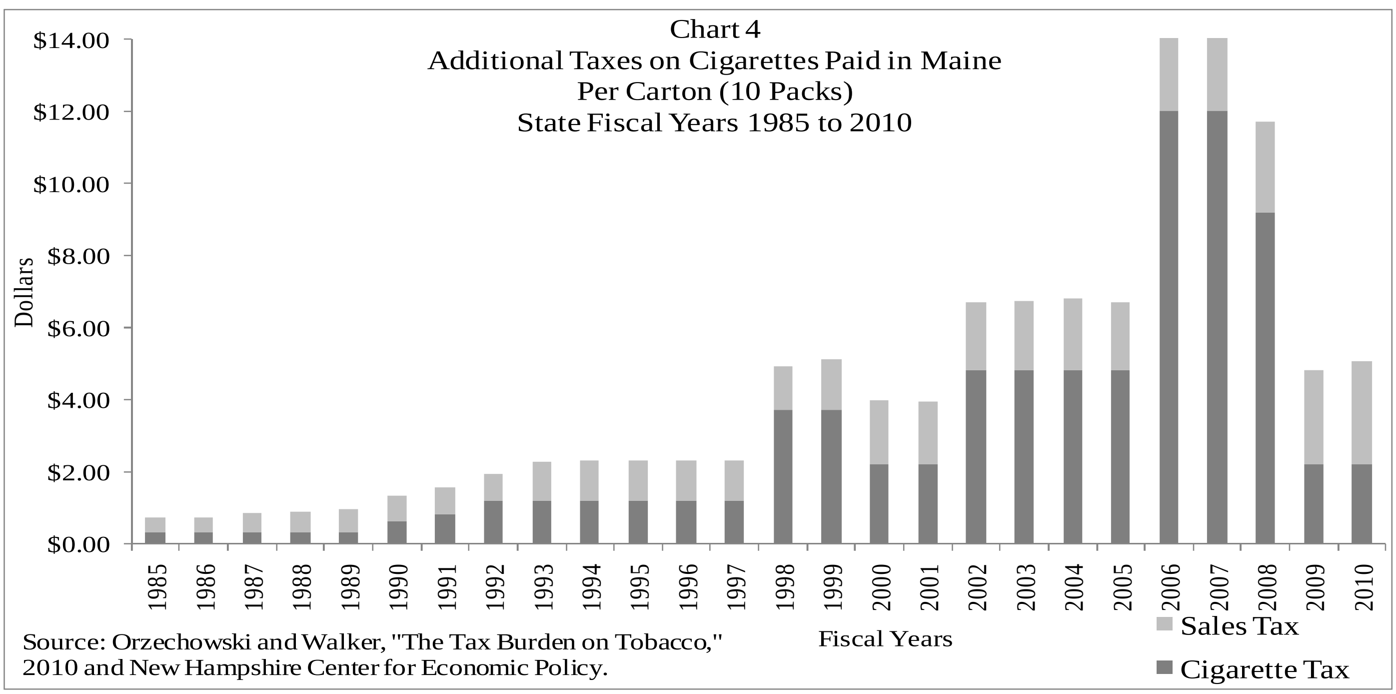


Chart 4 shows the cigarette tax gap in terms of the tax savings generated between a carton of cigarettes (10 packs) in New Hampshire and Maine. Prior to FY 1990, the tax savings were relatively modest averaging 83 cents per carton between FY 1985 and FY 1989. Between FY 1990 and FY 2000, the average tax gap had jumped to $2.77 per carton, and between FY 2000 and FY 2005 jumped again to an average of $6.17 per carton. When Maine's cigarette tax went to $2 per pack in FY 2006, the tax gap soared to $14.35 per carton, which created a powerful incentive for Mainers to buy their cigarettes in New Hampshire.

