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 understating 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.

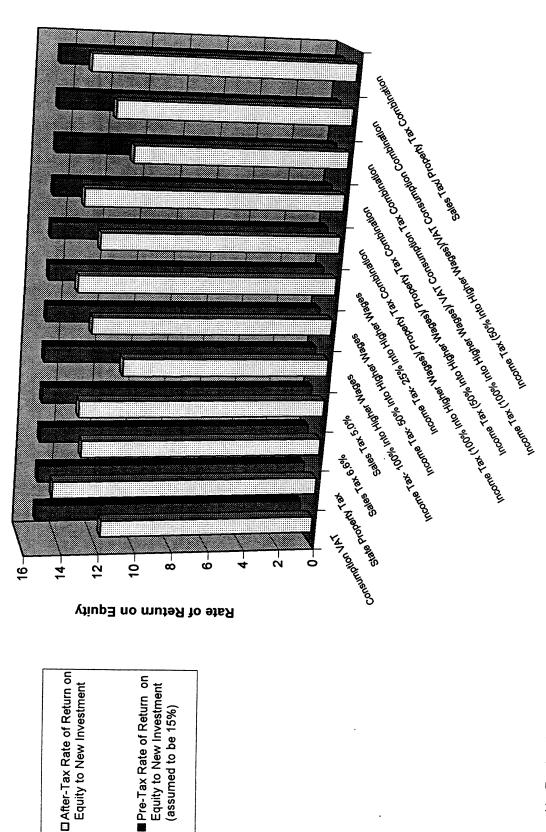
Assuming that each tax would provide half the required revenue, the Commission analyzed the following tax combinations:

- 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' 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



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

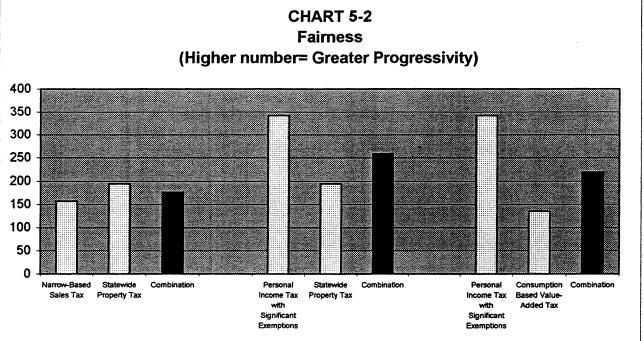
and business services. The lower the after-tax rate of return, the higher the tax burden on the investment project. The estimates presented here are the average rate Hampshire's economy. These industries include three in manufacturing-- electronic components, computers, and fabricated metals-- general merchandise retailing 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 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).

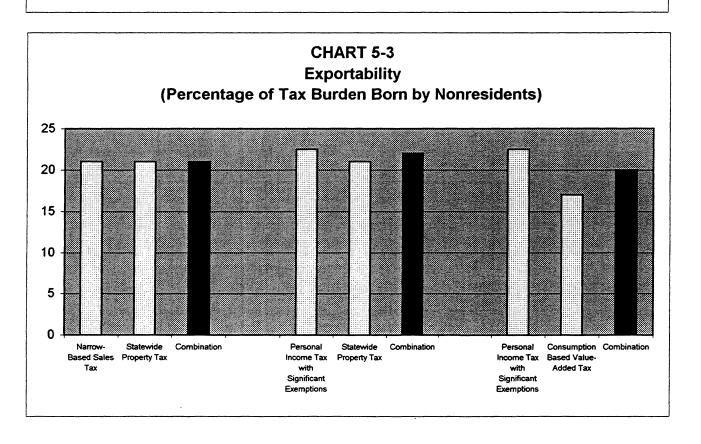
To aid further exploration of tax combinations, **Chart 5-6**, **Estimated Revenues Generated by Tax Options in the Year 2000 at Various Tax Rates**shows how the revenues from several tax options would change as their statutory tax rate increased one percentage point at a time.

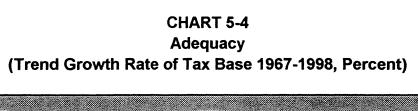
Note that all of the charts in Chart 5-6 are linear except those concerning the sales tax options; the curves in these sales tax lines indicate that each additional percentage point of tax yields progressively less revenue. These diminishing returns reflect the fact that an increasing percentage of non-resident 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.

