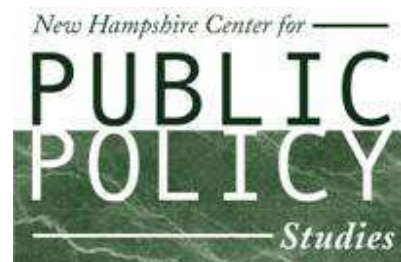


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and improve policy
debates through quality
information and analysis
on issues shaping New
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Counting on the Future: New Hampshire’s State Revenue Estimates

May 2011

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About this paper

One of the Center's projects since its inception in 1996 has been to address issues regarding the state budget. This paper is the latest in our series of reports that illuminate state budget issues.

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Executive Summary

In previous work, the New Hampshire Center for Public Policy Studies (“Center”) noted that New Hampshire’s revenue estimation process has historically been remarkably accurate.¹ Over the last eight budget cycles, actual state revenues have been \$20 million to \$30 million higher than forecast, equivalent to a 1 percent to 2 percent difference between actual and forecasted total revenues. Not surprisingly, the precision of those estimates declines during so-called inflection points, when the direction of the economy is uncertain.

This report presents a further examination of New Hampshire state revenues, from several angles. First, we ask what past recessions might tell us about our current revenue situation as we emerge from the current economic downturn. Second, we discuss the Center’s short term forecasting model, which relies on actual revenue performance in the current budget year, and present a longer term (two year) revenue forecasting model. Finally, we look at the methods used by other states to forecast tax revenues, as a way of suggesting other ways New Hampshire might approach this task in the future. All of these questions are dealt with in greater depth below, but here are summaries for each issue.

Not surprisingly, when economic situations are in flux, the methods the state uses to estimate revenues are less accurate.

What can past recessions tell us about revenues going forward?

While past recessions saw revenues rebound to pre-recession levels by the fifth year of the downturn, current revenues (as of FY2011) still lag far behind their pre-recession levels. New Hampshire state revenues in the current period, adjusted for changes in tax rates, are 14 percent below where they were in the first year of the recession, illustrating the depth and severity of the current downturn. In fact, revenues appear to be plateauing at a level far below pre-recession heights, with just a 1.5 percent increase in 2011 revenues from their lowest point at the depth of the present recession. Thus, previous recessions may not offer the clearest timeline for when revenues in the current period will return to pre-recession levels, since the current downturn in state revenue appears steeper and deeper than any in the recent past.²

Given the continued uncertainty in the wider economy, forecasters would do well to proceed with caution and conservatism.

¹ “New Hampshire State Revenue Forecasts: A Good Track Record,” available at: <http://www.nhpolicy.org/report.php?report=13>

² The most recent recession was due to a collapse in national financial and real estate markets, which was reflected in state revenue losses in those sectors dependent on financial services and real estate. The Real Estate Transfer tax revenue fell by 35%, Interest and Dividends fell by 24%, and Business Taxes fell by 19% in the current period.

What does the Center's long-term revenue forecasting model suggest about future revenues?

Accurate revenue estimates are an essential part of budgeting. Poor forecasts can lead to sudden and unexpected choices in spending cuts or tax increases, or force undesirable decisions to borrow, draw from reserves or sell state assets to balance the books. The accuracy of revenue forecasts depends on many factors, several of them out of the control of those making the forecasts. A stable economic climate, a balanced tax structure, and clear, reliable data all help inform accurate forecasts.

The Center is developing a long-term forecasting model that attempts to provide policymakers with a more precise sense of what to expect from state revenues. The model provides projections for New Hampshire's eight largest revenue sources by correlating those taxes with measures of broader economic activity.

The model suggests that unrestricted state revenues will decrease by 2.7 percent from 2010 to 2011; will increase by 3.8 percent from 2011 to 2012; and will further increase by 2.6 percent from 2012 to 2013. Under those forecasts, state revenues (adjusted for changes in tax rates) will finally reach – and pass – the pre-recession levels by 2013.

What do the approaches taken by other states suggest about other ways New Hampshire can undertake revenue forecasts?

New Hampshire's revenue forecasts are determined by the Ways and Means Committees of the House and Senate, though the final estimates are settled in a committee of conference of the House and Senate and must be approved by the Governor as part of the final budget. While lawmakers receive testimony from outside economists in calculating revenue forecasts, the final decision is in the hands of elected officials.

That method differs from state to state, with many states' giving non-partisan outsiders a seat at the forecasting table. Such an approach can help defuse the political tensions that may accompany the process, but it does not necessarily guarantee greater accuracy in the revenue forecasts. A recent study by the Pew Center on the States determined that states using so-called "consensus forecasting," in which members of the executive and legislative branches, as well as outside analysts, collaborate in determining revenues, did not appear to achieve more accurate forecasts. The best indicator of accuracy, the study found, was a stable economic climate.

Recessions and State Revenue

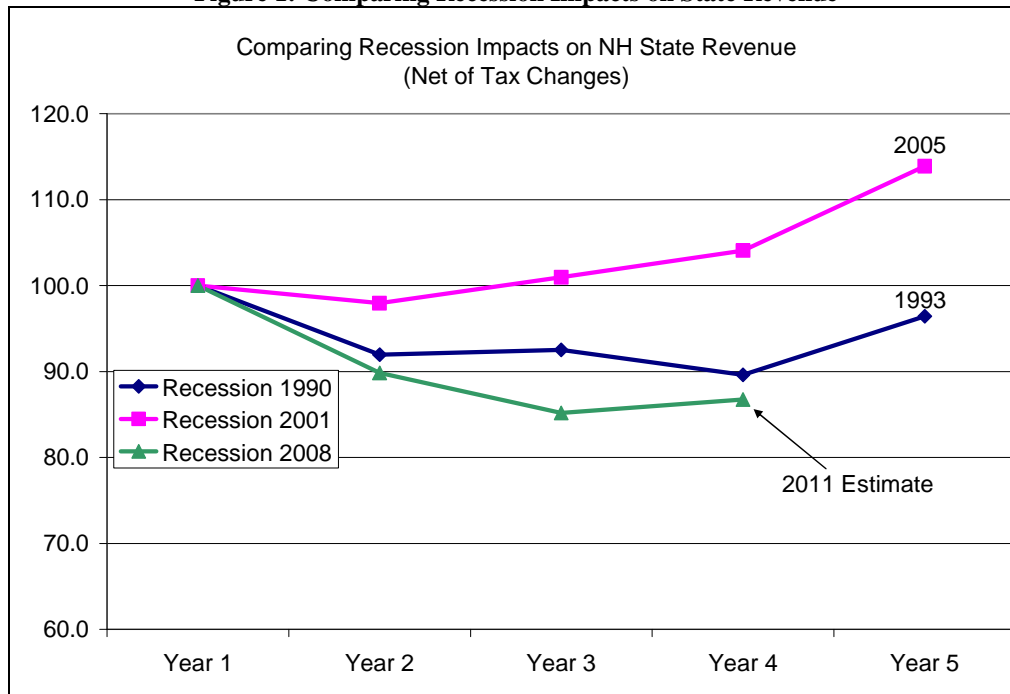
The current recession has been particularly hard on state revenues. Table 1 shows state revenues in the last three recessions, net of tax changes and new taxes. The recession of the early 1990s saw state revenues fall by 10.4 percent by the fourth year of the recession, at which point revenues began to increase again. In the current recession, state revenues fell by almost 14 percent in the fourth year³.

