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CHAPTER ONE

INTRODUCTION

The challenge facing this Commission was to evaluate revenue options that would generate the $825 million the Legislature deemed necessary to fund an adequate education in fiscal year 2000.

After meeting with citizens at public forums across the state, analyzing findings by the Commission research staff and other experts, and its own extensive deliberations, the Commission realized that it was involved in something far more critical than tax options and funding formulas.

The Executive Order that established the Commission charged that: "It is critical that our tax system enable New Hampshire to compete in the new and increasingly global economy." The members of this Commission believe that funding that will create and maintain an excellent education system is essential to New Hampshire's quality of life and economic well being. All the state's citizens must have the opportunity to receive an education that will truly enable them to participate fully in today's labor market. Employers must continue to see New Hampshire as an attractive and profitable business location.

New Hampshire currently enjoys a vibrant economy. Even with signs that the economy may now be cooling, the state compares favorably with its neighbors by most economic measures. The Commission is sensitive to the need to sustain this growth and recognizes that tax and fiscal policies are important drivers of this economic engine. Economic and other factors unique to New Hampshire make the new revenue challenge especially difficult. But a strong economy, a favorable tax climate and a competitive workforce are not mutually exclusive goals. The challenge to the state's executive and legislative leadership is to strike the right balance.

Indeed, during public forums and other sessions, the Commission frequently heard from citizens and economists that tax policy alone can be only one piece of the state's economic fabric. Other factors, such as the quality of the state's workforce and its educational systems -- and the ability of its citizens to compete in today and tomorrow's economy -- matter as much or more, they said.

The Commission fully appreciates that any new tax option carries social, political and economic implications well beyond those identified in this report. Its mandate is limited to evaluating ways to raise a set amount of revenue through a set of tax options and to measure those taxes against a set of policy criteria.
Time and resources limited its ability to examine such broader implications and to suggest ways to mitigate potentially negative effects of a given revenue option. The Commission depends upon policy makers to identify more comprehensively and to examine this full range of implications as they build an actual tax policy for the state.

This study examined a wide variety of tax alternatives to meet the funding required and to produce findings as definitive and precise as the research would allow, given the assumptions made for each option. Those assumptions -- as well as some of these findings -- may be challenged, and constructive dialogue that helps the state move toward the best possible fiscal policy is welcomed.

The Commission has done its best to give policy makers and the public an information framework that is reasonably comprehensive yet more succinct, more readable and more cohesive than any they have had before.

Rather than an end to a discussion, this report is intended to serve as a step toward continuing an informed debate that leads to a positive outcome.
State of New Hampshire
By Her Excellency
Jeanne Shaheen, Governor

EXECUTIVE ORDER 2000-2
An order establishing
A Commission to Analyze the Economic Impacts
of Various School Funding Revenue Options

WHEREAS, the New Hampshire Supreme Court’s Claremont II decision requires
the State to provide no less than an adequate education to all public school students in
New Hampshire and that any taxes used to fund that mandate be proportional and
reasonable pursuant to Part II, Article 5 of the New Hampshire Constitution; and

WHEREAS, the Legislature has set the initial cost of funding an adequate
education at $825 million annually; and

WHEREAS, it is critical that the State meet its Claremont II school funding
obligation in a way that will both maintain the strength of the New Hampshire economy
and promote excellence in our state’s education system; and

WHEREAS, it is critical that our tax system enable New Hampshire to compete in
the new and increasingly global economy;

NOW, THEREFORE, I, JEANNE SHAHEEN, Governor of the State of New
Hampshire, by virtue of the power and authority vested in me by part II, article 41 of the
New Hampshire Constitution, do hereby issue this order to become effective immediately:

1. A Commission is hereby established for the purpose of analyzing the economic
impacts of various school funding revenue options.

2. In undertaking its analysis, the Commission shall analyze various school funding
revenue options and determine with respect to each revenue option the following:

   • To what extent will the revenue option impact the New Hampshire economy as a
     whole?

   • To what extent will the revenue option impact particular sectors of the New
     Hampshire economy, property values, and taxpayers?

   • Can the option provide a stable, sufficient and administratively efficient source of
     revenue for the foreseeable future?

   • Does the revenue option enable local communities to lower property taxes?

   • Are there any changes to other state laws and/or state taxes that would mitigate the
     economic impact of the revenue option?
Executive Order 2000-2

3. The Governor shall appoint members to the Commission who are leaders in the fields of business and economics and who can provide an objective analysis of various revenue options.

4. In undertaking its analysis, the Commission shall seek the input of economists, New Hampshire businesses, and New Hampshire citizens across the state.

5. The Commissioner of Revenue Administration shall cooperate with the Commission in its work.


Given under my hand and seal at the Executive Chambers in Concord, this 4th day of April, in the year two thousand.

[Signature]
Governor of New Hampshire
New Hampshire Commission on Education Funding

Chairman

David T. McLaughlin
President-Emeritus, Dartmouth College

Members of the Commission

Stephen P. Barba, President and Managing Partner
The Balsams Grand Resort Hotel

Joseph A. Baute, Director
Markem Corporation

Penny Breed, President & CEO
Johnson & Dix Fuel Corporation

Jesse Devitte, President
Vertical Market Ventures

Janice Kitchen, Office of Economic Initiatives
University of New Hampshire

Andrew E. Lietz, Chairman
Business and Industry Association

James Morrison, VP of Research/Professor of Chemistry, Emeritus
University of New Hampshire

Dr. Lisa K. Shapiro
Gallagher, Callahan & Gartrell

Dr. Robert Tannenwald
Federal Reserve Bank of Boston

Michael Whitney, President & CEO
Fleet Bank – New Hampshire

Kimon Zachos
Sheehan, Phinney, Bass & Green, P.A.

Executive Director
Alice DeSouza

Research Staff
Robert Tannenwald, Research Director
Daniel Swaine
Robert Triest
Ronald Mendoza
Soner Tunay
Tairi Room
Can Erbil
Pie Zhu
Amanda Leydon
Jennifer Duval
Joan Poskanzer

Administrative Assistant
Brenda Daniels

Writer
Phil Primack
CHAPTER TWO

OVERVIEW

This Commission has sought to balance its evaluation of taxes that would meet revenue needs with consideration of the policy tradeoffs of different tax options. Taxes had to be compared not only to each other, but also to other factors, such as the state’s competitive standing. The broad conclusion: if reasonably imposed, no one of these tax options would prove detrimental to New Hampshire’s economy or its social fabric. But too much dependence upon any single tax – or new tax rates that are too high – could risk economic harm.

If the question is, “Which tax would be the best?”, this Commission found no single tax to be superior – or inferior -- on all counts. Some tax options have great revenue potential, but could stunt economic growth or in the eyes of many, distribute tax burdens unfairly. Other taxes may have a relatively small effect on the economy, but complicate tax compliance and enforcement.

In this report, the Commission evaluated each tax option as if it alone were to meet the $825 million target. In fact, it is unlikely that any one tax will meet the full funding requirement. Such single-tax dependence would either impose an unduly harsh burden on certain sectors or populations or would have to be set at an unrealistically high rate. For that reason, putting together combinations of revenue options may offer the greatest promise for meeting the funding requirement. Though the Commission was unable to conduct an in-depth analysis of all combination tax options, it poses some possibilities in Chapter 5.

One underlying assumption is important to point out here. After reviewing economic research, the Commission assumed that any of the tax options (except the property tax) raising $825 million for education would ultimately reduce local property taxes by about half that amount. If in fact the effect on local property taxes were different, so too would be the resulting data and the effects on competitiveness.

Each of the individual revenue options evaluated by this Commission has strengths and weaknesses. Given limited time and research resources, the Commission gave most emphasis to those options that could adequately meet the fiscal requirement specified in the Executive Order. Some options – excise and capital gains taxes, for example – do not hold that revenue potential. A lack of sufficient analytical data prevented deeper analysis of the gross receipts tax.

Chapter Three explains the policy grounds against which tax options were weighed, which revenue options were evaluated, and how. Chapter Four presents the Commission’s in-depth analysis and findings, measuring each tax
against the policy criteria. This chapter also discusses the proposal to legalize video lottery terminals (VLTs). Though revenues from VLTs do not come from a broad-based tax, supporters of VLTs contend that such expanded gambling could represent a significant source of revenue. Consequently, VLTs are evaluated as a revenue option, but not fully against the set of policy criteria designed for more traditional taxation proposals.

Chapter Five presents some examples of the impact of possible tax combinations, and Chapter Six contains additional observations and limited findings on other revenue options not fully analyzed by the Commission.

A full copy of this report, plus additional reports and other material, is available on the Commission's web site (www.edufundingcommission.com) which will be available until May 31, 2001.

While it is risky to reduce lengthy and methodologically cautious research to simple statements, the Commission made these broad findings about the major tax and revenue options before it:

**Personal income tax**

The competitive effect of a personal income tax on the state’s economy depends upon how much of its burden is passed through by employers in the form of higher wages. If a significant amount of the burden is passed through, the state’s competitive position could be significantly harmed; but if 50 percent or less is passed through, the income tax would be no more detrimental than any of the other broad-based taxes evaluated. As long as it includes significant personal exemptions, the income tax would be relatively progressive.

About 78 percent of the burden of this tax would be borne by New Hampshire residents. Other taxes evaluated have a similar in-state burden. But the income tax burden would be disproportionately felt in higher income counties. This tax would be relatively simple for regulator enforcement and taxpayer compliance if it were based on federal taxable income.

**Sales taxes**

If set at an excessively high rate, this tax could hurt the state’s competitive position by indirectly raising wage costs and by driving away both non-resident and resident shoppers from New Hampshire, especially in border cities and towns. However, research done for the Commission by Ernst & Young indicated that for most firms, a sales tax would have less overall negative impact on investment in New Hampshire than any tax other than a consumption-based VAT. While job losses due to an income tax would generally fall in higher skilled positions, job losses from a sales tax would generally be felt in lower skilled retail positions.
Sales taxes are regressive, but they would also shift the burden to non-New Hampshire residents more than any other tax option, assuming rates were not so high as to drive away shoppers. Imposition of the tax would require relatively extensive new record keeping requirements for both the private and the public sector.

**Property tax**

By exempting inventories and personal property, the negative effect of this tax on returns to New Hampshire businesses overall would be less than suggested in other economic analyses. The tax base is volatile due to the high fluctuations in cyclical real estate values. The tax also seriously distorts housing choices made by taxpayers. Measuring the progressiveness of this tax is determined in part by the percentage of rent payments by tenants, especially low-income residents, that is attributable to the property tax. The Commission’s analysis set this figure at five percent. At that level, the property tax is relatively progressive at lower income levels and highly regressive at high-income levels. The tax overall is not as progressive as an income tax with exemptions.

This tax could also impose considerable administrative expenses to assure fairness in implementation of an increase above the current rate.

**Value Added Tax (VAT)**

Analyses indicate that the consumption-based VAT, which is less volatile than an income-based VAT, could affect industry more than any other tax by depressing rates of return on investment. Since the tax must be paid regardless of a firm’s profitability or its cash flow characteristics, small businesses with chronic cash flow problems and, possibly, retailers could face significant problems. The tax would be relatively easy to administer due to its similarity to the current business enterprise tax (BET).

**Legalization of Video Lottery Terminals (VLTs)**

Most of the impact of this revenue source would be borne by non-New Hampshire residents. VLTs would be a regressive income source, since the burden falls disproportionately on individuals in lower income brackets who tend to spend a higher percentage of their income on gambling than do those in higher income brackets. Revenue estimates made by the Commission could be significantly reduced if Massachusetts were also to legalize gambling. While the Commission was provided with outside studies that indicated higher revenues from legalized VLT, the difference in the revenue estimates was due mainly to the assumptions made in each case. This revenue source would require additional regulation.
Brief summaries such as these can at best only touch upon the more in-depth analysis that follows in this report. As new tax policies are considered, a thorough review should be made of the more complete analysis. If indeed the end result of the legislative process is a combination of revenue options to achieve full funding, this report sheds important light on the individual components of such revenue packages.

Tax decisions must also be considered not just on direct fiscal and economic grounds, but for their implications on land use planning, the environment and other important areas.

The best outcomes will be those that fund fully K-12 education without compromising the unique strengths of the New Hampshire economy and quality of life.
CHAPTER THREE

BACKGROUND AND METHODOLOGY

Before the Commission could get to its hard analysis of revenue-raising options, it had to develop criteria against which to measure them. Then the wide range of options had to be narrowed to a smaller number of taxes that could be manageably studied. This chapter explains the general policy criteria, which revenue options were selected, and the analytical methods and assumptions used to evaluate those options.

TAX POLICY GOALS

In evaluating each tax option, the Commission considered widely accepted tax policy criteria, some of which at times conflict.

Fairness (Distributional Equity)

- Tax burdens should be distributed as fairly as possible.

While people may differ on what constitutes a “fair” tax, there are several acceptable ways of measuring the distribution of tax burdens.

The “benefit” principle calls for people to pay taxes in proportion to the benefits they receive from government programs. The gasoline tax, for example, pays for the roads on which the taxpayer drives. The benefit principle can conflict with the “ability to pay” principle, which calls for tax burdens to be distributed based on the taxpayers’ capacity to bear them.

Under a progressive tax system, effective tax rates increase with taxpayers’ income, which means a family with low income puts a smaller percentage of its resources into taxes than a family with high income. Under a regressive tax system, high-income people pay a lower percentage of their income in taxes than do low-income people. Some people would prefer a tax system under which everyone pays the same fraction of their income in taxes, regardless of income levels or ability to pay.
Adequacy and Stability

- The tax should generate a revenue stream sufficiently strong and stable to raise revenues to the targeted level of education funding over time.

The Executive Order creating the Commission called for it to evaluate revenue sources that will raise a minimum of $825 million annually, the amount the Legislature deemed necessary to meet the requirements of the Claremont decision in Fiscal Year 2000. In its analysis, the Commission's use of "adequacy" refers to the capacity to meet numerical goals rather than the legal term conveyed in the Claremont decision. And while the Commission directed its work toward achieving that $825 million goal, it made no judgement as to the appropriateness of that figure.

While the Commission's mandate was to examine the $825 million annual target, research analyzed by the Commission makes it clear that in fact, the actual new total tax burden will be less than that amount. This is because some of the $825 million in new revenue will be used to reduce existing local property taxes. The Commission chose to assume that, fully implemented, any state tax raising $825 million per year for primary and secondary education would ultimately reduce local property taxes by about half that amount, or $412.5 million. In other words, total state and local tax revenues would increase by $412.5 million under all revenue options examined.

The Commission realizes that a greater share of the $825 million might go to local property tax relief than to new educational spending. But it chose the $412.5 million assumption based on several studies, including an analysis conducted in 2000 by the Josiah Bartlett Center examining how municipalities have used state-financed education grants in the current year.

Others would make different assumptions. And even the Commission's assumed increase might be too high in some cases, such as the statewide property tax, because such a large portion of its revenues would not be redistributed to school districts in the form of grant money from the state. Instead, as is true with the current state property tax, these revenues would stay in the communities in which they were raised. Changing other assumptions, however, would tend to impact the results in the opposite direction.

As a broad policy goal, a reliable and stable tax raises neither more nor less than the amount needed. It also has a revenue stream that grows relatively constantly despite changing economic conditions.
**Competitiveness**

- The tax should not hinder New Hampshire's economic competitiveness.

Competitive taxes encourage businesses to locate and grow within the state. To many observers, New Hampshire's unique fiscal attributes -- low tax burden, decentralized fiscal arrangements, and the lack of a broad-based income or sales tax -- have significantly strengthened the state's economy, especially its critical high technology sector, which comprises a significant population of firms attracted by New Hampshire's perceived tax advantages. The Commission scrutinized how each revenue option might affect New Hampshire's competitive standing, especially its attractiveness as a place for firms to hire more workers and build more facilities.

**Exportability**

- Non-residents should bear their fair share of the tax burden.

One obvious way to export a tax burden to non-residents is to tax goods and services they purchase. The present rooms and meals tax is an example of such burden shifting. The state can also shift tax burdens to citizens all over the nation by imposing taxes such as property and income taxes, which are deductible from federal taxable income.

**Neutrality**

- The tax should not distort spending and other market choices made by New Hampshire's residents and businesses.

The Commission evaluated how each tax option might distort the way households and businesses allocate their resources, how much they choose to spend on material and other needs and wants. A neutral tax distorts as little as possible market choices such as how much to save, where to live and work, whether to own or rent, where and what to buy, how much to work and in what profession.

**Simplicity**

- The tax should be simple to administer and carry minimal compliance costs.

Public frustration with taxes is often driven by the difficulty in understanding them and the cost to comply with them. A simple tax minimizes
lengthy, complex calculations and eases record-keeping requirements. Those subject to the tax comprise a group that is small and identifiable enough to enable cost-effective enforcement. Tax laws and regulations are sufficiently clear to generally avoid litigation.

**Selection Of Revenue Options And Tax Structures**

The Commission identified four major types of tax bases—wealth, consumption, income and production -- and then narrowed that field to options that could be manageably analyzed. A chapter later in this report explores possible combinations of such taxes.

**Wealth taxes** include taxes on real estate, personal property, estates, and gifts. **Consumption taxes** cover retail sales, personal expenditures, and the sale of various commodities, such as tobacco products, alcoholic beverages, and motor fuels. **Income taxes** include those on personal income, wages, dividends and interest, and business profits. **Production taxes** include transactions or gross receipts taxes, value-added taxes (without deductions), and severance taxes.

The Commission did not consider taxes so difficult to administer at the state level that they are rarely adopted or those which would be levied on bases that are virtually non-existent in New Hampshire, such as energy resources, or which are patently inequitable – such as the head tax.

Of the remaining taxes, the Commission evaluated revenue options that have been proposed in recent years as sources of funding for education in New Hampshire. These are taxes on personal income, property, retail sales, capital gains, value added, gross receipts, tobacco products, and motor fuels. The Commission also considered the introduction of video lottery terminals. It also heard though did not fully evaluate suggestions that increased spending on tourism promotion could generate significant revenue for the state.

The Commission needed to specify structural characteristics for each of the tax options it considered in order to evaluate the breadth of each tax base and the tax rate that would have to be imposed to meet the educational funding requirements. If a particular tax were implemented, how would New Hampshire define its base? What exemptions, deductions, and exclusions would the state allow? With such structural questions answered, the Commission could analyze each option’s impact on the state’s economy.
Personal income tax

Structural issues for this tax included how closely the state’s definition of taxable income should conform to the federal definition, the level of personal exemptions, and what deductions, if any, should be allowed.

The Commission considered four potential income tax bases familiar to taxpayers who fill out federal income tax returns: gross income, adjusted gross income, taxable income, and income tax liability. Every state with an income tax uses one of these four options or a closely related version. Some states, including Rhode Island and Vermont, pursue a practice known as “piggybacking,” under which income taxpayers simply pay an amount equal to a portion of their federal tax.

Though piggybacking would greatly simplify tax compliance, the Commission rejected it as an option since it has been found unconstitutional in New Hampshire because of the state’s requirement of proportionality in taxation. Using federal gross income as a structural starting point posed another potential problem -- state policymakers could enact specialized tax preferences that would serve to diminish the fairness by unbalancing the distributional effects or otherwise affect the tax’s neutrality and simplicity.

Ultimately, the Commission adopted two personal income tax variants using federal adjusted gross income (AGI) as a base. The first is an income tax proposal that would tax AGI at a rate of 4.3 percent, allowing significant personal exemptions. The second would set a lower rate, but would allow no personal exemptions. These two options allowed the Commission to compare how varying exemption levels affect the tax’s economic impact.

The Commission also evaluated an income tax based on federal taxable income instead of federal AGI, an option that implicitly embraces the federal personal exemption levels as well as all federal deductions.

Sales Tax and Gross Receipts Tax

In structuring its sales tax options, the Commission considered the extent to which necessities (primarily food and clothing), services, and purchases by business should be taxed.

If relatively few items are exempted from the tax base, the tax rate necessary to raise a given amount of revenue can be lower, which would reduce the tax’s impact on both the non-resident customer base of New Hampshire’s retailers and on New Hampshire’s own consumers. Many people, however, believe that a fair sales tax should exempt food, clothing, and other necessities – but this would require a higher rate.
As for other sales tax options, the Commission found that the taxation of services has proven highly unpopular and administratively difficult in many states. It also found a potential problem with taxes on business purchases of goods and services such as raw materials: This tax would exempt “vertically integrated” industries that produce their own raw materials and components, thus discriminating against firms that must purchase these items on the outside. Many New Hampshire firms are in this latter category.

After considering these concerns, the Commission selected four sales tax options, which vary in the breadth of their definition of taxable sales (for further detail, see the worksheets in the Appendix).

The Commission’s research staff had difficulty finding sufficient data to evaluate in the same manner as it evaluated other taxes a proposed version of the gross receipts tax. The tax called for in this proposal has been labeled as a “consumption” tax that would cover all transactions, whether business-to-business or business-to-household. A brief analysis of the tax appears in a worksheet in the Appendix.

**Variants of a Value Added Tax (VAT)**

A value added tax (VAT) is one that requires businesses to pay tax on payments to workers, investors, and creditors -- in other words, to those contributors to an enterprise who are responsible for the “value” that it “adds” to the economy by transforming raw materials and intermediate inputs into a new good or service. These payments include compensation, dividends, and interest.

Because New Hampshire businesses are already familiar with the Business Enterprise Tax (BET) -- which is very similar to a value added tax -- the Commission decided to evaluate only those VAT alternatives that employ this “addition method” of collection.

One alternative was an income-based VAT; the other was a consumption-based VAT. Under the income-based alternative, the base of the BET would be expanded to include rental payments and retained earnings, so that all elements of income --compensation, interest, rent, and profits (dividends plus retained earnings) -- would be taxed. Under the consumption-based VAT, the base of the BET would be similarly expanded, but firms would be able to deduct their net investment purchases.

**Variants of the Property Tax**

The Commission considered evaluating several property tax alternatives that differed in the mechanisms of relief they would provide to low-income
households, including homestead exemptions. Policy makers will need to consider such relief mechanisms once a firm proposal is put in place. A tax on land only was also considered. Because of time restraints and limits on necessary data, the only property tax option evaluated by the Commission uses a definition of taxable property similar to that of the current state property tax.

**Capital Gains and Excise Taxes**

Concerned about tax complexity, the Commission analyzed a tax whose base would conform to the federal definition of taxable realized gains. (Capital gains is already a component of adjusted gross income for personal income tax purposes). For the same reason, the Commission evaluated only increases in the rates of the state's existing tobacco and motor fuels taxes.

**Legalization of Video Lottery Terminals (VLTs)**

Though not a tax option like those described above, the Commission analyzed VLT legalization as a revenue-generating option.

**Analytical Methods And Key Assumptions**

The Commission was able to find an array of impartial and well-designed research and developed its own tools to estimate the effect of each revenue option on individual citizens as well as the economy of New Hampshire. The Commission had both limited time and research resources, and in some cases, a lack of sufficient state-level data limited its analysis of specific tax options and criteria.

The following assumptions and analytical methodology were used to evaluate the various revenue options against the policy criteria listed in the first section of this chapter. More complete information is found in the work sheets and other material in the Appendix.

**Fairness (Distributional Equity)**

To estimate how tax payments would vary as a percentage of different taxpayers' income, the Commission constructed its own model of New Hampshire's households and the myriad economic decisions they make. Building upon baseline data supplied by Minnesota Implan Group Inc., Commission researchers carefully melded disparate statistics to produce a consistent set of data suitable for policy analysis.

The Commission examined what would happen if a particular revenue
option were to supplant the local property tax as the primary funding source for the targeted revenue needed. How would the distribution of tax burdens change across income classes? Would low-income people pay a higher or lower percentage of their income in taxes? How, if at all, would the impact on low-income households differ from the impact on their high-income counterparts?

It is important to note that, due to data limitations, the Commission's analysis of fairness (distributional equity) of the state's taxes prior to the Claremont decision is limited to property taxes and the rooms and meals tax.

The analysis of tax alternatives does take into account the degree to which the burdens of sales taxes and consumption-style VATs are borne by non-residents. As a result, the estimated progressivity of all tax scenarios is high, especially for those in which local property taxes are replaced by an income tax with significant exemptions, an income tax based on federal taxable income, or a statewide property tax.

**Adequacy and stability**

To evaluate the adequacy of each revenue option, the Commission looked to both the future and the past.

Looking ahead, the Commission sought to forecast how much revenue each tax option would generate through 2003. Because complete state-level data for every tax base are not available, the Commission used forecasts for the national economy prepared by Standard & Poor's Data Resources Inc. to measure how the base of each tax would grow if the tax were imposed nationally. The Commission then used forecasts of the state's share of gross domestic product and personal income prepared by the New England Economic Project to estimate New Hampshire's share of that national tax base.

Because of problems inherent in short-run forecasting, the Commission wanted to evaluate the longer-term adequacy of each tax option. To do that, the Commission examined the growth trends of each revenue option’s base going back to 1968, analyzing how various factors can affect long-term revenue adequacy. This enabled the Commission to evaluate the stability of each tax option as well. In analyzing these growth patterns, the Commission purposely used *per capita inflation-adjusted* terms. That is, the Commission assumed that an “adequate” revenue source is one whose base expands at least as rapidly as the population, even after adjusting for inflation.

**Competitiveness**

One of the great debates among economic researchers is whether—and how much—tax policy affects economic competitiveness. In evaluating this
issue, the Commission faced not only such conflicting analysis, but also a lack of sufficient empirical evidence for each revenue option.

The Commission focused on the impact each revenue option would have on jobs. Each option could affect the state’s employment by raising the costs of doing business in the state. Tax policy, for example, can lead to higher labor costs as workers respond to the adoption of a tax or increase in its rate by demanding higher wages and salaries. That, in turn, could raise business costs in New Hampshire, which might slow business expansion or cause some firms to relocate to other states, taking jobs with them.

Commissioners explored another way that substituting the local property tax with a state tax to finance schools could indirectly raise the costs of doing business in the state by allowing government to grow faster.

Commissioners heard theoretical arguments, backed by some empirical evidence, that centralized funding could lead to a loosening of fiscal discipline at the local level by weakening the link between taxes paid and public services received. Others, however, claimed that spending on primary and secondary education, especially if financed by state government, would in fact produce a competitive asset of its own that would neutralize the deterrent of higher overall tax burdens. After a thorough review, Commissioners were unable to reach a conclusion.

As noted earlier, the Commission assumed that any state tax raising $825 million in revenue would ultimately reduce property taxes by half that amount, or $412.5 million. However, if that ratio were different – 75-25 or 65-35, for example – the resulting data and the effects on competitiveness could be significantly different. Though it feels such research is needed, the Commission was unable to complete such sensitivity analyses itself.