With the recent increase in New Hampshire's cigarette tax to $1.78 per pack, the tax gap has fallen to $5.09 per carton in FY 2010 which, while lower than it has been since FY 2001, is still a significant incentive to shop in New Hampshire. Interestingly, in FY 2010, the sales tax paid on carton of cigarettes ($2.89) is now a greater portion of the tax gap than the cigarette tax itself ($2.20).[5]

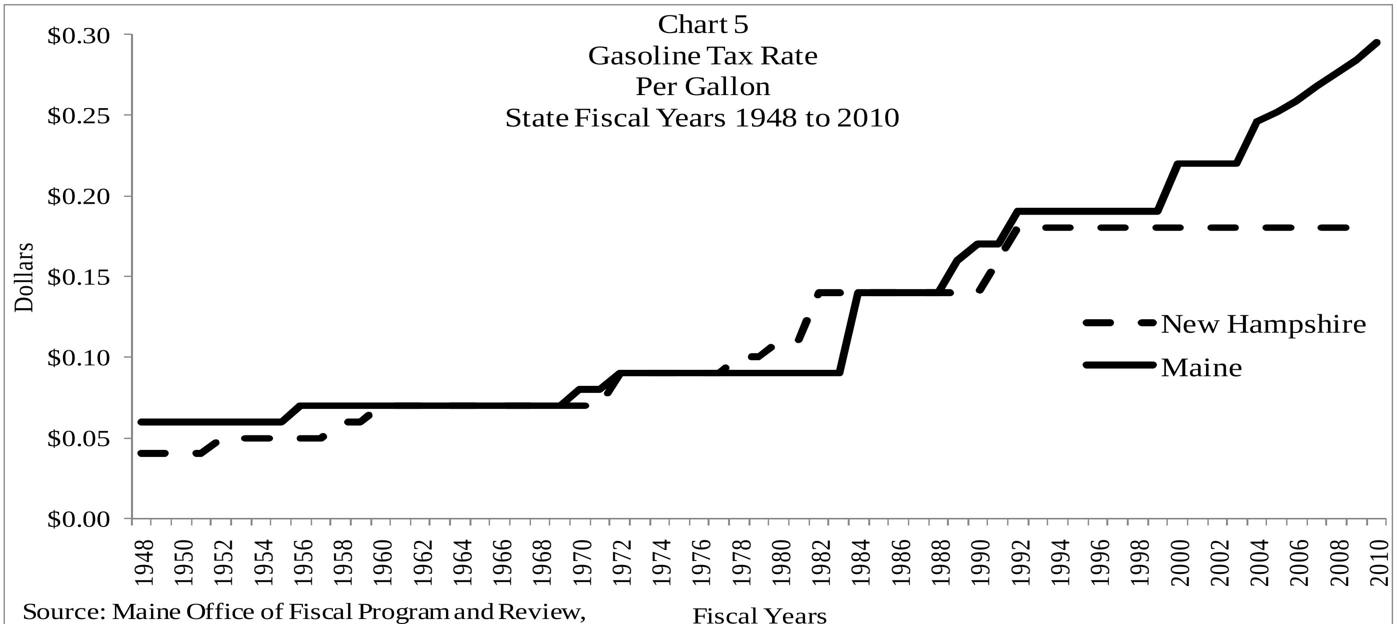
Yet, the tax gap could grow once again because New Hampshire is currently considering reducing their cigarette tax by 10 cents to $1.68 per pack.[6] All else being equal, this would increase the total tax gap to $6.24. In support of the cigarette rate decrease, a recent study William D. Keip, Dr. Gregory Randolph and Dr. Michael Tasto (Southern New Hampshire University) found that the 10 cent decrease in the cigarette tax could result in a net $12.8 million increase in state revenue when taking into account all the interactions with the economy and other taxes.[7]

The Gasoline Tax:

Chart 5 shows New Hampshire's and Maine's gasoline tax over the FY 1948 to present time-period examined in this study. Maine's gasoline tax was adopted in 1923 at a rate of 1 cent per gallon. By FY 2003, the gasoline tax had risen to 22 cents per gallon. However, in FY 2004, Maine's gasoline tax was indexed to the increase in the rate of inflation.[8] As a consequence, the gasoline tax rate has rapidly risen to 29.5 cents per gallon by FY 2010.

New Hampshire's gasoline tax, technically called the gasoline road toll, was also first enacted in 1923 at a rate of 1 cent per gallon. New Hampshire's gasoline tax topped out in FY 1992 at 18 cents per gallon, where it stands today.

Prior to FY 2000, the gasoline tax in New Hampshire and Maine were virtually even. In FY 2000, Maine increased the gasoline tax to 22 cents and then indexed it to inflation in FY 2004 which has significantly increased the gasoline tax gap with New Hampshire. By FY 2010, Maine's gasoline tax rate became 64 percent higher than New Hampshire's (29.5 cents versus 18 cents). Not only is this tax gap currently providing an incentive to buy gas in New Hampshire, but the incentive automatically grows every year with the rate of inflation.



