New Hampshire Transportation Funding Plan

An Empirical Analysis of Potential Revenue Sources

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EXECUTIVE SUMMARY

Over the next ten years, New Hampshire faces a \$1.74 billion deficit in its plan to build and repair state highways and bridges according to the New Hampshire Department of Transportation. In order to avoid delays in construction and potentially hazardous transportation infrastructure conditions, New Hampshire must improve its returns on existing revenue sources or seek out additional sources. A properly maintained transportation system is critical to the safety and prosperity of New Hampshire's residents.

This paper analyzes in detail nine potential revenue sources that New Hampshire could draw upon to pay for the \$1.74 billion deficit. Among our major findings:

- Gasoline Tax New Hampshire could fully fund all transportation projects until 2018 from a 17 cent increase in the gas excise tax. A nine cent increase, placing New Hampshire at the national gas tax average, would generate \$923 million in revenue from 2008-2018.
- Motor Vehicle Taxes Increasing the motor vehicle fees above their current 3.3% per annum increase would not generate enough revenue to be able to cover the deficit; however, it could be one component of a revenue increase.
- Interest and Dividend Tax Increasing the interest and dividend tax by one percent would generate an additional \$283 million dollars in revenue from 2008-2018. Decreasing the interest and dividend taxable levels to \$1200 and \$2400 for individuals and joint filers respectively, would generate an additional \$154 million in revenue over the ten year time period.
- Sales Tax Adopting a one percent broad-based sales tax would generate an additional \$218 million dollars in *annual* revenue for New Hampshire, which is more than sufficient to fund transportation projects until 2018.
- Cigarette Tax New Hampshire would generate an additional \$1.6 million dollars *per year* for every one cent increase in the cigarette tax.
- Alcohol Tax A five-cent increase in the excise tax on beer would only generate an additional \$16.8 million in revenue for the state, an insufficient amount of funding given the magnitude of the highway funding deficit. New Hampshire would have to substantially increase its excise tax and implement a sales tax in order for the beer tax to generate sufficient funding.
- Gambling Taxes The addition of a proposed "racetrack casino" at Rockingham Park in Salem, NH, would, even by conservative estimates, generate over \$1 billion in revenue for the state over 10 years.
- Privatization Privatizing state services would not increase revenue or lower costs enough to make it a viable revenue source.
- Leasing State-Owned Land New Hampshire does not have enough value in its surplus state land to make leasing state-owned land a significant revenue source.

At this time, it is uncertain how much the state should rely upon a particular revenue source or combination of sources to cover the transportation deficit. In order to determine the most politically viable combination of sources, the Rockefeller Center surveyed New Hampshire residents regarding their attitudes toward each policy option or combination of options. Once these data are analyzed, a more precise conclusion might be drawn regarding which revenue sources New Hampshire might consider pursuing.

1. BACKGROUND ON NEW HAMPSHIRE HIGHWAYS AND BRIDGES

1.1 Summary of Problem

New Hampshire faces a large deficit in transportation funding over the next decade. The New Hampshire Department of Transportation projects a shortfall of over \$1.74 billion by 2018 in highway funding.¹ This is a sum of both the operational and capital expenditures budgets in the coming decade. The major costs are the maintenance of the state's highways and bridges and major capital repairs to numerous bridges that have serious structural problems.

In order to pay for this deficit, the state must identify and implement new revenue sources. Our research has led us to investigate numerous possible revenue streams for the state to explore. While we are fully aware that New Hampshire residents are very averse to taxes, this is a pressing issue of both economics and public safety that the state cannot ignore.

1.2 Why Is The Problem Important?

As the collapse of the I-35W Bridge in Minnesota last year vividly showed, many of America's bridges are falling apart. This state of disrepair has caused a significant risk of collapse in many of these bridges.

New Hampshire has numerous bridges that are in significant structural disrepair and urgently need to be improved.² Likewise, there are many more bridges that require work to ensure that they do not slip into structural danger. This is a fundamental issue of public safety necessary to ensure that New Hampshire never has to endure a tragedy like the Minnesota bridge collapse.

Additionally, many of New Hampshire's highways are in need of significant overhaul and repair.³ Besides the danger damaged highways pose to the public, they are also the lifeblood of economic activity in the state. By allowing for the rapid transportation of goods and people around the state and into the state, the highway system is critical to the continued economic growth of New Hampshire. A safe highway system is integral to this growth and prosperity.

The present course of transportation budgetary shortfalls will leave New Hampshire in dire straits in the next decade. If action is not taken now to increase monies available to the Department of Transportation for critical infrastructure maintenance, the future costs to the state will be even higher, as bridges and highways will be in even greater states of disrepair. Given that human life is potentially at risk when discussing bridge and highway disrepair, it is

absolutely critical that New Hampshire implement a new system of revenue to make up for this staggering projected deficit.

2. NEW HAMPSHIRE TRANSPORTATION IMPROVEMENT PLAN

The purpose of the Transportation Improvement Plan is to outline priorities for funding the repair and maintenance of New Hampshire's bridges and highways. Under the current plan, New Hampshire faces a \$1.737 billion dollar deficit and cannot complete projects listed in the report by the 2018 deadline unless additional revenue sources are found.

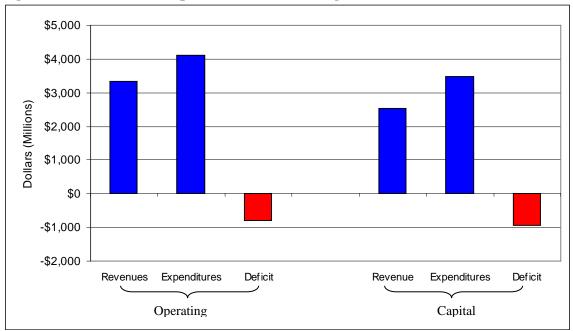


Figure 1. 2007-2018 Transportation Plan Funding

Source: Rockefeller Center analysis from NH Department of Transportation 10-Year Spending Plan spreadsheet

Before proposing solutions to finance the transportation improvement projects, NH must recognize the upward trend in annual transportation deficits to determine an appropriate timeframe for a response. As Figure 2 illustrates, transportation funding deficits from 2007-2009 are expected to be low compared to subsequent years. Many of the expected capital improvements on I-93 and other highways around the state are not expected to begin until 2010. From 2010 onward, New Hampshire can expect to run at least a \$100 million annual deficit to pay for all the proposed transportation improvement projects. Thus, while legislators have some time to debate various funding ideas, it is not likely to be more than two years before that transportation budget starts to run large deficits.