Table 1: Comparing Adjusted State Revenues in Recent Recessions

Comparing Recessions and Impact on New Hampshire Revenues Not Including Medicaid Enhancements and Statewide Property Tax Total Revenues Before Tax Changes					
	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Recession 1990	\$560.2	\$515.3	\$518.4	\$502.1	\$540.1
Recession 2001	\$1,184.0	\$1,159.7	\$1,195.5	\$1,232.2	\$1,348.6
Recession 2008	\$1,849.2	\$1,661.5	\$1,575.4	\$1,603.9	
Index Values	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Recession 1990	100.0	92.0	92.5	89.6	96.4
Recession 2001	100.0	97.9	101.0	104.1	113.9
Recession 2008	100.0	89.9	85.2	86.7	

Figure 1 compares revenue performance in recession years, net of tax changes and new taxes. In each line, the base year is the first year of the recession.

Figure 1: Comparing Recession Impacts on State Revenue



³ The current recession began in December 2007 and ended in June 2009, according to the National Bureau of Economic Research. Therefore we have assumed 2008 as Year 1 of the most recent recession.

In the following tables, we document the adjustments made to calculate state revenues, net of tax rate changes and new taxes. In every case we have not included the Statewide Property Tax and Net Medicaid Enhancement in our calculation, since these revenue sources are not affected by prevailing economic conditions.

Table 2: State Revenue in the 1990 Recession

New Hampshire Revenues in the early 1990's recession						
General Fund Revenue Source	1989	1990	1991	1992	1993	1994
Beer Tax	\$12.110	\$12.180	\$13.305	\$11.357	\$11.182	\$11.199
Board and Care Fees	\$14.669	\$14.454	\$13.458	\$12.266	\$12.772	\$14.006
Business Profits Tax	\$143.261	\$110.981	\$112.035	\$91.604	\$128.727	\$112.293
Business Enterprise Tax						\$23.975
Combined Business Taxes	\$143.261	\$110.981	\$112.035	\$91.604	\$128.727	\$136.268
Estate & Legacy Tax	\$30.354	\$24.282	\$23.398	\$28.128	\$31.064	\$32.128
Insurance Tax	\$41.407	\$43.084	\$43.540	\$44.859	\$48.221	\$43.070
Securities Revenue						\$13.097
Interest & Dividends Tax	\$36.025	\$40.731	\$37.413	\$34.608	\$36.088	\$35.767
Liquor Sales	\$51.969	\$55.100	\$58.549	\$62.493	\$63.463	\$63.990
Meals & Rooms Tax	\$81.809	\$83.803	\$89.803	\$92.078	\$95.398	\$101.418
Park Revenue	\$5.960	\$7.259	\$5.998	\$4.287	\$5.105	\$5.953
Dog & Horse Racing	\$10.562	\$10.537	\$9.929	\$7.961	\$6.503	\$5.929
Real Estate Transfer Tax	\$29.679	\$32.319	\$28.893	\$35.105	\$26.837	\$29.221
Communications Tax	\$9.510	\$12.788	\$22.231	\$27.762	\$29.529	\$30.512
Tobacco Tax	\$31.466	\$38.169	\$39.540	\$39.377	\$41.189	\$43.712
Tobacco Tax Settlement						
Utility Tax	\$8.383	\$8.194	\$10.114	\$22.998	\$21.077	\$19.962
Court Fines & Fees	\$20.246	\$22.609	\$21.052	\$19.663	\$19.338	\$19.238
Savings Bank Tax	\$10.778	\$12.618	\$11.858	\$7.446	\$3.040	
Flexible Grant						
Other	\$32.661	\$33.064	\$35.568	\$39.841	\$39.403	\$41.463
Total Actual Taxes/Revenues	\$570.849	\$562.172	\$576.684	\$581.833	\$618.936	\$646.933
	5.2%	-1.5%	2.6%	0.9%	6.4%	4.5%
Meals & Rooms Tax(Adj)	\$81.809	\$73.328	\$78.578	\$80.568	\$83.473	\$88.741
Real Estate Transfer Tax(Adj)	\$29.679	\$22.623	\$20.225	\$24.574	\$18.786	\$20.455
Estate & Legacy Tax (Adj)	\$30.354	\$24.282	\$23.398	\$23.440	\$25.887	\$26.773
Utility Tax (Adj)	\$8.383	\$8.194	\$10.114	\$8.998	\$7.077	\$5.962
Business Taxes fell 36%; did not recover prior peak for 5 years						
M&R increased from 7% to 8% in 1990, adj data 1989 peak not recovered until 1993						
RETT 30% 'temporary surcharge' in 1990, 35 cents to 50 cents, adj data peak not recovered						
Communications Tax revamped in 1991, Utility Tax Revamped in 1992						
Tobacco Tax Increased in 1990 and again in 1991 (17 cents, 21 cents, 25 cents)[Not incl in below]						
Total Revenue, w/o New, Change	\$560.227	\$515.326	\$518.418	\$502.093	\$540.129	\$526.967

In the 1991 recession, one of the worst in New Hampshire's history, total employment in New Hampshire declined by 10 percent. There were several changes to the New Hampshire state tax structure in that time period, some of which were in response to the decline in revenues. The Meals and Rooms tax was increased from 7 percent to 8 percent

in 1990; the Real Estate Transfer Tax had a ‘temporary surcharge’ (which remains in place today); both the Communications Tax and the Utility Tax were restructured; the Tobacco Tax was increased; and Securities Tax and the Business Enterprise Tax⁴ were created.