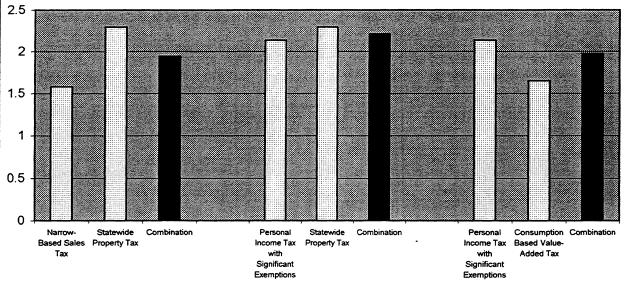
Evaluation of Combination Revenue Options According to Selected Tax Policy Criteria



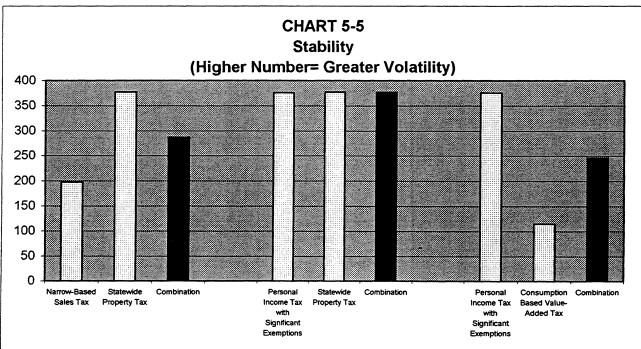
Note: The index of progressivity was computed in the following manner. First, the ratio of total state and local taxes to cash income was computed for several income categories banks, the highest income category lumps together all households with total cash income in excess of \$70,000 per year, and the lowest income category is all households with to 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 index of progressive the revenue option. Under the proposer equal across all income groups, the index would equal 100.







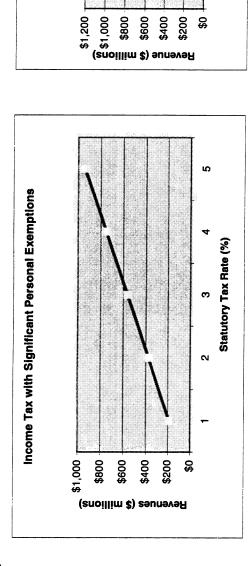
Note: The trend growth of the base of each tax or tax combination is roughly equivalent to the average rate of growth at which the tax base, measured in inflation-adjusted, per capita terms, grew from 1976-1998, estimated from national data.

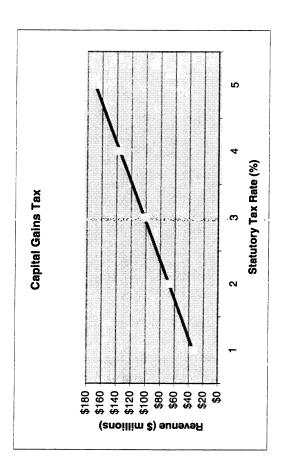


Note: The index of stability was computed in the following manner. The variation of each tax base's per capita, inflation-adjusted rate of growth around its time trend was analyzed over the 1967- 1998 period. (Both trend growth and variation around trend are depicted in the graph in each worksheet). 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.

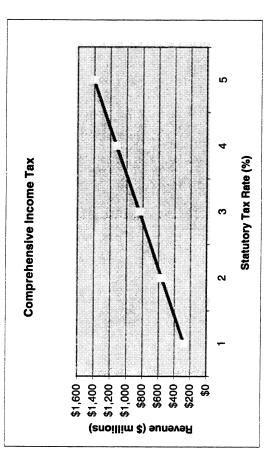
Estimated Revenues Generated by Tax Options in the Year 2000 at Various Tax Rates CHART 5-6

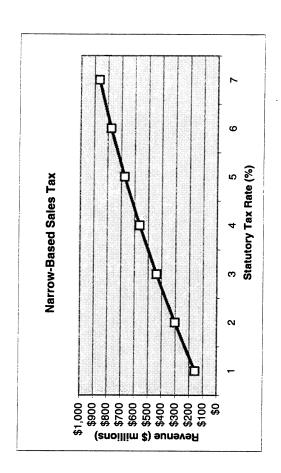
Income Tax Based on Federal Taxable Income