With its working assumptions set, the Commission then used several econometric models to estimate how various state tax options would affect employment. The Commission used a variety of approaches to gauge these impacts so that its estimates would be as free of bias and inaccuracy as possible.

The Commission also asked the consulting firm Ernst & Young to use the “representative firm” method to evaluate the impact of selected revenue alternatives on New Hampshire’s business investment climate. Ernst & Young constructed hypothetical firms representative of industries important to New Hampshire’s economy, including computers, fabricated metals, electronic components, general merchandising, and business services. Each hypothetical firm was assumed to make a major new investment in New Hampshire, such as a new plant, office or store. Ernst & Young computed the after-tax rate of return
to such new investment under various tax options to analyze the degree to which the tax reduces the profitability of business investment in the state.

Exportability

Relying on a methodology developed by Stanford economist Charles McLure in 1967, the Commission estimated the extent to which non-residents would bear the burden of each tax option.

The Commission estimated the extent to which non-resident households accounted for the base of taxes, such as the personal income tax, that would be paid by households. For example, non-residents who own second homes in New Hampshire share the burden of property taxes; non-resident commuters working in New Hampshire would bear part of the burden of an income tax. The Commission also estimated how much federal tax relief New Hampshire residents would enjoy if the tax alternative were deductible from federal income taxes, since each federal tax dollar saved is one less dollar of tax burden borne by the state’s residents.

The Commission also analyzed how much of the new tax burden could be exported by businesses. Research staff estimated the extent to which firms that would be liable for the tax, compete in local versus national markets. Local businesses cannot export any of the tax burden, but national businesses could shift some of the burden to non-resident consumers or stockholders. The Commission also evaluated the degree to which residents of New Hampshire who commute to neighboring states “import” part of these states’ income tax burden.

Neutrality

The Commission used one of its tools -- its tax analysis model -- to evaluate the neutrality of each revenue option. As noted earlier, a neutral tax does not distort economic choices, leaving it to free markets to determine how people choose to allocate their time, money, and property. A tax that is not neutral, however, causes households to change their spending and other economic decisions. This economic pain comes on top of the actual amount of taxes paid. The Commission's model is able to put a dollar value on the increase or decrease in the economic well being of New Hampshire's households as their economic choices are subject to varying tax-induced distortions.

Simplicity

The Commission hired two consultants to evaluate complexity in selected revenue options. Dr. James Sjoquist of Georgia State University analyzed state personal income taxes, sales taxes, and value-added taxes. Jane Malme of the
Lincoln Institute of Land Policy did the comparable analysis for state property taxes. Both consultants discussed aspects of each tax option that generate record-keeping requirements for taxpayers, that complicate tax enforcement, and that can lead to extensive litigation.
CHAPTER FOUR

EVALUATION OF TAX OPTIONS ACCORDING TO
THE TAX POLICY CRITERIA

The previous chapter describes the Commission’s tax policy criteria, the revenue options it chose to analyze, and the methodology of that analysis. This chapter provides the core results of that process.

The major part of this chapter measures the various revenue options against each of the policy criteria, except when data were insufficient to permit conclusions. A set of worksheets detailing each revenue option is in the Appendix, along with a list of research sources and other notes.

A second section of this chapter summarizes a Commission report and other findings about the revenue potential from the legalization of video lottery terminals in New Hampshire. The full VLT report is also in the Appendix. The third section of this chapter describes how different parts of the state and different industries are affected by various tax options.

Fairness (Distributional Equity)

The Commission evaluated the progressivity of each revenue option, but it did not specify what degree of progressivity has the most desirable level of distributional equity. That is an inherently subjective judgement that New Hampshire policymakers must make for themselves.

Key findings

- Despite widely held assumptions, the property tax is relatively progressive at lower income levels, though not as progressive as an income tax with significant exemptions. Progressivity of a property tax declines as income levels rise and the tax becomes quite regressive at high income levels;
- A property tax would hit low-income homeowners hard, especially in communities where the tax results in higher overall rates;
- Four tax options other than the statewide property tax would increase the progressivity of New Hampshire’s tax structure. In order of progressivity, they are: the capital gains tax; an income tax with significant personal exemptions; an income tax based on federal taxable income; and the value added tax of the income type;
• All of the sales tax options, the excise taxes, and the consumption-based value-added tax would decrease the progressivity of the state’s tax system;
• Because people in lower income brackets tend to spend a higher percentage of their income on gambling, revenue from VLTs is likely a regressive source of income.

Discussion

**Property Tax**

Despite assumptions to the contrary, the Commission found that the property tax is progressive for many low-to-middle-income households, though generally not for households with incomes greater than $70,000. Households with annual incomes under $15,000 actually pay a lower fraction of their income in property taxes than households with incomes above $70,000. *(See Chart 4-1, Progressivity of Tax Options.)*

The property tax burden is progressive because most low-income people are renters. (For low-income homeowners, however, the property tax is a major burden, though a homestead exemption could address this.) Renters do bear some of their landlords’ property tax burden in the form of higher rents. However, the Commission’s analysis – backed by independent economists – found that about five percent of the total rent paid by a tenant actually goes toward the landlord’s property tax on that rental property. Since even most low-income tenants pay under 50 percent of their income in rent, this means that tenants bear a property tax burden of approximately 2.5 percent of their income (5 percent x 50 percent = 2.5 percent).

The Commission realizes that this conclusion about the property tax burden borne by renters will surprise many observers. But the data used here are solidly grounded in hard analysis by Commission researchers, who rechecked these findings with both leading economists and against current analysis in the economic field.

But while solidly based in hard economic theory, these numbers may nonetheless be seen as contrary to the real life experiences of landlords, mortgage bankers and renters themselves. The Commission fully understands this possible disparity between hard economic analysis and public perceptions.

Disagreements exist about how to properly measure the property tax pass through to renters. The Commission is aware of, and fully respects, contrary views, some of which are based on the fact that some states allow an income tax deduction for renters that is based on calculations that show a much higher property tax pass-through than was used in this report. However, its
CHART 4-1
Progressivity of Tax Options

Ratio of high income-to-low income tax burden if tax was implemented

Tax Options

Income Tax with Generous Personal Exemptions
Income Tax Based on Federal Taxable Income
Value-Added Tax, Income Base
Sales Tax with Narrow Base
Sales Tax with Broad Base
Comprehensive Income Tax
Sales Tax with a Comprehensive Base
Value-Added Tax, Consumption Base
responsibility was to base its tax analysis on the most solid economic research available to it, and it remains satisfied that its property tax analysis is appropriate.

By contrast, property taxes on New Hampshire's homeowners average over two percent of the value of their home, which is usually worth many times their annual income. In addition, the ratio of home value to income tends to decline with income, which is why analyses of the distributional characteristics of the property tax that focus primarily on homeowners find the tax to be regressive.

It should be noted also that the Commission's distributional analysis does not take into account the federal loss offset, which exaggerates the progressivity of the income tax and the property tax.

The property tax burden is probably regressive over the top part of the income spectrum, even with renters taken into account. Unfortunately, the data base used by the Commission includes only the category of income over $70,000, without further breakdown. This left the Commission unable to provide detail on the distribution of property tax burdens among different levels of higher income households. Analysts with access to more data on higher income households have found that the property tax burden is lower on those with incomes in excess of $200,000 than it is on their middle-income counterparts. (See Appendix - Bibliography).

**Income-based Taxes**

The capital gains tax would be by far the most progressive tax option -- 45 percent of all realized taxable gains in New Hampshire came from households with annual adjusted gross incomes in excess of $1 million.

The next most progressive state income tax would be one that uses federal adjusted gross income (AGI) as a base, allowing for significant personal exemption levels. An income tax based on federal taxable income would be somewhat less progressive, partly because federal personal exemption levels are less significant than under the AGI base and because many federal deductions, such as those for state and local taxes and mortgage interest, disproportionately benefit middle and upper income households.

The Commission's analysis reveals that a comprehensive income tax based on AGI used for federal taxation purposes would be less progressive than the pre-Claremont New Hampshire tax system. Except at the lowest income levels, AGI is a fairly constant percentage of cash income in New Hampshire.

An income-style value added tax (VAT) would increase the progressivity
of the state’s tax system. An income-type VAT is more progressive than a comprehensive tax on AGI because its base includes corporate retained earnings, which are an indirect form of income that goes to corporate shareholders, who are concentrated in high-income brackets. An income-style VAT is more progressive than a consumption-based VAT.

**Sales Tax Options**

Any of the sales tax options, the excise taxes, and the consumption-based VAT would be regressive. Though some studies have found that exempting necessities such as food and clothing would ease this sales tax regressivity, the Commission’s analysis found that the proportion of income spent on food and clothing is similar among income classes. The analysis of higher-income effects of the sales tax was limited by the fact that data for households earning more than $70,000 a year are not further broken down.

Of the four sales taxes evaluated by the Commission, progressivity would be reduced the most by the comprehensive sales tax (see definition in work sheet). The base of this tax would include many services, such as medical care, barbershops and beauty parlors, and certain amusements that make up a disproportionately large portion of the income of low-income households.

**Legalization of Video Lottery Terminals (VLTs)**

While few studies have specifically focused on the regressivity of taxing VLTs, studies analyzing casino revenues have found a clear pattern of regressivity. In essence, the data indicate that revenue from gambling places a heavier burden, as a proportion of income, on lower income groups.
Adequacy and Stability

Key findings

- Based on historical patterns, five of the broad-based tax options would probably grow at least as rapidly as personal income over the long run. (See Chart 4-2, Trend Growth Rates of Tax Options.) But changing economic and other conditions could alter such growth patterns. Those tax bases that have expanded most rapidly in recent decades have tended to be the most volatile;

- If the capital gains tax were the sole funding source, it would require a rate of at least 24 percent, which is higher than the current maximum federal income tax rate on this form of income;

- The stability and adequacy of all of the personal income tax bases considered by the Commission could be affected by federal tax legislation, unless the state ties its tax to the federal tax code at a set point in time;

- Revenue from VLTs and other expanded gambling could be vulnerable to factors such as legalization in Massachusetts and other border states.

Discussion

Because many of the tax options have broad bases that will probably expand with the economy over time, New Hampshire should be able to generate adequate revenues from them without frequent and significant increases in their statutory rates. The excise taxes on motor fuels and tobacco, as well as the tax on capital gains, are exceptions. The bases of all three taxes are so narrow that no one of them can be solely relied upon to meet education funding requirements. Since capital gains are so volatile and the bases of both excise taxes have grown considerably more slowly than personal income in recent decades, none of these three taxes should be relied upon, even to meet a targeted percentage of such requirements.

The historical behavior of five of the broad-based tax options suggests that their bases would probably grow at least as rapidly as personal income over the long run. The tax bases of the income tax with significant exemptions, the narrow-based sales tax, the comprehensive sales tax, the property tax, and the consumption-based value added tax have all grown more rapidly than personal income over the past three decades. But caution is needed when projecting future revenues on the basis of such historical trends.
Historical annual trend growth rate of tax base (per capita, adjusted for inflation)
**Income Taxes**

While historically stable, the bases of all proposed income taxes can be affected by changing conditions or laws.

The base for an income tax with significant exemptions, for example, has expanded so rapidly in recent years because high-income households account for such a large percentage of its base. But a stock market crash and deterioration in other economic conditions would significantly slow such growth.

The stability and adequacy of all of the personal income tax bases would also be continually subject to changes in federal tax legislation. Their bases would shrink or expand each time the federal government enacted or repealed an exclusion. Pending proposals for medical savings accounts and expanded retirement savings accounts are cases in point. Modifications of deductions, such as those for mortgage interest or charitable deductions, and personal exemptions, would also affect the revenue productivity of taxes based on the federal taxable income. However, such disruptions could be avoided if any income tax law passed by the Legislature were to define AGI as the federal definition in place at the time of the bill’s passage.

In estimating the statutory tax rate needed under each income tax option to raise $825 million, the Commission did not take into account implications for the business profits tax. Under a personal income tax, profits earned by unincorporated businesses are included in the tax base. Yet, the profits earned by such firms are already subject to New Hampshire’s business profits tax at a rate of 8 percent. Under the income taxes considered by the Commission, they would be taxed at a lower rate. The state might have to raise the income tax rate to offset the resulting loss in revenue.

**Sales Taxes**

The relatively rapid growth exhibited by sales tax bases reflects the downward drift in the nation’s savings rate. But with household debt at such a high level, consumers may retrench, which would slow growth in the volume of taxable sales. The potential explosion of electronic commerce – which is difficult to tax -- also threatens all sales tax bases. And while historical growth in the comprehensive sales tax base reflects in part the shift in households' consumption patterns from goods to services, this shift is slowing as consumers are drawn more to computers and other consumer electronics goods.
**Property Tax**

The rapid historical average growth of taxable property largely reflects the speculative real estate boom of the late 1980s and early 1990s (see graph in property tax worksheet). Given tighter financial regulation and lessons learned from the boom experience, such volatility is unlikely to be repeated in the foreseeable future.

In some respects, traditional indicators of adequacy and volatility do not apply to the property tax, since it is the one tax whose base is measured by governments in advance through the appraisal process. To achieve a given revenue goal, policymakers then set the rate. But since raising property tax rates is politically difficult, the relative volatility of taxable property is a potential concern.

**Value Added Tax**

A value added tax of the consumption type tends to be less volatile than one based on income because it permits businesses to deduct a relatively volatile item -- net investment -- on their income statements.

**Legalization of Vide Lottery Terminals**

Though other states have experienced positive, and sometimes strong, growth rates in net income from VLT operations, such growth may not continue during economic downturns. Further, legalization of VLTs in Massachusetts and other border states could significantly reduce VLT spending within New Hampshire. The introduction of VLTs would also slightly reduce instant lottery ticket sales.

**Capital Gains**

If the sole source of educational funding were the capital gains tax, the state tax rate would not only exceed the current maximum federal rate, but would likely cause investors to slow their rate of capital gains realizations, which would in turn reduce revenues to the state. The capital gains tax is also a highly unstable source of revenue because it can oscillate sharply with swings in the stock market. *(See Chart 4-3, Volatility of Tax Options.)*
Competitiveness

Key findings

- Any new broad-based state tax could affect the state’s overall competitive standing as well as that of individual firms;
- Studies comparing property, sales and income taxes -- the three broad-based taxes extensively used by states and municipalities -- have generally found that sales and property taxes retard employment growth more than income taxes;
- If it were the sole source of education funding, a narrow-based sales tax would have a major impact on border communities, where local economies depend heavily upon out-of-state shoppers;
- But a personal income tax could inflict more competitive damage on New Hampshire than indicated by some analyses, especially if all or most of the tax burden were passed on in the form of higher wages;
- The impact of the property tax on the business investment climate in some communities could be significant, though this tax appears to be the least damaging to the overall business investment climate of New Hampshire;
- While expanded gambling might negatively affect other entertainment businesses, it would also increase room and meals spending at facilities with new VLT operations.

Discussion

On the basis of extensive analysis of empirical data, the Commission found that if any of the revenue options it reviewed had been in place in the year 2000 -- and the tax system in place was the pre-Claremont system -- the level of statewide employment would have been reduced by 0.5 percent to 1.1 percent, or about 3,000 to 7,000 jobs.

However, if certain assumptions were changed, that job loss figure could significantly rise. And private sector job loss might be offset to some extent by increased public sector employment stimulated by the influx of new tax revenues.

As described in Chapter 3, this analysis examined several paths through which each option could affect job growth by, for example, directly affecting labor costs. Also, when the state assumes a larger role in financing local public services, such as education, fiscal discipline can erode at the local level, leading to growth in the total size of the state and local public sector. The tax burden can increase accordingly, directly or indirectly raising the cost of doing business, which can discourage job creation.
New Hampshire has benefited from firms moving into the state. Though some analysts believe that many of these firms -- especially in the manufacturing sector-- are tax-sensitive, studies reviewed by the Commission did not fully support that view. Studies also disagree on which tax option carries the greatest competitive liability -- the outcome largely depends on the structure of the tax and how much of the tax is transferred in the form of higher wages or prices. Studies have generally found that property and sales taxes affect firms more negatively than the income tax. This may reflect the fact that while partnerships and sole proprietorships pay personal income taxes only in profitable years, most businesses, including incorporated ones, bear significant property and sales tax liabilities even in years when they are not profitable.

In fiscal year 1999, non-residential property accounted for 26 percent of assessed property value in New Hampshire. But according to Ring (1999), about 40 percent of all state and local sales tax revenues come from business purchases of taxable goods and services. That figure is based on national data -- heavy cross-border purchasing by consumers might alter the actual New Hampshire number.

To better quantify the impact of the tax options on New Hampshire businesses, the Commission contracted with Ernst & Young to prepare a "representative firm" analysis showing how each tax would affect the return on investments made by industry in New Hampshire. It should be noted that in Table 4 of the Ernst and Young analysis all simulations, other than the two that involve a VAT, contain the assumptions that the BET tax rate will remain at 0.50 percent and the BPT rate will stay at eight percent. But these rates include temporary surcharges of 0.25 percent and one percent, respectively. The result is that the tax burden is inflated by $53 million for these calculations compared to what it would be ($412.5 million) if the surcharges were removed.

The results of the Ernst & Young analysis are summarized in Chart 4-4, Impact of Tax Alternatives on Returns to New Investment. The full Ernst & Young tables for each revenue option are in the Appendix. The following summaries are based on Ernst & Young's work as well as research by Commission staff.

Income Tax

The Commission found that the competitive damage inflicted by an income tax would depend upon how much of the new tax burden were passed on in the form of higher labor costs. Firms might be more reluctant to hire new workers, resulting in shrinkage in employment opportunities and deterring migration into the state.
CHART 4-4
Impact of Tax Alternatives on Returns to New Investment

- After-Tax Rate of Return on Equity to New Investment
- Pre-Tax Rate of Return on Equity to New Investment (assumed to be 15%)

Prepared by Ernst and Young, LLP - Quantitative Economics and Statistics

Note: This chart presents estimates of the effective after-tax rate of return to new investments of hypothetical firms representative of industries important to New Hampshire's economy. These industries include three in manufacturing—electronic components, computers, and fabricated metals—general merchandise retailing and business services. The lower the after-tax rate of return, the higher the tax burden on the investment project. The estimates presented here are the average rate of returns for all industries. See appendix for details.
According to the Ernst & Young analysis, if all of the income tax were reflected in higher wages, it would be the most competitively damaging tax option. But if only 50 percent of the income tax passed through as higher wages, the income tax would be about as damaging as, or in some cases, less damaging than a narrow-based sales tax. And if only 25 percent of the income tax was reflected in higher wages, competitive damage would be fairly mild – only the statewide property tax would do less competitive damage.

The Commission found scant empirical evidence revealing what percentage of state income tax burdens would actually be reflected in higher wages. The few well-designed studies it uncovered suggest that this percentage would be at least 70 percent. Conventional economic theory, however, suggests that little, if any, of the personal income tax burden is shifted forward to employers.

Economists have generally portrayed workers as immobile, tied to the region where they live. So if their income is subject to tax, they have no choice but to absorb it without any compensating increase in wages. While this portrait was reasonably accurate in the "old economy," it is less so today, especially in New Hampshire. Skilled workers, more critical to industry than ever before, are knowledgeable, mobile, and scarce. Such workers have been attracted to the state at least in part by its tax status – it is reasonable to ask how changes in the state's tax structure might affect such skilled worker migration to the state.

The compensation of low-wage workers may be less affected by an income tax if personal exemptions or deductions keep their tax liability low. However, higher compensation for skilled workers could affect the whole pay scale, raising the costs of all types of labor.

Income tax opponents appearing before the Commission cited studies (for example, Vedder 1995, Vedder and Moore 1999, and Dye 1999) to back their claim that New Hampshire would suffer far more economic damage from an income tax than from any other state tax. After reviewing these studies, the Commission found the empirical research underpinning them to be flawed in several respects, such as failing to control for other major economic events.

An income tax might inflict more damage on New Hampshire’s business tax climate than other options in another way. Compared to other tax options, the burden of an income tax is distributed more in line with taxpayers’ ability to pay. As a result, increases in the tax, although burdensome, would be less likely to galvanize adamant opposition from adversely affected groups. In this manner, the income tax’s very advantages could make it more of a threat to fiscal discipline.
Sales Tax

Ernst & Young’s analysis found that for most firms, a sales tax would have less overall negative impact on investment in New Hampshire than any tax other than consumption, VAT or state property tax. At the same time, however, a narrow-based retail sales tax would have a major impact on border cities and towns whose economies depend heavily on out-of-state shoppers. Further, if the sales tax pushed up wages, it would be especially damaging to non-manufacturers, who would face both a new direct tax on business purchases as well as higher labor costs (Manufacturers enjoy sales tax exemptions.)

Property Tax

Ernst & Young’s analysis found that the property tax appears to exert the least depressing effect on returns to investment in New Hampshire. This finding appears to contradict other empirical evidence indicating that property taxes generally stifle growth in employment at least as much as other state and local taxes. However, the Ernst & Young analysis concerns returns to investment, not employment. Moreover, New Hampshire’s property tax is generally levied only on land and structures, which make up only a small portion of a firm’s assets. Furthermore, there is little evidence that the property tax is passed on in the form of higher wages.

The Commission did not evaluate how the redistribution of property tax burdens across cities and towns -- a feature of the state property tax -- would affect employment. Shapiro, England, Kenyon, and Connor (1999) found that under a statewide property tax, tax burdens would generally rise in communities rich in jobs compared to those in communities where jobs are relatively scarce. This would slow employment growth.

Value Added Tax

A value added tax levied at a rate high enough to raise $825 million — while also replacing revenues from a repealed business profits tax (BPT) and business enterprise tax (BET) -- would create serious problems for many businesses with limited or uneven cash flow. In essence, the tax would have the same effect as a BET with a base slightly broader than the current one and a statutory tax rate several times higher. Consequently, a VAT would tax a wide variety of expense payments, from compensation to interest. The deduction for net investment featured in the consumption-based VAT, although a competitive plus, would not be sufficient to offset the tax’s relatively depressing effects on returns to investment, according to the Ernst & Young analysis.
Legalization of Video Lottery Terminals

Studies evaluated by the Commission have found that an increase in legalized gambling can siphon off dollars from spending on other entertainment. These studies indicate an eight percent reduction due to such “cannibalization,” which in the case of New Hampshire would translate into a $36 million reduction in entertainment spending. However, because of New Hampshire’s lack of a sales tax, that does not translate into a similarly direct decline in state revenues. Indeed, spending on restaurants and lodging – and direct taxes from such rooms and meals spending – would likely rise at VLT facilities.

Exportability

Key findings

- Of all broad-based tax options considered, a sales tax is the most exportable, as long as its rate is not significantly higher than those of other states;
- VLTs would also be a revenue source paid mainly by non-residents;
- Because capital gains tax payments could be deducted against federal taxable income and redound primarily to high-income households, an even larger percentage of the capital gains tax would be exportable. Each dollar of state tax deducted would save the typical higher income taxpayer between $.33 and $.37 cents on each dollar in federal taxes;
- Income tax and other tax options would be exported at rates similar to the long-run exportability of the state’s current tax system as a whole.

Discussion

The burdens of different taxes would be exported to non-residents in different ways and to varying degrees.

Sales Tax

Sales taxes with an intermediate, broad, and comprehensive base would be the most exportable, with 27 percent to 38 percent of the burden of these taxes borne by non-residents. Under New Hampshire’s current tax structure, the comparable figure is between 19 percent and 22 percent.

These three sales taxes would be so exportable because, given the breadth of their bases, they could raise revenues sufficient to meet educational funding requirements at reasonably low statutory rates. Retailers would thus be able to retain a significant portion of their non-resident customer base, although they would lose some out-of-state shoppers formerly attracted to the state’s
totally sales tax-free environment.

A comprehensive sales tax rate of 3.1 percent – the rate needed to raise the required $825 million -- would reduce statewide sales by 11 percent. The sales loss in border areas would be much larger. (See Chart 4-5, Percent of Sales Tax Base Taxed Away Under Different Sales Tax Options.)

**Income Tax**

Under each of the personal income tax alternatives, non-resident workers commuting to New Hampshire would bear about 11 percent of the burden, worth about $91 million. Non-residents would also indirectly bear a roughly equivalent amount of the income tax burden since the income tax can be deducted from federal taxes, creating a revenue loss that would be borne by taxpayers nationwide. Since they have a higher propensity to itemize deductions and pay higher federal marginal tax rate, higher-income taxpayers would benefit the most from this ability to deduct every dollar of state income tax payments.

**Property Tax**

Approximately 74 percent of the property tax is borne by homeowners. About 12 percent of this residential property tax burden on homes is shifted to non-residents through the federal loss offset.

Another estimated 5.5 percent of the property tax burden is borne by non-resident owners of vacation homes. Industrial and commercial property accounts for 10 percent and eight percent of the tax base, respectively. Since manufacturers compete in national markets, they are able to shift almost half of their property tax burden to owners of capital nationwide. Although owners of commercial property are less able to export their burden, they still shift a significant percentage of it to non-resident consumers who flock to New Hampshire to purchase tax-free retail goods and services.

**Value Added Tax**

Businesses could export some of the burden of value added taxes to non-resident customers by raising prices and to non-resident workers by lowering wages and salaries. Non-residents owning shares in New Hampshire firms would also bear some of the burden of a VAT to the extent that the tax was reflected in lower profits.
CHART 4-5
Percent of Sales Tax Base Taxed Away Under Different Sales Tax Options

Narrow-Based Sales Tax
6.6%

Intermediate Sales Tax
5.0%

Broad-Based Sales Tax
4.1%

Comprehensive Sales Tax
3.1%

Percent of sales remaining
Percent sales lost with Sales Tax

Percent of sales remaining
Percent sales lost with Sales Tax

Percent of sales remaining
Percent sales lost with Sales Tax

Percent of sales remaining
Percent sales lost with Sales Tax
Neutrality

Key findings

- Any tax alternative would create fewer distortions on household market decisions than the current property tax-dependent system.
- An income tax based on federal taxable income, if substituted for local property taxes, would be the most neutral of all options analyzed with respect to economic choices made by households.
- A comprehensive sales tax and a comprehensive income tax based on federal adjusted gross income would distort household choices the most.
- The impact of other options on tax-induced distortions of household choices would be relatively modest.

Discussion

The tax options examined by the Commission would distort the economic decisions of New Hampshire’s households in varying ways and to varying degrees. The Commission used its tax model to examine each option’s effect. The model was able to quantify in dollar terms the gain or loss in households' economic well-being that each change in tax mix would generate by ameliorating or exacerbating distortions.

Taxes differ in the kinds of household decisions they distort. A property tax discourages purchases of homes while encouraging renting and spending on items other than housing. Some economists contend that an income tax discourages people from working and saving. A sales tax distorts households’ mix of consumption and where they choose to shop, especially whether they shop in New Hampshire or a neighboring state – or even at a web site.