Table 3: State Revenue in the 2001 Recession

New Hampshire Revenues in the 2001 recession						
Revenue (GF plus ETF)	2001	2002	2003	2004	2005	2006
Business Profits Tax	\$195.4	\$161.2	\$174.8	\$172.6	\$247.3	\$320.6
Business Enterprise Tax	\$158.9	\$222.2	\$218.0	\$235.4	\$244.7	\$225.6
Subtotal	\$354.3	\$383.4	\$392.8	\$408.0	\$492.0	\$546.2
Meals & Rooms	\$164.0	\$170.6	\$175.4	\$185.4	\$193.6	\$200.9
Tobacco	\$86.4	\$84.3	\$94.1	\$100.1	\$101.5	\$150.8
Liquor	\$89.3	\$96.2	\$99.0	\$106.7	\$112.6	\$120.6
Interest & Dividends	\$76.7	\$70.3	\$55.1	\$55.6	\$67.9	\$80.5
Insurance	\$66.5	\$76.1	\$82.2	\$86.2	\$88.7	\$90.5
Communications	\$49.0	\$64.7	\$62.4	\$65.8	\$70.0	\$70.5
Real Estate Transfer	\$89.2	\$99.5	\$118.2	\$142.7	\$159.8	\$158.7
Estate and Legacy	\$59.3	\$57.0	\$59.1	\$27.0	\$11.7	\$3.2
Transfers from Lottery Commissio	\$59.4	\$66.1	\$66.6	\$73.7	\$70.3	\$82.0
Tobacco Settlement	\$38.7	\$45.7	\$45.9	\$41.8	\$42.4	\$39.0
Utility Property Tax	\$15.6	\$18.2	\$18.8	\$20.2	\$20.1	\$20.9
Court Fines & Fees	\$23.2	\$23.2	\$22.1	\$24.7	\$25.5	\$29.5
Securities Revenue	\$28.0	\$26.1	\$25.8	\$26.3	\$27.9	\$30.1
Utility Tax	\$9.7	\$5.6	\$7.1	\$5.1	\$6.3	\$6.4
Board and Care	\$13.3	\$10.7	\$11.2	\$12.4	\$15.6	\$13.2
Beer Tax	\$11.7	\$12.2	\$12.3	\$12.4	\$12.4	\$12.8
Racing	\$3.8	\$4.2	\$4.0	\$4.0	\$3.5	\$2.9
Flexible Grant			\$25.0	\$25.0	\$0.0	\$0.0
Other	\$47.9	\$45.5	\$52.6	\$57.1	\$59.5	\$62.1
Total Actual Taxes/Revenues	\$1,286.0	\$1,359.6	\$1,429.7	\$1,480.2	\$1,581.3	\$1,720.8
BPT from 8% to 8.5% in 2002	\$195.4	\$151.7	\$164.5	\$162.4	\$232.8	\$301.7
BET from 0.5% to 0.75% in 2002	\$158.9	\$148.1	\$145.3	\$156.9	\$163.1	\$150.4
CT from 5.5.% to 7% in 2002	\$49.0	\$50.8	\$49.0	\$51.7	\$55.0	\$55.4
Tobacco Tax from 37 cents to 52 cents in 2000, to 80 cents in 2006						
Other Revenue sources not hurt badly in 2000/2001 recession						
Total Revenue, w/o New, Changes	\$1,184.0	\$1,159.7	\$1,195.5	\$1,232.2	\$1,348.6	\$1,439.9

The 2001 recession was more moderate than the previous one, as the New Hampshire job base declined by 3 percent. Changes to the state tax structure included increases in the Tobacco Tax, Business Profits Tax and Business Enterprise Tax (all as part of the effort to fund education adequacy); an increase in the Communications Tax from 5 percent to 7 percent; and a restructuring of the Utility Property Tax.

⁴ The Business Enterprise Tax was enacted in 1994 in part to “broaden” the business tax base in New Hampshire, since available data suggested relatively few companies were paying the greatest portion of the Business Profit Tax.

Table 4: State Revenues in the 2008 Recession

New Hampshire Revenues in the 2007-2009 recession				
Revenue (GF plus ETF)	2008	2009	2010*	2011
Business Profits Tax	\$385.4	\$305.8	\$312.5	\$313.3
Business Enterprise Tax	\$232.7	\$185.3	\$191.7	\$189.7
Subtotal	\$618.1	\$491.1	\$504.2	\$503.0
Meals & Rooms	\$214.3	\$209.7	\$231.7	\$245.0
Tobacco	\$166.4	\$188.1	\$243.9	\$220.6
Liquor	\$133.1	\$146.0	\$120.5	\$127.9
Interest & Dividends	\$118.7	\$97.1	\$84.5	\$90.1
Insurance	\$95.9	\$94.1	\$86.8	\$80.5
Communications	\$80.9	\$80.2	\$79.7	\$75.0
Real Estate Transfer	\$116.3	\$81.3	\$84.5	\$89.2
Estate and Legacy	\$0.2	\$0.0	\$0.0	\$0.0
Transfers from Lottery Commissio	\$77.0	\$69.6	\$66.0	\$77.7
Tobacco Settlement	\$48.4	\$52.8	\$44.2	\$44.2
Utility Property Tax	\$24.2	\$29.0	\$29.9	\$28.0
Court Fines & Fees	\$31.3	\$29.3	\$13.0	\$13.2
Securities Revenue	\$34.7	\$34.7	\$34.2	\$34.0
Utility Tax	\$6.3	\$6.5	\$6.0	\$6.0
Board and Care	\$19.9	\$21.3	\$22.1	\$20.2
Beer Tax	\$12.7	\$12.7	\$13.1	\$12.8
Racing and Charitable Gaming	\$3.0	\$2.0	\$7.0	\$6.3
Flexible Grant	\$0.0	\$0.0	\$0.0	\$0.0
Other	\$89.0	\$86.8	\$63.5	\$67.8
Total Actual Taxes/Revenues	\$1,890.4	\$1,732.4	\$1,734.8	\$1,741.5
* Preliminary Accrual Unaudited				
Meals & Rooms increase to 9%	\$214.3	\$209.7	\$206.0	\$217.8
Tobacco at 80 cents	\$123.2	\$113.1	\$108.8	\$108.8
Reduction in Insurance Tax	\$97.9	\$98.1	\$92.8	\$86.5
Tobacco Tax from 80 cent, to \$1.08 in 2008, \$1.33 in 2009 and \$1.78 in 2010				
Total Revenue, w/o New, Changes	\$1,849.2	\$1,661.5	\$1,575.4	\$1,603.9

While the most recent national recession, which officially began in December 2007 and ended in June 2009, has been nicknamed the Great Recession, the downturn in New Hampshire was more moderate than the national downturn. New Hampshire lost about 5 percent of its job base, while the country as a whole lost 6.5 percent. Changes to the state revenue structure included an increase in the Meals and Rooms Tax; a new Gambling Tax; increases in the Tobacco Tax; and a reduction in the Insurance Tax.

The downturn from the most recent recession in New Hampshire was more moderate than the national downturn.