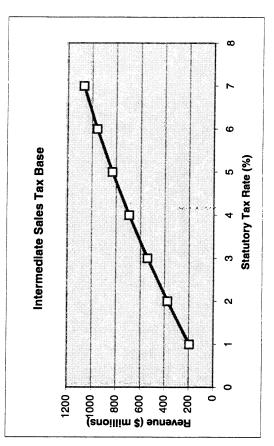


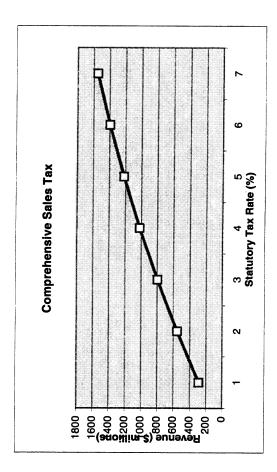


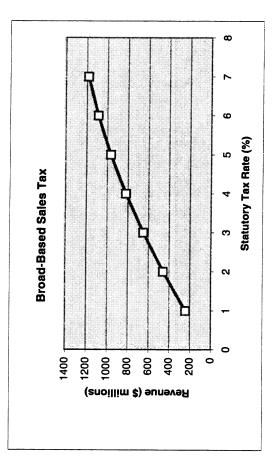
3 Statutory Tax Rate (%)

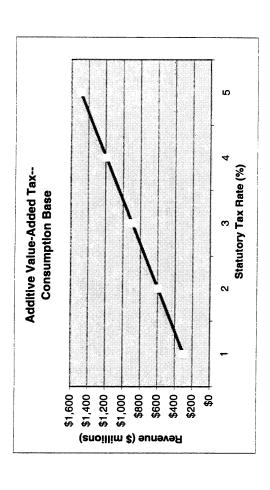


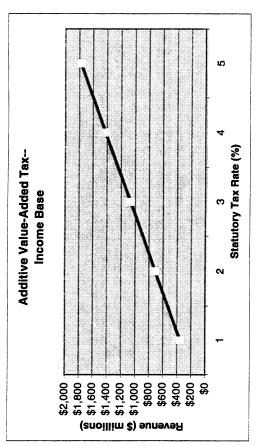












CHAPTER SIX

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.

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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:

Atlas Air, Huntington R. and Lucy F. Breed, The Byrne Foundation, Fleet Bank, Hadco Corporation, Houghton Mifflin Company, Harold Janeway, Carola B. Lea, in memory of Carl S. Shoup, NE Electric Wire Corporation, Putnam Foundation, Jean and Stuart Smith, Jr., Tyco International (US), Inc., William T. Welsh, Whittemore Foundation, and Sumner and Helen Winebaum

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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| 10.6 | 5.4 | 5.2 | 5.1 |
| | 000 | 054 | 1009 |
| | | | 6.3 |
| 7.1 | 0.6 | 0.1 | 0.3 |
| 833 | 894 | 954 | 1014 |
| 7.3 | 6.7 | 6.3 | 6.1 |
| 007 | 000 | 004 | |
| | | | 988 6.9 |
| 10.0 | 3.5 | 0./ | 0.9 |
| 851 | 902 | 953 | 1013 |
| 7.4 | 6.0 | 5.7 | 6.3 |
| 836 | 888 0 | 0/13 | 1007 |
| | | | 6.8 |
| / U | 0.2 | 0.2 | 0.6 |
| 7.9 | | | |
| | 10.6 831 7.1 833 7.3 837 10.0 | 835 924 10.6 5.4 831 890 7.1 6.8 833 894 7.3 6.7 837 866 10.0 3.5 851 902 7.4 6.0 | 835 924 973 10.6 5.4 5.2 831 890 951 7.1 6.8 6.1 833 894 954 7.3 6.7 6.3 837 866 924 10.0 3.5 6.7 851 902 953 7.4 6.0 5.7 836 888.0 943 |