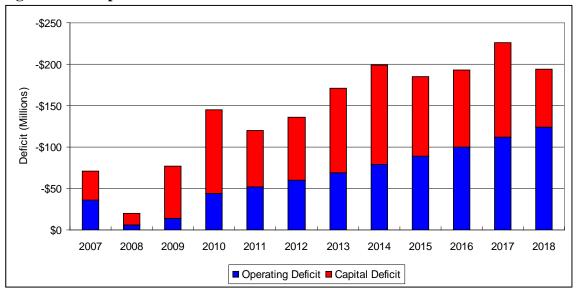


Figure 2. Transportation Plan Annual Deficits

Source: Rockefeller Center analysis from NH Department of Transportation 10-Year Spending Plan spreadsheet

3. GASOLINE TAX

The most commonly proposed solution for increasing state revenue in order to pay for transportation infrastructure projects is to increase the gasoline tax. New Hampshire has not raised the gasoline tax since 1992 and currently has the lowest gasoline excise tax of any state in New England.

Table 1. New England State Excise Taxes					
State	Gasoline Excise Tax (cents per gallon)				
Maine	27.6				
Rhode Island	27				
Connecticut	25				
Massachusetts	21				
Vermont	19				
New Hampshire	18				

Table 1. New England State Excise Taxes

Source: http://www.api.org/policy/tax/stateexcise/upload/July_2007_Notes.pdf

As a result of increasing oil prices, the percentage of revenue that consumers pay in taxes to the state for every gasoline purchase has decreased over time. In 1998, 17 percent of every gasoline purchase went to the state while only 6.5 percent of every gasoline purchase currently goes to the state (Figure 3).



Figure 3. NH Gasoline Tax as Percentage of Average Price per Gallon

Source: Historical prices derived from average price for gasoline per year for the New England region, http://www.eia.doe.gov/oil_gas/petroleum/data_publications/wrgp/mogas_history.html

Because gas is a frequently purchased commodity, even a small increase in the gasoline tax has the potential to generate a significant increase in revenue. Using projections from the New Hampshire Bureau of Finance and Contracts on the incremental revenue return for a one cent increase in the gasoline tax, we calculated the potential revenue that could be generated for each level of gasoline tax increase. If New Hampshire appropriated 100 percent of the income from the gasoline tax increase into transportation expenses, then New Hampshire could fully fund all transportation projects until 2018 from a 17 cent increase in the gasoline tax in 2008. Even a nine cent increase in the state gasoline tax, which would bring New Hampshire's gasoline tax even with the national average,⁴ would increase revenue by an estimated \$923 million. Overall, for every cent per gallon the state gasoline tax is increased, New Hampshire would gain \$10.26 million per year.

One possibility that might affect the amount of revenue New Hampshire needs to generate to pay for transportation projects is federal funding. Under the current model, New Hampshire expects to obtain \$140 million dollars from the federal government every year to pay for capital improvements on roads. A reduction in the amount of federal funding is a concern for New Hampshire but should not be cause for alarm. A 40 percent reduction in federal aid from 2008-2018 could be recouped by a 5.5 cent increase in the gasoline tax.

An alternative approach to gasoline tax policy is to examine projected annual deficits in the transportation operating and capital budgets and to determine what gasoline tax increase would match deficits on a year-to-year basis. Under the revised 2008-2018 plan, New Hampshire would need to increase the gasoline tax very little in 2008 but then increase it by nine cents in 2009. After increasing the tax by 17 cents total in 2010, the budget would remain fully funded until 2014, when another small increase becomes necessary. Analyzing

the expenses on a year-to-year basis provides foresight into determining how to combine various revenue sources to best fund New Hampshire's transportation needs.

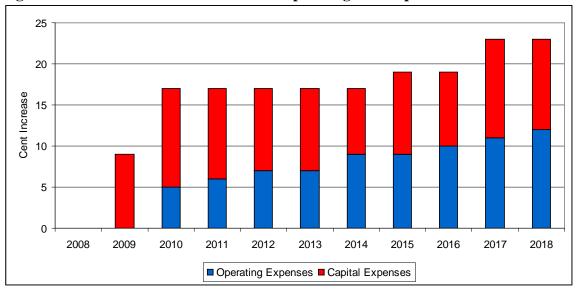


Figure 4. Gasoline Tax Increase to Fund Operating and Capital Deficits

Source: Rockefeller Center analysis from NH Department of Transportation 10-Year Spending Plan spreadsheet

4. MOTOR VEHICLE FEES

Motor Vehicle Fees, namely tolls and weigh station fees, are one of the primary sources for highway funding in New Hampshire. These fees go directly into the operating revenues for the Department of Transportation (DOT). According to data from the DOT, the average annual increase in motor vehicle fees over the last ten years has been 3.3 percent. The Department has projected a similar increase in the future.⁵

It is with this 3.3 percent annual increase factored in that the DOT calculated its budgetary projections that lead to the anticipated \$1.74 billion deficit. Thus, any additional revenue from increasing the motor vehicle fees by more than 3.3 percent per year can be counted toward the transportation deficit.

In order to make up the entirety of the projected \$1.74 billion deficit, the motor vehicle fees would have to be raised approximately 17.3 percent per year between fiscal year 2009 and fiscal year 2019. This seems unreasonable because at the end of the 10-year period, motor vehicle fees would have increased 490% over their fiscal year 2009 rates. Smaller annual rate increases – while not covering the entire deficit – would reduce the deficit significantly. Raising motor vehicle fees by 5% or 10% would result in total additional revenues to the state of \$333 million or \$782 million over ten years, respectively.