Short Term Forecasting Model

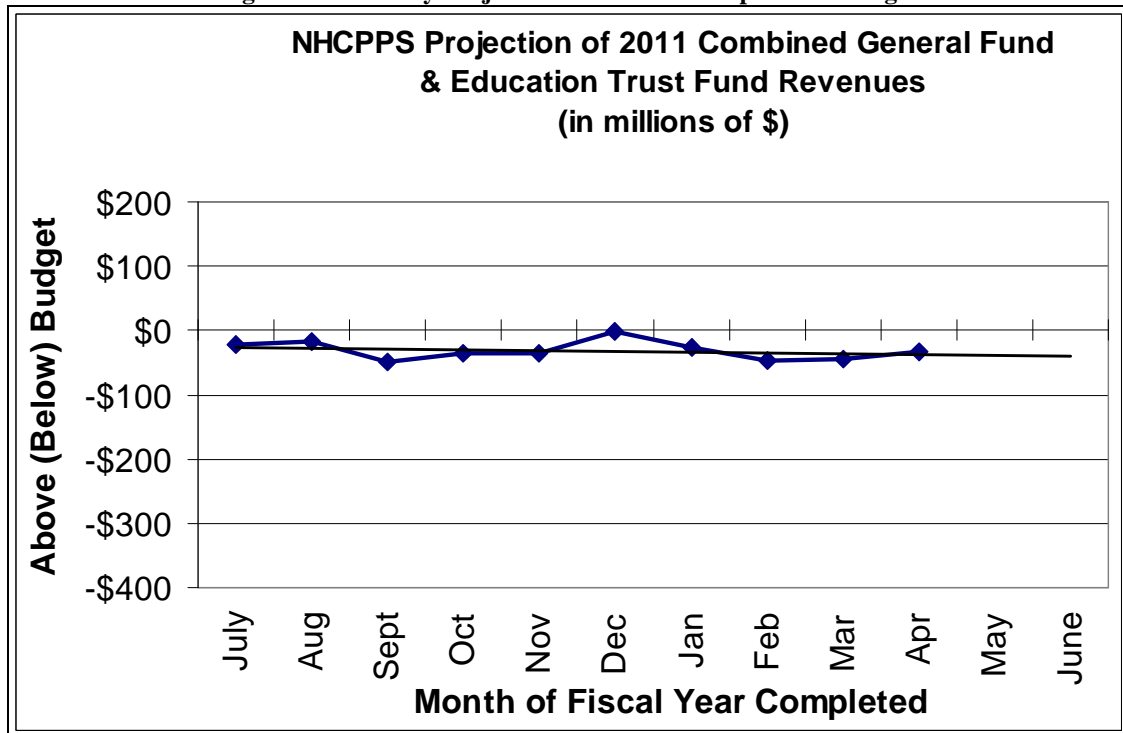
The Center models the difference between actual and projected revenues for the combined General Fund and Education Trust Fund. Year-to-date actual revenue by

month, for each major revenue source, is used to create an updated forecast for the fiscal year. The short term forecast is revised as new monthly revenue data is released by the Department of Administrative Services.

The short term methodology is simple, using year-to-date performance to estimate revenues for the year. For example, year to date through April 2011, the Meals and Rooms tax receipts were 2.7 percent ahead of collections over the same period one year prior, in March 2010. Applying that increase to the annual Meals and Rooms revenue for FY2010 (\$229.8 million) yields \$236.0 million as the Center’s short-term model estimate for FY2011. Projected revenues are \$245 million for FY2011, a difference of about \$9 million.

Applying that approach to the current fiscal year, the Center’s short term forecasting model now shows a \$45 million revenue shortfall for FY2011 relative to the budget forecast, based on year-to-date revenue though April 2011 (Figure 2).

Figure 2: Summary Projection of FY2011 Compared to Budget

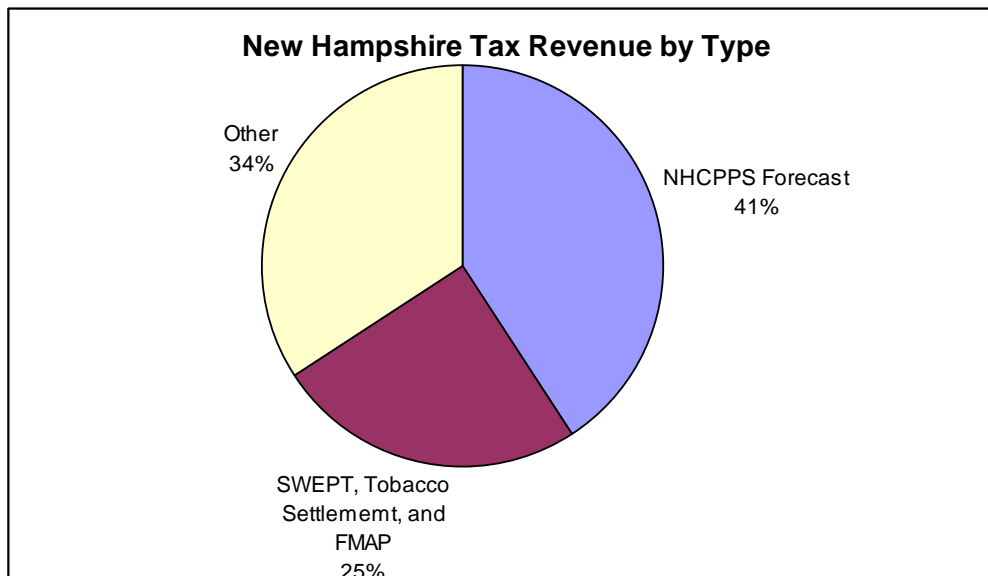


Long Term Forecasting Model

The Center is attempting to provide a more precise forecast model based on available data and the best national projections about how factors that contribute to our revenue changes are fluctuating. This forecast model will – when complete – provide projections on the eight largest sources of revenue: the Business Enterprise Tax, the Business Profits Tax, the Meals and Rooms Tax, the tax on Interest and Dividends, and revenues raised from our lottery, liquor, and tobacco sales.

This initial forecast correlates tax revenue from our four largest sources with generally recognized measures of economic activity. The forecast includes state business taxes, the Interest and Dividends Tax and the Meals and Rooms Tax, which comprise 41 percent of the New Hampshire General Fund and Education Trust Fund (Figure 3). These sources of state unrestricted tax revenue are both the largest revenue sources and the ones most tied to prevailing economic conditions.

Figure 3: State Revenue by Type



The Center did not attempt to forecast the remaining 59 percent of state revenue, but instead relied on estimates from the state legislature. These revenues are of two general types:

- Those not tied to economic conditions, including Federal Medicaid payments (FMAP), the tobacco settlement and statewide property and utility taxes. These sources comprise approximately 25 percent of state revenue.
- Other sources of state revenue which we hope to develop models for in our next effort, including tobacco taxes, liquor revenue, and lottery commission receipts, which make up 34 percent of the total. While many of these revenue sources may vary with general economic conditions, we have not attempted to forecast each revenue source.

Model Specification

Each model has a unique design, relating the revenue base to be taxed to a broader economic indicator. Changes in the state Business Profits Tax base are best explained by variations in U.S. corporate profits. Changes in the Meals and Rooms tax base appear to be highly correlated with residents' personal income. The following table (Table 5) shows the economic variables used in the Center's forecast.

Table 5: Economic Variables in the NHCPPS Revenue Model

	US CBO 1/11 Economic Profit (Billions \$)	NH Wages Paid to Covered Workers (Millions \$)	NH NEEP 5/11 Personal Income (Millions \$)	NH Dividends, Interest, Rent (Millions \$)
2000	\$673.6	\$20,671	\$42,283	\$7,151
2001	\$614.5	\$21,277	\$43,625	\$7,164
2002	\$714.3	\$21,416	\$44,635	\$7,026
2003	\$812.0	\$22,136	\$45,739	\$6,795
2004	\$1,041.9	\$23,577	\$48,597	\$6,997
2005	\$1,216.7	\$24,715	\$49,956	\$6,747
2006	\$1,351.5	\$26,138	\$53,765	\$8,099
2007	\$1,194.0	\$27,101	\$56,418	\$8,845
2008	\$983.2	\$27,714	\$57,793	\$9,031
2009	\$997.1	\$26,648	\$56,488	\$8,705
2010	\$1,183.0	\$25,979	\$58,036	\$8,900
2011	\$1,294.0	\$26,773	\$59,197	\$9,194
2012	\$1,346.0	\$27,803	\$62,157	\$9,498
2013	\$1,405.0	\$28,895	\$65,264	\$9,812
2014	\$1,429.0	\$30,051	\$68,528	\$10,136

Business Taxes

New Hampshire has two main business taxes: the Business Profits Tax (BPT) and Business Enterprise Tax (BET).