Income Tax Based on Federal Taxable Income

Definition of Base

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

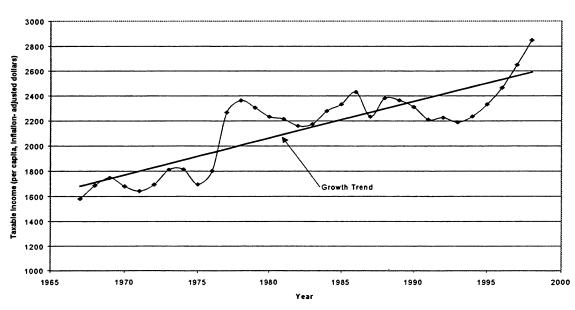
Projected Revenue Productivity

| | Revenues per percentage-point increase in statutory tax rate (\$millions) | Annual rate of growth in tax base |
|------|---|-----------------------------------|
| 2000 | 209 | 7.0 |
| 2001 | 222 | 6.1 |
| 2002 | 235 | 6.0 |
| 2003 | 251 | 6.8 |

Stability and Adequacy

Growth and Volatility of the Tax Base

Growth Trend and Volatility of Income Tax on Federal Taxable Income



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 prohousing 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

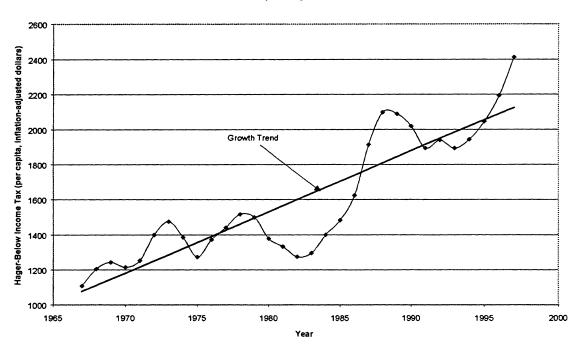
Federal adjusted gross income with exemptions of \$11,000 per taxpayer filing singly or jointly, \$15,000 per taxpayer filed as a head of household, and \$3,000 per dependent. All exemptions adjusted for inflation.

Projected Revenue Productivity

| | Revenues per percentage-point increase in statutory tax rate (\$millions) | Annual rate of growth in tax base |
|------|---|-----------------------------------|
| 2000 | 188 | 7.0 |
| 2001 | 199 | 6.1 |
| 2002 | 211 | 6.0 |
| 2003 | 225 | 6.8 |

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

<u>Comments</u>: 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

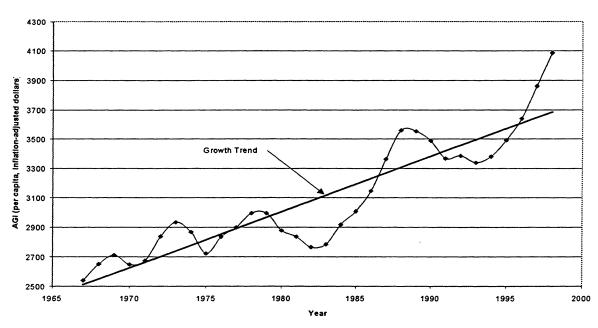
Federal adjusted gross income with no exemptions.

Projected Revenue Productivity

| | Revenues per percentage-point increase in statutory tax rate (\$millions) | Annual rate of growth in tax base |
|------|---|-----------------------------------|
| 2000 | 281 | 7.0 |
| 2001 | 297 | 5.8 |
| 2002 | 313 | 5.4 |
| 2003 | 334 | 6.8 |

Stability and Adequacy

Growth Trend and Volatility of Comprehenisve 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. 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

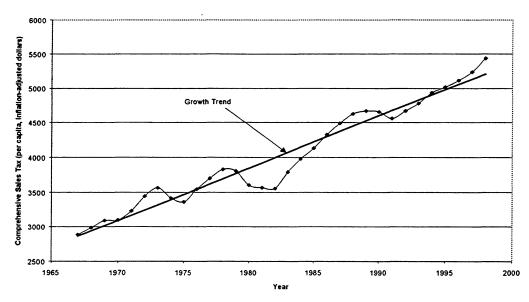
| | Revenues per percentage-point increase in statutory tax rate (\$millions) | Annual rate of growth in tax base |
|------|---|-----------------------------------|
| 2000 | 266 | 6.1 |
| 2001 | 280 | 5.4 |
| 2001 | 294 | 5.1 |
| 2003 | 308 | 4.8 |

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).