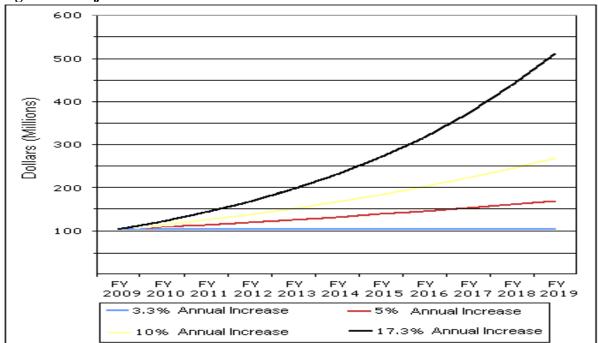


Figure 5. Projected Annual Income From Motor Vehicle Fees

Source: Rockefeller Center Analysis

Annual Increase in Motor Vehicle Fees (MVF)	Additional Revenue over 10 years (Millions of Dollars)	FY 2019 MVF as a percentage of FY 2009 MVF
3.3% (Baseline)	\$0	157%
5%	\$333	182%
10%	\$782	277%
17.3%	\$1731	493%

5. INTEREST AND DIVIDEND TAX

Although New Hampshire does not have an income tax, it still generates a significant amount of revenue from its interest and dividend tax. In 2006, revenue from the interest and dividend tax funded four percent of NH's General and Education Fund.⁶ Figure 6 illustrates that over the past decade, the revenue generated from the tax has varied from year to year, but has grown an average of 5.76 percent per year. Much of the variation in revenue can be explained by market fluctuations. The average increase in revenue is explained by the positive market returns in recent years and a population influx of wealthier individuals and families who are likely to earn more than \$2,400 and \$4,800, respectively, in interest and dividend income.

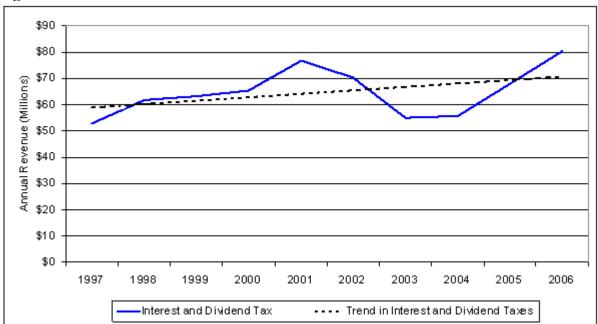


Figure 6. Growth of NH Income and Dividend Tax Revenue

Source: NH Administrative Services, Division of Accounting Services, "2006 Comprehensive Financial Report," Available at: http://admin.state.nh.us/accounting/FY%2006/2032--CAFR%20FY06--4-07.pdf

Although interest and dividend taxes currently contribute to the General and Education fund, regulations can be changed to make them a potential source of revenue for transportation projects. We assume that revenue from interest and dividend taxes continues to grow at an average rate of 5.76 percent per year over the next ten years and that a tax increase would not affect New Hampshire residents' decisions regarding where they should invest their money. This means that our estimate represents an upper-bound on the amount of revenue the state could expect to raise. Figure 7 illustrates that a one percent increase in the interest and dividend tax rate would generate an additional \$266 million dollars in revenue for the state of New Hampshire from 2008-2018. This is equivalent in revenue to a 2.6 cent increase in the gas tax. Thus, although not directly related to transportation funding, interest and dividend taxes are a potentially lucrative source of revenue that New Hampshire could consider for funding its transportation projects.

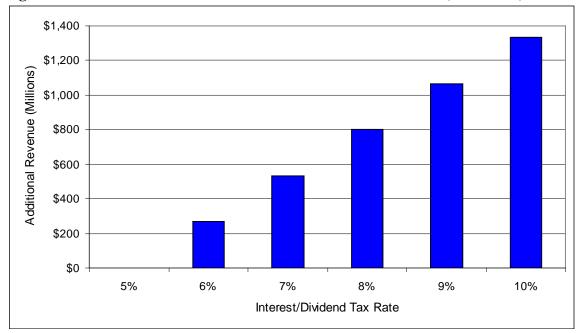


Figure 7. Additional Revenue from Interest and Dividend Taxes (2008-2018)

Source: Rockefeller Center analysis of NH Administrative Services, Division of Accounting Services, 2006 Comprehensive Financial Report

One alternative approach for raising revenue through the interest and dividend tax is to lower the ceiling at which interest and dividends are taxed. Because the New Hampshire Department of Revenue does not collect data on the distribution of interest and dividends among all residents, we used interest and dividend data from the 2004 Survey of Consumer Finances,⁷ a nationally representative survey of household wealth, as a proxy for the distribution of interest and dividends in New Hampshire. We estimate that if New Hampshire lowered the threshold at which it taxed interest and dividends from \$4800 for joint filers and \$2400 for individual filers to \$2400 and \$1200, respectively it would increase its yearly interest and dividend revenue by 11.6 percent. Over the time period from 2008-2018, this would generate an additional \$154 million, which is equivalent to a 1.5 cent increase in the gasoline tax. The majority of the tax burden would be placed on current interest and dividend tax payers, since only 14.1 percent of the additional revenue would be coming from New Hampshire residents who had not met the previous threshold.

6. SALES TAX

A sales tax is another viable source of revenue to fund state programs. By placing a small tax on the goods purchased in New Hampshire, the state could generate a huge windfall for projects such as the highway funding deficit.

According to data compiled by Dr. David G. Tuerck, an economist with the Beacon Hill Institute for Public Policy Research, a sales tax of 2.5% would have the following effects:

Table 2. Revenue from a 2.5% Sales Tax in New Hampshire						
	Additional Revenue Per Year					
	(millions, dynamic)					
Broad Base	\$ 545.29					
Narrow Base	\$ 449.06					

Source: Testimony of David G. Tuerck, PhD, The Beacon Hill Institute, Before the New Hampshire Committee on Ways and Means, August 14, 2007

According to these estimates, a 2.5% sales tax, would raise the indicated additional revenues. The broad base indicates a sales tax on all goods in the state, and the narrow base indicates a sales tax that excludes food products and prescription drugs. Additionally, the revenue estimates are dynamic, which means that they have taken into account his estimates of the reduction in sales that occur from the given sales tax.