BPT is assessed on income from conducting business activity in the state. The filing threshold is \$50,000 or more in gross receipts of the business. Quarterly estimates are due based on 25 percent of the prior year's tax liability. The BPT tax rate is 8.5 percent.

The BET is assessed upon "enterprise tax value base," which is the sum of compensation, interest and dividends paid by the firm. The filing threshold is \$150,000 of gross receipts or \$75,000 of enterprise value. The New Hampshire Department of Revenue Administration (DRA) estimates that 79 percent of BET revenue comes from wages, 21 percent from interest and dividends. The BET tax rate is 0.75 percent. As such, it is a very low rate tax on a very large base (ex.: \$7,500 tax on a \$1 million base).

Businesses that are liable for both business taxes (BET and BPT) are allowed to claim the BET tax they pay as a credit against the BPT obligation. The DRA estimates that about 60 percent of BET paid is credited against the BPT.

Approximately 80 percent of all business taxes are paid as estimates or extensions⁵. Most

⁵ In laymen's terms an estimate means that firms estimate their tax liability for the year, and pay that estimated tax in quarterly installments. The Internal Revenue Service has a similar requirement for individuals who receive income not subject to withholding. Extensions allow a company to defer its tax liability for a short time.

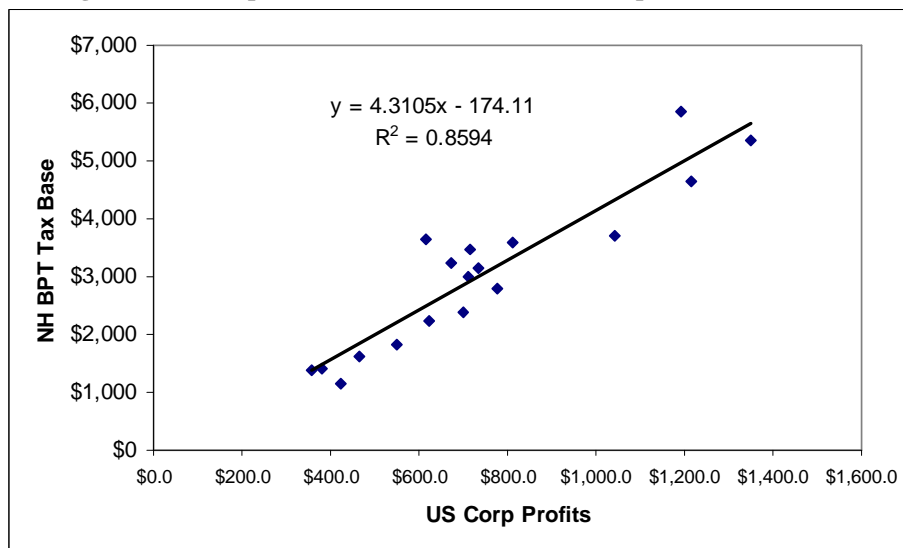
large New Hampshire firms file under extension, so while most returns are due in March, actual liability is not known until October.⁶

Business Profits Tax

The BPT forecast is developed based on the relationship between U.S. corporate profits and the BPT tax base in New Hampshire. The BPT base is estimated by adjusting BPT tax receipts to what they would have been in the absence of the BET, and then dividing that sum by the BPT tax rate (8.5 percent).

The DRA estimates that approximately 60 percent of BET taxes paid are taken as a credit against the BPT, so it is necessary to estimate what the BPT tax base would be in the absence of the BET. For example, for the year 2009, 60 percent of that year’s BET tax receipts are added to the BPT tax receipts, and then the summation is divided by 8.5 percent (the BPT tax rate) to yield the BPT tax base for 2009. Figure 4 shows the relationship between the estimated BPT base in New Hampshire and U.S. corporate profits from 1990 to 2007.

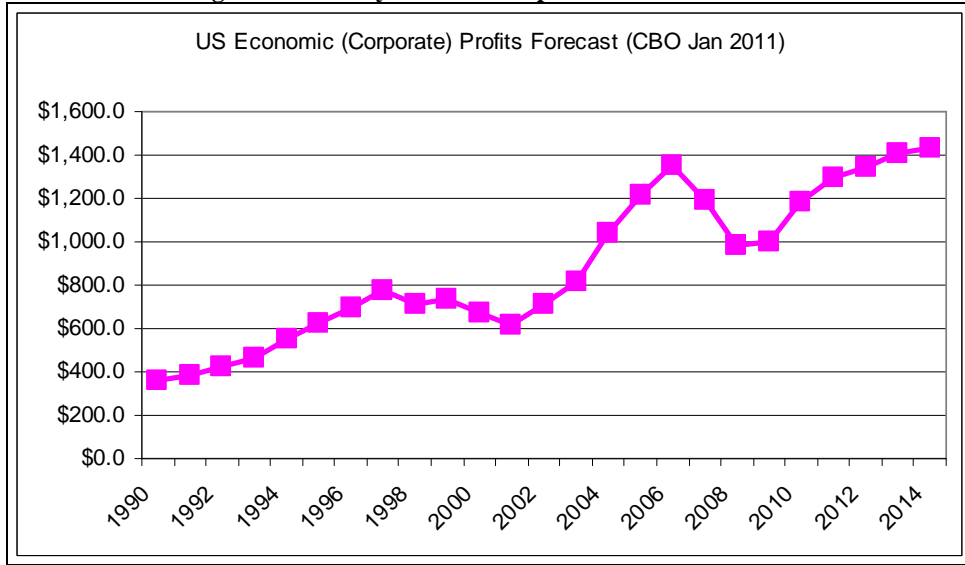
Figure 4: US Corporate Profits versus the New Hampshire BPT Tax Base



The model from the above regression is applied to the latest forecast of U.S. corporate profits from the Congressional Budget Office to estimate the BPT forecast tax base. That number is then multiplied by the tax rate (8.5 percent) to derive BPT tax receipts. The BPT forecast is adjusted for the credit of the BET against the BPT. The CBO Corporate Profit actual and forecast is illustrated in Figure 5 below.

⁶ The final tax liability for these large filers is not known until three months into the next fiscal year, further compounding the difficulty in performing an accurate forecast.