Because New Hampshire has depended so heavily on property taxation, the most costly distortions wrought by its tax structure have skewed choices involving shelter. Because housing expenses account for such a large percentage of the average household’s budget, the economic costs of these distortions have been substantial. If the state were partially to substitute alternative forms of taxation for the property tax, these distortions would diminish. People would be better off because their housing choices would better reflect their actual preferences. However, new behavioral distortions would then replace the old ones.

Under all the tax options examined by the Commission, the net effect on the overall neutrality of the tax system would be mild or moderate.
Choices distorted by two of the tax options -- a comprehensive income tax based on federal AGI and a comprehensive sales tax -- would involve a large portion of the state's economy. Still, the costs associated with the resulting exacerbation of distortions would be only a few tenths of a percent of gross state product.

By contrast, an income tax based on federal taxable income imposes very low tax burdens on households toward the bottom of the income scale, limiting the degree to which taxes alter their economic decisions. More significant, the federal tax base features two powerful pro-housing incentives -- deductions for mortgage interest and property taxes -- that would partially offset the anti-housing bias inherent in New Hampshire's current tax structure.

**Simplicity**

**Key findings**

- The comprehensive income tax based on federal AGI and the value added tax levied on an income base would be the least complicated for both taxpayers and administrators.
- New Hampshire's recent experience with a state property tax suggests that it can be complicated even though the state has extensive experience in property valuation.
- Other revenue alternatives considered by the Commission can each cause additional complexity.

**Discussion**

While none of the options considered by the Commission are clearly the simplest, the *additional* compliance costs imposed by a tax on AGI would be low since New Hampshire residents already report adjusted gross income on their federal tax return. The Department of Revenue Administration (DRA) could rely heavily on federal tax return data for enforcement.

Similarly, an income-based VAT resembles the current BET. Because items not reported under the BET, such as rent and retained earnings, are already reported under the state's BPT and the federal corporate income tax, businesses already keep records of items they would need to report on an income-based VAT return. A consumption-based VAT would also be relatively simple, although taxpayers would have to add back depreciation and subtract gross investment.
Property Tax

The state property tax could become significantly more complicated, especially if it were levied at a higher rate than its current rate of $6.60 per $1,000 of assessed value. Actual property sales provide, at best, a crude indicator of the market value of other properties within a jurisdiction. As a result, a variety of approximations and other calculations are necessary to assess value, including "ratio" studies, current use valuation and replacement cost valuation.

When a significant portion of a tax base is measured in such an imprecise fashion, administration of the tax becomes extremely complex and the potential for disputes and litigation rises accordingly. The complexity is compounded when about 250 different municipal bodies each values the taxable property within its own jurisdiction according to its own methods. Given these circumstances, New Hampshire would have to devote considerably more resources to administering the state property tax than it does currently so that the fairness of the tax does not continue to be called into question or challenged in court.

Other Taxes, Other Complexities

Other tax options also create some complications for either individual taxpayers or state agencies. For example, under every personal income tax option, employers would have to expand withholding, credits would have to be allowed for taxes incurred in other states by New Hampshire commuters, and estimated tax payments would have to be filed and processed. Under one income tax option, taxpayers would have to compute personal exemptions different than those permitted under federal law. Complications could also arise from having to coordinate a personal income tax with the business profits tax.

Experience in other states shows that litigation over who qualifies for each tax preference would rise dramatically if the income tax base were narrowed by deductions and exclusions not provided for in the federal income tax.

Under all sales tax options, vendors would have to register with the state and would have to collect and remit tax receipts on a frequent basis. Each would have to maintain tax records over a period of several years, and the DRA would have to audit them thoroughly. Vendors would have to distinguish between taxable and tax-exempt items. Taxing “remote” vendors -- those selling goods and services in New Hampshire but physically located in another state -- would be especially difficult to enforce.
The accelerating growth of e-commerce might force the DRA into extensive negotiations with other states over enforcement arrangements. Litigation would inevitably arise concerning issues such as the boundary between taxable and tax-exempt sales, the price at which a taxable transaction is struck (should coupons be taken into account?) and what constitutes a tax-exempt entity.

Legalization of VLTs could require increases in the state’s regulatory structure, though New Hampshire already has mechanisms in place to administer pari-mutuel and lottery operations.

LEGALIZATION OF VIDEO LOTTERY TERMINALS

While the Commission’s main emphasis was on a set of specific tax options, another important revenue source was examined: Revenue from the legalization of video lottery terminals (VLTs) in New Hampshire.

The following summarizes a Commission report on VLTs, the full text of which is in the Appendix.

Gambling is already a source of revenue for New Hampshire. In fiscal year 2000, the general fund received $56.3 million from Lottery Sweepstakes revenue. The four racetracks generated an additional $3.5 million in revenue. Proposals have been made to expand gambling revenues by legalizing VLTs at the tracks and other key locations across the state. Using data from other states and drawing upon national studies, economists working on behalf of the Commission crafted a set of scenarios to determine just how much revenue such legalization would yield -- and at what cost.

The bottom line: VLTs at the tracks and two resort destinations (The Balsams and the Mount Washington Hotel) would generate between $200 million and $240 million in additional government revenues. After factoring in various costs -- especially reductions in lottery and racetrack revenues as well as social costs -- the estimated net economic impact is between $67 million and $178 million. The lower figure would result if Massachusetts were to legalize VLTs in response to such a move by New Hampshire.

Some people who reviewed the Commission study claimed it overstated social costs while underestimating broader economic benefits at the state and local level. But general agreement remains that while VLTs would represent a significant source of new revenue, they cannot alone meet the $825 million target.
Determining the benefits ...

In forecasting the net economic impact of legalizing VLTs, major assumptions included:

- The main market area is within a 125-mile radius of each of the six sites, meaning most potential patrons would be day trippers, of whom 70 percent are adults;
- The state gambling tax was set at 44.8 percent of net machine revenues on 5000 machines operating seven days a week, 52 weeks a year;
- Per capita gambling spending in New Hampshire was based on National Opinion Research Center (NORC) estimates;
- Because of similarities in population and income demographics, the Delaware and New Hampshire markets were assumed to be comparable. Delaware’s VLT experience was used to project New Hampshire VLT revenues.

Studies have found that slot machines in non-casino settings such as race tracks and grand hotels generate less money than those based in full casinos. Full casinos also generate greater economic benefits than stand-alone VLT operations, though even VLT-limited operations would trigger some ancillary economic benefits.

Based on these assumptions, New Hampshire could gain between $200 and $240 million in gross tax revenues from operating 5000 VLTs at the six sites.

... and calculating the costs

Estimating social and economic costs of VLT operations is far more complicated than calculating revenue. The Commission evaluated two primary cost areas.

**Social Costs**

The study relied upon work by NORC, which estimated costs due to pathological and problem gambling in the United States. These costs range from job loss and bankruptcy filings to health and divorce. The existence of lottery and track wagering in New Hampshire has already triggered such social costs, but our analysis concluded that VLTs or slot machines – which some experts call the most addictive type of gambling – will account for a far higher social cost factor.
The study calculated that the social costs among New Hampshire residents only would be $13.5 million in 2001. By including social costs among the entire market or population using the state's VLTs, the social cost figure rises to $98.6 million.

**Substitution Effect**

Studies have shown that the introduction of slot machines has varying degrees of impact on existing gambling operations, including racetracks and lotteries. The Commission study calculated, for example, that New Hampshire's instant lottery game revenues would fall by 10 percent or about $12 million and those pari-mutuel revenues would decline by between 10 percent and 32 percent.

Studies have also shown that other forms of entertainment can suffer from the introduction of VLTs. But in its study and subsequent analysis, the Commission determined that declines in entertainment spending in New Hampshire would be under two percent. Entertainment activities such as movies, bowling alleys and amusement parks would be hurt, but those losses would be largely offset by VLT-generated gains in hotel and meal spending, which would add revenue to the state in the form of added meals and room tax payments.

**Total Costs**

The Commission study ran several scenarios to calculate total social, cannibalization and other costs.

Assuming only those social costs borne by New Hampshire residents, the net economic impact of VLT legalization in New Hampshire would be as high as $178 million, or as low as $67 million if Massachusetts also made slots legal.

It should be noted that respondents to the Commission study contended that it overstated social costs by $10 million. These respondents also cited studies and market experiences that indicate far less cannibalization of other gambling operations than claimed in the Commission report.

However, upon further review, the Commission stayed with its initial social cost estimate because an argument can be made that social costs were understated.

Some other points to be considered in evaluating the VLT option:

- Besides having a positive net economic impact, VLTs also export the tax burden to people from other states;
- Research has shown that gambling taxes are effectively regressive
since people in lower income brackets tend to spend a higher percentage of their income on gambling;

- Like tourism, gambling revenues can rise and fall with economic cycles.

**COUNTY AND INDUSTRY ANALYSIS**

To further analyze the tax options before it, the Commission estimated the impact of various options at the county and industry level. It is important to note that because of limits in available data, especially at the level of a county, this is an approximate analysis. However, it is indicative of impacts.

A set of maps in the Appendix details this analysis.

**Key findings**

- Under every income tax option, a gap exists between the burden borne by counties with the highest per capita income (Rockingham, Hillsborough and Merrimack) and those with the lowest per capita income (Stafford, Sullivan and Coos). The more progressive the income tax option, the larger the gap;
- The disparity in property tax wealth is greater than the disparity in income among the counties. Some counties at the top of the income scale are among the lowest based on a property tax base;
- Not surprisingly, sales tax options would most severely impact border counties such as Rockingham and Cheshire;
- The hospitality industry would be most vulnerable to liquidity problems in paying VAT and higher property taxes, both of which must be paid regardless of the firms’ cash flow situation. Lodging and meals businesses already bear the rooms and meals tax burden.

**Discussion**

Methodological problems limited the Commission’s analysis of tax impact by geography and industry. For example, sample size becomes a serious problem in a county such as Coos, which has only 35,000 residents. Capital gains tax data are not available at the county level. And detailed data about labor intensity in specific industries, important in determining tax-induced increases in labor costs are available only for the manufacturing sector.
County Impact Based on Income (Appendix - Map 1)

Map 1 (see Appendix) compares counties according to per capita “core personal income,” defined as wages, dividends, interest and rental income of residents. Not surprisingly, counties with the highest income bear the heaviest burden under each personal income tax option. But the differences in income tax burden between higher income and lower income counties are sizeable. For example, Rockingham County’s per capita income is 62 percent higher than that of Coos County (The disparity would be greater if capital gains data were included.)

County Impact Based on Taxable Property (Appendix - Map 2)

The rankings of counties when measured in terms of taxable property per $1000 of personal income and per capita are quite different than those by income tax base per capita. And the disparity in property tax wealth is greater than the disparity in income. Presumably because of vacation property, Carroll, Belknap and Grafton counties have the highest ratios of assessed valuation to personal income. Hillsborough and Merrimack – among the top three based on per capita income – are the lowest three based on property tax ranking.

County Impact Based on Sales Tax (Appendix - Maps 3-6)

Counties were compared based on sales tax bases per capita and per $1000 of personal income. The latter reflects the capacity of the county’s residents to bear the burden of the sales tax in question. The sales per capita base better reflects the importance of retail sales to a county’s economy and, therefore, how a sales tax might affect that economy. The data for this comparison were limited, especially those concerning retail sales.

Border counties – especially Rockingham (along the Massachusetts border) and Cheshire (drawing non-residents from Massachusetts and Vermont) have the top two potential sales tax bases. Because of purchases by tourists, Belknap County is also among the top three. If food and clothing are included in the sales tax base, Coos and Carroll counties move into the top three in terms of sales tax base (perhaps because of purchases by vacationers and non-resident property owners). Rockingham and Cheshire counties, however, would still rank one and two in per capita terms.

Industry Vulnerability to Cash Flow Problems (Appendix - Maps 7 and 8)

Both VAT and statewide property taxes would have to be paid by businesses regardless of their cash flow or profit situation. To measure potential liquidity problems among New Hampshire industries, the Commission used the
percentage of the industry sector’s federal corporate income tax filers who reported no taxable income, averaged over several years.

The hospitality industry, which is the state’s largest private sector employer, would face liquidity problems from these taxes. As a result, businesses in Coos, Carroll and Belknap counties would be the most vulnerable to liquidity problems in paying VATs and a higher statewide property tax, though exemptions for small businesses would alleviate such impacts.
CHAPTER FIVE

SAMPLE TAX COMBINATIONS

The Commission chose to analyze each revenue option as if it alone were to achieve the $825 million revenue goal set by the Legislature to fund an adequate education in the year 2000. But the Commission fully understands that placing such a full burden on any single tax option might exert a significantly negative impact on New Hampshire’s economy and taxpayers. As a result, the Commission analyzed several combinations of taxes and tax rates to give policymakers more information about how they might reduce the negative consequences of relying on a single tax source. The Commission recommends no particular combinations of taxes. Rather, it wants to illustrate a methodology that can be used to explore a variety of tax arrangements to achieve the needed revenue outcome.

Assuming that each tax would provide half the required revenue, the Commission analyzed the following tax combinations:

- Property tax and income tax
- Property tax and sales tax
- Income tax and consumption-type VAT

The key findings from this analysis include:

- No single combination is superior to all alternatives on all counts.
- Combining a consumption-based VAT with an income tax with significant deductions would not significantly mitigate the negative impact of an income tax on New Hampshire’s business investment climate, even if the business profits tax and business enterprise taxes were repealed at the same time that the VAT were introduced. (Chart 5-1, Impact of Tax Alternatives on Returns to New Investment.)
- Combining a state property tax and an income tax with exemptions could have a relatively mild impact on the state’s business investment climate and be relatively progressive. (Chart 5-1)
- The impact of this combination on the business climate would be mild if 50 percent or less of the income tax were passed on to employers in the form of higher wages. (Chart 5-1)
CHART 5-1
Impact of Tax Alternatives on Returns to New Investment

- After-Tax Rate of Return on Equity to New Investment
- Pre-Tax Rate of Return on Equity to New Investment (assumed to be 15%)

Prepared by Ernst and Young, LLP - Quantitative Economics and Statistics

Note: This chart presents estimates of the effective after-tax rate of return to new investments of hypothetical firms representative of industries important to New Hampshire's economy. These industries include three in manufacturing-- electronic components, computers, and fabricated metals-- general merchandise retailing and business services. The lower the after-tax rate of return, the higher the tax burden on the investment project. The estimates presented here are the average rate of returns for all industries. See appendix for details.
• The total base of this combination has exhibited a relatively rapid trend rate of growth over the past three decades. (Chart 5-2, Adequacy) However, it has also been relatively volatile (Chart 5-3, Stability).

• A sales tax/property tax combination would have a relatively mild impact on the state’s business climate (Chart 5-1, Impact of Tax Alternatives on Returns to New Investment).

• And would be considerably less progressive than an income tax/property tax combination (Chart 5-4, Fairness).

To aid further exploration of tax combinations, Chart 5-6, Estimated Revenues Generated by Tax Options in the Year 2000 at Various Tax Rates shows how the revenues from several tax options would change as their statutory tax rate increased one percentage point at a time.

Note that all of the charts in Chart 5-6 are linear except those concerning the sales tax options; the curves in these sales tax lines indicate that each additional percentage point of tax yields progressively less revenue. These diminishing returns reflect the fact that an increasing percentage of non-resident shoppers would be deterred from shopping in New Hampshire as sales tax rates rise. While behavioral effects might cause diminishing revenue returns from increases in other taxes as well, the Commission was unable to estimate these effects with the analytical tools at its disposal.
Note: The index of progressivity was computed in the following manner. First, the ratio of total state and local taxes to cash income was computed for several income categories. Banks, the highest income category lumped together all households with total cash income in excess of $70,000 per year, and the lowest income category is all households with $15,000 per year. The tax burden—that is, total state and local taxes as a percentage of cash income—was estimated for both of these income categories. The index of progressivity for the high-income category to the tax burden for the low-income one, times 100. The higher the ratio, the more progressive the revenue option. Under the proper assumptions, the index would equal 100.
CHART 5-4
Adequacy
(Trend Growth Rate of Tax Base 1967-1998, Percent)

Note: The trend growth of the base of each tax or tax combination is roughly equivalent to the average rate of growth at which the tax base, measured in inflation-adjusted, per capita terms, grew from 1976-1998, estimated from national data.

CHART 5-5
Stability
(Higher Number= Greater Volatility)

Note: The index of stability was computed in the following manner. The variation of each tax base’s per capita, inflation-adjusted rate of growth around its time trend was analyzed over the 1967-1998 period. (Both trend growth and variation around trend are depicted in the graph in each worksheet). Specifically, the standard deviation of growth rate around the trend was computed. This standard deviation was indexed to the standard deviation of growth rate around the trend for nationwide personal income (standard deviation for personal income equals 100). The higher the index value for a given tax, the less stable is the base.
CHART 5-6
Estimated Revenues Generated by Tax Options in the Year 2000 at Various Tax Rates
Chapter Six

Other Observations

Throughout its deliberations, the Commission heard numerous taxpayers and others raise a number of issues beyond the Commission’s specific charge. (See public forum summaries section in the Appendix). Some dealt with non-tax revenue options. But many reflected considerable concern about the entire educational structure of the state, along with a sense of dissatisfaction that New Hampshire can and should do better to provide a first rate educational system for its citizens. While the Commission was not charged with and did not have the time to consider these matters, the following concerns were raised so repeatedly that the Commission felt it important to state them in this report in the hope that others might consider them more fully in the future.

Educational Concerns

Condition of the State’s Higher Education System

The Commission’s purpose was to determine the impact of various ways to fund a K-12 education. But that learning process does not stop with the end of high school. A first-class university system, community colleges and other forms of post-high school vocational training are also critically important to New Hampshire’s economic well being. The Commission regularly heard the assertion that the state’s higher education system is badly under funded, that a backlog of deferred maintenance threatens the physical condition of the state’s colleges and universities, and that the quality of the faculties and academic programs is beginning to reflect this under-funded condition.

It is in the interest of both the private sector and state government to assess the validity of these observations – and to give high priority to addressing them.

Quality of Education as a Reflection of Local Control

When the statewide property tax was imposed, there was a sense that control over the quality of education passed from local authorities to the state. Whether for that or other reasons, the Commission heard two themes repeatedly at community forums and elsewhere: an unevenness of quality in the K-12 education system from community to community, and the lack of accountability
for quality education. If New Hampshire is to have a first rate education system, it will take more than finding revenue sources to finance it. It will require a system of accountability and policies involving teacher training and compensation, classroom size, condition of facilities and other issues that will require a shared responsibility between the state and local communities. In its work, the Commission did not address any of these issues -- but it got an earful of how strongly taxpayers feel about these matters.

Perceived Unfairness of Current Property Tax System

The concept of “donor” communities and “receiver” communities is considered inherently unfair and contrary to the culture of the state, fostering division and stress among towns. Since property owners, not towns, pay the tax - and at the same rate – the public needs to better understand how education is funded and the responsibilities of the state as well as each community. Many comments were heard about the division of funding between the state and local communities. Compared to other states, New Hampshire provides more education funding through the statewide property tax and less through local property taxes. If the state share of required education funding were 30 percent to 40 percent -- versus about 65 percent today -- many felt the challenge would not be to fund $825 million, but a significantly lesser number. However, even if the state share were lower, revenue requirements at both the state and local level could still increase with education costs.

Taxes and the New Hampshire Culture

Though this view is hard to quantify on the basis of hard data, some people see the income tax as the litmus test of New Hampshire’s political culture. Many households and businesses are attracted to New Hampshire because its tax burden is low and its fiscal system decentralized. They fear that the passage of an income tax could cause the state to lose its unique fiscal qualities, and that fewer firms and families embracing such a philosophy would migrate to New Hampshire.

OTHER REVENUE SOURCES

The Commission heard from several respondents who identified other potential revenue sources. One suggestion, for example, proposed raising the price of alcoholic beverages sold in state liquor stores and other retail establishments. Because the Commission held a focused meeting on another revenue proposal -- the potential of increased investment in tourism -- that option is addressed here.
Tourism as a potential revenue source

Tourism has been an important economic and revenue source for more than a century. Tourists and business travelers pay significant rooms and meals taxes and add to the revenue stream in other direct and indirect ways, from purchases of goods and services at private businesses across the State to purchases in State liquor stores. This is a major revenue source coming to New Hampshire but borne mainly by non-residents.

According to a report prepared for the Division of Travel and Tourism Development (DTTD) by the Institute for New Hampshire Studies (INHS) at Plymouth State College, total state government receipts from all traveler spending was an estimated $287 million during FY 1998. The figure includes $94 million in room and meal taxes attributed to business travelers and tourists.

INHS found that current DTTD spending has been effective in attracting out-of-state tourists to the State, with revenue generated from such DTTD promotional spending far exceeding the program’s actual budget costs. The INHS analysis indicated that the State gained more than $2.50 in profit for each DTTD promotional budget dollar. The profit figure fell to under $2 during economic downturns.

INHS estimated that a $5 million DTTD budget would increase traveler spending sufficiently to cover that cost and would net an additional $10 million to $12 million for the state treasury. Property taxes, employment, and local economic activity would also be boosted, the study found.

Several steps were proposed to further enhance traveler spending and consequent revenue generation:

- Increase travel to the State during times when the tourism industry has excess capacity, such as mid-week periods during the summer and fall and during cool and cold weather;
- Increase the State’s share of business travel and conferences; and
- Further target promotional activities toward higher income and international visitors, who tend to spend more than do other travelers.

###
Acknowledgements

Federal Reserve Bank of Boston President Catherine Minehan and Executive Vice President Lynn Browne provided several of their top research analysts and staff support, who spent long hours preparing unbiased analyses for the Commission.

Special thanks to:

• The New Hampshire Charitable Foundation for its initial grant of $50,000 to finance the Commission’s work and for serving as the Commission’s fiscal agent and host for its first meetings.

• ManagedOps.com, Bedford, for hosting and assisting with our meetings.

• Granite Systems, Manchester, for providing office space, computers, technical support and supplies as well as a very helpful staff.

• Vitts Networks, Manchester, for creating and updating the Commission’s web site.

• Town & Country Reprographics, Inc., Concord, for contributing much of the printing cost for the Commission’s Report.

The Commission wishes to thank the many individuals and organizations who have enabled it to accomplish its challenging task. Special thanks go to Chairman David McLaughlin’s office staff -- Mona Chamberlain, Loretta Zuger and Brenda Johnson - who were of tremendous assistance throughout this project.

The following contributed financially to the Commission:


Governor Jeanne Shaheen established the Commission. The following elected officials and other experts presented important analysis, research and other information that was critical to the Commission’s work:

Stan Arnold, Commissioner of NH Department of Revenue Administration; Senator Lou D’Allasandro; Attorney John Garvey; Laurence Goss, Research
Consultant for the Division of Travel and Tourism Development; Douglas Hall, Executive Director of the NH Center for Public Policy Studies; Senator Fred King, Vice President of the Senate Finance Committee, District I; Representative Neal Kurk, Chairman of the Finance Committee and Chairman on the Commission on Adequacy; Representative Andrew Peterson and Daphne A. Kenyon, Ph.D., President of The Josiah Bartlett Center for Public Policy.

We also note and appreciate the contributions of former Commission members Victor McGee, who reluctantly stepped down due to personal and professional reasons, and J. Bonnie Newman, who resigned after being named Executive Dean at Harvard University’s Kennedy School of Government.

**Thanks to the following for hosting forums to allow Commissioners to hear from citizens across New Hampshire:**

Business and Industry Association in Concord; Town of Lancaster; the Keene Public Library; the Interlakes Elementary School in Meredith; the Southern New Hampshire Medical Center in Nashua; the NH Institute of Art in Manchester; Redhook Ale Brewery at Pease International Tradeport in Portsmouth; and Dartmouth College in Hanover.

Most of all, the Commission wants to thank all who submitted written comments and who attended the forums for sharing their insights on the state’s education funding crisis.
Reader’s Guide to the Worksheets

The following worksheets present more detailed analysis of the revenue options evaluated by the Commission.

Each tax is defined, and additional revenue generated by each tax estimated per percentage point increase in its statutory rate. The worksheets then present indicators of each tax’s performance against the policy criteria described in Chapter 3. Indicators of adequacy and stability are also represented graphically. Each worksheet ends with comments about the particular tax.

A table indicating the statutory tax rate that would have to be applied to the base of each tax option is also included in this section.

Fairness.

A measure of progressivity is used to gauge the fairness of each tax, calculated in several stages. First, it was assumed that the tax option in question replaced $825 million worth of local property taxes. Then, the ratio of total state and local taxes to cash income was computed for several income categories. In the Commission’s data banks, the highest income category lumps together all households with total cash income in excess of $70,000 per year, and the lowest income category is all households with total cash income between $0 and $15,000 per year. The tax burden -- that is, total state and local taxes as a percentage of cash income -- was estimated for both of these income categories. The fairness measure in the worksheets equals the ratio of the tax burden for the high-income category to the tax burden for the low-income one. The higher the ratio, the more progressive the revenue option.

Adequacy and stability.

Two indicators of adequacy are reported. The first is the projected increase in the tax’s yield for each percentage-point increase in its statutory rate, estimated from 2000 through 2003. The second is the “trend rate” of growth in the base of the tax from 1967 through 1998, measured in per-capita inflation-adjusted terms. This is roughly equivalent to the average rate of growth that the tax base grew over this time period, estimated from national data.

The index of stability was computed in the following manner. The variation of each tax base’s per-capita inflation-adjusted rate of growth around its time trend was analyzed over the 1967-1998 period. (Both trend growth and variation around trend are depicted in the graph in each worksheet). Specifically, the standard deviation of growth rate around the trend was computed. This standard deviation was indexed to the standard deviation of growth rate around the trend for nationwide personal income standard deviation for personal income equals 100). The higher the index value for a given tax, the more volatile is its base.

To further measure stability, a separate worksheet item measures the tax’s pro-cyclicality, which is how the rate of growth in the tax base (measured with national data) responds to a percentage-point increase in the rate of growth in the nation’s gross domestic product.
**Exportability.**

The exportability ratio in the worksheets equals the estimated percentage of the burden of each tax option that would borne by nonresidents.

**Neutrality.**

Replacing one tax for another could affect the economic welfare of New Hampshire's households depending, in part, upon how much the tax alters economic choices the household might otherwise make. The dollar figure in the neutrality section of each worksheet is the estimated monetary value of the increase (decrease) in economic well being brought about by the amelioration (aggravation) of tax-induced distortions.

If the figure is positive, it represents the amount that New Hampshire households would have to be paid in the aggregate to go back voluntarily to the greater tax-induced distortions of the pre-Claremont tax regime. If the figure is negative, it represents the amount that households would have to be paid to adopt the new tax regime voluntarily, with its more severe distortions.
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Income Tax Based on Federal Taxable Income

Definition of Base

Federal taxable income. By definition, personal exemption levels are those set by federal government.