Using Dr. Tuerck's results, we have interpolated to predict the effect of different sales tax percentages. In his research, Dr. Tuerck determined that consumer activity does not decrease very sharply with a low sales tax.⁸ Given this, we calculated the following data:

Table 3. Sales Tax Revenue in New Hampshire (millions of dollars, dynamic)

	.5%	1.0%	1.5%	2.0%	2.5%
Broad Base	109.06	218.11	327.17	436.22	545.29
Narrow Base	89.81	179.62	269.43	359.24	449.06

Source: Rockefeller Center Analysis of data obtained from Testimony of David G. Tuerck, PhD, The Beacon Hill Institute, Before the New Hampshire Committee on Ways and Means, August 14, 2007

As the numbers in Table 3 indicate, the state stands to gain significant revenue from a very minimal sales tax. A 1 percent sales tax would generate \$179.62 million per year, which over the next decade would amount to \$1.79 billion. This would pay for the entire transportation deficit and leave the state with an additional \$60 million.

The major concern with a sales tax is that because New Hampshire currently has no sales tax, consumers from other states are more likely to make "big ticket item" purchases in New Hampshire. However, as Table 4 shows, even at 1 percent, New Hampshire's sales tax would be far below any other state in the region.

Table 4. Sales Tax by State, New England				
State	Sales Tax			
Rhode Island	7 %			
Vermont	6 %			
Connecticut	6 %			
Maine	5 %			
Massachusetts	5 %			

Table 4 Sales Tax by State New England

Source: http://www.taxadmin.org/FTA/rate/sales.html

It stands to reason that consumers motivated to make purchases in New Hampshire to avoid the high sales tax in their own home state would still see New Hampshire's very low sales tax as an advantage. Thus, although there will obviously be a drop in out-of-state consumers coming to New Hampshire to make large purchases, it is possible that this drop would not be very significant.

7. CIGARETTE TAX

An increase in the excise tax placed on cigarettes is another viable option to increase government revenue and help provide funding for highway construction. The New Hampshire state cigarette tax was raised by \$.28 per pack, from \$.52 to \$.80, in 2005. This tax increase was soon followed by another \$.28 increase in 2007, raising the cigarette tax to \$1.08.⁹ Additional revenue from this tax could be gained by increasing the tax again. There are multiple ways to predict the effect that another tax increase will have on the gains made from cigarette taxes. These predictions stem from an analysis of the effects of the 2005 tax increase. Those statistics are as follows:

Table 5. 2005 and 2000 Cigarette Tax Statistics							
	2006						
Tax Rate	\$.52	\$.80					
Revenue	\$99,333,875	\$145,022,895					
Packs Sold*	191,026,683	181,278,619					

 Table 5. 2005 and 2006 Cigarette Tax Statistics

Source: http://www.nh.gov/revenue/publications/reports/documents/2006Report.pdf **This approximation comes from the revenue / tax rate*

While the number of packs of cigarettes purchased decreased by approximately 9,748,064 packs, the additional revenue gained from this tax increase was \$45,689,020. These data show that for each cent the cigarette tax was raised, the additional revenue gained was \$45,689,020/28 or \$1,631,750. One quick, fairly accurate way to determine the effect of an increase in the cigarette tax is to add an extra \$1.6 million for every cent per pack added to the tax. However there is certainly an upper-bound to this tax, as consumer demand for cigarettes decreases as the price increases. Table 5 shows only a 5 percent decrease in consumer demand as price increases, as seen by the small difference in cigarette packs sold in 2005 compared to 2006. There is literature that shows a larger national decrease in demand; however, this decrease is still fairly small.¹⁰

Just like any tax increase, there are many arguments against increasing the cigarette tax. One argument is that cigarette taxes have increased considerably, and any further increase would lead to a loss of much of the revenue received from citizens of neighboring states purchasing cigarettes in New Hampshire. While the cigarette tax has increased multiple times over the past few years, New Hampshire's cigarette tax is still considerably less than the rest of New England. Table 6 illustrates the cigarette tax rates in New England:

able 0. New England Cigarette Taxes				
	State Cigarette Tax			
Rhode Island	\$2.46			
Maine	\$2.00			
Connecticut	\$2.00			
Vermont	\$1.79			
Massachusetts	\$1.51			
New Hampshire	\$1.08			

Source: http://tobaccofreekids.org/research/factsheets/pdf/0097.pdf

As long as New Hampshire's cigarette tax remains substantially lower than its surrounding states, a condition that a 25 cent increase would maintain, the loss of out-of-state cigarette purchases will be minimal. Furthermore, it must be remembered that all states are facing this highway crisis, and cigarette taxes in neighboring states will potentially rise. If this occurs, an increase in New Hampshire's cigarette taxes will create even less of a disturbance on its out-of-state cigarette business.

8. LIQUOR COMMISSION AND BEER TAX

New Hampshire residents consume beer at a greater quantity than any other alcoholic beverage, yet state revenues from beer sales are only one-tenth those received from liquor and wine (Figure 8).

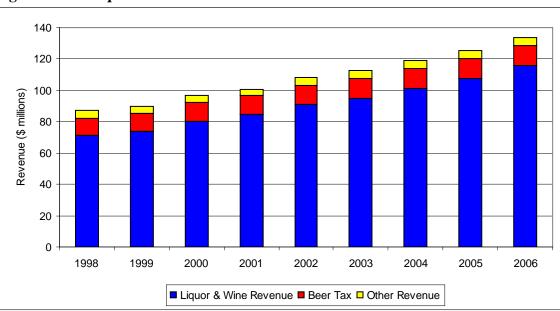


Figure 8. NH Liquor Commission Revenue Sources

Source: NH State Liquor Commission, "Annual Report and Statistical Section for Fiscal Year Ending June 30, 2006," Available at: http://www.nh.gov/liquor/2006annualreport.pdf

Since 1991, New Hampshire has kept its beer excise tax at \$.30 per gallon, the second highest of any New England state.¹¹ However, once sale taxes are taken into consideration, New Hampshire has the lowest effective beer tax of any New England state. Table 7 displays the effective tax rate on a \$12 twenty-four pack of beer for each state in New England.