Source: Maine Office of Fiscal Program and Review, New Hampshire Department of Revenue Administration and New Hampshire Center for Economic Policy.

The Bottle Tax:

Maine enacted its bottle tax in 1976. Today the bottle tax levies a 15 cent "deposit" on wine and liquor and a 5 cent "deposit" on all other types of beverages made of glass, metal or plastic. In theory, this is not a tax because the charge can be refunded upon return of the empty bottle to a retail store or redemption center. However, if the bottle is not returned then the deposit goes to the state transforming the deposit into a tax.

Or course, there are many other costs associated with the bottle tax other than just the deposit/tax. Retail stores are forced to run a mandated collection program involving the acceptance and storage of used containers and consumers also have to take time to store and return used containers. These are all costs to the overall economy that are hard to quantify, but real nonetheless.

New Hampshire does not have a bottle tax, so retail stores nor consumers face the direct (deposit/tax) or indirect (time and effort) costs of the bottle tax.

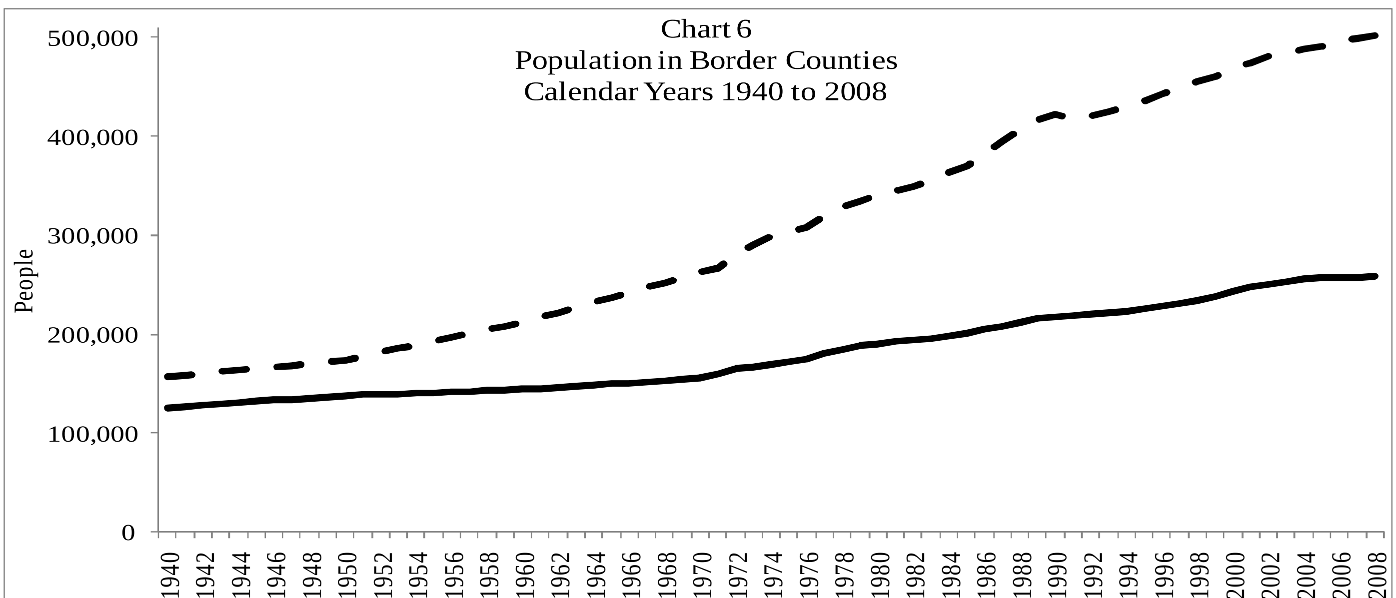
Alcohol Taxes:

Both Maine and New Hampshire are control states, which means the state has a monopoly on the wholesaling and retailing of alcoholic beverages such as wine and distilled spirits. As a result, determining the extent of taxation is difficult due to the non-transparency of the tax which consists of a mix of excise taxes and price mark-ups that are embedded in the price of the alcoholic beverage.