Projected Revenue Productivity

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<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>209</td>
<td>7.0</td>
</tr>
<tr>
<td>2001</td>
<td>222</td>
<td>6.1</td>
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<td>2002</td>
<td>235</td>
<td>6.0</td>
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<tr>
<td>2003</td>
<td>251</td>
<td>6.8</td>
</tr>
</tbody>
</table>

Stability and Adequacy

Growth and Volatility of the Tax Base

Growth Trend and Volatility of Income Tax on Federal Taxable Income

Year
Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 1.42
(Note: comparable growth rate for personal income: 1.52)
Index of volatility (volatility of personal income = 100): 311
Index of procyclicality (procyclicality of personal income = 100): 141

Fairness

Ratio of high income-to-low income tax burden if tax were implemented: 2.92
(Note: comparable ratio for 1997 tax structure was 1.94)

Exportability

Percentage of tax burden borne by nonresidents: 19-22 percent.
(Percentage of burden of 1997 tax structure borne by nonresidents: 19-22 percent in the long run).

Neutrality

Dollar value of households gain in economic welfare attributable to improvement in neutrality: $343 million.

Comments. The base of this tax has grown more rapidly than comprehensive AGI because it incorporates federal personal exemptions. While not as generous as those embodied in other income tax proposals, federal exemptions do offer some low-income protection. The income of low-income households has grown relatively slowly in recent decades. Consequently, income remaining in the federal tax base has grown more rapidly than adjusted gross income. However, the federal tax base is also diminished by deductions, such as those for state and local income and property taxes, mortgage interest, and charitable giving. Rising tax state and local tax liabilities and mortgage interest payments have slowed growth in the federal tax base. On net, federal taxable income has grown only slightly more rapidly than federal AGI. Future spikes in mortgage interest rates would diminish this tax’s revenue productivity.

The volatility and procyclicality of this tax base is similar to those of the tax with more generous deductions, but it is somewhat less progressive tax because federal exemptions are less generous and benefits from federal tax deductions redound disproportionately to middle and upper income households.

Between 9 and 12 percent of the tax burden initially borne by residents would be shifted to nonresidents through the federal loss offset.
Substituting this tax for property taxes would enhance neutrality so much because, compared to the income tax with generous personal exemptions, it taxes high-income households less heavily. The work/leisure and saving/consumption tradeoffs made by these households, who account for a large fraction of the state’s economic activity, are therefore not distorted as much as they are under the personal income tax with generous exemptions. However, the tax based on federal taxable income still shields many low-income households from taxation, leaving their economic decisions undistorted. More important, although not fully captured in the model, the federal tax base features two pro-housing biases—the deduction for mortgage interest and property taxes—that would offset the anti-housing bias of property taxes still levied by New Hampshire’s cities and towns.
Income Tax with Generous Personal Exemptions

Definition of Base

Federal adjusted gross income with exemptions of $11,000 per taxpayer filing singly or jointly, $15,000 per taxpayer filed as a head of household, and $3,000 per dependent. All exemptions adjusted for inflation.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
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<tr>
<td>2003</td>
<td>225</td>
<td>6.8</td>
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</tbody>
</table>

Stability and Adequacy

Growth Trend and Volatility of Hager-Below Based Income Tax
Growth and Volatility of the Tax Base
Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 2.13
(Note: comparable growth rate for personal income: 1.52)
Index of volatility (volatility of personal income = 100): 376
Index of procyclicality (procyclicality of personal income = 100): 147

Fairness

Ratio of high income-to-low income tax burden if tax were implemented: 3.42
(Note: comparable ratio for 1997 tax structure was 1.94)

Exportability

Percent of tax burden borne by non-residents: 21 – 24 percent.
(Comparable percentage for the current New Hampshire system is 19 – 22 percent in the long-run).

Neutrality

Dollar value of loss in households’ economic welfare attributable to deterioration in neutrality: $72 million

Comments: With its generous personal exemptions, this tax offers extensive low-income protection. The resulting high degree of progressivity accounts for several characteristics of the tax base, including its rapid trend growth rate, its volatility, and its pro-cyclicality. On the whole, the incomes of the well-to-do have grown more rapidly than those of other households, especially during the past decade. Moreover, such taxpayers rely relatively heavily on volatile and pro-cyclical sources of income, such as capital gains, interest, and dividends.

Between 11 and 15 percent of the tax burden initially borne by residents is shifted to nonresidents because of the federal loss offset. This range is higher than that of the other income taxes examined by the Commission, again because of the relatively large percentage of the tax base accounted for by high-income households. Because of their high federal marginal tax rates, high-income taxpayers save more from each dollar of state income tax that they deduct.

The substitution of this tax for property taxes would mildly exacerbate the overall distortion of household choices because it taxes high-income households so heavily. Since these households account for a disproportionately large portion of labor compensation and saving, the distortion of their work/leisure and saving/consumption tradeoffs has a relatively large effect on neutrality as a whole. However, the tax’s generous exemptions shield a large portion of households at the low-end of the income scale from taxation. Their economic choices, therefore, are not distorted by the tax.
Comprehensive Income Tax

Definition of Base

Federal adjusted gross income with no exemptions.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>281</td>
<td>7.0</td>
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<tr>
<td>2001</td>
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<td>2002</td>
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<td>5.4</td>
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<tr>
<td>2003</td>
<td>334</td>
<td>6.8</td>
</tr>
</tbody>
</table>
Stability and Adequacy

Growth Trend and Volatility of Comprehensive Income Tax Based on AGI

Growth and Volatility of the Tax Base

Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 1.20
(Note: comparable growth rate for personal income: 1.52)
Index of volatility (volatility of personal income = 100): 196
Index of procyclicality (procyclicality of personal income = 100): 82

Fairness

Ratio of high income-to-low income tax burden if tax were implemented: 1.44
(Note: comparable ratio for 1997 tax structure was 1.94)

Exportability

Percentage of tax burden borne by nonresidents: 18-21 percent
(Percentage of 1997 tax burden borne by nonresidents was 19-22 percent in the long-run.)
Neutrality

Dollar value of households’ loss of economic welfare attributable to deterioration in neutrality: $111 million

Comments. Over the past two decades, the base of this tax has grown more slowly than personal income for two reasons. First, Congress has enacted tax laws creating exclusions from federal AGI. Prominent examples of such exclusions include Individual Retirement Accounts, 401(k) Plans, and Health Reimbursement and Childcare Accounts. Second, while the incomes of high-income households have grown relatively rapidly during the last decade, progress has been much slower for the majority of households. As a result, overall income growth has been sluggish. With recent evidence that income is now growing more evenly across all income brackets, growth in AGI should be more rapid in the near future, as reflected in the above revenue projections. However, there is talk of new federal exclusions, such as medical savings accounts and privatize savings accounts to supplant or to augment social security.

The Commission’s analysis reveals that a comprehensive income tax based on AGI would be less progressive than the New Hampshire tax system in 1997. Except at the lowest income levels, AGI is a fairly constant percentage of cash income. By contrast, according to the Commission’s analysis, outlays for owner-occupied housing services rise with income.

The substitution of a comprehensive income tax for local property taxes would diminish the progressivity of New Hampshire’s revenue system because, contrary to popular belief, the property tax, according to the Commission’s analysis, is progressive. The resulting revenue system would be less progressive than that which would result if a narrow-based sales tax were substituted for local property taxes. This finding may seem puzzling, as the narrow-based sales tax would be regressive while the tax based on AGI would be slightly progressive. The anomaly can be explained by the large fraction of the burden of the narrow-based sales tax that would be born by nonresidents. Even though such a tax would drive away many nonresident shoppers, their purchases would still comprise a large portion of the sales tax base. The progressivity index reflects only taxes born by New Hampshire residents. Although a sizable portion of an income tax on AGI would also be born by nonresidents, data limitations precluded the Commission from taking income tax exportation into account in its analysis of progressivity.
Sales Tax with a Comprehensive Base

Definition of Base

Consumption of goods by households other than gasoline and other fuels, tobacco products, and liquor. All services are taxed except lodging, restaurants, and housing.\footnote{In the National Income and Product Accounts, housing includes the "imputed rent" from living in one's own home.} Purchases of goods by businesses are taxed to the extent that taxes due on these purchases generate 40 percent of total revenues produced by the narrow-based sales tax.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>266</td>
<td>6.1</td>
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<tr>
<td>2001</td>
<td>280</td>
<td>5.4</td>
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<tr>
<td>2001</td>
<td>294</td>
<td>5.1</td>
</tr>
<tr>
<td>2003</td>
<td>308</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Note: the above projections are the average amount of revenue that each percentage point of tax would raise if the base were taxed at 3.1 percent, the rate that would produce a revenue yield of $825 million in the year 2000. If the tax were levied at a lower (higher) rate, the average revenue per percentage point would be higher (lower) because the border effect would be smaller (larger).
Stability and Adequacy

Growth Trend and Volatility of a Comprehensive Sales Tax

Growth and Volatility of the Tax Base
Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 1.82
(Note: comparable growth rate for personal income: 1.52)
Index of volatility (volatility of personal income = 100): 132
Index of procyclicality (procyclicality of personal income = 100): 126

Fairness

Ratio of high income-to-low income tax burden if tax were implemented: 1.40
(Note: comparable ratio for 1997 tax structure was 1.94)

Exportability

Percentage of tax burden borne by nonresidents: 27-35 percent.

Neutrality

Dollar value of households’ loss in economic welfare attributable to deterioration in neutrality: $99 million.
Comments. As the base of the sales tax is broadened to include most services to households, its historical growth trend is further increased because the tendency of consumers over time to substitute services for goods is fully reflected. Extrapolations of this trend should be made with caution, since the shift in the ratio of services to goods in consumption has slowed in recent years. Volatility is low because the tax base is so broad and households tend to moderate swings in their overall consumption over time. The distortion of household choices is greater than under the broad-based sales tax because a wider array of goods and services are taxed. Still the dollar value of the resulting loss of economic welfare amounts to only a few tenths of a percent of gross state product.

The progressivity of a comprehensive sales tax is the lowest of the four sales taxes evaluated by the Commission. Many services, such as medical care, personal services (such as barber shops and beauty parlors), and some amusements take up a disproportionately large portion of the income of low-income households. Because such items are difficult to tax politically, no state has a sales tax base this broad.

The projected rapid growth of electronic commerce poses a long-term threat to the adequacy of all sales taxes. However, in the short-run, sales over the internet are projected to diminish revenues from sales taxes by only 4 and 7 percent.²

Sales Tax with Narrow Base

Definition of Base

Consumption of goods by households other than food and clothing, medicine and drugs, gasoline and other fuels, tobacco products, and liquor. All services are exempt. Purchases of goods by businesses are taxed to the extent that sales taxes on these purchases generate 40 percent of total sales tax revenues.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th></th>
<th>Revenues per percentage-point increase in statutory tax rate (in millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>125</td>
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<td>2001</td>
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<td>6.7</td>
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<td>2002</td>
<td>142</td>
<td>6.3</td>
</tr>
<tr>
<td>2003</td>
<td>150</td>
<td>6.1</td>
</tr>
</tbody>
</table>

Note: The revenue forecasts for the sales tax options are the only ones that take into account the fact that the imposition of the tax would affect the size of the tax base. In the case of sales taxes, each additional percentage point of tax produces progressively less revenue because it deters a larger and larger percentage of nonresidents from crossing into New Hampshire to purchase goods and services. The revenue figures in the table are the estimated average revenue per percentage point of tax imposed at a statutory rate of 6.6 percent, the estimated rate needed to raise $825 million in the year 2000.
Stability and Adequacy

Growth Trend and Volatility of a Narrow-Based Sales Tax

Growth and Volatility of the Tax Base
Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 1.68
(Note: comparable growth rate for personal income: 1.52)
Index of volatility (volatility of personal income = 100): 197
Index of procyclicality (procyclicality of personal income = 100): 126

Fairness

Ratio of high income-to-low income tax burden if tax were implemented: 1.57
(Note: comparable ratio for 1997 tax structure was 1.94)
Exportability

Percentage of tax burden borne by nonresidents: 20 – 26 percent
Percentage of burden of 1997 tax structure borne by nonresidents: 19 – 22 percent in the long-run.

Comments. Some observers have speculated that a narrow-based retail sales tax would have to be as high as 12 percent to generate the $825 million needed to fund adequate education in 2000. The Commission found that a 6.6 percent tax rate would be sufficient. Other analyses have failed to take into account the potential sales tax revenues to be collected from business purchases of intermediate goods, which on average generate approximately 40 percent of state and local sales tax revenues nationwide. Growth in taxable sales has been boosted recently by the growing propensity of consumers to dissave and to purchase taxable goods, such as computers, telecommunications equipment, and other electronic devices. Household debt levels are so high that the rate of growth in consumption of big-ticket items are bound to moderate at some point, somewhat diminishing the tax’s revenue productivity.

Nevertheless, 6.6 percent is a high rate. At that rate, according to Commission estimates, New Hampshire would lose more than 22 percent of its sales tax base. Many out-of-state shoppers currently drawn to the state by its tax-free environment would shop in their state of residence instead.

The narrow-based sales tax would diminish the progressivity of the state’s tax system, since low-income households spend a larger share of their income on consumer goods than high-income households. The tax base is fairly volatile and pro-cyclical because of the exemption of food, clothing, and medicine--three important necessities. Purchases of big-ticket consumer items, such as household appliances, are very sensitive to the business cycle in general and interest rates in particular.

A large percentage of the burden imposed by a sales tax would be exportable if the tax were levied at a low statutory rate because of the fiscal and demographic characteristics of New Hampshire’s neighbors. Massachusetts, Maine, and Vermont impose sales taxes at a statutory rate of 5 percent. Most Massachusetts households living close to the Granite State’s southern boundary, a sizeable group of consumers who currently cross the border in droves to purchase tax-free goods, would continue to patronize New Hampshire’s stores if its sales tax were low. New Hampshire’s large number of tourists also would generate a considerable volume of taxable sales. However, if New Hampshire were to impose a sales tax at a statutory rate significantly higher than its neighbors, the potential for exporting the burden of the tax to cross-border shoppers would diminish sharply.

---

Sales Tax with Intermediate Base

Definition of Base

Consumption of goods by households other than gasoline and other fuels, tobacco products, and liquor. Food and clothing are taxed. All services are exempt. Purchases of goods by businesses are taxed to the extent that taxes due on these purchases generate 40 percent of total revenues produced by the narrow-based sales tax.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual in tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>rate of growth base</td>
<td></td>
</tr>
<tr>
<td>2000</td>
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<tr>
<td>2002</td>
<td>187</td>
</tr>
<tr>
<td>2003</td>
<td>199</td>
</tr>
</tbody>
</table>

Note: These are the projected revenues generated per percentage point of statutory tax rate if the total rate were 5.0 percent, the rate needed to raise approximately $825 million in the year 2000. At a lower rate these projections would be higher, since the tax would discourage fewer out-of-state consumers from coming to New Hampshire to shop. For the same reason, these projections would be lower at statutory rates higher than 5.0 percent.
Stability and Adequacy

Growth Trend and Volatility of an Intermediate Sales Tax

Growth and Volatility of the Tax Base

Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 1.05
(Note: comparable growth rate for personal income: 1.52)
Index of volatility (volatility of personal income = 100): 155
Index of procyclicality (procyclicality of personal income = 100): 83

Fairness

Ratio of high income-to-low income tax burden if tax were implemented: 1.50
(Note: comparable ratio for 1997 tax structure was 1.94)

Exportability

Percentage of tax burden that would be borne by nonresidents: 28 – 38 percent.
(Percentage of tax burden under 1997 tax structure borne by nonresidents: 19 – 22 percent in the long run.

**Neutrality**

Dollar value of gain in households’ economic welfare attributable to improvement in neutrality: $1 million

**Comments.** The addition of food and clothing, almost one quarter of the intermediate sales tax base, significantly lowers the trend growth rate. Purchases of these necessities have not grown as rapidly as other consumer items, especially computers, telecommunications equipment, and other consumer electronic devices. Moreover, their inclusion stabilizes the base and dampens its procyclicality. Contrary to popular belief, the distribution of the total tax burden among income classes is not changed much when these items enter the tax base. The proportion of income spent on food and clothing is similar among income classes. At a revenue yield of $825 million, the exportability of this sales tax is greater than its narrow-based counterpart because, with a lower statutory rate, it is less of a deterrent to cross-border shoppers. The overall neutrality of the tax system would be hardly changed if an intermediate-based sales tax substituted for property taxes, as new distortions would be about as severe as the old ones.
Sales Tax with Broad Base

Definition of Base

Consumption of goods by households other than gasoline and other fuels, tobacco products, and liquor. Some services are taxed.¹ Purchases of goods by businesses are taxed to the extent that taxes due on these purchases generate 40 percent of total revenues produced by the narrow-based sales tax.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>204</td>
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<tr>
<td>2001</td>
<td>215</td>
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<tr>
<td>2002</td>
<td>226</td>
</tr>
<tr>
<td>2003</td>
<td>238</td>
</tr>
</tbody>
</table>

Note: the above projections are the average amount of revenue that each percentage point of tax would raise if the base were taxed at 4.1 percent, the rate that would produce a revenue yield of approximately $825 million. If the tax were levied at a lower (higher) rate, the average revenue per percentage point would be higher (lower) because the border effect would be smaller (larger).

¹ Those classified in the National Income and Product Accounts as "other services" and "other household operations."
Stability and Adequacy

Growth and Volatility of the Tax Base
Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 1.39
(Note: comparable growth rate for personal income: 1.52)
Index of volatility (volatility of personal income = 100): 152
Index of procyclicality (procyclicality of personal income = 100): 101

Fairness

Ratio of high income-to-low income tax burden if tax were implemented: 1.51
(Note: comparable ratio for 1997 tax structure was 1.94)

Exportability

Percent of tax burden borne by nonresidents: 18 – 35 percent.
Neutrality

Dollar value of loss in households’ economic welfare attributable to deterioration in neutrality: $16 million.

Comments. As the sales tax is broadened to include some services, it’s revenue productivity is further enhanced, as Americans have been spending an increasing percentage of their budgets on services, as opposed to goods. However, this shift is slowing, as the nation’s fascination with computers and consumer electronics continues. Volatility and progressivity are similar to those of sales tax with a base of intermediate breadth. Addition of selected services makes the sales tax more procyclical. Households hire contractors to fix their homes when times are good and postpone repairs and maintenance when the economy is weak and income growth is sluggish.
State Property Tax

Definition of Base

The same base as the current state property tax.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
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<td>2003</td>
<td>974</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Stability and Adequacy

Growth Trend and Volatility of the N.H. Property Tax
Growth and Volatility of the Tax Base

Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 2.29
(Note: comparable growth rate for New Hampshire personal income\(^1\): 2.12)
Index of volatility (volatility of personal income = 100): 377
Index of procyclicality (procyclicality of New Hampshire personal income = 100): 58

Fairness

Ratio of high income-to-low income tax burden if tax were implemented: 1.94
(Note: comparable ratio for 1997 tax structure was 1.94)

Competitiveness

See Chapter IVB.

Exportability

Percent of tax burden borne by nonresidents:
26 – 28 percent in short-run; 19 – 23 percent in long-run

\(^1\) This is the only revenue option whose volatility and procyclicality were indexed to New Hampshire personal income rather than U.S. personal income, since it’s base is New Hampshire taxable property. As noted in the “Guide to Worksheets”, other tax bases were evaluated with national data because of the difficulty of getting comparable state-by-state data for all bases. The opposite is true with respect to taxable property; national data are non-existent. Hence, New Hampshire trends in taxable property were compared to trends in New Hampshire personal income.
Comments. With the broadest base of all the taxes evaluated by the Commission, a one percent statutory rate ($10 per $1,000 valuation) would raise more than $825 million. Since, like all revenue options, a state property tax would replace local property taxes, the Commission assumed that the progressivity of the state’s tax structure would not change.\(^2\)

In some respects, traditional indicators of adequacy and volatility do not apply to the property tax. It is the one tax whose base is measured by governments in advance through the appraisal process. Given the base, policymakers then set the rate to achieve a given revenue goal. Nevertheless, since raising tax rates is difficult politically, the relative volatility of taxable property is a potential concern. The tax’s high volatility index largely reflects the speculative bubble that roiled real estate markets throughout the northeast during the late 1980s and early 1990s. Such volatility is unlikely to be repeated in the foreseeable future.

Contrary to widespread belief, the property tax is not necessarily regressive. Indeed, the Commission’s analysis indicates that over most of the income scale the tax is progressive and more progressive than a comprehensive income tax based on federal adjusted gross income.\(^3\) The tax is progressive in large part because most households in lower income classes are renters. Renters’ effective property tax burdens (a portion of their landlords’ taxes passed on to them in the form of higher rent) are generally lower than the property tax burdens of homeowners earning similar incomes.\(^4\)

Approximately 74 percent of the property tax consists of residential property. About 12 percent of the tax burden on homes is shifted to nonresidents through the federal loss offset. Another 5.5 percent is borne by nonresident owners of vacation homes. percent of the property tax burden initially borne by residents is exported to nonresidents through the federal loss offset. Industrial and commercial property account for 10 percent and 8 percent of the tax base, respectively. Since manufacturers compete in national markets, they are able to shift almost half of their property tax burden to owners of capital nationwide. Although owners of commercial property have less of an ability to export their burden, they still shift a significant percentage of it to nonresident consumers who flock to New Hampshire to purchase tax-free retail goods and services.

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\(^2\) Some would argue that under the local property tax system high-income households enjoy lower tax burdens than they would under a state property tax of equal revenue yield. They would contend that high-income tend to for exclusive communities, in which their superior wealth enables them to fund a given level of services with a lower tax burden than other communities. However, a town’s per capita income is only weakly correlated with its per capita taxable property in New Hampshire. It is not at all clear that the distribution of a state property tax burden has a different pattern across income classes than the distribution of local property tax burdens as a whole.

\(^3\) At the very high end of the income scale, the tax is probably regressive. The value of a house owned by household that earns $1,000,000 is generally not worth twice as much as the value of a house owned by family that earns $500,000. The Commission’s data sources provide no detail on incomes above $70,000.

\(^4\) According to the Commission’s analysis, the property tax raises rents by about 2 percent on average. Consider a family earning $20,000 per year and paying $8000 a year in rent (not including property taxes shifted by its landlord). The family bears an effective property tax burden of .02 x $8000, or $160. Now suppose the family owns a house worth $80,000. The average property tax rate in New Hampshire in 1999 was about 2.5 percent. 2.5 percent of $80,000 is $2,000, a much higher property tax burden than that effectively borne by the renter.
ADDITIVE VALUE ADDED TAX—CONSUMPTION BASE

Definition of Base

This tax would be paid by businesses. It would be similar to the Business Enterprise Tax (BET), except that, in addition to paying tax on dividends, interest, and compensation, firms would also be taxed on rental payments and on retained earnings. Businesses would also have to add depreciation allowance to their tax base, but would be able to deduct gross investment. The current business profits tax (BPT) and BET would be repealed.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>298</td>
<td>7.9</td>
</tr>
<tr>
<td>2001</td>
<td>317</td>
<td>6.2</td>
</tr>
<tr>
<td>2002</td>
<td>337</td>
<td>6.2</td>
</tr>
<tr>
<td>2003</td>
<td>360</td>
<td>6.8</td>
</tr>
</tbody>
</table>
Stability and Adequacy

Growth Trend and Volatility of Value-Added Tax Based on Consumption

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 1.65
(Note: comparable growth rate for U.S personal income: 1.52)
Index of volatility (volatility of personal income = 100): 115
Index of procyclicality (procyclicality of personal income = 100): 111

Fairness

Ratio of high income-to-low income tax burden if tax were implemented: 1.35
(Note: comparable ratio for 1997 tax structure was 1.94)

Competitiveness

See Chapter IVB.
Exportability

Percent of tax burden borne by nonresidents: short-run – 24 percent; long-run – 17 percent.
(Percent of total state and local tax burden borne by nonresidents in 1997: short-run – 22 percent; long-run – 19 percent.)

Comments. No state currently levies a tax resembling this VAT, although Michigan’s Business Activities Tax has some elements of it. Compared to an income-style VAT it is more regressive, has exhibited higher historical revenue productivity, is more volatile, and is more procyclical. Although a tax rate of 2.8 percent would be sufficient to raise $825 million in the year 2000, it would have to be 3.9 percent to raise that amount and to offset the loss in revenues from repeal of the BET and BPT as well.

In effect, the tax allows business to deduct net investment. This feature, in combination with the repeal of the BET and BPT, would be attractive to businesses in general and to capital-intensive industries in particular. However, like the income variant of a VAT, firms would have to pay it whether or not they were profitable, creating liquidity problems.
ADDITIVE VALUE ADDED TAX—INCOME BASE

Definition of Base

This tax would be paid by businesses. It would be similar to the Business Enterprise Tax (BET) except that, in addition to paying tax on dividends, interest, and compensation, firms would also be taxed on rental payments and retained earnings. The current business profits tax (BPT) and BET would be repealed.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>355</td>
<td>7.4</td>
</tr>
<tr>
<td>2001</td>
<td>376</td>
<td>6.0</td>
</tr>
<tr>
<td>2002</td>
<td>397</td>
<td>5.7</td>
</tr>
<tr>
<td>2003</td>
<td>422</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Stability and Adequacy

Growth Trend and Volatility of a Value-Added Tax Based on Income

Growth Trend
Growth and Volatility of the Tax Base
   Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 1.25
(Note: comparable growth rate for U.S personal income: 1.52)
Index of volatility (volatility of personal income = 100): 136
Index of procyclicality (procyclicality of personal income = 100): 84

Fairness

Ratio of high income-to-low income tax burden if tax were implemented: 2.30
(Note: comparable ratio for 1997 tax structure was 1.94)

Competitiveness

See Chapter IV.

Exportability

Percent of tax burden borne by nonresidents: short-run – 26 percent; long-run – 18 percent.
(Percent of state and local tax burden borne by nonresidents in 1997: short-run – 22 percent; long-run – 19 percent.)

Comments. The only state currently levying this type of tax is Michigan. It is called an “income type” VAT because it consists of the components of net national income, as defined in the National Income and Product Accounts (compensation + interest + rent dividends + retained earnings). Michigan adopted it because of its stability and its relatively low sensitivity to the business cycle (the procyclicality of the state’s automobile industry made revenues too volatile). It is more progressive than a comprehensive tax on AGI because it includes corporate retained earnings. The portion of the tax falling on retained earnings is assumed to be passed on to owners of capital, who are concentrated in high-income brackets.