	Excise Tax (per gallon)	Sales Tax	Total Effective Tax
		Sales Tax	
Maine	\$0.35	5%	\$1.38
Vermont	\$0.27	6%	\$1.32
Connecticut	\$0.19	6%	\$1.15
Massachusetts	\$0.11	5%	\$0.85
New Hampshire	\$0.30	0%	\$0.68

 Table 7. Total Effective Tax on \$12 Twenty-Four Pack of Beer

Source: Rockefeller Center Analysis from state excise and sales tax data, available at http://www.taxadmin.org/FTA/rate/beer.html

The NH State Liquor Commission predicts that increasing the excise tax by five cents (to thirty-five cents per gallon) would generate an additional \$2.08 million per year,¹² or \$16.8 million dollars by 2018. This prediction assumes no growth in beer sales over the following years; however, incorporating beer growth into the model does not substantially increase the amount of revenue that the state would collect because beer sales have only grown 1.2 percent over the last ten years.¹³

It is important to consider the sensitivity of consumer demand to price when developing projections of revenue increases due to increased alcohol taxes. A national analysis done in 1996 showed that consumer demand for beer is less sensitive to price changes than wine, and wine is less sensitive to price changes than spirits.¹⁴ As a result, a tax increase on beer would affect the demand for beer less than a tax increase on wine and spirits would affect demand for those beverages.

9. GAMBLING

9.1 Background and Overview

One commonly proposed solution to increase revenue is the introduction of casino gambling in New Hampshire. Twenty states currently offer either commercial or racetrack casinos.¹⁵ In these states, gaming is taxed at a high rate in order to generate revenue for state and local governments. Commercial casinos generated approximately \$5.20 billion in revenue to state and local governments in calendar year 2006 and racetrack casinos generated approximately \$1.44 billion in the same year.¹⁶ In the calendar year 2005, New Hampshire residents spent \$72.7 million in Connecticut casinos alone, with revenue of approximately \$11 million to the Connecticut government.¹⁷

9.2 Proposed Gambling in New Hampshire

The primary proposed gambling facility in New Hampshire is a racetrack casino at Rockingham Park in Salem, NH. The Millennium Group has proposed reopening the

racetrack if New Hampshire permits it to operate 3,000 slot machines at that location.¹⁸ According to its own internal study, the Millennium Group estimates that it would generate approximately \$150 million per year in funds for the state based on \$403 million per year in sales (which assumes a 37.2 percent tax rate). This averages to nearly \$137 in state revenue per slot machine each day. Additionally, the Millennium Group has offered the state \$5 million for a five-year contract at Rockingham Park, although the state has not responded to this offer.¹⁹ Over a ten-year period, this would add \$1.5 billion to state coffers and \$10 million in license fees, according to the internal study.

9.3 Contentions with Millennium Group Figures

There are a number of contentions with the Millennium Group's study. According to the New England Gaming Research Project at the University of Massachusetts, the slot machines at the Foxwoods and Mohegan Sun commercial casinos in Connecticut – two of the more successful casinos in New England – generate \$326 and \$416 per machine per day respectively.²⁰ Given these figures, and the fact that racetrack casinos usually generate less money per machine than commercial casinos, the Millennium Group's numbers appear overly optimistic. If we assume a more conservative estimate of \$300 per day per slot machine, total revenues would be approximately \$328.5 million per year, and tax revenues to the state would be \$122 million per year. This would equate to an estimated \$1.22 billion in revenue to the state over a ten-year period. While this would not cover the entire deficit, it would reduce it to \$510 million.

10. PRIVATIZATION

10.1 Mount Sunapee and Cannon Mountain

Another way for the state of New Hampshire to raise revenue is through privatization. However, the revenue from privatization is insignificant compared to the budge deficit the Department of Transportation is currently facing. There are two distinct ways that privatization can increase revenue. The first is to privatize certain jobs for which the state currently retains control. One example of this is the privatization of the operation of Mount Sunapee. As a result of granting the right to operate Mount Sunapee to a private party, the State gained about \$2.9 million in lease payments and \$0.6 million in taxes between 1998 and 2005.²¹ Currently, the idea of selling the right to operate Cannon Mountain has been raised as a policy option. While this may be feasible, and may even make money for the state, it is unlikely that the additional revenue gained from privatizing the operation of Mount Cannon will be significantly more than that gained through the privatization Mount Sunapee operations. Moreover, the revenue from such leases is insignificant compared to the amount of money needed to repair the New Hampshire highways and bridges. While there are additional state functions that can be privatized, we are unaware of any one function or combination of functions that would generate enough revenue to make a significant contribution to the highway funding problem.

10.2 Leasing State-Owned Land

The second option for increasing revenue through privatization is for New Hampshire to lease state-owned land. However, the revenue from leasing state-owned land would not be large enough to make a significant contribution to the highway funding problem. As of November 2006, New Hampshire owned 11 percent of the state's land mass, an area valued at more than \$329 million. However, much of this land is in use and must remain this way, such as land that houses government buildings.²² While there is land that does not currently house government structures, known as surplus land, New Hampshire's total value of surplus land has not been calculated. The best knowledge we have comes from the Department of Transportation, whose surplus land is valued at \$18 million. Excluding surplus, most land is either in use, or leasing the land would be contrary to the mission of the department that oversees the land in question. A clear example of this is the 60,000 acres of land overseen by the Fish and Game Department.²³ Overall, we were unable to come to a conclusion about the value of New Hampshire's surplus land, and whether or not leasing surplus land is a viable way to decrease the highway funding deficit.