Figure 5: January 2011 US Corporate Profits Forecast

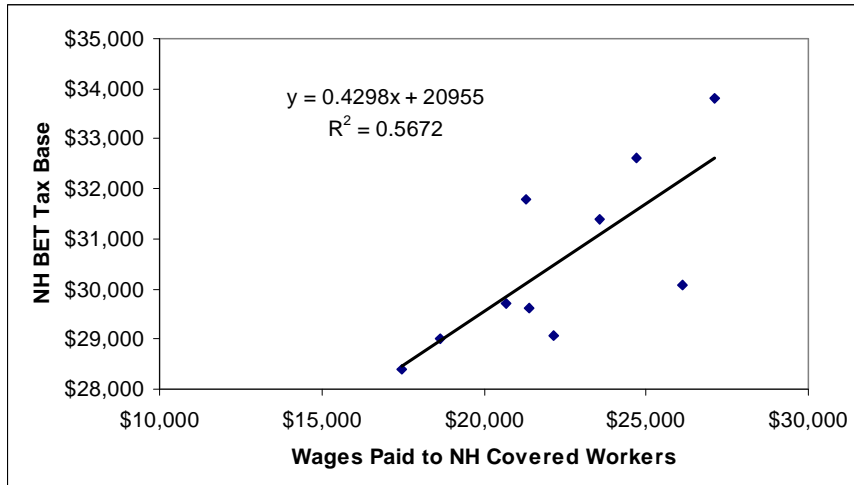


Business Enterprise Tax

The BET tax base is estimated by dividing BET tax receipts by the tax rate. Because the BET is levied mostly on wages, the BET tax base is modeled based on Total Private New Hampshire Wages Paid to Covered Workers.

Figure 6 shows the relationship between wages paid to covered workers in New Hampshire and the BET tax base for the years 1998 through 2007.

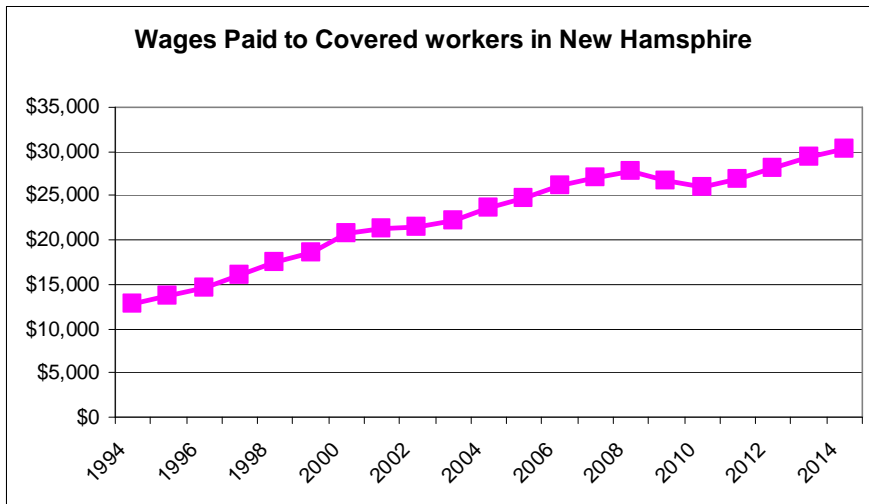
Figure 6: Wages Paid to New Hampshire covered Workers versus the BET Tax Base



The model from the above regression is applied to a forecast of New Hampshire Wages Paid to Covered Workers from the New England Economic Partnership New Hampshire

forecast to estimate the BET forecast tax base, which is then multiplied by the tax rate (0.75 percent) to derive BET tax receipts. New Hampshire Wages Paid to Covered Workers actual and forecast is illustrated below in Figure 7

Figure 7: May 2011 NEEP Forecast of Wages Paid to Covered Workers



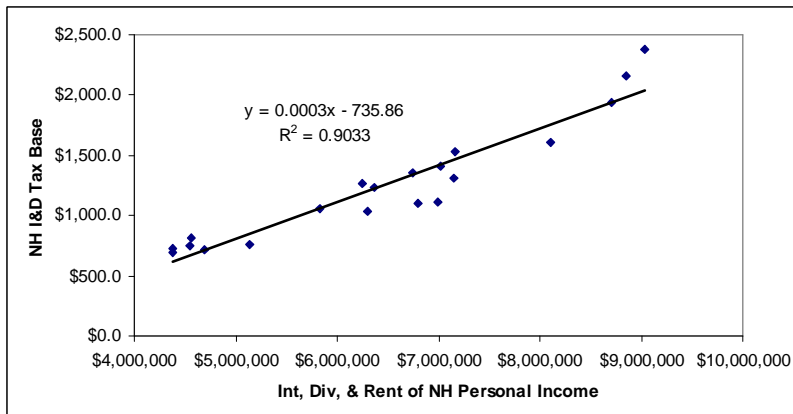
Interest and Dividends Tax

The New Hampshire Interest and Dividends (I&D) tax is a 5 percent tax on interest and dividends with an exemption of \$2,400 for individuals and \$4,800 exemption for joint filers. The tax has an additional \$1,200 exemption for payers who are over the age of 65, blind, or disabled.

The I&D forecast is developed based on the relationship between the dividends, interest, and rent portion of New Hampshire personal income and the I&D tax base in New Hampshire. The I&D tax base is estimated by dividing I&D tax receipts by the tax rate.

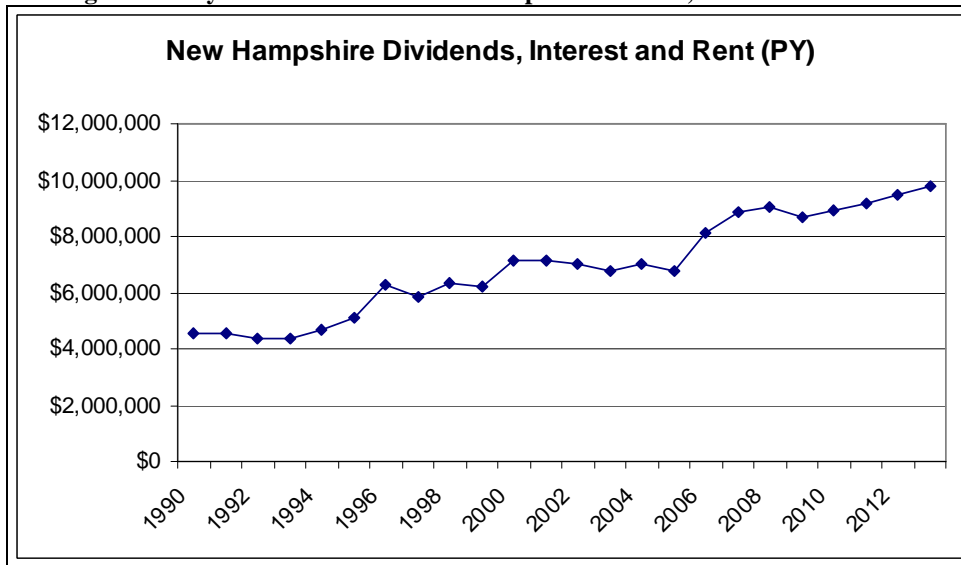
Figure 8 shows the relationship between the dividends, interest and rent in New Hampshire and the I&D tax base for the years 1990 through 2009.

Figure 8: Interest and Dividends versus the New Hampshire I&D Tax Base



The model from the above regression is applied to a forecast of dividends, interest and rent based on the latest forecast of U.S. corporate profits from the Congressional Budget Office to estimate the I&D forecast tax base, which is then multiplied by the tax rate (5 percent) to derive I&D tax receipts. New Hampshire interest, dividends and rent, actual and forecast, is illustrated below in Figure 9.