The base of an income VAT (proxied by net national income) has grown relatively slowly over the past few decades because of sluggish average growth in productivity. Productivity growth has accelerated in recent years, producing concomitant acceleration in growth of net national income. This recent trend suggests that future revenue productivity of an income style VAT might be greater than long-term historical trends suggest.
A tax rate of approximately 2.3 percent would be sufficient to raise $825 million in the year 2000. However, the rate would have to be raised to 3.1 percent to raise that amount and also to offset revenue losses from repeal of the BET and BPT.
Gross Receipts Tax or “Consumption Tax” Worksheet

Definition of Base

The gross value of all transactions would be taxed generally. Tax transactions would include all retail sales of goods and services, including financial services. Several items would be excluded from the tax base, including medical services; items already subject to some form of taxation, such as meals and lodging, real estate, liquor, motor fuels and communication services; goods and services sold by governments and nonprofit organizations; manufacturing materials purchased from out-of-state suppliers; management services for retirement plans; food; tuition; and certain construction items and construction project components.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>337</td>
<td>6.1</td>
</tr>
<tr>
<td>2001</td>
<td>355</td>
<td>5.4</td>
</tr>
<tr>
<td>2002</td>
<td>373</td>
<td>5.1</td>
</tr>
<tr>
<td>2003</td>
<td>391</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Among the taxes evaluated by the Commission, this tax has a base exceeded in breadth only by the two value-added taxes. It differs from a comprehensive sales tax primarily in the items it excludes and the inclusion in its base of a broad array of business purchases, including services. Taxes on business purchases are passed on from one stage of production to another. As a result, goods and services produced by industries that are not vertically integrated are taxed relatively heavily. Too few resources are allocated to such industries, while too many resources are devoted to production in industries that are vertically integrated.

Nevertheless, the low rate of tax needed to raise $825 million would produce a smaller border effect than the four sales tax options analyzed.

The Commission had difficulty finding the data needed to evaluate this tax. The revenue projection in the above table for the year 2000 was supplied by the New Hampshire Legislative Assistant Office. Revenue projections for future years assume the same rate of growth in the tax base as that for the comprehensive sales tax.
years assume the same rate of growth in the tax base as that for the comprehensive sales tax.
CAPITAL GAINS TAX

Definition of Base

Federal taxable capital gains.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>34</td>
<td>10.6</td>
</tr>
<tr>
<td>2001</td>
<td>38</td>
<td>10.5</td>
</tr>
<tr>
<td>2002</td>
<td>42</td>
<td>10.5</td>
</tr>
<tr>
<td>2003</td>
<td>45</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Stability and Adequacy

Growth Trend and Volatility of Tax on Capital Gains
Growth and Volatility of the Tax Base
Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): 5.02
(Note: comparable growth rate for U.S personal income: 1.52)
Index of volatility (volatility of personal income = 100): 1362
Index of procyclicality (procyclicality of personal income = 100): 503

Fairness

The Commission’s data sources did not permit an evaluation of the distributional characteristics of this tax. However, other sources suggest that it would be highly progressive. Forty-five percent of all taxable long-term capital gains are realized by taxpayers with federal adjusted gross incomes exceeding $1 million.

Competitiveness

See Chapter IVB.

Exportability

Percent of tax burden borne by nonresidents: 33 – 37 percent.
(Percent of burden of 1997 tax structure borne by nonresidents: 19-22 percent in the long-run.)

Comments. Capital gains comprise a larger fraction of federal adjusted gross income in New Hampshire (9.5 percent) than in the U.S. (6.7 percent). However, the instability of the tax would make it a highly undesirable source of revenue. In particular, as shown in the chart above, a change in federal tax laws concerning the definition of taxable capital gains can induce a huge displacement in the timing of sales.

The relative large fraction of income accounted for by capital gains in New Hampshire may reflect the importance of start-up, high-growth firms in the state’s economy. If so, a tax as steep as 24 percent (the rate required to raise $825 million in the year 2000) would probably induce significant migration of these firms to other states, forcing New Hampshire to impose an even higher rate to reach its revenue target.

The revenue forecasts assume a continuation of strong growth in the stock market. A run-off of stocks would slow growth in the tax base dramatically.

The exportability of the tax is so high because capital gains are concentrated so heavily among taxpayers exposed to the highest federal marginal tax rates. To the extent that the burden of the tax is exported, it is done so entirely through the federal loss offset.
Motor Fuels Tax

Definition of Base

Taxable motor fuel sales, as currently defined by New Hampshire law.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>6.6</td>
<td>-1.2</td>
</tr>
<tr>
<td>2001</td>
<td>6.9</td>
<td>4.2</td>
</tr>
<tr>
<td>2002</td>
<td>7.1</td>
<td>3.2</td>
</tr>
<tr>
<td>2003</td>
<td>7.3</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Stability and Adequacy

Growth Trend and Volatility of the Consumption of Motor Fuel
Growth and Volatility of the Tax Base
Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): .66
(Note: comparable growth rate for U.S personal income: 1.52)
Index of volatility (volatility of personal income = 100): 241
Index of procyclicality (procyclicality of personal income = 100): 46

Fairness

The Commission's data sources did not permit an evaluation of the distributional characteristics of this tax. However, other sources suggest that the tax is regressive.

Exportability

Percent of burden of the tax borne by nonresidents: 7 – 17 percent.
(Percent of all state and local tax burden borne by nonresidents in 1997: 19 – 22 percent in the long run)

Comments. Motor fuel sales respond to oil price shocks, which are reflected in the price at the pump. They have exhibited relatively slow growth over the past several decades because of increasing fuel-efficient vehicles, a trend that has reversed in recent years with the growing popularity of SUVs and vans. Since people need to drive in recessions as well as booms and oil price shocks do not coincide with the business cycle, revenues from the tax are less procyclical than all the other taxes examined by the Commission except the tobacco excise tax.
Tobacco Excise Tax

Definition of Base

Taxable sales of cigarettes and other taxable tobacco products, as currently defined by New Hampshire law.

Projected Revenue Productivity

<table>
<thead>
<tr>
<th></th>
<th>Revenues per percentage-point increase in statutory tax rate ($millions)</th>
<th>Annual rate of growth in tax base (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>1.3</td>
<td>-4.0</td>
</tr>
<tr>
<td>2002</td>
<td>1.3</td>
<td>-4.0</td>
</tr>
<tr>
<td>2003</td>
<td>1.2</td>
<td>-4.0</td>
</tr>
</tbody>
</table>

Note: the projected revenue for the year 2000 is the revenue yield of the tobacco excise tax in that year, $70.9 million, divided by the tax rate on cigarettes in that year, 52 cents per pack of twenty.
Stability and Adequacy

Growth Trend and Volatility of the Consumption of Cigarettes

Growth Trend

Year


Cigarettes Consumed (per capita)
Growth and Volatility of the Tax Base
Historical Trends

Historical annual trend growth rate of tax base (per capita, adjusted for inflation): -0.37
(Note: comparable growth rate for U.S personal income: 1.52)
Index of volatility (volatility of personal income = 100): 246
Index of procyclicality (procyclicality- of personal income = 100): -24

Fairness

The Commission’s data sources did not permit an evaluation of the distributional characteristics of this tax. However, other sources suggest that the tax is regressive.

Exportability

Percentage of tax borne by nonresidents: 15 percent
(Percentage of burden of all taxes under 1997 tax structure borne by nonresidents: 19 – 22 percent in the long run)

Comments. The base of this tax is the only one that has exhibited a long-term decline and is countercyclical. People smoke more when economic times are bad and less when economic times are good. New Hampshire recently increased its tax rate on cigarettes to 52 cents per pack, more in line with neighboring states. Cross-border sales are very sensitive to differences in tax rates between neighboring states. Consequently, at lower tax rates, a much larger percentage of the tax would be exportable.
Introduction to Ernst & Young
“Representative Firm” Analysis

These are the results of the “representative firm” analysis performed by Ernst & Young and discussed in Chapter 4.

The representative firm approach grew out of dissatisfaction with simple but misleading indicators of a state’s “tax competitiveness.” For example, some conclude that because New Hampshire has the lowest per capita state and local revenue burden in the nation, it therefore need not be concerned about the competitive standing of its revenue system. But while somewhat useful, this fact does not offer much insight into how the state’s current tax system, let alone alternative ones, can affect the profitability of investing in New Hampshire.

Nor do readily available data enable policymakers to evaluate how tax alternatives affect firms’ bottom lines. More ambitious, sophisticated analysis, such as the representative firm approach, is required.

Following this approach, Ernst & Young constructed hypothetical firms representative of several industries important to New Hampshire’s economy. Each firm 1) is assumed to earn a pre-tax rate of return to investment equal to 15 percent on equity, 2) is contemplating new investments in New Hampshire with useful lifetimes of 30 years, and 3) possesses balance sheets and income statements typical of firms in their industry.

Each firm is also assumed to undertake a new investment in New Hampshire in new equipment, structures, inventories, and financial assets, and to hire more workers. As result of the expansion, each firm makes more profits and pays more taxes. It is possible to calculate the long-run after-tax rate of return to the new facility under each tax option by comparing after-tax cash flows before and after expansion. The higher this rate of return, the less the tax alternative would discourage business investment in New Hampshire.

In estimating the tax burden of each firm, Ernst & Young took into account a wide variety of business taxes at all levels of government. Federal, state, and local business taxes should all be taken into account because businesses make their investment decisions not according to whom they pay taxes, but how much tax they pay to all governments relative to their profits. Since state and local taxes are deductible from federal corporate taxable income, it is very important to take federal taxes into account. Ernst & Young evaluated the impact of personal income taxes on the profitability of investment by using a variety of assumptions concerning the extent to which taxes are passed on to firms in the form of higher labor costs.
SUMMARY OF ERNST & YOUNG ANALYSIS

Business Tax Model Estimates

Ernst & Young estimated the after-tax rate of return for five hypothetical firms in New Hampshire and Massachusetts under current law and selected tax policy changes in New Hampshire. The industries include: semiconductor and electronic components, computer and office machines, fabricated metal products, general merchandise retailer and business services, except advertising.

Table 1 presents the after-tax rate of return estimates for several different simulations, current law in Massachusetts and the law in effect in New Hampshire prior to the Claremont decision. For each industry, the before-tax rate of return is assumed to be 15 percent. Table 2 lists the tax parameters used in each case.

The memorandum includes a brief description of the methodology used to estimate the after-tax rates of return. Table 3 presents a summary of the balance sheet and income statement information used for each of the five hypothetical firms.

Firm Financials

New Hampshire data on sales and employment by industry from the U.S. Census Bureau, County Business Patterns – 1998 was used to determine the major manufacturing, retail and service industry hypothetical firms to be included in the study.

The income and balance sheet information used to construct the financial profiles for the hypothetical firms was developed from multiple sources, starting with income and balance sheet data for firms with positive income from the Internal Revenue Service, Statistics of Income Corporate Source Book 1997. The financial data was selected for the median size firms in each industry, generally firms with total assets between $25 and $50 million.

Information from the U.S. Bureau of Economic Analysis, Input-Output Requirement Matrix for 1996 was used to determine the amount of purchases from other firms and value added per dollar of sales for the selected industries. This information is needed to determine firm purchases by detailed cost categories that are subject to state and local consumption taxes. Additional information on the composition of business investment by industry was derived from BEA estimates of investment in new structures and equipment.

Economic depreciation rates used to determine the annual level of investment needed to maintain the real stock of capital were based on estimates by Hulten and Wycoff and reported in Barbara M. Fraumeni, The Measurement of Depreciation in the U.S. National Income and Product Accounts, Survey of Current Business, July 1997.
Tax Information

Tax return information from the New Hampshire Department of Revenue Administration and the Massachusetts Department of Revenue was used to develop the tax parameters and tax calculator used in the model. Local property tax information used in the study included information on local tax rates in Nashua and Boston and information on statewide assessment and sales ratios. Information from the Federation of Tax Administrators surveys of state and local taxation of services was also used in estimating existing sales taxes on business purchases.

Model Calculations

The financial information for each firm was used to determine the composition of assets and the revenues and costs related to an expansion of the hypothetical firms in New Hampshire and Massachusetts. The financial results are projected over a 30-year period for the new investment. The model assumes a 15 percent before-tax rate of return on the owners' equity related to the expansion. Annual reinvestment equal to economic depreciation on the new assets from the expansion maintains the level of investment over time.

The annual balance sheet and income statement information is used to estimate the tax bases for the major state and local taxes including corporate income taxes, the business enterprise tax, net worth taxes, property taxes and consumption taxes. The corporate income tax calculations include annual estimates of tax depreciation of the firms' depreciable assets. The tax calculations also assume that any net losses from the expansion can be used to offset positive income from the operation of the pre-expansion business. The tax calculations also include the reduction in federal corporate income taxes due to the deductibility of state and local taxes.

Annual state and local taxes, net of the reduction in federal income taxes, are subtracted from the before-tax income stream to determine the after-tax rate of return for each industry. This is the measure reported in Table 1.

Tax Policy Simulations

The business tax model was used to simulate the expected impacts of changes in the state and local tax structure in New Hampshire. Table 2 describes the tax parameters that were used in each simulation.

For purposes of calculating corporate income and business enterprise tax impacts, the simulations assume that 100 percent of the payroll and property from the expansion is located in New Hampshire or Massachusetts and 20 percent of the sales are in the state.
### Table 1: Estimated Rates of Return Under Various Tax Options

<table>
<thead>
<tr>
<th>Tax Option</th>
<th>Electronic Components</th>
<th>Computers</th>
<th>Fabricated Metals</th>
<th>General Merchandise Stores</th>
<th>Business Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption VAT</td>
<td>13.2%</td>
<td>13.1%</td>
<td>13.4%</td>
<td>7.2%</td>
<td>12.2%</td>
</tr>
<tr>
<td>State Property Tax</td>
<td>14.7%</td>
<td>14.6%</td>
<td>14.7%</td>
<td>14.0%</td>
<td>14.8%</td>
</tr>
<tr>
<td>Sales Tax 6.6%</td>
<td>13.9%</td>
<td>13.6%</td>
<td>14.0%</td>
<td>11.2%</td>
<td>12.9%</td>
</tr>
<tr>
<td>Sales Tax 5.0%</td>
<td>14.0%</td>
<td>13.8%</td>
<td>14.1%</td>
<td>11.6%</td>
<td>13.4%</td>
</tr>
<tr>
<td>Income Tax-100% Pass Through to Wages</td>
<td>12.5%</td>
<td>12.4%</td>
<td>12.8%</td>
<td>6.6%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Income Tax-50% Pass Through to Wages</td>
<td>13.6%</td>
<td>13.5%</td>
<td>13.8%</td>
<td>10.6%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Income Tax-25% Pass Through to Wages</td>
<td>14.2%</td>
<td>14.1%</td>
<td>14.3%</td>
<td>12.6%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Income/Property Mix</td>
<td>13.6%</td>
<td>13.5%</td>
<td>13.7%</td>
<td>9.9%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Income/VAT Consumption Mix</td>
<td>12.7%</td>
<td>12.5%</td>
<td>13.0%</td>
<td>7.0%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Sales Tax/Property Tax Mix</td>
<td>14.2%</td>
<td>14.0%</td>
<td>14.3%</td>
<td>12.6%</td>
<td>13.7%</td>
</tr>
<tr>
<td>Pre-Claremont Manchester at 31.5 mills</td>
<td>14.6%</td>
<td>14.6%</td>
<td>14.6%</td>
<td>14.0%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Pre-Claremont Nashua at 21.35 mills</td>
<td>14.7%</td>
<td>14.6%</td>
<td>14.7%</td>
<td>14.3%</td>
<td>14.8%</td>
</tr>
<tr>
<td>MA Current Law</td>
<td>14.3%</td>
<td>14.1%</td>
<td>14.1%</td>
<td>11.4%</td>
<td>13.4%</td>
</tr>
</tbody>
</table>

### Table 2: Parameters for Each Tax Option

<table>
<thead>
<tr>
<th>Tax Option</th>
<th>Wage Increase</th>
<th>BET</th>
<th>BET (Alt 1)</th>
<th>Corporate Profits Tax (w/BET Alt 1)</th>
<th>Property Tax Rate</th>
<th>Sales Tax Rate</th>
<th>Profits Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption VAT</td>
<td>0.00%</td>
<td>0.00%</td>
<td>3.90%</td>
<td>0.0%</td>
<td>1.20%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>State Property Tax</td>
<td>0.00%</td>
<td>0.50%</td>
<td>0.00%</td>
<td>0.0%</td>
<td>2.03%</td>
<td>0.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Sales Tax 6.6%</td>
<td>0.00%</td>
<td>0.50%</td>
<td>0.00%</td>
<td>0.0%</td>
<td>1.20%</td>
<td>6.6%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Sales Tax 5.0%</td>
<td>0.00%</td>
<td>0.50%</td>
<td>0.00%</td>
<td>0.0%</td>
<td>1.20%</td>
<td>5.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Income Tax-100% Pass Through to Wages</td>
<td>2.60%</td>
<td>0.50%</td>
<td>0.00%</td>
<td>0.0%</td>
<td>1.20%</td>
<td>0.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Income Tax-50% Pass Through to Wages</td>
<td>1.30%</td>
<td>0.50%</td>
<td>0.00%</td>
<td>0.0%</td>
<td>1.20%</td>
<td>0.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Income Tax-25% Pass Through to Wages</td>
<td>0.65%</td>
<td>0.50%</td>
<td>0.00%</td>
<td>0.0%</td>
<td>1.20%</td>
<td>0.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Income (100% Pass Through)/Property Mix</td>
<td>1.30%</td>
<td>0.50%</td>
<td>0.00%</td>
<td>0.0%</td>
<td>1.62%</td>
<td>0.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Income/VAT Consumption Mix</td>
<td>1.30%</td>
<td>0.25%</td>
<td>1.95%</td>
<td>0.0%</td>
<td>1.20%</td>
<td>0.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Sales Tax/Property Tax Mix</td>
<td>0.00%</td>
<td>0.50%</td>
<td>0.00%</td>
<td>0.0%</td>
<td>1.62%</td>
<td>3.3%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>
In each scenario, with the exception of those involving a consumption-type value added tax (VAT), it was assumed that the new state tax regime raises an additional $825 million and local property taxes are reduced by $412.5 million. The reduction follows from the assumption that local property taxes are reduced by only 50 percent of the net new state taxes raised. .5 x $825 million = $412.5 million. It is assumed further that the current state property tax is repealed.

In the consumption-based VAT scenario, the VAT is imposed at a rate of 3.9 percent, high enough to raise $825 million plus offset the revenue loss from repeal of the business profits tax and business enterprise tax.

Note that the income tax simulation with 100 percent pass through to wages assumes an increase in labor costs of 2.6 percent. This percentage was arrived at in the following manner. It was assumed that 14.6 percent of the $825 million tax increase is exported through the net loss offset, leaving .854 * $825 million, or $705 million to be passed on in the form of higher labor costs. Estimated earnings by place of work in New Hampshire in the years 2000 were approximately $26.7 billion. $705 million divided by $26.7 billion is approximately .026.
# Table 3: Balance Sheet and Income Statements for Hypothetical Firms

<table>
<thead>
<tr>
<th></th>
<th>SIC 367</th>
<th>SIC 357</th>
<th>SIC 34</th>
<th>SIC 53</th>
<th>SIC 73</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Assets</td>
<td>$18,488</td>
<td>$22,272</td>
<td>$14,369</td>
<td>$17,906</td>
<td>$23,852</td>
</tr>
<tr>
<td>Land</td>
<td>$280</td>
<td>$212</td>
<td>$576</td>
<td>$1,023</td>
<td>$210</td>
</tr>
<tr>
<td>Inventories</td>
<td>$8,247</td>
<td>$9,415</td>
<td>$7,705</td>
<td>$12,662</td>
<td>$1,318</td>
</tr>
<tr>
<td>Other Assets</td>
<td>$1,799</td>
<td>$1,680</td>
<td>$2,722</td>
<td>$342</td>
<td>$4,421</td>
</tr>
<tr>
<td>Depreciable Assets:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture &amp; Fixtures</td>
<td>$181</td>
<td>$93</td>
<td>$293</td>
<td>$286</td>
<td>$351</td>
</tr>
<tr>
<td>Office Equipment, Computers</td>
<td>$1,524</td>
<td>$785</td>
<td>$969</td>
<td>$714</td>
<td>$2,199</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>$365</td>
<td>$188</td>
<td>$1,045</td>
<td>$1,250</td>
<td>$614</td>
</tr>
<tr>
<td>Other Machinery &amp; Equipment</td>
<td>$3,587</td>
<td>$1,847</td>
<td>$6,042</td>
<td>$1,476</td>
<td>$918</td>
</tr>
<tr>
<td>Structures</td>
<td>$1,116</td>
<td>$575</td>
<td>$1,728</td>
<td>$1,995</td>
<td>$381</td>
</tr>
<tr>
<td><strong>Total Depreciable Assets</strong></td>
<td>$6,773</td>
<td>$3,488</td>
<td>$10,077</td>
<td>$5,721</td>
<td>$4,463</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>$35,587</td>
<td>$37,067</td>
<td>$35,449</td>
<td>$37,654</td>
<td>$34,264</td>
</tr>
<tr>
<td><strong>Liabilities and Equity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts Payable</td>
<td>$4,955</td>
<td>$5,871</td>
<td>$4,007</td>
<td>$12,258</td>
<td>$4,953</td>
</tr>
<tr>
<td>Long-Term Debt</td>
<td>$5,752</td>
<td>$5,180</td>
<td>$6,488</td>
<td>$2,078</td>
<td>$5,111</td>
</tr>
<tr>
<td>Other Liabilities</td>
<td>$5,897</td>
<td>$12,064</td>
<td>$7,481</td>
<td>$16,188</td>
<td>$9,986</td>
</tr>
<tr>
<td><strong>Total Debt</strong></td>
<td>$16,604</td>
<td>$23,115</td>
<td>$17,976</td>
<td>$30,524</td>
<td>$20,050</td>
</tr>
<tr>
<td>Stockholder Equity</td>
<td>$18,983</td>
<td>$13,952</td>
<td>$17,473</td>
<td>$7,130</td>
<td>$14,214</td>
</tr>
<tr>
<td><strong>Total Liabilities &amp; Equity</strong></td>
<td>$35,587</td>
<td>$37,067</td>
<td>$35,449</td>
<td>$37,654</td>
<td>$34,264</td>
</tr>
<tr>
<td><strong>Income Statement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Receipts</td>
<td>$54,404</td>
<td>$66,036</td>
<td>$56,721</td>
<td>$81,181</td>
<td>$46,123</td>
</tr>
<tr>
<td>Other Income</td>
<td>$956</td>
<td>$1,369</td>
<td>$835</td>
<td>$3,122</td>
<td>$2,244</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td>$55,360</td>
<td>$67,405</td>
<td>$57,556</td>
<td>$84,303</td>
<td>$48,367</td>
</tr>
<tr>
<td>Less:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Compensation</td>
<td>$18,098</td>
<td>$13,798</td>
<td>$18,337</td>
<td>$33,619</td>
<td>$19,695</td>
</tr>
<tr>
<td>Rent</td>
<td>$334</td>
<td>$424</td>
<td>$205</td>
<td>$2,118</td>
<td>$984</td>
</tr>
<tr>
<td>Materials/Goods</td>
<td>$23,111</td>
<td>$38,535</td>
<td>$27,727</td>
<td>$35,028</td>
<td>$11,625</td>
</tr>
<tr>
<td>Utilities</td>
<td>$1,408</td>
<td>$1,221</td>
<td>$1,412</td>
<td>$3,234</td>
<td>$1,063</td>
</tr>
<tr>
<td>Services</td>
<td>$2,743</td>
<td>$2,657</td>
<td>$1,541</td>
<td>$4,533</td>
<td>$2,534</td>
</tr>
<tr>
<td>Other Costs</td>
<td>$6,603</td>
<td>$7,852</td>
<td>$5,105</td>
<td>$4,701</td>
<td>$8,715</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>$52,297</td>
<td>$64,487</td>
<td>$54,327</td>
<td>$83,233</td>
<td>$44,616</td>
</tr>
<tr>
<td><strong>Net Income Before Depreciation, Interest, and Taxes</strong></td>
<td>$3,063</td>
<td>$2,918</td>
<td>$3,229</td>
<td>$1,070</td>
<td>$3,751</td>
</tr>
</tbody>
</table>
MEMORANDUM

TO: ALICE DE SOUZA
FROM: RONALD U. MENDOZA
DATE: AUGUST 7, 2000
SUBJECT: LIST OF ASSUMPTIONS FOR THE VLT MEMO

The following is a list of the major assumptions made in order to forecast the net economic impact of legalizing VLTs in New Hampshire:

In estimating the New Hampshire VLT market:
- It was assumed that there would be 6 sites for the Video Lottery Terminals (VLTs): Rockingham Park, Hinsdale Park, Seabrook Park, Lakes Region Park, The Balsams Resort, and Mt. Washington Hotel.
- Most of the potential patrons were assumed to be day-trippers, implying that drawing a circle with a 125 mile radius around each of the proposed VLT sites, should encompass the main market area for these sites.
- The Canadian market was assumed to be saturated (i.e. Quebec has over 15,000 VLTs in 4,175 locations), so it was dropped from the New Hampshire VLT market estimate.

In estimating the New Hampshire VLT revenues:
- Due to general similarities in population and income demographics, the Delaware and New Hampshire markets were assumed to be comparable. Hence, the 1999 weekly net machine revenue per device numbers from Delaware VLTs were used to forecast revenues in the proposed New Hampshire sites.
- 7 days a week for 52 weeks was the assumed annual period of operation.
- National Opinion Research Center (NORC, 1999) estimates of 1997 per capita casino spending were used to forecast 2000, 2001 and 2004 casino spending for the New Hampshire market. It was further assumed that, with the establishment of the 6 VLT sites in New Hampshire, much of the potential casino spending within the New Hampshire market would be concentrated in New Hampshire.
- Based on the assumption that 60% of casino revenues come from slot machines and a comparison of the gross profits per machine in casino and non-casino sites, it was assumed that the VLT/Slots share would be 30% of the projected casino spending in the New Hampshire market.
- The state gambling tax on the machines was pegged at 44.8%.
- Multiplier effects for New Hampshire were assumed to be negligible.