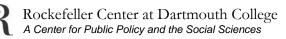
11. HIGHWAY FUNDING IN OTHER STATES

There are multiple strategies that other states are using or considering using to improve their highway infrastructure. These approaches include strong preventative care, privatizing the toll ways, and adding additional user payment revenue sources outside of traditional user payments systems. Vermont is currently urging preventative care, Indiana has privatized some toll ways, and Oregon is adding additional revenue sources. Of these plans, it appears that Vermont's and Oregon's plans have the most potential to work in New Hampshire.

11.1 Vermont

Vermont is addressing the disrepair of its highway infrastructure with a plan that is labeled "The Road to Affordability."²⁴ The plan responds to the fact that funds are limited, and its central focus is using preventative maintenance to avoid expensive reconstruction in the future. This practice would reduce future overhaul expenses and allow for a greater portion of a 10 year plan budget by Vermont to be used during the first few years. This would allow for more money to be spent presently on completely overhauling roads and bridges that are in poor condition. The Vermont plan specifies that these preventative measures should be taken on existing roads before new roads are built. The research that Vermont uses has implications for all states looking to maintain their roads cost effectively. The project states that:

- \$100,000 investment in a culvert under 20 feet of fill on the Interstate today will save over \$1 million for replacement construction and detours tomorrow.
- \$100,000 investment in a new bridge membrane today will save over \$1 million for deck replacement tomorrow.
- \$1 million investment in the pavement of a good roadbed today will save over \$5 million in costly reconstruction in the future.



• Preventative maintenance done today also eliminates future aggravation and delays for the traveling public and freight haulers."²⁵

Although tomorrow and the future are not clearly defined in Vermont's plan, it is clear that their research shows that preventative measures save significant money in the long-run.

While Vermont has increased the amount of money dedicated to fixing the highway infrastructure through increased DMV fees, increased federal funding, and reductions in the amount of money taken out of the highway fund for non-highway related projects, its main focus is to spend less on new projects and more on preventative care of existing highways, thereby decreasing total costs.²⁶ Depending on the New Hampshire DOT assessment of the severity of the damage to highways, preventative care is possibly a focus that New Hampshire can include when fixing its infrastructure.

11.2 Indiana

The state of Indiana recently agreed to a 75-year lease of the Indiana Toll Road in Northern Indiana. The process began when Indiana released a Request for Toll Road Concessionaire Proposals and received four bids. Eventually, the ITR Concession Company (a partnership of Cintra of Spain and Macquarie of Australia) won the right to the lease for \$3.8 billion. Among many other requirements, the lease specifies that ITR must make improvements to the infrastructure, is limited in the returns it can make, and must fill potholes and clear dead animals in a timely fashion. Indiana reserved the right to revoke the contract if any of these agreements are not followed.²⁷ While the Indiana Toll Road was already a toll road, and thus the entire \$3.8 billion was not new revenue, New Hampshire could lease out a non-toll road highway, in-order to see larger gains in revenue.

Other states that have either leased or are considering leasing a portion of their roads include Illinois, Virginia, Pennsylvania, New Jersey, and New York.²⁸ However, these states are fairly unique in that their traffic is not very price sensitive due to the amount of driving that is business related. Because New Hampshire does not share this characteristic, this policy may not be as successful in this state. If New Hampshire were to have a private company raise tolls, it may significantly reduce the number of cars driving into New Hampshire, hurting its tourism and outlet store industries. If raised tolls would cause significantly fewer cars driving into and through New Hampshire, it would be much less likely that a private company would spend nearly as much for New Hampshire highways as it did for other highways.

11.3 Oregon

In 2005, Oregon had a report prepared by Cambridge Systematics. The report focused on ideal ways to fund a new transportation plan. In the report, Oregon's goal was to fund the project primarily with taxes and fees directly related to driving. This is very similar to Oregon's Governor's 2005-2007 proposed budget, which stated that revenue sources for the DOT budget should be broken down to \$452 million from its gas tax, \$455 million from a weight mile tax, \$500 million from its driver and vehicle licenses, and \$63 million from

transportation licenses and fees. Only nine million dollars would be taken from the general fund. The report also proposed lowering the percentage of revenue that comes from the gas tax in preparation for lower gas purchases. The major characteristics that Cambridge Systematics claimed were necessary in a new transportation plan were:

- A diverse group of revenue sources with adjustable fees and taxes that are efficient and are not evadable
- Flexible guidelines on how the money would be spent.
- Coordination with statewide goals and policies.²⁹

All of these characteristics are positive guidelines that may be helpful to consider when determining New Hampshire's highway revenue sources.

As of late 2006, Oregon had adopted a new transportation plan. Oregon's transportation plan advocates "system optimization, integration of transportation modes, land use, the environment and the economy, and the need to make strategic investments using a sustainable funding structure."³⁰ These goals may also be considered by the New Hampshire DOT as possible avenues that could help reduce the cost of the DOT's 10 year plan. In addition, Oregon is strongly considering eliminating its gas tax in favor of a tax on the number of miles a car is driven. This is expected to maintain steady tax revenues as cars become more fuel efficient.³¹

12. FUND DIVERSION

One final issue concerning funds for the repair of highways and bridges in New Hampshire is the diversion of money from the highway fund to purposes other than building and repairing roads and bridges. An example is found in Governor Lynch's proposed 2008 budget, in which \$3.5 million from the highway fund is diverted to building the Christa McAuliffe Planetarium. If approved, these "highway funds" would account for approximately two-thirds of the total spent on building the planetarium. In another example, approximately half of the \$32 million proposed to be spent for the New Hampshire Community Technical College System would come from the highway fund.³² It is important to note that fund diversion is not consistent with the goal of supporting highways.