¹In the National Income and Product Accounts, housing includes the "imputed rent" from living in one's own home.

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

<u>Fairness</u>

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

² Bruce and Fox estimate for FY2003. Donald Bruce and William F. Fox, "E-Commerce in the Context of Declining State Sales Tax Bases." Center for Business and Economic Research, The University of Tennessee, Knoxville, Tennessee. February 2000.

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.

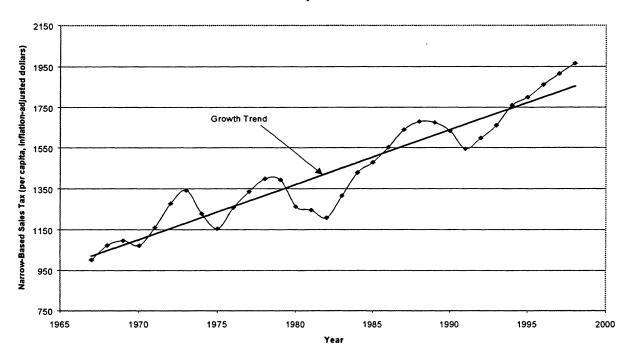
Projected Revenue Productivity

| | Revenues per percentage-point increase in statutory tax rate (\$millions) | Annual rate of growth in tax base |
|------|---|-----------------------------------|
| 2000 | 125 | 7.3 |
| 2001 | 133 | 6.7 |
| 2002 | 142 | 6.3 |
| 2003 | 150 | 6.1 |

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.

¹ See Doug Hall, "A Retail Sales Tax for New Hampshire?", New Hampshire Business Review, November 1998.

² Raymond J. Ring, Jr., "Consumers' Share and Producers' Share of the General Sales Tax", *National Tax Journal*, Vol. LII, No. 1, March 1999, pp. 81-92.

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.

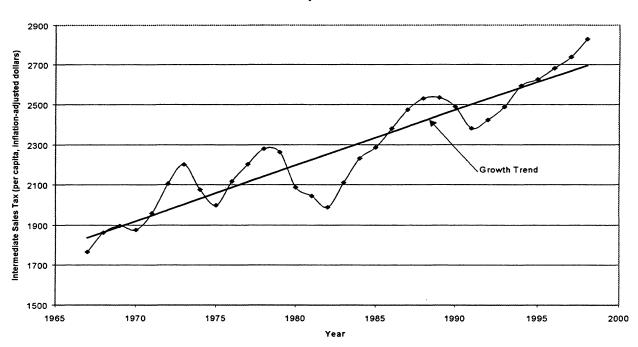
Projected Revenue Productivity

| rate of growth | Revenues per percentage-point | Annual |
|----------------|--------------------------------|--------|
| rate of growth | increase in statutory tax rate | in tax |
| base | (\$millions) | |
| 2000 | 165 | 7.1 |
| 2001 | 177 | 6.8 |
| 2002 | 187 | 6.1 |
| 2003 | 199 | 6.3 |

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.

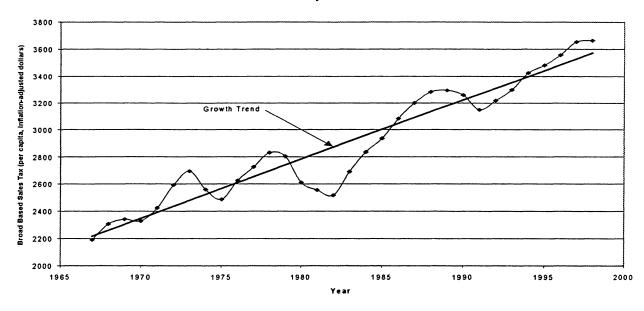
Projected Revenue Productivity

| | Revenues per percentage-point increase in statutory tax rate (\$millions) | Annual rate of growth in tax base |
|------|---|-----------------------------------|
| 2000 | 204 | 10.6 |
| 2001 | 215 | 5.4 |
| 2002 | 226 | 5.2 |
| 2003 | 238 | 5.1 |

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."

Growth Trend and Volatility of a Broad Based Sales Tax



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.