In estimating the total costs:
- Adults are assumed to be 70% of the population.
- Incidence rates for problem and pathological gambling were taken from the random digital dial (RDD) survey of adults conducted by NORC. These were 1.3% and 0.8% respectively.
- NORC estimates of total annual costs for problem and pathological gamblers were $560 and $1,050 respectively.
- Cannibalization of entertainment spending was assumed to be 8% of total VLT revenues. (Conservative estimate.)
- Decline in instant lottery game revenues was assumed to be 10%. (Conservative estimate.)
- Decline in pari-mutuel state revenues was assumed to be within the range of 10% and 32%.
- Increased infrastructure and public services costs were assumed to be handled by the VLT operators.
MEMORANDUM

TO: Members of the New Hampshire Education Funding Commission
FROM: Ronald U. Mendoza
DATE: August 4, 2000
SUBJECT: An analysis of the net economic impact of Video Lottery Terminals (VLTs) in New Hampshire

SYNOPSIS:

Adding VLTs or slot machines to the portfolio of gambling products at New Hampshire’s four racetracks (i.e. Rockingham Park, Hinsdale Park, Seabrook Park, and Lakes Region Park) and two resort destinations (i.e. The Balsams and Mt. Washington Hotel) will generate between $200M and $240M in additional government revenues. After factoring in social costs and the cannibalization of lottery and racetrack revenues, the estimated net economic impact will fall within the estimated range of $67M to $178M for 2001. Beyond these numbers, there are several important issues that need to be given due consideration. One deals with the sustainability of these revenue flows, particularly in light of increasing competition and innovation in the gambling industry. Several other issues focus on the increasing prevalence of problem and pathological gambling, and the regressivity of using VLTs as a revenue-generating option.

INTRODUCTION:

EGDs (Electronic Gaming Devices) or VGDs (Video Gaming Devices) are probably the most widely adopted innovations in contemporary casino gaming. While these devices are essentially equivalent to slot machines, they offer the added attractions of programmed games such as keno, blackjack, and several variants of poker. The impact on revenues of these high-tech slot machines is quite significant: roughly 60% of gross gambling revenues in Las Vegas and New Jersey casinos are attributed to these machines.¹ Consequently, their revenue generating potential was immediately recognized by several state and local governments, which have decided to legalize them. Video Lottery Terminals or VLTs are the same as regular video gaming devices but are referred to as “lottery terminals” because they are regulated by the state’s lottery commission, which receives a share of the revenues.

VLT gaming was first legalized in South Dakota in 1989. Since then West Virginia (1990), Oregon (1992), Rhode Island (1992) and Delaware (1995) have followed suit. Some states, like Delaware and Rhode Island, have authorized the operation of VLTs in close proximity to pari-mutuel wagering sites such as racetracks in order to enable these facilities to compete with the booming casino market of the 90s.

The experience of these states in terms of generating more revenues or resuscitating their ailing racetracks has been overwhelmingly positive. Thalheimer (1998) presents empirical evidence from the experience of Mountaineer Racetrack in West Virginia that adding VLTs into the gambling portfolio mix negatively impacts pari-mutuel revenues from horse wagering but more than compensates for this through larger revenue gains from the VLTs. Hence, one proposal to help shore up the educational funding deficit in New Hampshire is to legalize the operation of VLTs or VGDs (Video Gambling Devices) in four racetracks and two hotels located within the state. Licensing and tax revenues from the operation of these machines can then be earmarked specifically for state educational expenditures. The proposed locations for these devices include The Balsams Hotel (Dixville Notch), Mount Washington Hotel (Bretton Woods), Hinsdale Greyhound Park (Hinsdale), Lakes Region Greyhound Park (Belmont), Rockingham Park (Salem), and Seabrook Greyhound Park (Seabrook).

This memo examines the revenue potential of VLTs with due consideration to its cannibalization effects, particularly on pari-mutuel wagering (i.e. wagering on horse and dog races) and state lottery revenues. Furthermore, this memo provides forecasts of the social costs based on national studies conducted on problem gambling and on the experience of other states that have legalized VLTs. Net revenue estimates for the state of New Hampshire can then be examined.

On the revenue side, two approaches are used in attempting first-pass approximations. The first approach adopts the common practice of using the average of net revenue numbers for slot machines located in other states. By simply multiplying these net revenue statistics by the intended number of machines in New Hampshire, a very rough approximation of the revenue potential can be made. However, this approach can be criticized on several grounds. First, one can make the argument that the net revenue per machine in New Hampshire may not be comparable to those in other states due to the differences in market demographics. Second, the net revenue per machine may be sensitive to the number of machines in place; too many machines may end-up lowering the net revenue of each individual machine. Conversely, too few machines may result in a lower incentive for VLT players to make the trip, because of concerns about machine availability.

The second approach evaluates the New Hampshire gambling market. A 125-mile radius is used to determine the markets for each of the proposed VLT sites in New Hampshire. After correcting for overlaps with casinos and other racetracks with VLTs, a unified market base is identified in order to project total state revenues for all of the facilities. To implement these projections, calculations on per capita gambling by the National Opinion Research Center (NORC) at the University of Chicago are utilized.

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2 A report by the Association of Racing Commissioners International, Inc. found that pari-mutuel horse-race wagering has declined by as much as 60% in real dollars for the period 1960-1994. This decline is largely attributed to the rapid spread of casino gaming due to the legalization of tribal casinos and gambling boats.


4 This refers to the drain on spending for other products and services due to increased spending on VLTs.
With respect to social costs, baseline estimates are taken from the Gambling Impact and Behavior Study (1999)\(^5\) conducted by the NORC. Per capita prevalence rates of problem and pathological gambling as well as costs per gambler are used to project total annual social costs for all 6 proposed VLT sites in New Hampshire.

**REVENUE ESTIMATES:**

One way to provide a rough estimate of the revenue stream from installing VLTs in New Hampshire is to simply take an average net revenue number for a machine currently in operation in some other state and multiply this by the proposed number of machines to be authorized. For this method to be reliable, several assumptions need to be made. First, the market size and demographics between the two sites need to be similar. Second, the number of machines in both markets needs to be roughly equal. The reason for this is that slight subtleties in market scenarios are just as conceivable: 100 VLTs in a small market and 1000 VLTs in a larger market may give out the same annual average net revenue per machine, *ceteris paribus*. These scenarios clearly imply that many factors need to be similar (or many demand and supply conditions need to be just so) in order for this method to be accurate. This notwithstanding, the range of outcomes can still be of some use, if only as a first-pass approximation of the revenue numbers one can expect. Table 1 below shows the range of potential revenue outcomes assuming a total of 5000 machines.\(^6\)

**Table 1: Projected Revenues Based on Net Revenues per Machine in Other States, 1999**

<table>
<thead>
<tr>
<th>Location</th>
<th>Delaware</th>
<th>Louisiana</th>
<th>Montana</th>
<th>Oregon</th>
<th>Rhode Island</th>
<th>South Dakota</th>
<th>West Virginia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly net machine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>revenue per device</td>
<td>2079</td>
<td>825</td>
<td>248</td>
<td>877</td>
<td>1834</td>
<td>440</td>
<td>1067</td>
</tr>
<tr>
<td>Number of machines</td>
<td>3500</td>
<td>15600</td>
<td>19600</td>
<td>8800</td>
<td>1600</td>
<td>8000</td>
<td>3400</td>
</tr>
<tr>
<td>Number of locations</td>
<td>3</td>
<td>3656</td>
<td>1759</td>
<td>1835</td>
<td>2</td>
<td>1406</td>
<td>4</td>
</tr>
</tbody>
</table>

**New Hampshire Projections**

<table>
<thead>
<tr>
<th>Revenues for 5000 machines per year(^*)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected State revenue from VLTs(^**)</td>
<td>540,540,000</td>
<td>214,500,000</td>
<td>64,480,000</td>
<td>228,020,000</td>
<td>476,840,000</td>
<td>114,400,000</td>
<td>277,420,000</td>
</tr>
</tbody>
</table>

\(^*\)Assuming 52 weeks of operation per year.
\(^**\)Assuming 44.8% State percent tax.

Given the wide range of revenue outcomes, a specific *net-revenue-per-machine* number from a market similar to New Hampshire’s must be selected. From a general analysis of population and median income statistics, the Delaware market seems to be the most similar to that of New Hampshire.

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\(^6\) Based on phone interviews, Delaware currently has around 5000 VLTs spread across 3 pari-mutuel facilities. Note however, that unlike VLTs in other states, Delaware’s machines pay out in cash.
In determining the market areas and population sizes of the Delaware and New Hampshire gambling markets, all casinos and pari-mutuel facilities with VLTs or slot machines in the general area are identified. A circle with a 125-mile radius\(^7\) is then drawn around each of these sites. The specific criteria for identifying the relevant casinos and pari-mutuel facilities is that all potential competitors whose market areas overlap those of the proposed VLT sites in New Hampshire need to be included in the analysis. These gambling sites are presented in Table 2.

The market area for each of the VLT sites can then be identified, by using perpendicular bisectors to apportion the market based purely on distance.\(^8\) The areas controlled by each VLT site in New Hampshire can then be added to show the total market area that the state’s gambling facilities can generate revenues from. The same procedure is used to identify the aggregate gambling market in Delaware, which has 3 VLT sites: Delaware Park Racetrack and Slots (Wilmington), Dover Downs Slots (Dover), and Midway Slots and Simulcast (Harrington). Finally, in order to evaluate the proposition that the Delaware and New Hampshire gambling markets are sufficiently comparable (i.e. so that net revenues per machine in Delaware can be used to project revenues in New Hampshire), the population size and the income demographics of these two markets must (at the very least) be relatively similar.

### Table 2: Selected Existing and Proposed Gambling Facilities

#### New Hampshire Market\(^*\)

<table>
<thead>
<tr>
<th>State</th>
<th>Facility</th>
<th>Type</th>
<th>Town/City</th>
<th>Slots/VLTs</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Hampshire</td>
<td>Hinsdale Greyhound Park</td>
<td>Racetrack</td>
<td>Hinsdale</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Lakes Region Greyhound Park</td>
<td>Racetrack</td>
<td>Belmont</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Rockingham Park</td>
<td>Racetrack</td>
<td>Salem</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Seabrook Greyhound Park</td>
<td>Racetrack</td>
<td>Seabrook</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>The Balsams</td>
<td>Hotel</td>
<td>Dixville Notch</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Mt. Washington Resort</td>
<td>Hotel</td>
<td>Bretton Woods</td>
<td>0</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Foxwoods Resort Casino</td>
<td>Casino</td>
<td>Mashantucket</td>
<td>4500</td>
</tr>
<tr>
<td></td>
<td>Mohegan Sun Resort</td>
<td>Casino</td>
<td>Uncasville</td>
<td>3000</td>
</tr>
<tr>
<td></td>
<td>Plainfield Greyhound Park</td>
<td>Racetrack</td>
<td>Plainfield</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Shoreline Star</td>
<td>Jai Alai</td>
<td>Bridgeport</td>
<td>0</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>El Dorado Casino Cruises</td>
<td>Gambling boat</td>
<td>Gloucester</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>Horizon’s Edge Casino</td>
<td>Gambling boat</td>
<td>Lynn</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>Leisure Casino Cruises</td>
<td>Gambling boat</td>
<td>Gloucester</td>
<td>175</td>
</tr>
<tr>
<td></td>
<td>MA Wonderland Greyhound Park</td>
<td>Racetrack</td>
<td>Revere</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Raynham-Taunton Greyhound Park</td>
<td>Racetrack</td>
<td>Raynham</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Suffolk Downs</td>
<td>Racetrack</td>
<td>Boston</td>
<td>0</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>American Canadian Caribbean Lines</td>
<td>Gambling boat</td>
<td>Warren</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>Lincoln Park Greyhound Track</td>
<td>Racetrack</td>
<td>Lincoln</td>
<td>1700</td>
</tr>
<tr>
<td></td>
<td>Newport Grand Jai Alai</td>
<td>Jai Alai</td>
<td>Jamestown</td>
<td>400</td>
</tr>
<tr>
<td>Maine</td>
<td>Bangor Raceway</td>
<td>Racetrack</td>
<td>Bangor</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Prince of Fundy Cruises</td>
<td>Gambling boat</td>
<td>Portland</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>Scarborough Downs</td>
<td>Racetrack</td>
<td>Scarborough</td>
<td>0</td>
</tr>
</tbody>
</table>

---

\(^7\) Various studies have used different radii in order to show the market size, assuming that patrons will mostly be day-trippers (i.e. approximately 74% based on patron surveys in some Wisconsin casinos). If one accounts for the density of the New Hampshire and Delaware markets as well as the potential and/or existing traffic congestion, 125 miles can be considered an appropriate number.

\(^8\) The idea is to draw concentric circles around each VLT site or casino in order to represent the market area for each site. Overlapping market regions are then divided equally in order to identify the areas where each particular gambling facility is the first choice, when evaluated purely on a minimum distance criterion.
<table>
<thead>
<tr>
<th>State</th>
<th>Facility</th>
<th>Type</th>
<th>Town/City</th>
<th>Slots/VLTs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delaware</td>
<td>Delaware Park Racetrack and Slots</td>
<td>Racetrack</td>
<td>Wilmington</td>
<td>2000</td>
</tr>
<tr>
<td></td>
<td>Dover Downs Slots</td>
<td>Racetrack</td>
<td>Dover</td>
<td>2000</td>
</tr>
<tr>
<td>Midway Slots</td>
<td>Racetrack</td>
<td>Racetrack</td>
<td>Harrington</td>
<td>1200</td>
</tr>
<tr>
<td>New Jersey</td>
<td>Various Casinos</td>
<td>Casino</td>
<td>Atlantic City</td>
<td>15,000+</td>
</tr>
<tr>
<td>West Virginia</td>
<td>Charles Town Races</td>
<td>Racetrack</td>
<td>Charles Town</td>
<td>2000</td>
</tr>
</tbody>
</table>

*Data gathered from Internet search and phone interviews in July, 2000.*

There are some obvious similarities between the two markets. Both the New Hampshire and Delaware sites face considerable competition from neighboring facilities: over 14,000 slot machines in competing gambling sites for New Hampshire and well over 17,000 machines (mostly in Atlantic City) for Delaware. Gambling facilities in both states also face strong competition from popular tourist destination sites that offer gambling as only one of many other activities: New Hampshire sites will face competition from Foxwoods and Mohegan Sun to the South and Casino de Montreal to the North, while Delaware sites face significant competition from Atlantic City casinos.

With respect to market size, the population base or market size for New Hampshire is roughly 9 million with a median income range among the covered counties of $24,893 to $51,855.\(^9\) The Delaware market has a larger population base of approximately 13 million with a median income range of about $19,412 to $66,745. Based on surveys conducted by NORC (1999) and the Wisconsin Policy Research Institute (1995),\(^10\) the majority of casino patrons fall within the $20k to $50k income range, making both New Hampshire and Delaware prime gambling sites. The decomposition of the population numbers by county can be found in Tables 3A and 3B below.

**Table 3: Population Estimates/Projections**

**A. The New Hampshire Market**

<table>
<thead>
<tr>
<th>Massachusettys</th>
<th>1999 estimated</th>
<th>Growth rate 98</th>
<th>2000 projected</th>
<th>2001 projected</th>
<th>2004 projected**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berkshire</td>
<td>132,218</td>
<td>-0.5</td>
<td>131,557</td>
<td>130,899</td>
<td>129,900</td>
</tr>
<tr>
<td>Essex</td>
<td>704,407</td>
<td>0.6</td>
<td>708,633</td>
<td>712,885</td>
<td>729,300</td>
</tr>
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<td>70,806</td>
<td>0.3</td>
<td>71,018</td>
<td>71,231</td>
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<td>Hampden</td>
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<td>-0.2</td>
<td>437,402</td>
<td>436,528</td>
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<td>0.4</td>
<td>151,496</td>
<td>152,102</td>
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<td>1,430,886</td>
<td>1,435,178</td>
<td>1,463,400</td>
</tr>
<tr>
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<td>746,754</td>
<td>754,968</td>
<td>761,400</td>
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<tr>
<td>Androscoggin</td>
<td>3,661,837</td>
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<td>3,677,747</td>
<td>3,693,792</td>
<td>3,741,600</td>
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</tbody>
</table>

*Population numbers from overlapping areas into Canada were not included. The reason being that Quebec has over 15,000 installed VLTs in over 4,175 locations according to La Fluer (1999). The Quebec market is considered saturated.*

Cumberland 256,437 0.8 258,488 260,516 264100
Franklin 28,797 -0.2 28,739 28,682 29100
Kennebec 115,234 0.1 115,339 115,455 112700
Oxford 54,288 0.8 54,722 55,160 54600
Penobscot 144,432 0 144,432 144,432 139500
Piscataquis 18,077 -0.6 17,969 17,861 17700
Somerset 52,630 0.4 52,841 53,052 54100
Waldo 36,965 1.2 37,409 37,857 38100
York 177,588 1.5 180,252 182,956 185500

985,775 991,629 997,580 990700

New Hampshire..........14%
Belknap 53,680 1.4 54,432 55,194 55500
Carroll 40,184 1 40,988 41,807 40700
Cheshire 72,401 0.5 72,763 73,127 75200
Coos 32,725 -0.4 32,594 32,464 34800
Grafton 78,570 0.4 78,884 79,200 79700
Hillsborough 367,233 1.3 372,007 376,843 387700
Merrimack 129,931 1.6 132,010 134,127 135700
Rockingham 275,488 1.8 280,447 285,495 288000
Strafford 110,667 1.1 111,884 113,115 115000
Sullivan 40,255 1 40,658 41,064 40700

1,201,134 1,216,666 1,232,431 1,252700

New York.................17%
Albany 292,006 -0.3 291,130 290,257 286200
Columbia 63,902 -0.2 62,876 62,750 64500
Dutchess 268,237 1.1 271,188 274,171 277900
Essex 37,507 -0.1 37,469 37,432 36900
Greene 48,348 -0.4 48,541 48,736 50500
Rensselaer 151,445 -0.5 150,688 149,934 150800
Saratoga 199,733 1.2 202,130 204,555 206900
Schenectady 143,871 -0.9 142,576 141,293 143100
Ulster 167,293 0.3 167,795 168,298 168100
Warren 61,441 0.3 61,625 61,810 63000
Washington 60,141 0 60,141 60,141 60700

1,493,024 1,496,159 1,499,377 1511300

Connecticut.............11%
Hartford 829,671 0.7 831,330 832,993 817600
Litchfield 182,399 0.6 183,493 184,594 188400

1,012,070 1,014,824 1,017,587 1,006000

Vermont...............6%
Addison 35,440 0.8 35,724 36,099 36500
Bennington 35,965 0.1 36,001 36,037 34800
Caledonia 28,821 0.9 29,080 29,342 28500
Chittenden 143,947 1 145,286 146,840 148600
Essex 6,643 0.9 6,704 6,756 6700
Lamoille 21,935 1.4 22,242 22,553 22500
Orange 27,871 0 27,871 27,871 29200
Orleans 25,496 0.5 25,623 25,752 26300
Rutland 62,407 -0.2 62,282 62,158 62700
Washington 56,289 0.2 56,402 56,514 57200
Windham 42,670 -0.1 42,627 42,585 42600
Windsor 55,454 0.2 55,565 55,676 55700

542,939 545,808 548,102 551300

Total Market 8,896,779 8,942,533 8,988,839 9,056,600

B. The Delaware Market*

<table>
<thead>
<tr>
<th></th>
<th>1999 estimated</th>
<th>Growth rate 98</th>
<th>2000 projected</th>
<th>2001 projected</th>
<th>2004 projected**</th>
</tr>
</thead>
<tbody>
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<td>New Jersey.......</td>
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<td>427,906</td>
<td>431,329</td>
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<td>502,087</td>
<td>501,083</td>
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<td>Cape May</td>
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<td>98,009</td>
<td>99500</td>
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<td>139,552</td>
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<td>126,825</td>
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<td>336,198</td>
<td>338,551</td>
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<td>468,180</td>
<td>472,862</td>
<td>492000</td>
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<td>63,762</td>
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<td>County</td>
<td>Population</td>
<td>Change</td>
<td>1990 Population</td>
<td>Change</td>
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<td>101,917</td>
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<tr>
<td></td>
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<td>Pennsylvania</td>
<td>55%</td>
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<tr>
<td>Delaware</td>
<td>6%</td>
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<tr>
<td>Kent</td>
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<td>127,813</td>
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<td><strong>763,402</strong></td>
<td><strong>773,412</strong></td>
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<tr>
<td>Maryland</td>
<td>15%</td>
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<tr>
<td>Virginia</td>
<td>1%</td>
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<tr>
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<tr>
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<tr>
<td>New Kent</td>
<td>13,218</td>
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<tr>
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<td>12,990</td>
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<td>-0.4</td>
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<tr>
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<td><strong>146,853</strong></td>
<td></td>
<td><strong>147,741</strong></td>
<td><strong>148,647</strong></td>
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<tr>
<td>Total Market</td>
<td></td>
<td></td>
<td><strong>12,999,331</strong></td>
<td><strong>13,064,839</strong></td>
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</tbody>
</table>

*1999 growth rates used to calculate projections for 2000 and 2001, and market shares in percentages are indicated after each state.
Source: http://www.census.gov/datamap/www/index.html
While these population numbers seem to indicate that Delaware VLT sites have a significantly larger market than that of the proposed New Hampshire sites, it is important to note one cogent argument that may lead us to conclude otherwise. In determining the New Hampshire and Delaware markets, only the influence of distance has been considered so far. While this is obviously of paramount concern for a market predominantly composed of *day-trippers*, there is also the gravity effect from being proximal to a popularly known tourist spot (i.e. Atlantic City or Foxwoods).

It follows that the population base for both the Delaware and New Hampshire sites need to be scaled down in order to account for this effect. Incidentally, it is important to note that this argument applies more so for the case of Delaware Park in Wilmington, DE which is much closer to Atlantic City, NJ (i.e. approximately 65 miles away) than the closest New Hampshire sites are to Foxwoods (i.e. from Rockingham Park in Salem, NH, 99 miles), Mohegan Sun (i.e. from Rockingham Park, 100 miles), or even Casino de Montreal (i.e. from The Balsams, 120 miles). Moreover, Foxwoods may be the largest casino in the world with over 4500 slot machines, but it pails in comparison to the combined gambling supply of Atlantic City. The gravity effect of Foxwoods on the proposed VLT sites in New Hampshire will be much lower than the effect of Atlantic City on the Delaware sites.

Therefore, there is every reason to expect that the Delaware market is much lower than 13 million, and that this estimated market size should be viewed as a very generous upper bound estimate. If one makes the not unreasonable assumption that all New Jersey residents would much prefer Atlantic City (15,000+ slots) over Delaware Park Racetrack and Slots (2000+ slots) in Wilmington, then the market for Delaware is closer to 10 million people (i.e. by subtracting the New Jersey residents from the Delaware market), and is not too far off from the 9 million estimate for the New Hampshire market. Hence, a case can indeed be made for using the net revenue numbers from Delaware machines in order to make projections of expected VLT revenues in New Hampshire. From earlier calculations presented in Table 1, New Hampshire stands to gain $242M in gross tax revenues from operating 5000 VLTs while imposing a 44.8% state tax on machine revenues.

In order to test how robust these projected revenue numbers are, another method is used to forecast VLT revenues. The National Opinion Research Center (NORC) at the University of Chicago published a report in 1999 evaluating the impact of gambling trends in the United States. Studying 100 sample communities across the US from 1980 to 1997, the report produced baseline estimates of per capita casino spending. In order to impute expected VLT revenues from casino spending, use is made of the fact that slot machines account for around 60% of casino revenues in various gambling facilities in Atlantic City and Las Vegas.

However, slot machines in casinos will definitely pull in more revenues than slot machines located in racetracks or hotels. Gambling industry experts observe that video wagering machines in non-casino settings usually generate less revenues than those based in casinos, because the presence of table games in casinos “define the gaming atmosphere and stimulate the behavior within a [gambling] facility.”

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Comparing the numbers for gross profits per machine in non-casino (i.e. Louisiana, Montana, Rhode Island) and casino sites (i.e. Colorado towns of Cripple Creek, Central City, and Black Hawk), 30% is identified as a more reasonable share number. The calculations are summarized in Table 4 below.

**Table 4: Projected VLT Revenues from NORC Estimates**

<table>
<thead>
<tr>
<th>Year</th>
<th>Distance</th>
<th>NH Market</th>
<th>Potential Casino spending</th>
<th>VLT/Slot share at 30%</th>
<th>State revenue at 44.8% tax</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Population A. at $153 per capita (125 miles)</td>
<td>B. at $178 per capita (50 miles)**</td>
<td>$558,482,742</td>
<td>$450,154,657</td>
</tr>
<tr>
<td>2000</td>
<td>51-125 miles</td>
<td>3,650,214</td>
<td>Total 8,942,533</td>
<td>$1,600,515,524</td>
<td>$201,669,286</td>
</tr>
<tr>
<td></td>
<td>0-50 miles</td>
<td>5,292,319</td>
<td></td>
<td>$942,032,782</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>51-125 miles</td>
<td>3,661,520</td>
<td>Total 8,988,839</td>
<td>$1,508,475,342</td>
<td>$202,739,086</td>
</tr>
<tr>
<td></td>
<td>0-50 miles</td>
<td>5,327,319</td>
<td></td>
<td>$948,262,782</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>51-125 miles</td>
<td>3,660,000</td>
<td>Total 9,056,600</td>
<td>$1,520,574,800</td>
<td>$204,365,253</td>
</tr>
<tr>
<td></td>
<td>0-50 miles</td>
<td>5,396,600</td>
<td></td>
<td>$960,594,800</td>
<td></td>
</tr>
</tbody>
</table>

**Population total within 50 miles of the VLT sites were drawn from all the counties of New Hampshire and Massachusetts (i.e. those falling within the market scope determined earlier), Oxford, Franklin and York in Maine, and Bennington, Windham, and Windsor in Vermont.

With these additional calculations, projections of additional gross tax revenues for New Hampshire range from $200M to $240M.

**COST ESTIMATES:**

To a large extent, estimating the economic and social costs of operating VLTs or slot machines is a far more complicated exercise than projecting its revenues. In terms of economic costs, existing infrastructure will depreciate far more quickly due to increased traffic, and new facilities (i.e. parking space and access roads) will need to be constructed in order to maximize patronage. As regards social costs, we again rely on the NORC (1999) study, which estimated the costs attending pathological and problem gambling in the US.\(^\text{12}\) These costs included expenses related to job loss, bankruptcy, arrests, corrections and poor health, to name a few. While these estimates do not account for the time dimension of problem and pathological gambling\(^\text{13}\) the estimated numbers can still serve as a useful benchmark.

However, both problem and pathological gambling already exist in New Hampshire, due either to the exposure of its residents to the gambling activities already legalized in the state (i.e. pari-mutuel horse wagering, lotto, and Power Ball) or due to imported gambling problems when its residents visit casinos and

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\(^\text{12}\) The NORC (1999) estimates are significantly lower than earlier estimates which fall within a range of $13,000 to $52,000 as cited in the 1995 Wisconsin Policy Research Institute Report. The NORC numbers are used because these are the most recent estimates of social costs.