13. NEW HAMPSHIRE HOUSEHOLD SURVEY

In order to help determine the most politically acceptable combination of revenue sources, the Rockefeller Center added six highway funding questions to its "State of the State" survey conducted in May of 2008. We asked respondents how willing they would be to accept each proposed revenue source. The survey prefaced the questions with: "Over the next decade, according to the New Hampshire Department of Transportation, the state of New Hampshire faces a \$1.7 billion deficit for the repair and maintenance of the state's roads and bridges. I am going to read you a list of proposed options to solve this budget deficit over the next decade. Please let me know if you approve or disapprove of each of the options."³³

The results were:

- 1. Raising the gas tax five cents per gallon (27.6 percent approve)
- 2. A five percent increase in motor vehicle tax (54.8 percent approve)
- 3. A two percent increase in interest and dividends tax (36.9 percent approve)
- 4. Lower income threshold at which interest and dividends tax is paid (38.5 percent approve)
- 5. A one percent sales tax (40.0 percent approve)
- 6. A 25-cent increase in the cigarette tax $(81.0 \text{ percent approve})^{34}$

Due to the fact that there are numerous sources identified in this report that could make up for the deficit in the coming years, we believe that it will be highly useful to the decision making process regarding revenue sources to know which sources the citizens of New Hampshire support.

14. CONCLUSION

New Hampshire's roads and bridges are currently in dire need of repair. Unlike many hotbutton issues currently facing New Hampshire, improving the current condition of New Hampshire's roads and bridges is an issue that cannot be postponed or ignored. The roads and bridges will continue to deteriorate without an influx of cash, and deteriorating roads could create public safety hazards and negatively affect many of New Hampshire's industries. There is no feasible way to repair and maintain the roads and bridges at their current level of funding. In order to repair the infrastructure, New Hampshire must seek out new revenue sources. An important consideration for lawmakers is to decide whether taxes should be raised, and if so, which taxes and by how much.

When deciding whether to raise taxes, lawmakers must consider which group of citizens will be negatively impacted by the tax. One goal should be to make sure that no one group is too disproportionately impacted by a tax increase. For this reason, we do not recommend a sole reliance on the gasoline tax. The gasoline tax is a regressive tax, and it disproportionately affects the poor.³⁵ The gasoline tax does have some advantages, such as more evenly affecting all regions of the state than tolls and weigh stations, which can be avoided. A gasoline tax also produces incentives to reduce carbon dioxide output. Additionally, gas expenditures are fairly proportional to the amount that an individual drives on state roads, so an increase in the price of gas reduces wear on roads.

Increasing revenue from the interest and dividends tax offers the state an opportunity to increase a progressive tax. There appears to be very little downside to increasing the tax rate of the interest and dividends tax. Very few people will feel the effects of this tax, and those who do are less impacted by other proposed taxes.

Increasing the cigarette tax is another opportunity to obtain significant revenue while selling almost the same quantity of the taxed product as before the tax. In addition to increasing revenue, there are many positive externalities associated with increasing the cigarette tax. These include reducing teen and lower-income smoking rates.

The final tax that could have a very significant impact on New Hampshire's revenue is a sales tax. While a one percent sales tax would barely affect New Hampshire's retail industry, it would bring in substantial revenue. There is some worry about the regressive nature of the sales tax; however, steps can be taken to reduce the regressive nature of the tax, such as excluding food from the sales tax. Also, the tax burden is spread across all areas of the state. In addition to these traditional taxes, New Hampshire should also consider following the lead of other states. Vermont is currently stressing the fiscal benefits of preventive care, which is a strategy that the Department of Transportation could consider. Furthermore, Oregon is considering switching their gasoline tax to a miles driven tax, which is an effective way to maintain revenue as cars become more fuel efficient. This idea could even be changed to take into account the weight of the car, helping to make cars more environmentally friendly while also ensuring the tax has a more direct relationship to the amount of damage a car causes to the road.

At this time, it is unclear how much each tax should be relied upon in covering the highway deficit. Many different policy options, each stressing a different set of taxes, can be seen below. Both *Option 1*, *Option 2*, and *Option 3* are options where no one tax is raised too much. *Option 4* is concentrates on vehicle taxes, while *Option 5* is almost entirely a sales tax.

				I WI INC						
	Option		Option		Option		Option		Option	
	1	Amount	2	Amount	3	Amount	4	Amount	5	Amount
Gas Tax										
Increase	5¢	\$513	7¢	\$718	9¢	\$923	12¢	\$1,231	2¢	\$205
Motor Vehicle										
Tax Annual										
Increase	5%	\$333	3.3%	\$0	3.3%	\$0	5%	\$333	3.3%	\$0
I&D Tax										
Increase	2%	\$533	0%	\$0	1%	\$266	0%	\$0	0%	\$0
I&D Minimum										
Cap Change	Same	\$0	Half	\$154	Half	\$154	Half	\$154	Same	\$0
						-		-		
Sales Tax	0%	\$0	0.5%	\$898	0	\$0	0	\$0	1%	\$1,796
Cigarette Tax	66	Aaaa	A /	* *	05/	6 00 (A /	* *	A (A a
Increase	23¢	\$360	0¢	\$0	25¢	\$391	0¢	\$0	0¢	\$0
Cumplus /Defieit										
Surplus/Deficit										
Remaining		¢o		¢10		¢л		¢10		¢071
(millions)		-\$8		-\$40		-\$4		\$12		-\$271

Table 8. Different Combinations of Tax Increases

REFERENCES

¹ New Hampshire Department of Transportation, "*NH Department of Transportation 10-Year Spending Plan spreadsheet*."

² NH Department of Transportation, "2003-2004 Bridge Conditions," Available at:

http://www.nh.gov/dot/bureaus/planning/documents/03-04_bridge_state-munic.pdf.

³ NH Department of Transportation, "2003-2004 Pavement Conditions," Available at:

http://www.nh.gov/dot/bureaus/planning/documents/02_pave_cond.pdf.

⁴API Energy, "July 2007 Gasoline and Diesel Summary Pages," Available at:

http://www.api.org/statistics/fueltaxes/upload/July 2007 gasoline and diesel summary pages.pdf.