Anecdotally, however, it is well-known that purchasing alcoholic beverages in New Hampshire is significantly cheaper than in Maine, especially spirits and liqueurs that are only sold in New Hampshire at state-run liquor stores. The state even purchases advertising in Maine to promote the low prices in its state-run liquor stores. Future research will more deeply explore the price differentials in alcoholic beverages to better gauge the tax gap between New Hampshire and Maine.

New Hampshire's Business Enterprise Tax:

In 1993, New Hampshire adopted a pioneering new tax called the Business Enterprise Tax (BET). The BET is effectively a type of value-added tax that comprehensively taxes consumption at the business level - as opposed to a retail sales tax which attempts to accomplish the same goal, rather inefficiently, at the point of sale.[9] The BET's tax base includes all wages and salaries, interest and dividends paid by the business and had an original tax rate of only 0.25 percent. Additionally, the BET is applied as a credit against the Business Profit Tax to avoid double-taxation.



Source: U.S. Department of Commerce: Census Bureau and Bureau of Economic Analysis and New Hampshire Center for Economic Policy.

While the BET itself was a major improvement in New Hampshire's tax code, the BET also reduced and eliminated other less economically efficient taxes on a revenue-neutral basis (meaning no net gain or loss of revenue to state coffers). More specifically, the BET's revenue was used to accomplish two goals:

- Reduce the Business Profit Tax (New Hampshire's equivalent to a corporate income tax) from 8 percent to 7 percent; and,
- Eliminate corporate and partnership franchise fees and the bank tax.

While the BET represented major progress toward fundamental tax reform, some of its accomplishments have since been undone. First, the BET rate itself has risen to 0.75 percent and, at the same time, the Business Profit Tax rate has risen to 8.5 percent which is higher than it was before the reform effort. The higher tax rates have unfortunately eroded the benefits of the 1993 tax reform effort.

Differences in Economic Performance along the Border

The full economic impact of "The Great Tax Divide" manifests itself in many different metrics. This section will explore two common metrics of economic performance:

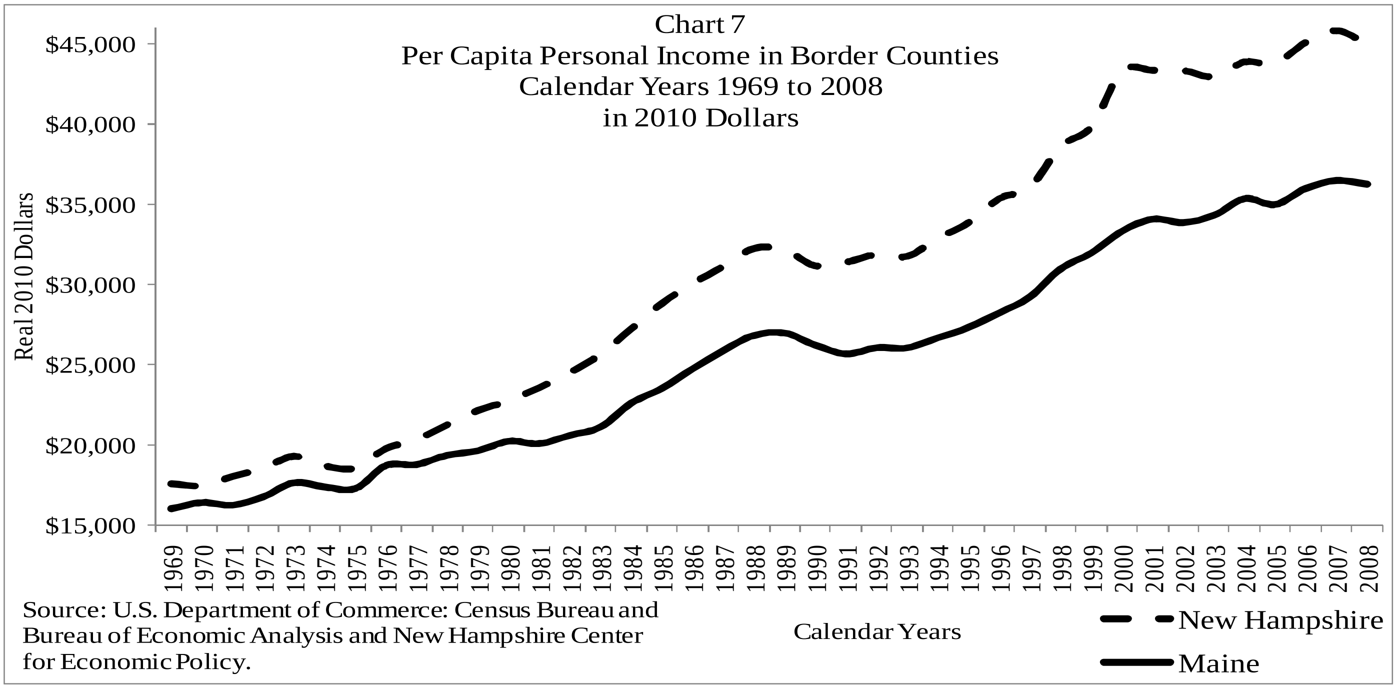
Population:

Chart 6 shows the total population of the border counties in New Hampshire and Maine between 1940 and 2008.[10] New Hampshire's border counties have always been more populous than Maine's with a population in 1940 of 156,558 people versus 125,212. To put it another way, Maine's border counties had 80 percent of the population as New Hampshire's border counties.

However, in the nearly 70 years since, population growth on the New Hampshire side of the border has significantly out-paced the population growth on the Maine side. In 2008, the population on the New Hampshire side was 501,270 (an increase of 220 percent) while on the Maine side was 258,480 (an increase of 106 percent). As such, Maine's border counties now have only 52 percent of the population as New Hampshire's border counties.

Personal Income:

Chart 7 shows the per-capita personal income of the border counties in New Hampshire and Maine between 1969 (the earliest date of available data) and 2008 (the latest date of available data) adjusted for inflation (2010 dollars). Per capita personal income in Maine's border counties have always lagged those in New Hampshire, though the gap was relatively small in the early 1970's with Maine at 92 percent of New Hampshire's level ($16,034 and $17,519, respectively).



Since then, however, the income gap has widened considerably. By 2008, per-capita personal income in Maine's border counties stood at a much lower 81 percent relative to New Hampshire ($36,211 and $44,964, respectively). It is of interest to note that Maine's income tax (individual and corporate) was adopted in 1969 and, while not emphasized in this study, has also been a major contributor to "The Great Tax Divide."

Cross-Border Shopping and Retail Sales

Because of Maine's significant reliance on sales and excise taxes for state revenue, the price of goods and services in Maine is higher relative to New Hampshire. As with any price difference, consumers will find ways to arbitrage the difference, which has been well-documented in both economic theory and evidence. Dr. Arthur Woolf, in his study of cross-border shopping between Vermont and New Hampshire, puts it succinctly:

> *"Higher retail prices caused by higher tales tax rates will give consumers an incentive to purchase goods in a political jurisdiction with the lower prices, assuming consumers can make that change at a relatively low cost in terms of time and convenience. As consumer behavior changes in response to price signals, business location decisions will follow. This simple theory predicts that businesses (especially retail establishments) would, over time, migrate into lower cost political jurisdictions if consumers increasingly purchase goods in the lower cost area. Business owners, facing the loss of customers, could either go out of business or move their businesses to the lower-cost (that is, sales-tax-free) area."* [11]

For Mainers, that meant traveling over the border to shop in New Hampshire. And retailers soon followed. [12] [13]

To comprehensively gauge the impact of cross-border shopping, this study draws on the Census of Retail Trade which is published every five years by the U.S. Department of Commerce's Census Bureau. Since Maine's sales tax was first adopted in 1951, all Census's available since 1948 were used (see Methodology section for more details).

Chart 1 shows the per capita retail sales in the adjacent bordering counties in New Hampshire (Coos, Carroll, Strafford and Rockingham) and Maine (Oxford and York) for the census years from 1948 to 2007. Over the entire time period, New Hampshire has had higher per-capita retail sales. The gap between the two states was relatively modest, even as the Maine sales tax was adopted in 1951 and continuing through two subsequent increases in the tax rate to 3 percent in FY 1958 and 4 percent in FY 1964.

However, the retail gap began to widen after FY 1968, when the sales tax rate was increased to 4.5 percent and shortly thereafter, in FY 1970, to 5 percent. These tax rate increases likely represent the point where the transaction costs of traveling to New Hampshire dropped below the tax savings of shopping in New Hampshire.