\(^\text{13}\) NORC (1999) concluded that lifetime costs for individual gamblers are much higher than the yearly costs would imply. The lifetime costs estimated for problem and pathological gamblers were $5,130 and $10,550 respectively.
VLT sites in other states. Hence, the difficulty of identifying economic and social costs is separating the incremental effect of legalizing these VLTs in New Hampshire.

In order to simplify the analysis, it is assumed that the legalization of VLTs will account for much of the resulting problem and pathological gambling in New Hampshire. This is not an unrealistic assumption based on two reasons. First, anecdotal evidence supports this assumption. For instance, Dr. Robert Hunter, a prominent Las Vegas clinical psychologist specializing in problem and pathological gambling, has been widely quoted for calling EGDs (i.e. VLTs) “the crack cocaine of gambling,” implying that it is the most addictive and destructive type of gambling. Second, there is no compelling reason to expect that using the NORC (1999) prevalence rates will lead to an overestimate of the social costs of VLTs. These rates are much lower than those estimated by previous studies, and Cox, Lesieur, Rosenthal, and Volberg (1997) concluded from a general survey of prevalence studies conducted throughout the US, that prevalence rates tend to be higher in the Northeast. Therefore using the NORC rates, which can be considered a close approximation of national average prevalence, should then provide a conservative estimate of the social costs. The social costs of legalizing VLTs in the 6 proposed sites in NH are calculated below.

**Table 5: Social Costs**

**Only NH residents**

<table>
<thead>
<tr>
<th>Year of Operation</th>
<th>NH Adults</th>
<th>ProblemGamblers*</th>
<th>Annual cost**</th>
<th>PathologicalGamblers*</th>
<th>Annual cost**</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>851,666</td>
<td>11,072</td>
<td>6,200,128</td>
<td>6,813</td>
<td>7,153,994</td>
<td>13,354,123</td>
</tr>
<tr>
<td>2001</td>
<td>862,702</td>
<td>11,215</td>
<td>6,280,471</td>
<td>6,902</td>
<td>7,246,697</td>
<td>13,527,167</td>
</tr>
<tr>
<td>2004</td>
<td>876,890</td>
<td>11,400</td>
<td>6,383,759</td>
<td>7,015</td>
<td>7,365,876</td>
<td>13,749,635</td>
</tr>
</tbody>
</table>

**Entire NH market**

<table>
<thead>
<tr>
<th>Year of Operation</th>
<th>NH Adults</th>
<th>ProblemGamblers*</th>
<th>Annual cost**</th>
<th>PathologicalGamblers*</th>
<th>Annual cost**</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>6,259,773</td>
<td>81,377</td>
<td>48,571,148</td>
<td>50,078</td>
<td>52,582,094</td>
<td>98,153,242</td>
</tr>
<tr>
<td>2001</td>
<td>6,292,187</td>
<td>81,798</td>
<td>48,607,124</td>
<td>50,337</td>
<td>52,654,373</td>
<td>98,661,497</td>
</tr>
<tr>
<td>2004</td>
<td>6,339,620</td>
<td>82,415</td>
<td>46,152,434</td>
<td>50,717</td>
<td>53,252,808</td>
<td>99,405,242</td>
</tr>
</tbody>
</table>

*Incidence was based on random digital dial (RDD) survey of adults conducted by NORC, p.25.

**NORC estimates, p.52.** The per adult costs of $560 and $1050 refer to an average bundle of costs of problem and pathological gambling which include: job loss, unemployment benefits, welfare benefits, bankruptcy, arrests, corrections, divorce, poor health, poor mental health, and gambling treatment.

Besides social costs, infrastructure costs and public expenditure increases need to be factored in. These additional costs include city service improvements, additional police spending, and road improvements and upkeep. The majority of studies indicate that the gambling facilities themselves (i.e. mostly casinos) provide funds for these additional costs, and that this arrangement is usually a binding

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clause in permits authorizing gambling operations. For ease of analysis, it is assumed that the legalization of VLTs in New Hampshire incorporates this clause.

Several other factors regarding cannibalization effects also need to be considered. First, Goodman (1994) cites the assumption by some economists that any increase in gaming revenue needs to be deflated by around 8%, due to the decline in revenues in other entertainment spending (i.e. regional restaurant, theater, and sporting event patronage).\textsuperscript{15} Second, West Virginia state officials estimate that the pari-mutuel handle at Mountaineer Park declined by approximately 10% since the introduction of VLTs, while Thalheimer (1998) concludes that pari-mutuel wagering in the same racetrack can decline by as much as 32% if an average of 160 VLTs are operated. The calculations for both scenarios will be presented. Third, a 1993 Commonwealth of Massachusetts Senate report concluded that legalizing video wagering would result in a 15% decline in the state lottery’s Instant Game sales.\textsuperscript{16} While these three factors alone do not exhaust all of the potential cannibalization effects of legalizing VLTs in New Hampshire, these should nevertheless provide some account of the adverse effects of VLTs.

**NET ECONOMIC IMPACT OF VLTs:**

The calculations for the projected net economic impact of legalizing 5000 VLTs in 6 proposed sites in New Hampshire are shown below. Scenario 1 uses projected revenues based on the population of the New Hampshire market identified earlier, and it considers problem and pathological gambling costs only among New Hampshire adults. Scenario 2 uses projected revenues from the Delaware average net machine statistics, and it considers problem and pathological gambling costs only among New Hampshire adults. Scenario 3 is the same as Scenario 2 except for the inclusion of total social costs from the entire market population. Scenario 4 is the same as Scenario 1 except for the exclusion of Massachusetts patrons. It represents the competitive threat from Massachusetts racetracks and gambling facilities, in case VLTs are legalized there as well. Finally, Scenario 5 shows the net economic impact, if Massachusetts also chooses to legalize VLTs, and the full social cost from the remaining New Hampshire market is considered.

<table>
<thead>
<tr>
<th>Table 6: General Net Economic Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1: $200M Net Revenue</td>
</tr>
<tr>
<td>(based on market/population data)</td>
</tr>
<tr>
<td>Items</td>
</tr>
<tr>
<td>Tax revenues from VLTs (at 44.8% tax rate)</td>
</tr>
<tr>
<td>Less: 8% of $450M (cannibalization of other entertainment spending)</td>
</tr>
<tr>
<td>Less: 10% of $120 (decline in instant lottery game revenues due to substitution effect)</td>
</tr>
<tr>
<td>Pari-mutuel revenue decline (10%) (32%)</td>
</tr>
<tr>
<td>Less: Pari-mutuel revenue decline (based on approximately $3.5M state revenue from four tracks)</td>
</tr>
<tr>
<td>Less: Social costs of problem and pathological gambling (2001 population = 860,000 NH adults)</td>
</tr>
<tr>
<td>Net Economic Impact</td>
</tr>
</tbody>
</table>


\textsuperscript{16} See page 45.
### Scenario 2: $240M Net Revenue
(based on Delaware net machine revenues)

<table>
<thead>
<tr>
<th>Items</th>
<th>millions</th>
<th>millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax revenues from VLTs (at 44.8% tax rate)</td>
<td>$240</td>
<td>$240</td>
</tr>
<tr>
<td>Less: 8% of $450M (cannibalization of other entertainment spending)</td>
<td>-$36</td>
<td>-$36</td>
</tr>
<tr>
<td>Less: 10% of $120 (decline in instant lottery game revenues due to substitution effect)</td>
<td>-$12</td>
<td>-$12</td>
</tr>
<tr>
<td>Pari-mutuel revenue decline</td>
<td>(10%)</td>
<td>(32%)</td>
</tr>
<tr>
<td>Less: Pari-mutuel revenue decline (based on approximately $3.5M state revenue from four tracks)</td>
<td>-$0.35</td>
<td>-$1.12</td>
</tr>
<tr>
<td>Less: Social costs of problem and pathological gambling (2001 population = 860,000 NH adults)</td>
<td>-$13.5</td>
<td>-$13.5</td>
</tr>
<tr>
<td><strong>Net Economic Impact</strong></td>
<td><strong>$178.15</strong></td>
<td><strong>$177.38</strong></td>
</tr>
</tbody>
</table>

### Scenario 3: $240M Net Revenue with Full Social Costs of Entire NH Market
(including selected areas in NH, MA, ME, NY, CT and VT)

<table>
<thead>
<tr>
<th>Items</th>
<th>millions</th>
<th>millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax revenues from VLTs (at 44.8% tax rate)</td>
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<td>$240</td>
</tr>
<tr>
<td>Less: 8% of $450M (cannibalization of other entertainment spending)</td>
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<td>-$36</td>
</tr>
<tr>
<td>Less: 10% of $120 (decline in instant lottery game revenues due to substitution effect)*</td>
<td>-$12</td>
<td>-$12</td>
</tr>
<tr>
<td>Pari-mutuel revenue decline</td>
<td>(10%)</td>
<td>(32%)</td>
</tr>
<tr>
<td>Less: Pari-mutuel revenue decline (based on approximately $3.5M state revenue from four tracks)</td>
<td>-$0.35</td>
<td>-$1.12</td>
</tr>
<tr>
<td>Less: Social costs of problem and pathological gambling (2001 population figure = 6,292M adults)</td>
<td>-$98.6</td>
<td>-$98.6</td>
</tr>
<tr>
<td><strong>Net Economic Impact</strong></td>
<td><strong>$93.05</strong></td>
<td><strong>$92.28</strong></td>
</tr>
</tbody>
</table>


### Scenario 4: Massachusetts legalizes VLTs and Social Costs for NH Residents Only
(all MA patrons excluded)

<table>
<thead>
<tr>
<th>Items</th>
<th>millions</th>
<th>millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax revenues from VLTs (at 44.8% tax rate)</td>
<td>$114.37</td>
<td>$114.37</td>
</tr>
<tr>
<td>Less: 8% of $450M (cannibalization of other entertainment spending)</td>
<td>-$20.42</td>
<td>$20.42</td>
</tr>
<tr>
<td>Less: 10% of $120 (decline in instant lottery game revenues due to substitution effect)*</td>
<td>-$12</td>
<td>-$12</td>
</tr>
<tr>
<td>Pari-mutuel revenue decline</td>
<td>(10%)</td>
<td>(32%)</td>
</tr>
<tr>
<td>Less: Pari-mutuel revenue decline (based on approximately $3.5M state revenue from four tracks)</td>
<td>-$0.35</td>
<td>-$1.12</td>
</tr>
<tr>
<td>Less: Social costs of problem and pathological gambling (2001 population = 860,000 NH adults)</td>
<td>-$13.5</td>
<td>-$13.5</td>
</tr>
<tr>
<td><strong>Net Economic Impact</strong></td>
<td><strong>$68.1</strong></td>
<td><strong>$67.33</strong></td>
</tr>
</tbody>
</table>


### Scenario 5: Massachusetts legalizes VLTs and Social Costs of Entire NH Market
(all MA patrons excluded)

<table>
<thead>
<tr>
<th>Items</th>
<th>millions</th>
<th>millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax revenues from VLTs (at 44.8% tax rate)</td>
<td>$114.37</td>
<td>$114.37</td>
</tr>
<tr>
<td>Less: 8% of $450M (cannibalization of other entertainment spending)</td>
<td>-$20.42</td>
<td>$20.42</td>
</tr>
<tr>
<td>Less: 10% of $120 (decline in instant lottery game revenues due to substitution effect)*</td>
<td>-$12</td>
<td>-$12</td>
</tr>
<tr>
<td>Pari-mutuel revenue decline</td>
<td>(10%)</td>
<td>(32%)</td>
</tr>
<tr>
<td>Less: Pari-mutuel revenue decline (based on approximately $3.5M state revenue from four tracks)</td>
<td>-$0.35</td>
<td>-$1.12</td>
</tr>
<tr>
<td><strong>Net Economic Impact</strong></td>
<td><strong>$23.48</strong></td>
<td><strong>$22.71</strong></td>
</tr>
</tbody>
</table>


These potential outcomes point towards a wide range of net economic impacts. From a purely New Hampshire-centric point of view, Scenarios 4 and 2 show a net economic gain of $67.33M to $178.15M, depending on whether or not Massachusetts responds by legalizing VLTs as well. However, once the full social costs are considered, the appropriate range is from $22.71 to $93.05, in Scenarios 5 and 3. It is clear from these numbers that VLTs, as a revenue-generating option for New Hampshire, will score high marks in terms of exportability. That is to say, gaming revenue burdens will fall mostly on out of state
patrons (86%): Massachusetts (41%), New York (17%), Maine (11%), Connecticut (11%), and Vermont (6%). New Hampshire residents comprise only 14% of the VLT gambling market.

OTHER ISSUES:

The calculations made so far indicate a positive net economic impact, if VLTs are to be legalized in New Hampshire. The market numbers also imply a high degree of exportability of the gambling tax burden. Beyond these numbers however, there are equally important issues that need to be considered. These include the issue of the sustainability of these revenue flows, the increasing prevalence of problem and pathological gambling, and the regressivity of using VLTs as a revenue-generating option. Focusing first on sustainability, the income and profit statistics from VLT operations in other states are presented below.

Table 7: Historical Net VLT Income and State Profits

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Delaware</td>
<td>NA</td>
<td>NA</td>
<td>76.7</td>
<td>255.9</td>
<td>326.7</td>
<td>377.7</td>
<td>392%</td>
</tr>
<tr>
<td>Louisiana</td>
<td>412.9</td>
<td>508.1</td>
<td>587.1</td>
<td>618.5</td>
<td>653.4</td>
<td>670.6</td>
<td>62%</td>
</tr>
<tr>
<td>Montana</td>
<td>200.3</td>
<td>209</td>
<td>214.6</td>
<td>225.3</td>
<td>244.5</td>
<td>253.3</td>
<td>26%</td>
</tr>
<tr>
<td>Oregon</td>
<td>NA</td>
<td>NA</td>
<td>355.6</td>
<td>393.1</td>
<td>407.4</td>
<td>402.6</td>
<td>13%</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>NA</td>
<td>57</td>
<td>86</td>
<td>112</td>
<td>131</td>
<td>155</td>
<td>172%</td>
</tr>
<tr>
<td>South Dakota</td>
<td>165</td>
<td>126</td>
<td>175</td>
<td>178</td>
<td>185</td>
<td>183</td>
<td>11%</td>
</tr>
<tr>
<td>West Virginia</td>
<td>5.6</td>
<td>28.1</td>
<td>47.2</td>
<td>82.3</td>
<td>131.4</td>
<td>190.6</td>
<td>3304%</td>
</tr>
</tbody>
</table>

| State          | NA     | NA     | 19.2   | NA     | 87.7   | 117.6  | 513%                          |
| Louisiana      | 92.9   | 141.5  | 163.9  | 181.1  | 193.6  | 199.1  | 114%                          |
| Montana        | 30     | 31.4   | 32.2   | 33.8   | 36.7   | 38     | 27%                           |
| Oregon         | NA     | NA     | 203.9  | 216.2  | 228.1  | 235.7  | 16%                           |
| Rhode Island   | NA     | 24     | 42     | 54     | 64     | 75     | 213%                          |
| South Dakota   | 59     | 46     | 87     | 89     | 92     | 92     | 56%                           |
| West Virginia  | 1.5    | 9.2    | 15.7   | 15.7   | 44     | 64     | 4167%                         |

*Data from La Fleur (1999).

All 7 states currently operating VLTs have experienced positive growth rates for net VLT income and state profits. More importantly, Delaware, Rhode Island, and West Virginia have posted phenomenal triple or quadruple digit growth in incomes and state profits. While these numbers appear extremely encouraging, one must note however, that none of these states show VLT revenues during an economic downturn. Industry experts like Goodman (1994) and Madhusudhan (1995) have found evidence showing a strong correlation between the economic business cycle and gambling revenues. Hence, these growth rates may simply apply during an economic upswing, such as the one currently prevailing. Another important reason why one might doubt the sustainability of these high growth numbers, especially in the

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case of New England, is that the supply of gambling facilities and products is increasing at equally phenomenal rates. For instance, while casinos were legal only in Atlantic City and Las Vegas in the early 90s, today they are legal in over 28 states.

Furthermore, based on the market numbers for the 6 VLT sites in New Hampshire, more than half of the prospective patrons are from Massachusetts (41%) and Connecticut (11%). It is not unreasonable to expect these states to consider legalizing VLTs, in the event that New Hampshire’s VLT-equipped racetracks and hotels start to siphon-off Massachusetts and Connecticut dollars. Likely candidates for VLT sites include Suffolk Downs, Raynhamp-Taunton Park, and Wonderland Park, in Massachusetts and Plainfield Park in Connecticut. Under a more competitive scenario where Rhode Island, New Hampshire, Connecticut and Massachusetts have legalized VLTs, growth rates in income and revenues can be expected to taper off in all these 4 states. There is also the very possibility that net revenue statistics for each machine in these states will decline as well. Under these conditions, there will be more pressure to legalize more innovations in these states’ gambling portfolios, in the same way that the explosive growth of casinos in the 90’s exerted pressure on various states to make innovations in their lottery products. Seen under this lens, policy makers must be aware of the consequences of going down this route.

Another issue that needs to be addressed deals with the disturbing trend of increasing problem and pathological gambling. While the estimates of the prevalence of problem and pathological gambling used earlier appear on the low end of the range of estimated prevalence rates, a study by the National Research Council (NRC)\(^{18}\) concluded: “With the increased availability of gambling and new gambling technologies, pathological gambling has the potential to become even more widespread.” Perhaps what is even more alarming is the NRC estimate that as many as 1.1 million adolescents between the ages of 12 and 18 can already be considered pathological gamblers. In fact, the National Coalition Against Legalized Gambling cites the statistic that 96% of problem gamblers began gambling before the age of 14. This additional cost is difficult to quantify and even more difficult to predict, and it has not yet been included in the net economic impact numbers discussed earlier. Nevertheless, one can reasonably expect adolescent problem and pathological gambling to rise significantly in New Hampshire if VLTs are legalized.

Finally, there is also the issue regarding the regressivity of using VLTs as a means to generate revenues for the state of New Hampshire. Taxes on VLT revenues are, de facto, taxes on the patrons of these gambling devices. At the heart of this issue then is the question: “Which part of the population bears the brunt of this gambling tax?” While there are no available studies that specifically focus on the regressivity of taxing VLTs in racetracks or hotels, there is a considerable amount of literature focusing on the regressivity of taxing casino revenues. For instance, Borg, Mason, and Shapiro (1991) found that people making less than $10,000 a year spend twice as much, as a percentage of their income, on gambling than those who make $30,000 to $40,000 a year. They concluded that policy makers should consider that taxes on gambling place a heavier burden, as a proportion of income, on lower income groups than on the more affluent.\(^{19}\) One can probably observe the same regressive structure for VLT revenues.

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Map 1:
Core Personal Income** Tax Base per capita of Residents by County, 1998

**Wages, Dividends, Interest, and Rental Income of Residents

Legend

- Three Counties with Lowest Tax Base per capita
- Four Counties with Medium Tax Base per capita
- Three Counties with Highest Tax Base per capita

Source: U.S. Department of Commerce and Bureau of Economic Analysis
Map 2: Taxable Property Tax Base by County, 1999

Top number: Net Valuation per capita
Bottom number: Net Valuation per $1,000 personal income

Legend
- Three Counties with Lowest Tax Base per capita
- Four Counties with Medium Tax Base per capita
- Three Counties with Highest Tax Base per capita

Source: State of N.H. Department of Revenue Administration and Bureau of Economic Analysis
Map 3: Narrow-Based Sales Tax Base by County, 1997

Top number: Narrow-Based Sales Tax Base per capita
Bottom number: Narrow-Based Sales Tax Base per $1,000 personal income

Legend
- Three Counties with Lowest Tax Base per capita
- Three Counties with Medium Tax Base per capita
- Three Counties with Highest Tax Base per capita
- Data unavailable

* Sullivan County does not include sales from specialty food stores because it was unavailable.
** Coos County's Narrow-Based Sales Tax Base could not be calculated because the U.S. Census withheld data on food and beverage sales.

Source: U.S. Census Bureau and Bureau of Economic Analysis
Map 4: Intermediate-Based Sales Tax Base by County, 1997

Top number: Intermediate-Based Sales Tax Base per capita
Bottom number: Intermediate-Based Sales Tax Base per $1,000 personal income

Legend
- □ Three Counties with Lowest Tax Base per capita
- □ Four Counties with Medium Tax Base per capita
- ■ Three Counties with Highest Tax Base per capita

Source: U.S. Census Bureau and Bureau of Economic Analysis
Map 5: Broad-Based Sales Tax Base by County, 1997

Top Line: Broad Based Sales Tax Base per capita
Bottom Line: Broad Based Sales Tax Base per $1,000 personal income

Legend:
- Three Counties with Lowest Tax Base per capita
- Four Counties with Medium Tax Base per capita
- Three Counties with Highest Tax Base per capita

Source: U.S. Census Bureau and Bureau of Economic Analysis
Map 6: Comprehensive Sales Tax Base* by County, 1997

Top number: Comprehensive Sales Tax Base per capita
Bottom number: Comprehensive Sales Tax Base per $1,000 personal income

Legend
- Three Counties with Lowest Tax Base per capita
- Four Counties with Medium Tax Base per capita
- Three Counties with Highest Tax Base per capita

*Comprehensive Sales Tax Base Excludes the following services: 1) Real Estate, Rental and Leasing, 2) Management of Companies and Enterprises, 3) Administrative, Support, Waste Management and Remediation Services, and 4) Finance and Insurance

Source: U.S. Census Bureau and Bureau of Economic Analysis
Map 7: Percentage of Employment in Industries with Liquidity Constraints by County, 1997

Legend
- Three counties with the lowest liquidity constraints
- Four counties with medium liquidity constraints
- Three counties with the highest liquidity constraints

Industries with Greatest Liquidity Constraints

Manufacturing
1) Apparel and Other Textile Products
2) Transportation Equipment
3) Miscellaneous Manufacturing Industries

Transportation and Public Utilities
1) Communications

Wholesale and Retail Trade
1) Food Stores
2) Apparel and Accessory Stores
3) Eating and Drinking Places
4) Wholesale and Retail Trade not Allocated

Finance, Insurance and Real Estate
1) Holding and Other Investment Companies
2) Real Estate

Services
1) Hotels and Other Lodging Places
2) Amusement and Recreation Services

Nature of Business not Allocated

Note: Industries with liquidity constraints are defined as those with a relatively low concentration of firms filing federal corporate income tax returns with net income. Specifically, an industry is considered to have liquidity constraints if, on average, it ranked in the bottom quartile according to percentage of tax returns filed with net income, over the years 1989-1996.

Sources: County Business Patterns, 1997 and Statistics of Income for Corporations
Map 8: Percentage of Employment in Most Labor Intensive Industries by County, 1997

Legend
- Three Counties with Lowest Labor Intensity
- Four Counties with Medium Labor Intensity
- Three Counties with Highest Labor Intensity

Top Labor Intensive Industries
- Retail Trade
- Services
- Construction
- Manufacturing:
  1) Fabricated Metal Products
  2) Printing and Publishing
  3) Lumber and Wood Products
  4) Leather and Leather Products
  5) Furniture and Fixtures
  6) Apparel and Other Textile Products
  7) Miscellaneous Manufacturing Industries

Source: Bureau of Labor Statistics and Survey of Current Business
Host Commissioner: Stephen Barba

- Need consistent tax policy on which towns can rely and on which they can plan for the future. Presently they are in a state of limbo since most people anticipate that the system will change in several years.

- Property taxes not fair to people on fixed incomes. In the north country, the government owns so much land that there is little taxable property to carry their obligations

- Property taxes not the right way. If you're on a fixed income, it hurts. Young people can't afford it. Spread it out fairly among all residents. Income tax easier to administer. Consider a value-added tax or a sales tax.

- Need to look at spending cuts instead of new revenue sources. Business profits tax is not evenly applied – too many loopholes. Encourage a private sector study to look at spending.

- Property tax is not the way. User Fees for Schools. Elderly are impacted by capital gains tax. Feds aren't living up to their contribution commitments. Make them do so or we shouldn't abide by their mandates. Look at spending. If an income tax is introduced, capital low companies will leave. People in trades will leave (political candidate)

- 1973 – Sweepstakes proceeds were to be used for education – Didn't happen. Lack of income tax attracts people from Vermont. If you piggyback income tax on Federal tax, people will dodge. Sales tax should be considered. Property tax deters people who want to relocate. Elderly can't afford the taxes. Special Education – NH requirements are stricter than Feds.

- Government has an obligation to help the more needy. Time to get on with it. Institute an Income tax.

- Worked in Vermont when they instituted a tax. Don't make NH tax tied to Federal tax. Too many loopholes

- Under new property tax scheme, donor towns hate the tax, receiver towns are happy. Need to look at distribution of education funding. Example: Compared Bedford and Amherst (rich towns) that are getting 15-17 times more under the current system than they did before. Lancaster and Stratford (poor towns) are getting only 1-3 times more. The distribution system is inequitable, but politically impossible to change. If one could change it and do it in a way that was responsive to the educational
needs of the poor communities, the cost of the solution would be $300-$400 million as opposed to $825 million. Lancaster is testing constitutionality of this proposition now. If it fails, this leaves the income tax, since sales taxes are not a viable proposition given the economic structure of the southern part of the state. With a budget deficit of some $300-$400 million looming, the only short-term way to cover this is with a statewide property tax. Ironically, the rich towns would get less of a subsidy under this, and the poor towns would be no worse off than today.

- Need revenue stream that works with economic cycles.

- Stated property taxes are bad. Until this issue gets resolved towns are on hold in their planning

- Legalize video gambling. Don’t let them go out of state. Favors luxury taxes (toys!)
  Young parent – property taxes are putting family at risk of losing their house

- Property Tax is archaic. Has no bearing on ability to pay. Income tax has a bearing on ability to pay

- Don’t believe we know what the cost is of an adequate education

- Favors gambling

- Calculate child load per couple – as it goes down, school needs may go down. Get out of liquor business – cigarette revenue is declining because price is no longer competitive

- From Connecticut, lives in Lancaster now – Don’t put more Band-Aids on issues. Connecticut did and it’s the only NE State that isn’t prospering. Fix the system. Gambling is not an answer
Keene Public Forum
June 19, 2000
7:00 – 9:00 PM
Keene City Library

Host Commissioner: Joe Baute

- Home rule is minimal (est. 8-11%). We need to determine how much is really needed and look at cutting costs not only raising new money. Consider forming a commission to look at spending too. Gambling – don’t tie it to school funding - against it on moral grounds as well. Sales tax – regular people will get hurt. If you go for an income tax, do without forms – avoid having to complete two different tax forms - send in a check noting on bottom that amount is calculated based on Federal return. (Winchester)

- A tax on interest and dividends is unfair to those creating their own retirement plans. Favors a statewide property tax – 6-7% with a homestead exemption. Seasonal residents would pay a greater share. Capital gains taxes are unfair – sees it as double taxation. Noted that we may not have income taxes, but we have other taxes on income (Keene resident)

- Need greater local control. 80% of budget is salaries and benefits and are negotiated with unions. Need to consider capital improvements and operations in school funding. Fairness is important. People living on fixed incomes are getting hit on property taxes and interest and dividends taxes. We nickel and dime people with taxes – watch that in our considerations. Consider fair, proportionate, broad based tax. Get rid of interest and dividends tax – hurting retired people. Sales tax – poor people will be disproportionately affected

- Low property taxes, good school systems, educated work force are key criteria in relocations. ‘What message are we giving our kids? That we won’t pay for a good education?” Seniors who don’t have kids in school don’t want to increase property taxes to fund education. Favors Mark Fernald income tax plan. Property tax is bad – people won’t move here with high real estate taxes. Just about every state has an income tax. Not a big deal – we nickel and dime people. Take school tax off real estate bill. Fund with income tax.