⁵ New Hampshire Department of Transportation, "*NH Department of Transportation 10-Year Spending Plan spreadsheet*."

⁶ NH Administrative Services, Division of Accounting Services, "2006 Comprehensive Financial Report," Available at: http://admin.state.nh.us/accounting/FY%2006/2032--CAFR%20FY06--4-07.pdf.

⁷ The Federal Reserve Boards, "2004 Survey of Consumer Finances," Available at:

http://www.federalreserve.gov/pubs/oss/oss2/2004/scf2004home.html#scfdata2004.

⁸ Dr. Tuerck determined the elasticity of goods to be approximately -0.2189.

⁹"Cigarette tax up 28 cents in nod to Lynch," Concord Monitor [Concord] 23 June 2007,

http://www.concordmonitor.com/apps/pbcs.dll/article?AID=/20070623/REPOSITORY/706230331/1037 /NEWS97

 10 Our research showed an elasticity of -0.123. Prior literature generally uses at elasticity of -0.4 when evaluating "sin goods."

¹¹ Center for Science in the Public Interest Alcohol Policies Project, "Factbook on State Beer Taxes, July 2004," Available at: http://www.cspinet.org/booze/taxguide/040802BeerReport.pdf.

¹² NH House Bill 1574-FN-A, "An Act Increasing the Beer Tax," Available at:

http://www.gencourt.state.nh.us/legislation/2008/hb1574.html.

¹³ Rockefeller Analysis on NH Liquor Commission Annual Report Data.

¹⁴ Wang et al., "US Consumer Demand for Alcoholic Beverages: Cross-Section Estimation of Demographic and Economic Effects," *Review of Agricultural Economics*, Vol. 18, 3, 1996, Available at: <u>http://www.jstor.org/cgibin/jstor/printpage/10587195/ap040016/04a00150/0-</u>

<u>150.pdf?backcontext=page&dowhat=Acrobat&config=jstor&userID=81aa77e6@dartmouth.edu/01c0a8486a005</u> 0b7538&0-150.pdf.

¹⁵ American Gaming Association, "States with Gambling," Available at:

http://www.americangaming.org/Industry/factsheets/general info detail.cfv?id=15.

¹⁶ American Gaming Association, "Industry Information," Available at:

http://www.americangaming.org/Industry/factsheets/index.cfm.

¹⁷ New England Gaming Research Project, "New England Casino Gaming: Update 2006," Available at: www.umassd.edu/cfpa/docs/gaming_update2006.pdf.

¹⁸ The Boston Globe, "Lynch: No to expanded gambling," Available at:

http://www.boston.com/news/local/new hampshire/articles/2008/01/28/lynch no to expanded gambling/. ¹⁹ The Union Leader, "State House Dome: NH casino gamblers add \$11m to Conn. Treasury," Available at:

http://www.unionleader.com/article.aspx?articleId=f93132c7-5c07-4376-a81f-

91b83452eaee&headline=State+House+Dome%3A+NH+casino+gamblers+add+%2411m+to+Conn.+treasury. ²⁰ New England Gaming Research Project, "New England Casino Gaming: Update 2006," Available at:

www.umassd.edu/cfpa/docs/gaming_update2006.pdf.

²¹ Senate Bill 5 – Commission to the Study of the State Park System, February 13, 2006. Presented by Jay Gamble, Vice-President and General Manager.

²² Nate Pardue, "State Land Offers Untapped Potential," *Fosters Daily Democrat On-line* (Nov. 19, 2006), 14 Jan. 2008, <u>http://www.nh.gov/oep/news/2006/Statelandoffersuntappedpotential.htm</u>.

²³ Nate Pardue, "State Land Offers Untapped Potential," *Fosters Daily Democrat On-line* (Nov. 19, 2006), 14 Jan. 2008, <u>http://www.nh.gov/oep/news/2006/Statelandoffersuntappedpotential.htm</u>.

²⁴ Vermont Transportation Agency, *The Road to Affordability*,

http://www.aot.state.vt.us/Documents/TheRoadtoAffordability.pdf

²⁵ Vermont Transportation Agency, *The Road to Affordability*, <u>http://www.aot.state.vt.us/Documents/TheRoadtoAffordability.pdf</u>
²⁶Vermont Transportation Agency, *The Road to Affordability Frequently Asked Questions*, <u>http://www.aot.state.vt.us/Documents/The%20Road%20to%20Affordability%20Frequently%20Asked%20Quest</u> <u>ions.pdf</u>
²⁷ Geoffrey Segal, *Bottom Line on Indiana Toll Road Deal*, 2006, Reason Foundation, 14 Jan. 2008, <u>http://www.reason.org/commentaries/segal_20060710.shtml</u>.
²⁸ "Privatization Backlash in Indiana: Plan to Turn Over Toll Road to Foreign Firms Spawns Political Storm," *Washington Post* [Washington D.C.] 18 June. 2006.
²⁹ Cambridge Systematics, *Funding the Oregon Transportation Plan*, <u>http://www.oregon.gov/ODOT/TD/TP/docs/otpPubs/funding.pdf</u>

³⁰ Oregon Department of Transportation, *Oregon Transportation Plan* (Salem, Oregon: ODOT, 2006) 11. ³¹ Oregon Department of Transportation, *Oregon Transportation Plan* (Salem, Oregon: ODOT, 2006).

³² Governor John Lynch, *State of New Hampshire Governor's Capital Budget Proposal: 2008-2009 Biennium.* http://admin.state.nh.us/budget/CapitalBudget.pdf.

³³ Dartmouth Rockefeller Center, 2008 New Hampshire State of the State Poll, http://rockefeller.dartmouth.edu/assets/pdf/NHStatePoll.pdf.

³⁴ Dartmouth Rockefeller Center, 2008 New Hampshire State of the State Poll, <u>http://rockefeller.dartmouth.edu/assets/pdf/NHStatePoll.pdf</u>.

³⁵ Sarah West, "Estimates from a consumer demand system: implications of the incidence of environmental taxes" *Journal of Environmental Economics and Management* 47 (2004): 535.