Figure 9: May 2011 Forecast of New Hampshire Interest, Dividends and Rent



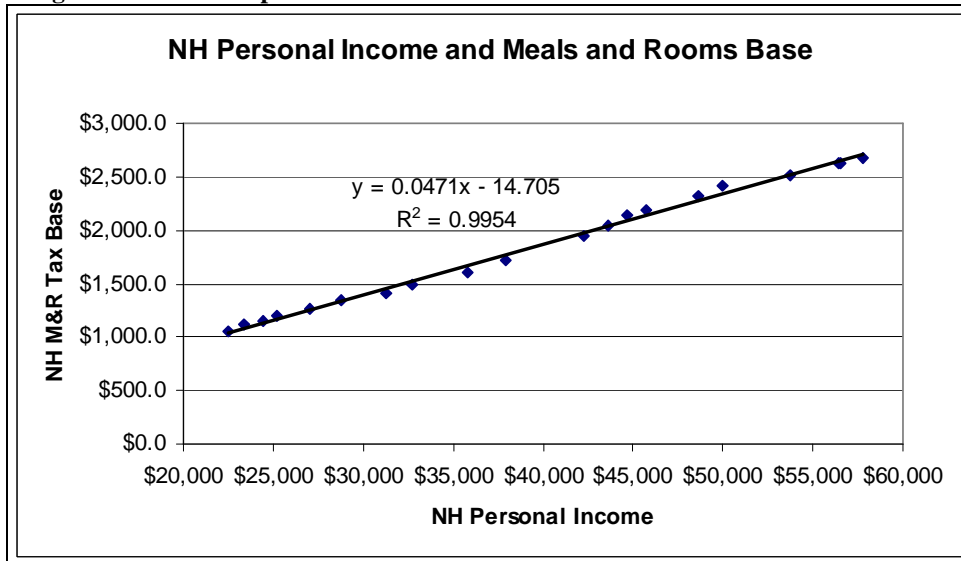
Meals and Rooms

The New Hampshire Meals and Rooms (M&R) tax is a 9% tax (effective 7/1/2009) assessed upon patrons of hotels (or any facility with sleeping accommodations), and restaurants, on rooms and meals costing \$.36 or more. A 9% tax is also assessed on motor vehicle rentals. The M&R tax base makeup is approximately 80% meals and 20% rooms.

The M&R forecast is developed based on the relationship between New Hampshire personal income and the M&R tax base in New Hampshire. The M&R tax base is estimated by dividing M&R tax receipts by the tax rate.

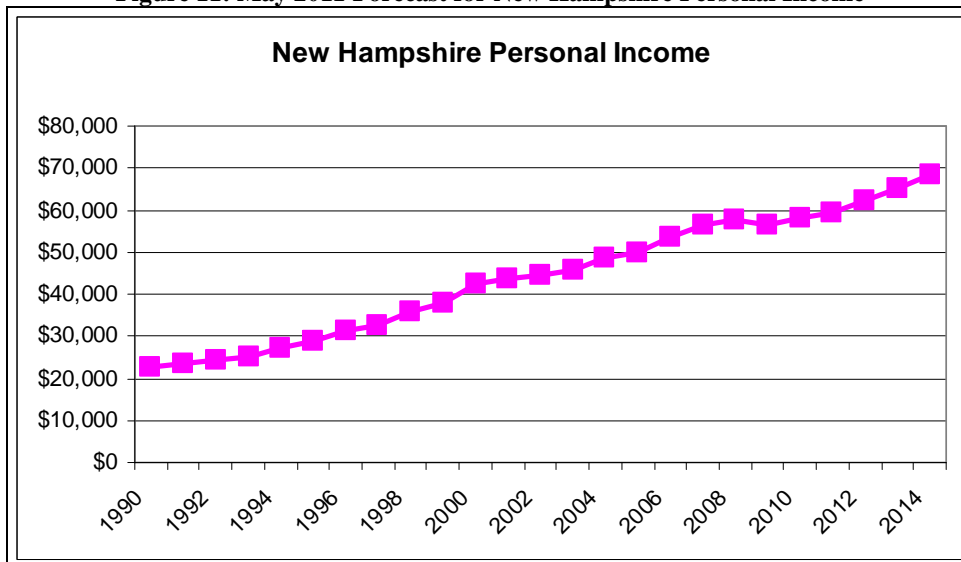
Figure 10 shows the relationship between New Hampshire personal income and the M&R tax base for the years 1990 through 2009.

Figure 10: New Hampshire Personal Income versus the Meals and Rooms Tax Base



The model from the above regression is applied to a forecast of personal income from the New England Economic Partnership New Hampshire forecast to estimate the M&R forecast tax base, which is then multiplied by the tax rate (9 percent) to derive M&R tax receipts. New Hampshire personal income, actual and forecast, is illustrated below in Figure 11.

Figure 11: May 2011 Forecast for New Hampshire Personal Income



Forecast Results

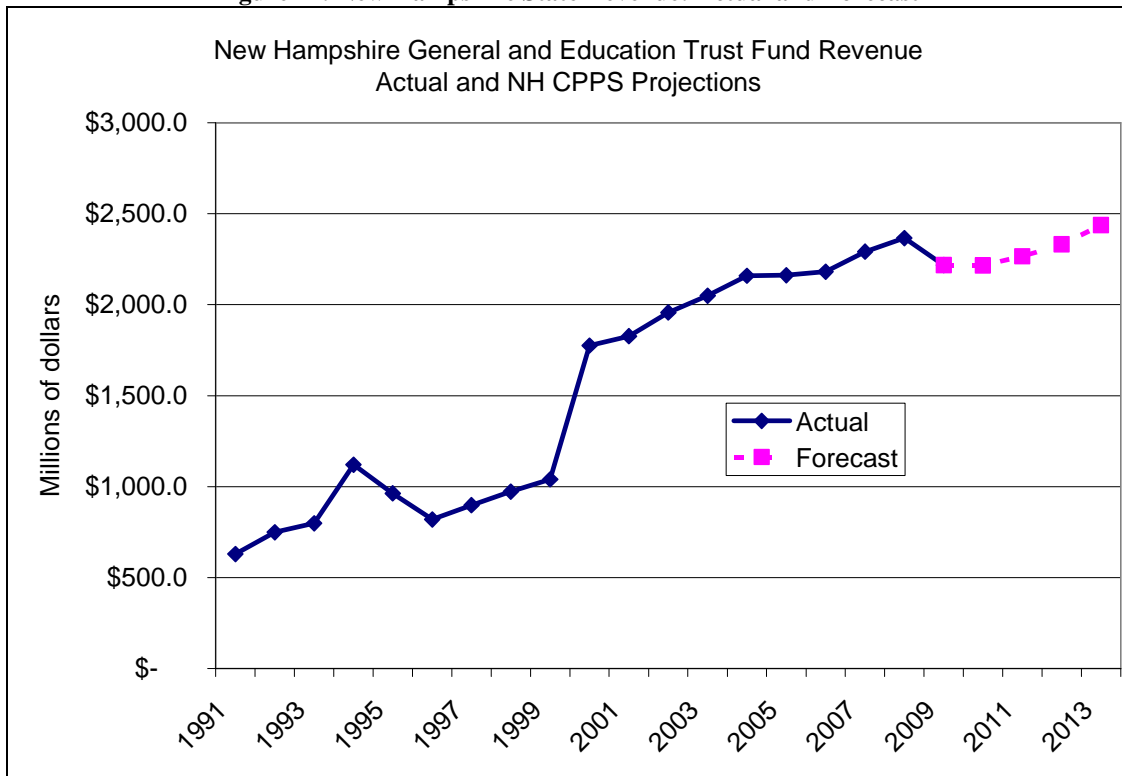
Our interest lies in understanding the revenue changes the state can anticipate for the next budget biennium. Table 6 shows the resulting forecast for the years 2011 through 2013. Total Unrestricted Revenue in this forecast decreases by 2.7 percent from 2010 to 2011, and increases by 3.8 percent and 2.6 percent in the following two fiscal years.