- Fairness is an issue. Property taxes aren’t fair. Do what is fair and that leads you to an income tax. Income tax would have no detrimental effect on hi tech businesses if trade-off is fairer property taxes and repeal of interest and dividends tax. Repeal inheritance tax.

- (Speaking for 11 other people) Part of the solution: spending cuts – don’t pay for sports, busing, and cafeteria services. Charge user fees if you play sports
- Too many business taxes now. Trade these for a broad-based tax. Sales taxes are
discriminating so go for the income tax. It will make NH competitive for teachers – a
matter of fairness Look at other states re: taxes and high tech – taxes don’t deter them
– quality of life is a plus here…

- Favors broad base taxes – fair for all citizens – favors Mark Fernald Plan. Suggest
income tax at 3-1/2% level with $11K exemption, and with statewide property tax with
exemption for primary residence. Income tax would NOT be discouraging to hi tech
businesses. Trade off on income tax would be to reduce the property tax and
eliminate the dividends and interest tax. Get Rid of Inheritance tax. Against ANY
form of gambling. Any income tax should be restricted for education only. Property
tax unfair. Against ANY form of gambling Increase cigarette tax

- The advantage of having a great education system outweighs the disadvantage of an
income tax. Need to think about benefits versus cost (kids’ future!)? A property tax
is not fair. Biased against property tax (regressive)

- A consumption tax – VAT – is interesting and can be done in a way that is not
regressive. “Probably not practical for our size in NE. Costly to implement and
administer.” Favors Fernald plan as the best to date (Keene resident)

- System is a dinosaur- needs to be changed

- Check property values/taxes versus other states that have income tax

- Favors no tax – it’s more a matter of distribution – Cap state spending – encourage
competition among schools – not necessary to create income tax

- Factor in changes in how we approach education spending. More $$ aren’t
necessarily relational to $ spent. Competition in system is good = costs go
down/value goes up Quality education is tied to parental involvement no $$

- Strongly favors an income tax

- Local control – total myth – our work could be cut by 40% if we had a fair taxation.
Favors elderly exemption. Coos County (and two towns in Cheshire) offers
corporations tax (local) free status if they move in. Need a Veterans exemption
Favors a fair tax system where everyone carries their fair share Redistribution
doesn’t work – suggest distribution on a ‘per student’ basis

- Fernald’s plan creates bureaucracy – base it on 100% of Federal Tax – low
administration cost

- NH needs to compete. Facilities are inadequate. Need more capital funding for poor
districts (Winchester resident)
- Education does necessarily improve relative to $$ spent. What is the cost of a ‘good’ education? More $$ means more state control.

Final Report needs to be aspirational. Must address the values and moral character of the State. Look at the distribution issue. We need to think as a ‘state community’ and not focus on self-interest. Need a fair system of taxation.
Meredith Public Forum
June 28, 2000
7:00 – 9:00 PM
Inter-Lakes Elementary, Meredith

Host Commissioner: Lisa Shapiro

- Charge of Commission too narrow - Should include:
  - Why do we need so much money?
  - How much DO we need?
  - Look at higher education too
  - Look at unfunded mandates and rules on books that have not been implemented
  - Look at distribution system

- Local control is important

- Look at economic effect of coding kids.... Some towns got big $$

- Incorporate Circuit Breaker system (HB999 was inappropriate – only affected donor towns)

- Donor/receiver system has created conflicts in regional schools where some towns are donors, some receivers – not good

- Include capital (facilities) in $$ funding

- Get away from donor/receiver model (HB109)

- Implement ‘no sprawl’ mandates and legislation favoring expansion of existing facilities, rather than new – legislation authorizing acquisition of abutting property if needed.

- Look at Bills that have been killed for guidance

- Suggestion made that when report is presented – brief legislature – they are working on many things – Commission is focused on this – would be useful to them to understand Commission’s rationale

- Thank you for coming to the region to let us voice our concerns
Host Commissioner: Michael Whitney

- Londonderry - Strongly favors an income tax. It is the fairest option because it would take the same percentage of money from all, whereas property taxes only affect homeowners. Would produce a level of revenue closest to amount needed. Only seven other states without an income tax.

- Nashua - Stated that more money needed to be devoted to higher education. UNH is an asset to New Hampshire and should be supported as well.

- Nashua - Everyone benefits from education so everyone should pay for education. The tax must be proportional to income earned. Encourage the Commission’s objective analysis and thought mitigation strategies should be looked at as well.

- Amherst - Towns have the right to contract with their own teachers for service, which would allow for local control and would be better than an income tax.

- Nashua - More funds needed to go toward education, even higher education. He feels education is an economic engine and there are not enough technical resources in NH.

- Nashua - Towns should come up with a plan to pay their own share of education. State shouldn’t throw money at it.

- Bedford - The government was cutting from Health & Human Services, which would only cause greater difficulty for the less fortunate.

- Nashua - A capital gains tax threatens independence. System of learning needs to be looked at. Local control is important in the funding decision.

Other: Need to improve system before we fund it; need a broad tax not the 28 we have now; sometimes, there are cases where no matter how much we spend the capacity of the student to learn does not change. Special and gifted students need to be recognized.
Manchester Public Forum
July 13, 2000
7:00 – 9:00 PM
NH Institute of Art

Host Commissioner: Kimon Zachos

- Urges Commission to consider video lottery at the four racetracks in NH. The amount needed to adequately fund education requires consideration of a large revenue source such as a statewide property tax. Expanded video lottery can not raise all the funds but will reduce the amount required from the statewide property tax.

- Statewide property tax a valid and good solution, it raises more than half of what is needed. Other monies from the increased cigarette tax, increase business taxes, other taxes help raise funds. Also, in favor of expansion of gambling at four racetracks to raise the remaining funds, may also increase tourism. If statewide property tax and gambling aren't considerations, a possible alternative is tax on goods or services you buy at a rate of 1%.

- Consider competitiveness and encourage capital labor and consumption in the state. The reason many people live in NH is because there is no income tax. If an income tax is instituted, people may move out-of-state. Shoppers will no longer shop in tax-free NH. Is strongly against property tax on goods and services at a 1% rate because before you know it the rate will be 10%. Feels that more money will not produce better students. Also feels that administration soaks up all the money so there isn't any left for the students.

- Education is resisting change. More money will not fix problem. The state is responsible for funding education so the state should be in charge of education and not local school boards in order to gain state control. Redo the supervisory unions and organizational structure. Also in favor of gambling.

- Wants Commission to broaden its scope to not only look at raising funding for K through 12 but also post-secondary institutions in NH. NH ranks 50th in the nation in support to higher education. In-state tuition is the second highest in country and NH is the fourth highest exporter of students in the nation. Lowest need based aid in the country.

- Our property tax system no longer protects us. Quality of life and workforce are threatened by current tax system. Need a diversified tax system that will be more fair and consistent and best preserve quality of life and educated people.

- Important to educate our children to the best that we can afford and also need to be concerned about their healthcare (Social Security). Unfair tax system now.

- Biased to income tax. Strongly opposed to consumption tax. Feels that a tax that is "only 1%" will not be seen and will get increased. On the issue of gambling, it would be
unfair to empower racetracks or grand hotels, etc. and allow them to have influence over the state government (sacred cash cow). Advocate of statewide property tax but modify it with income circuit breaker to protect people who lose their jobs, elderly or fixed incomes. Tax caps that assist communities are wise.

- Please look at the social impacts as well as the economic. In favor of income tax. Believes that local control is held by the people who participate in School Board meetings, volunteer and vote. Against gambling, because it has negative social ramifications.

- Need gambling, feels that is why other states have surpluses. Manchester can’t even get funding for gifted kids because the budget gets cut. Lots of hidden taxes such as toll booths.

- Income tax not fair because some NH residents work in Mass. and would not be subject to this tax and would have lower property tax too. Sales tax would hurt border towns. Statewide property tax is fair because everyone pays tax whether they live in a home or pay rent. Income circuit breaker especially for senior citizens

- Income tax is the only fair way of solving educational issue.

- Commission only allowed to look at ways to raise money. Should look at how the money is being spent and look at the budget and decide what is no longer necessary to the system. You give government more money, they just find more ways to spend it.

- Please consider the public library system. It gets neglected and it is one of the most important instruments for the education of adults and children.

- Opposed to consumption taxes because it is unfair to the poor. In favor of video gambling at racetracks.

- Commission needs to look at the out-of-control spending of the governor. Need to broaden your charge or create second Commission to analyze spending.

- Money will not buy education. Family is key. Being a stay-at-home mother, being there for your children makes the difference. We don’t need any new taxes. We need less taxes so that moms can stay home and raise their families and the children will do better in the wonderful schools that NH has already provided.

- Decrease government spending/expenses to fund education.

- What happened to the tobacco settlement money the state received? Will we remain funding an inadequate education with schools lacking books and desks or will we provide quality education to NH children?
- Education is being treated like a charity but it is an investment. Lack of books and classrooms in schools is a problem. Increase in student enrollments but no increased funding. In favor of income tax.

- Curriculum has been turned upside down in schools. Schools are reforming teaching to make curriculum more adaptable to 21st century and feels that is why students do not have text books. Technology changing so fast, unable to update text books fast enough. Two Claremont decisions not constitutional. Feels that the Commission's charge was predetermined by the governor and doesn't look at government spending. It only looks at revenues. Local control is very important, especially in education. Feels that if taxes are raised at a local level, should be able to go to School Board and have a say on what is or is not needed in the schools that year. Not in favor of an income tax.

- When money is given to the public school system, it is almost always spent by hiring more people or giving raises to present people. Many teachers are unable to pass proficiency tests and that is why students' grades are declining. Feels that the property poor towns should be subsidized by the property rich towns.

- A sales tax might be a partial solution. If a sales tax were a part of a larger package but look at exemptions and circuit breakers in other taxes that might be part of the package.

- Prefers an income tax. Very concerned about fairness. Feels that the inheritance tax will cause the state to loose senior citizens to nearby states. They will move to avoid the 18% tax and this also affects tourism because they will no longer be entertaining in NH.

- Income tax is the most unfair tax for education. Individuals with no kids or 2/3 kids will be supporting or paying proportionately higher taxes than the families with many kids. It will ultimately hurt the economy because it will take away people's discretionary spending.
Hanover Community Forum
July 31, 2000
7:00 – 9:00 PM
Dartmouth College, Carpenter Auditorium

Host Commissioner: Penny Breed

- Urges Commission to hold all meetings publicly and not to go into executive session unless personnel issues must be discussed. (Chichester)

- Claremont issue of proportionality. A flat tax on property is, in concept, how NH public schools are funded now, but it has some flaws. Need “circuit breaker”. No citizen will pay more than 10% of their adjusted gross income in property taxes on their residence. Other suggestion is “tax effort cap” to funnel extra support from state to property poorest towns who are still seeing burdensome property taxes. (Durham)

- Please look at how much NH residents working in other states pay to those states and what people living in other states and working in NH are paying in income tax in their own states. (Hanover)

- Even in the strongest economy, NH is running a deficit and planners are projecting the trend to continue. Can’t continue to cut. Only option is finding ways to increase revenue and increase it substantially – not a one-time fix. Urges Commission to be guided by NH Municipal Association’s set of principles:
  1. Sufficient to meet state’s responsibility
  2. Stable predictable sustainable and grow with long term needs/realities of State
  3. Changes are least disruptive
  4. Efficient in administration and collection
  5. Fair to people with lower/moderate incomes (Hanover)

- Seek solution that is adequate to increase state’s bond rating
  Be sensitive to fixed income/elderly
  Only adequate source that is fair is income tax
  What will happen to property tax rates if income tax is applied?
  Remove temporary taxes that have become permanent taxes (such as real estate transfer tax)
  Urges Commission to provide equitable recommendation (Hanover)

- Commission has no authority by constitution to be formed. (Grafton)

- Issues of taxation and education, justice and our prosperity are inextricably bound together. Challenge is to determine what is each person's just and proportionate share… in proportion to his/her income. In contrast, we raise nearly two-thirds of state and local taxes from real estate – with half being used to fund public education. Property taxes on homes are based on their appreciated value – which becomes a tax on unrealized capital gains that is paid year after year. Suggest we make our primary source of revenue for funding education a simple, flat rate income tax, simple to administer, that
asks everyone, after standard exemptions that reflect basic living costs, to pay in proportion to the primary benefit that we receive – through education – our ability to produce income. NH can no longer rely on imported “new economy” workers to fulfill NH’s labor needs... We need to improve our education for our own citizens. We need a tax base that grows with the economy and personal income. We have to be competitive in teacher salaries to attract and retain necessary quality teachers. Other states have been able to cut taxes left and right while we’re struggling to satisfy basic needs. (Lebanon)

- Tax proposal that is simple to administer
  Encourages interim report that can be a part of the political discussion this year. (Etna)

- (Quoting a former representation and senator) The B’s of NH’s unfair tax structure: Booze, Butts, Beds, Bellies and then they added the Business Profits Tax and then the Business Enterprise Tax – a very unfair tax. Gambling is a terrible message to send our people – “you don’t have to be educated – just lucky”. An income tax is fair. We have airline pilots and retired people who come here so they don’t have to pay income tax. They aren’t contributing “a damn thing” to this state. I don’t want them... (Rep from New London, Newbury, Warren & Sutton)

- Section 1, Article 6
  Local towns have right to contract with teachers – state cannot interfere
  Income taxes corrupt concept of equality among citizens supposedly receiving same services. How can we demand more from one person if benefits are supposed to be equal? A fee for service system is the most ethical but unfortunately, we are never going to get to because people presume education is a right, which it’s not. People don’t have the right to demand funds for education from one neighbor and give it to the other neighbor. Voucher system would allow for more parental choice. (Amherst)

- Higher education needs must be considered. Need to provide more funding for in-state scholarships. To have a top shelf educational system you must include a discussion of funding college. (Enfield)

- $825 million is a random and political number. Its should not be the basis for the most significant policy change this state might face in 20 or 30 years. Not good business to commit 1/3 of annual revenues to project (education funding) without ever having determined the objectives and measured means by which objectives could be obtained. The policy inefficiency of present system is literally throwing money into the air like confetti in a windstorm. Taxing people living in mobile homes to subsidize people living in mansions in Bedford... absurd from a policy efficiency standpoint. In some cases education aid to towns is being used in wealthier towns to fund town projects. (Etna)

- People of state should get the Commission’s report; not the Governor
  People are ready for an income tax... it’s the fairest way. (Andover)

- Anyone who thinks that more money is the solution to education is not recognizing the real problem. The money is not the problem – how it is spent is. You need to look at whether we need $825 million in the first place. The Legislature should be finding out
why we need the money instead of spending two years on how to take more money from us. (Enfield)

- Ran for Senate to participate in great debate over education...it’s been frustrating because all it’s been is a debate of tax revenues. We made a commitment to $825 million without a way to fund it. We adopted a program that would supposedly fund education but the funding plan (statewide property tax) does nothing directly to improve the quality of education. Current plan perpetuates disparity between communities and pits them against each other. System takes money from (the most economically disadvantaged part of the state) 32 North Country towns and specifically from nine of them (donors) to give to southern NH towns...unacceptable. This statewide property tax is killing us. 1. I would vote for an income tax again – it needs to reflect people’s ability to pay (possibly circuit breakers) 2. Just have one tax. 3. Do something to make the tax relative to education, so when people pay this tax they can see some type of improvement. I’d pick income tax over property tax – dedicate the money to education, put some type of mechanism in place to prevent Legislature from raising it arbitrarily. (District 2)

- Lebanon is drowning in property taxes. Charge ought to include whether the tax is capable of doing this job over the long term... NH suffers when a recession comes because we depend too heavily on property tax and tourism. State government is cut to the bone already – further cuts would come at the risk of not meeting Federal mandates for public assistance for poor and elderly, public safety. Can’t afford to continue to subsidize education from the rest of the state government funds. It’s important for both the economy and the society of this state that the tax is large, it’s stable, and it’s going to grow enough to meet the needs so that we can permanently cut the local property taxes and so that there will be enough money in all of the schools in this state to be able to provide at least a basic education. (Lebanon)

- The moralists will shake and the hypocrites will quake, but I’m going to talk in favor of gambling “keep the money at home”. People in this town can go across the river and catch a bus twice a week to Mohegan and Foxwood. Why are we sending our people to Connecticut to gamble? We’re hypocrites. We fund education from gambling now (sin taxes - smoking, drinking & lottery). We don’t even know how to run a lottery. Experts suggested in 1997, have the state own them, localize them in one area...suggested we have a $1 billion plus win situation... Casino owners are willing to invest and put them in grand hotels. (Hanover)

- No school district gets more money than they spend on their schools from the state tax, so nobody is building river walks or town halls with money that was given for education...the money is locally raised for those projects. Part of the reason we don’t have affordable housing is because developers can’t really figure out their costs due to the property tax going up and up. It is too expensive for young families just starting out to buy a home. Even paying rent is difficult for some because it consumes the majority of their salaries. (Claremont)
- The Commission needs to provide an interim report that is independent-minded and not whitewashed. The economy is different and the thinking is different so citizens need this report to help them decide on who to vote for in Sept. 12/Nov. 7.

- I believe income tax is a fair way to go. (Hanover)

- 2 choices – property tax/income tax or a combination. Income tax is simplest to administer. If you have a considered opinion then have an Interim Report, if it is not completely informed it shouldn't be released. Property tax encourages sprawl. (Hanover)

- Against gambling. You must consider the effects not just the money. If an income tax is instituted, also consider pensions, retirees or individuals that don’t work but only manage their money/rich people. (Lyme)

- Statewide property tax is sunsetted, need new decisions
  Stability, as criteria, is critical (Lebanon)

- The current revenue system is inelastic, antiquated, based on an agrarian model and does not reflect wealth or our state's economic success. $825 million is an arbitrary, capricious and political number. What to fund is dynamic and will always change but how we raise our revenue is really the issue. You do not base tax policy on geography, you base it on the ability to pay the bill. We are sending money from poorer communities to wealthier communities based on geography and not an ability to pay the tax. We need a revenue source that is stable, equitable and elastic. Only four states are in deficit this year and all four did not have an income tax. Success has happened even with income taxes. (Concord)

- Income tax is better than the alternative – fair, equity, meets sufficient goals and fluctuates with economy. Recommends that the Commission give the State Legislature and Governor courage. (Lyme)

- University system should be included in Commission study. Really regrets that the Governor did not appoint this Commission 2 years ago so that we could have a report now. (Hanover)

- Recommends an Interim Report to be released before the election and also to announce the report publicly because it can influence people's decisions. What is the construct of econometric model?
Host Commissioner: James Morrison

- Need to ensure that the money that is raised for education is properly allocated. Does not believe we need more taxes, especially an income tax or capital gains tax. These taxes would jeopardize economy. Municipal grants would eliminate donor town problem. (Durham)

- Need to have a fair tax system, for an income tax. Four factors to consider:
  1) Fairness and Equity
  2) Stability of Revenue
  3) Adequacy of Projected Revenue
  4) Impact on economy including social
Income tax assures we all pay our fair share (Portsmouth)

- Against all new forms of taxes. Feels that this doesn’t just have economic impacts, but declining standards in education. Zone in on problem towns to target their needs. (Hampton)

- In need of state reform. Feels that pollution should be taxed and money can be used for education, environmental cleanup/preservation especially energy from fossil fuels. (Program Director-Clean Water Action and Clean Water Fund)

- Statewide property tax is wrong. Several large potential payers have been exempted: Pease Tradeport, Manchester Airport, Ski areas and deals for power company – make it fair if we’re going to have it. Not an advocate for casinos but state advertises lottery – be one way or the other. Not really in favor of income tax – but maybe receiver towns that shouldn’t be would pay their fair share instead of being receivers. Not necessarily for any tax, but feels that income tax would be more fair and proportionate. (Newington)

- Urges interim report from the Commission. Divulge contributors’ names, and the charge of the Commission should also include cost savings. (Chichester)

- Against an income tax, it is invasive to citizens. (Durham)

- “How much is enough?” State needs to define adequate education and provide a solid $ amount needed for education funding and provide proper documentation to citizens. Taxpayer should have more say in the matter. (Strafford)

- In order for Commission to have influence on education funding, the findings must be made before the election. Statewide property tax doesn’t work, it only pits communities against one another. Hallmarks for reasonable education tax should be:
  a) Be fair an equitable
b) Not adversely impact poor/fixed income

c) Broad base

d) Be means tested

e) Not create conflict between communities

f) Raise funds that will grow with rising cost of education

g) Earmark solely for education (Rye)

- Against an income tax. (Rochester)

- Against an income tax. Target aid to the communities that need it. Also focus on spending side. (Concord)

- Higher education must also be funded if we are to prepare our own restraints to succeed in NH’s knowledge-base economy. (Rochester)

- If you are looking at the revenue side, you need to also look at the spending side. Against an income tax before it’s necessary. (New Castle)

- Education is very important for our children because they are the future. Favors a fair income tax with exemptions (referenced Hager-Below bill). (Hampton)

- Against the statewide property tax. (Portsmouth)

- Against the statewide property tax. This current system divides us. Recommends an educational flat tax or an income tax. (Rep. For Portsmouth, Rye, Newington, New Castle, Greenland, Stratham & Newmarket)

- Supports an income tax. It has the potential to be the fairest. (Amherst)

- Increasing spending does not improve education. Focus on correlation between student achievement, quality education and money spent. (Dover)

- Current statewide property tax is unfair and inequitable. It increased retirees and low-income residents’ taxes and lowered high-income residents’ tax rates. (Seabrook)

- It is less expensive and the children receive a better education when you put them in private schools than to put them in public schools now. (Dover)

- Finds it cheaper to send children to private instead of public schools. There is a monopoly in our state. Need to save money by encouraging competition, and making teachers and the system more accountable. Strongly opposed to the income tax. (Franklin)

- Need to study both the budget and revenue expenditures and examine where money is going and allocate it properly. Create education block grant for communities that need funding and make them apply to State. Feels that a capital gain income tax would hurt the State. Against an income tax also. (New Castle)
- Feels that businesses come to New Hampshire because we have no income tax, no sales tax, inventory tax or capital gains tax and features lowest tax burden. If these taxes are instituted, it will impact the State’s economic growth. (District 6)

- Feels the lack of leadership from Governor. Citizens need to be represented by elected officials not this appointed Commission. (Rochester)

- Statewide property tax is unfair. If we implement a sales tax we will lose attraction from border states. Feels big businesses should give 1% of profits to education and health care. (Portsmouth)

- Willing to pay an income tax to retain quality of life in NH. Education is an investment in future and growth of this State economically. Important to invest in K-16 and beyond because these children and their knowledge are leaving this State and not returning. (Newfields)

- For an income tax with exemptions. (Rye)

- Property tax is an unfair tax. The amount of money that the schools spend should be looked at. Home schooled children are learning a lot more for a lot less money. (Rye)

- Agrees that the present statewide tax is unfair but feels that it does cost to educate children and hold high school standards. Believes it is time for a broad base tax. (Durham)

- Against the statewide property tax. (New Castle)

- Does not want an income tax or statewide property tax. The middle class will be stuck with the burden as always. Supreme Court should butt out and the towns should support their own education. (Rochester)

- If a sales tax, capital gains tax or income tax is implemented, businesses will move out of state taking their jobs with them. No incentive for others to move to NH. Border towns will no longer shop in NH. (Exeter)

- State property tax is unfair, unable to judge the value of houses. Give us back what we had before, local property tax. Fix the few towns that have problems. (Portsmouth)

- Doesn’t feel this has to do with education, more of a property tax relief. Tax everyone that makes money, even businesses and make sure they pay their fair share. (Newington)

- Wants more than 38 cents of tax dollar going to teachers’ salary and into classroom. Do not just focus on tax options. Instead of adopting what other states have done with income tax, lead the nation in education reform by allowing school choice, creative alternatives, and encouraging partnerships with industry and education. (Durham)
- Against broad base property tax, tax assessments are highest in the state. Middle and low income families will need to move from the town if taxes keep escalating. (Rep. Rye & New Castle)

- Not in favor of any of the tax schemes. Public education is a monopoly with no measurable results or accountability. Spending must be controlled. (Rochester)

- More emphasis needs to be placed on the spending formula. Need to find a tax solution that will create the least harm to retired and moderate income people. Consider two broad based taxes. (Rep. Rye & New Castle)

- Feels that high tech businesses will leave the State if there is an income tax. Feels that education is the parents' responsibility. The only fair tax is no tax. (Rochester)

- The problems with education aren't about money. Against an income tax, it creates a slave of the state. Sales tax would devastate the State's economy. Best handled when taxes are raised and spent locally with parents' involvement. (Fremont)

- Go back to what we originally had. Fix the individual communities that need it. Probably find that it will cost less than the proposed $825 million. (Stratham)

- As taxes increase, may take business out of NH. Do not consider statewide property tax or income tax but a financial transaction tax. (1st District)

- Relying on property tax is having economic and environmental consequences because it is forcing towns to maximize land use because it produces revenue. (Portsmouth)

- Public school system is slipping badly. Would like to see an amendment to the Constitution. (Lee)
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Michael Buckley, Office of the Legislative Budget Assistant, New Hampshire Legislature, Concord, NH

Karl Case, Wellesley College, Wellesley, MA

Harley Duncan, Federation of Tax Administrators

Can Erbil, Brandeis University, Waltham, MA

Jane Malme, Lincoln Institute for Land Policy, Cambridge, MA

Therese McGuire, University of Illinois--Chicago Circle, Chicago, IL

David Sjoquist, Georgia State University, Atlanta, Georgia

Michael Wasyleenko, Maxwell School, Syracuse University, Syracuse, NY

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GAMBLING

See footnotes to report on gambling as a potential source of revenue, included in the Appendix to this Report.

MISCELLANEOUS