The retail gap jumped again when Maine raised the sales to 6 percent in FY 1992 in response to the 1991 recession. Although other factors discussed previously may have also played a role - the tax differential in the cigarette tax began to widen in the early 1990's and New Hampshire also adopted the Business Enterprise Tax.

The 2000's saw the retail gap begin to shrink primarily in response to the sales tax rate reduction to 5.5 percent in FY 1999 and then back to 5 percent in FY 2001. The retail gap hit its high watermark in 2002 at $9,832 with Maine's level of per-capita retail sales at only 52 percent of New Hampshire's ($10,447 and $$20,279, respectively). The shrinkage of the retail gap since then has reduced the gap to $8,660 with Maine's level at 57 percent of New Hampshire's ($11,316 and $19,976, respectively).

Despite the recent rebound in 2007, this analysis shows that for every $1 spent per person in New Hampshire, only 57 cents is spent in Maine. This difference is significant. In fact, if Maine had the same level of retail activity as New Hampshire, retail sales would have been up to $2.2 billion higher - to $5.1 billion from $2.9 billion - and created thousands of additional jobs.

Conclusion: Maintaining New Hampshire's Retail Competiveness

New Hampshire's border counties benefit tremendously from cross-border shopping, as detailed in this study of the comparisons with Maine. Similar advantages at the Vermont and Massachusetts borders are also evident, but not detailed here. However, New Hampshire's advantage has eroded in recent years. Some of that erosion is self-inflicted, such as raising the cigarette tax to $1.78 per pack and increasing the corporate tax rate to its current nose-bleed level of 8.5 percent. Some of the erosion is due to Maine's actions, such as the triggered decrease in Maine's sales tax to 5 percent from 6 percent. And some of the erosion is beyond either state's actions, such as the rise in gasoline prices.[14]

Most immediately, New Hampshire's policymakers should reduce the cigarette tax to restore a larger separation from Maine's—as well as Vermont's and Massachusetts'—cigarette taxes. Longer term, the tax reform effort started by the adoption of the

BET should be continued in order to improve the overall economic efficiency of the tax code. A stronger economy results in greater retail options for both New Hampshire residents and cross-border shoppers. Future studies will explore more specific actions items for further tax reform.

Finally, be sure to visit our website, www.nheconomics.org, to view our interactive map showing the location of every big-box store (Walmart, Home Depot and Lowes) along the Maine-New Hampshire border. You will discover that there is a 40-plus mile "retail desert" on the Maine side of the border, with the sole exception of Sanford, Maine (with a Walmart and Lowes).[15]

Methodology

This study draws on the Census of Retail Trade (CRT) which is published every five years by the U.S. Department of Commerce's Census Bureau. The data was collected for every available CRT between 1948 and 2007. However, the data cannot be used "as-is" because of the shift in industrial classifications between the 1992 and 1997 CRT moving from the Standard Industrial Classification (SIC) to the North American Industrial Classification System (NAICS). This necessitated several changes to ensure consistency of the data over time:

First, for years up to and including 1992, retail sales are net of Miscellaneous Store Retailers. After 1992, NAICS breaks down Miscellaneous Store Retailers. As such, retail sales are net of Miscellaneous Store Retailers, Sporting Goods, Hobby and Musical Instruments and Nonstore Retailers.

Second, for years up to and including 1992, liquor stores had to be added back into the Food Stores sector in order to conform to the new NAICS classifications.

Third, the pre-NAICS industry "Furniture and Home Furnishings Stores" was broken down into "Furniture and Home Furnishings Stores" and "Electronics and Appliance Stores" under NAICS. As such, the two NAICS classification were added together to maintain continuity with SIC.

Notes and Sources:

[1] Dwight, J and Moody, J. Scott, "The Silent Tax Revolt: Mainers Cross-Border Shopping in New Hampshire II," The Maine Heritage Policy Center, Maine Issue Brief, No. 30, March 18, 2008. http://www.mainepolicy.org/wp-content/uploads/The-Silent-Tax-Revolt-Mainers-Cross-Border-Shopping-New-Hampshire-2.pdf

[2] This study owes many thanks to the pioneering efforts of Dr. Arthur Woolf, Associate Professor at the University of Vermont, who first developed the methodology to calculate the difference in retail activity. His study examined the divergence of retail activity in the adjacent border counties in Vermont and New Hampshire. His findings are very similar to those in this study. For more information, see: Woolf, Arthur, "The Unintended Consequences of Public Policy Choices: The Connecticut River Valley Economy as a Case Study," Northern Economic Consulting, Inc., November 2010. http://www.vermonttiger.com/files/unintended-consequences-2-1.pdf

[3] Since some of New Hampshire's higher retail sales are driven by their higher per capita income and cross-border shoppers from other states, the elimination of all cross-border shoppers from Maine would not fully equalize retail sales between the them. As such, the $2.2 billion estimated increase in Maine's retail represents the maximum increase in retail sales if all taxes were equalized to New Hampshire.