Table 6: May 2011 NHCPPS State Revenue Forecast

Revenue Category	Actual and 5/2011 NHCPPS forecasts			
	2010	2011r	2012	2013
	Total	Total	Total	Total
Business Profits Tax	\$ 316.2	\$ 294.1	\$ 326.5	\$ 346.5
Business Enterprise Tax	193.9	188.5	196.4	199.2
Subtotal	510.1	482.6	522.9	545.7
Meals & Rooms	232.5	235.8	244.6	256.9
Tobacco	243.5	233.0	224.0	215.0
Liquor	120.7	126.9	135.9	144.9
Interest & Dividends	84.9	72.3	85.7	90.4
Insurance	86.8	80.5	81.0	81.0
Communications	81.0	82.0	82.0	82.0
Real Estate Transfer	84.8	80.0	85.0	90.0
Estate and Legacy	0.5	0.0	0.0	0.0
Transfers from Lottery Commission	67.6	65.0	74.0	83.0
Tobacco Settlement	44.2	44.0	44.0	44.0
Utility Property Tax	29.9	31.5	31.5	31.5
Property Tax Not Retained Locally	0.0	0.0	0.0	0.0
Property Tax Retained Locally	363.2	364.0	364.0	364.0
Court Fines & Fees	13.0	13.7	13.7	13.7
Securities Revenue	34.2	40.0	40.0	40.0
Utility Tax	5.9	6.0	6.0	6.0
Board and Care	22.1	22.3	22.3	22.3
Beer Tax	13.0	13.0	13.0	13.0
Racing	2.5	2.9	3.0	3.0
Gambling Winnings Tax	2.9	3.4	4.6	4.8
Flexible Grant	0.0	0.0	0.0	0.0
Other	91.5	80.0	85.0	90.0
Subtotal	2,134.8	2,078.9	2,162.2	2,221.2
Net Medicaid Enhancement				
Revenues (MER)	98.1	93.0	93.0	93.0
Recoveries	19.9	20.0	20.0	20.0
Subtotal	2,252.8	2,191.9	2,275.2	2,334.2
Other MER to fund Appropriations	-	-	-	-
Total Unrestricted Revenue	\$ 2,252.8	\$ 2,191.9	\$ 2,275.2	\$ 2,334.2

Our forecast model is combined with estimates for revenue changes from the Department of Revenue Administration where we did not ourselves project the future. Figure 12 below charts that projected growth, showing it relative to actual revenue growth since 1991.

Figure 12: New Hampshire State Revenue: Actual and Forecast



Backcasting

The simplest way to think of ‘backcasting’ is as the opposite of forecasting. It involves identification of a particular scenario and tracing its origins and lines of development back to the present. In this case we use the backcasting method to validate the predictive power of the Center’s long term model. If the model can correctly “predict” earlier outcomes, it is likely to be accurate in forecasting future results.

The method uses actual data (U.S. corporate profits, personal income, etc.) to estimate what the ‘forecast’ would have been for the years 2004 to 2009, and then compares that ‘forecast’ to actual. We looked at state business taxes (BPT and BET), Meals and Rooms, and Interest and Dividends.

The results are shown below. Variance on the business taxes is the highest, while the variance on Meals and Room is the lowest. Assuming we ‘knew’ everything else correctly, the forecasts for the last 3 biennium would have been off by 1.4 percent, as shown in Table 7.

In summary a backcast helps us demonstrate the explanatory power of the model, assuming consistency in historical relationships. A backcast is not a guarantee of future forecast performance.

How other states forecast

While New Hampshire's approach for forecasting state revenues – relying on the Ways and Means Committees of the House and Senate to set forecasts – involves elected politicians, many other states include a broader range of perspectives in their forecasting committees.

A recent study by the National Conference of State Legislatures⁸ divided states' forecasting methods into three categories: those in which the Executive Branch has primary responsibility for developing forecasts; those in which forecasts are developed through a consensus process; and those in which some blend of methods is used.

In 17 states, the Executive branch has sole authority to issue revenue estimates, though in some cases the Legislature can override those forecasts.

Revenue forecasts “bind” the budget in more than half of states, meaning the forecasts act as a limit which budget-writers cannot exceed or adjust. And in some, budget appropriations are restricted to a percentage of the revenue estimates. In other words, spending is limited to, say, 98 percent of revenues, as a further check on exceeding those forecasts.

Another method of examining forecasting approaches is to divide states into those where the revenue forecasts are developed primarily by elected officials, and those in which non-partisan, non-elected experts develop the forecasts.

Slightly more than half of all states (26) require some kind of consensus process in determining revenue forecasts, though just seven require that the task includes an independent party. The state of Kansas goes so far as to forbid elected officials from serving on the revenue forecasting committee.

The state of Washington relies on a six-member Economic and Revenue Forecast Council. The council's members are appointed by the governor and state legislature and they employ an outside forecast supervisor. Delaware relies on a 25-member committee, the members of which are appointed by the Governor and which includes legislators, private sector experts and university representatives. In Nevada, a body called the Economic Forum develops a consensus forecast based on estimates from the executive and legislative branch. The Forum consists of five laypersons with expertise in economics and taxation and cannot include state government employees.

⁸ National Conference of State Legislatures, “Legislative Budget Procedures: Budget Framework,” Dec. 2010; ncsl.org

But incorporating outside experts does not necessarily result in greater accuracy in the revenue estimating process, according to a recent study by the Pew Center on the States. The study found that accuracy rates were no greater in states that required a consensus approach to forecasting. But it did identify at least one advantage to such a method.

“Consensus forecasting appears to ease the political process,” the Pew report reads. “Rather than arguing over competing projections of how much revenue is available, policy makers can focus on the more important work of writing the budget itself.”⁹

Consensus forecasting can also eliminate the creation of “dueling” forecasts, in which different branches of government or legislative bodies claim greater legitimacy for their particular set of figures. And it can help bring legitimacy to a process that can sometimes seem imprecise.

Still, no forecasting method can insure against the fiscal uncertainty in times of economic volatility, such as the one the country – and New Hampshire – is now emerging from. The same Pew study found that, in 2009, almost three in four states had revenue estimates that were off by 5 percent or more – a significantly worse record than in the previous recession. In fact, half of all states overestimated tax revenues by 10 percent that year.

⁹ Pew Center on the States: “States’ Revenue Estimating: Cracks in the Crystal Ball,” March 2011