[4] Orzechowski and Walker, "The Tax Burden on Tobacco," Historic Compilation, Volume 45, 2010.

[5] Ibid.

[6] Fahey, Tom, "Cigarette Tax Cut Finds Approval, Dissension," The Union Leader, March 18, 2011. http://www.theunionleader.com/article.aspx?headline=Cigarette+tax+cut+finds+approval%2C+dissension&articleId=47ba78b2-080b-47ec-8548-2b634d046a78

[7] Keip, William D., Randolph, Gregory and Tasto, Michael, "An Analysis of the Impact of a Reduction and an Increase in the New Hampshire Cigarette Excise Tax for the: New Hampshire Grocers Association," Southern New Hampshire University, February 8, 2011. http://www.grocers.org/images/Cigarette_Excise_Tax.pdf Supporting documents can be found here: http://www.grocers.org/images/Supporting_Documentation.pdf

[8] Maine's gasoline tax rate only moves with positive changes in the Consumer Price Index (CPI). Should the index fall, the gasoline tax rate stays the same. Also, it is an economically dubious practice to index the tax of gasoline which itself is a

component of the CPI. And since the price of gasoline is inclusive of the tax, increasing the tax also increases the inflation rate, albeit in a miniscule way. So if the CPI goes up, Maine's gasoline tax goes up, which drives up the CPI . . . and so on.

[9] For more details on New Hampshire's Business Enterprise Tax, see: Ardinger, William F.J. and Arnold, Stan, "Top Ten Reasons Why New Hampshire's BET May Provide an Answer to State Tax Reform," State Tax Notes, November 29, 2004. http://www.taxadmin.org/fta/meet/05am_pres/arnold.pdf and Kenyon, Daphne A., "A New State VAT? Lessons from New Hampshire," National Tax Journal, Vol. 49, No. 3, September 1996, pages 381-399. http://ntj.tax.org/wwtax%5Cntjrec.nsf/9F92ED1C546F6A3285256863004B1F4C/$FILE/v49n3381.pdf

[10] Population data between 1940 and 1970 were taken from the respective decennial census with interpolations for the intervening years between the census. Population data post-1970 is from the Bureau of Economic Analysis (BEA). BEA has not yet incorporated the population results from the 2010 decennial census. As a result, the data series ends in 2008 and is still subject to revision. The revisions will likely show a slightly slower population growth in New Hampshire's border counties between 2000 and 2010 and a slightly higher population growth in Maine's border counties.

[11] See Note 2 (page 14) for a full account of the economic theory and evidence for cross-border shopping.

[12] Maine state law stipulates that any out-of-state purchase to be brought back to the state is subject to the "use" tax which is the same rate as the general sales tax. However, the use tax raises very little revenue due to noncompliance. As a result, Maine's income tax form now includes a line for taxpayers to estimate their use tax—see line 31 in the 2010 income tax form. The effect on compliance has been minimal.

[13] Certainly sales tax free internet sales are also booming; however, there is no good data on the total number of transactions conducted over the internet.

[14] The gasoline tax is a fixed amount, so when gasoline prices rise the gasoline tax falls a percentage of the price of gasoline. This diminished importance of the gasoline tax itself also diminishes the tax gap between Maine and New Hampshire.

[15] Sanford bucks the trend for a couple of reasons. First, it is the geographic cross-roads for York county and has seen a population boom as the coastal regions reach saturation. Second, the retail corridor along the border in southern New Hampshire is, or close to, complete build-out putting real estate prices at a premium. Finally, there are no big-box stores along I-95 until Biddeford (40-plus miles from the border) suggesting that as long as travel time is reasonable, Mainers still prefer to shop in New Hampshire—Sanford benefits from not being directly off of the interstate.

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