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January 2014 Economic Review and Revenue Forecast Update

Prepared for the
State of Vermont
Emergency Board and
Legislative Joint Fiscal Committee

January 16, 2014

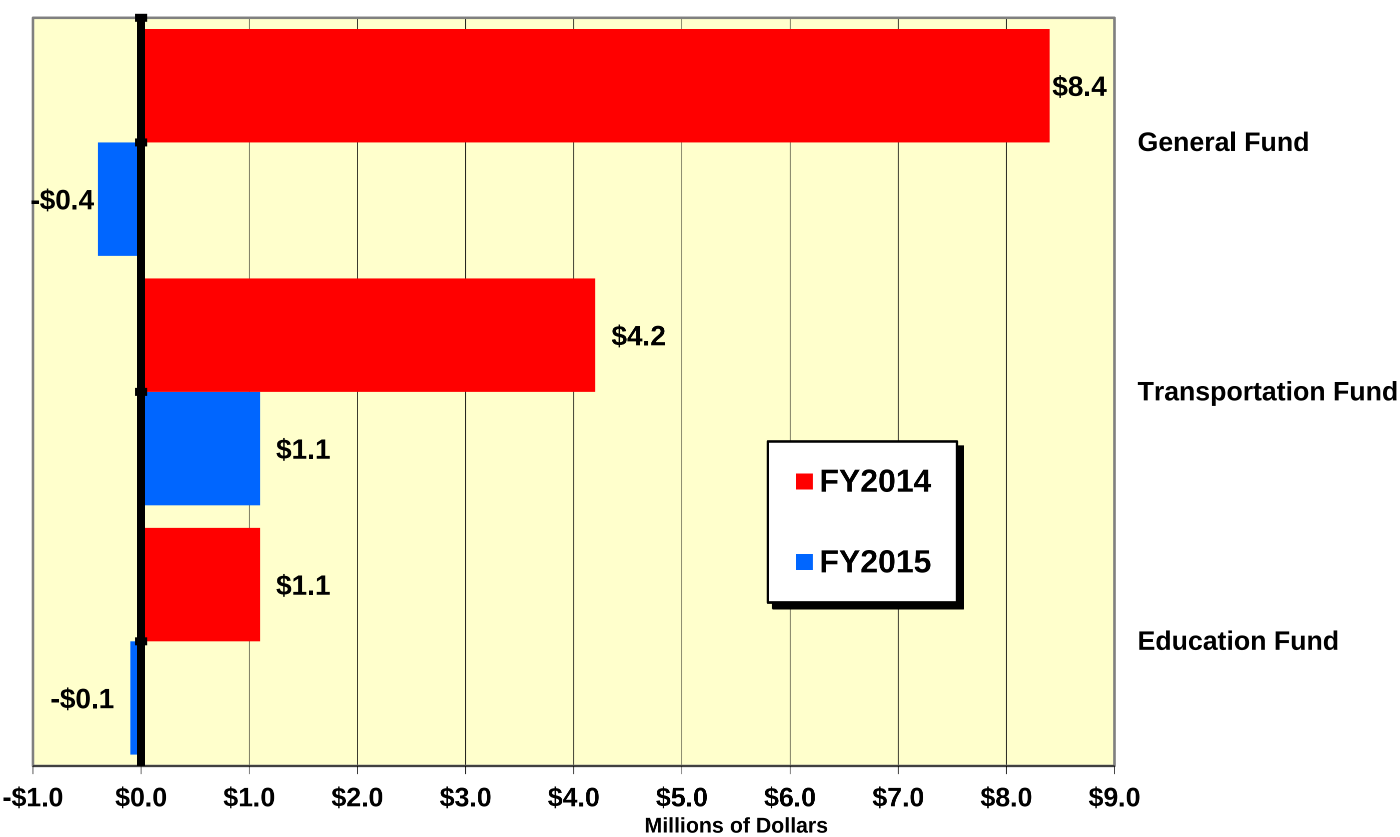
Economic Review and Revenue Forecast Update
January 2014

Overview

Although the macroeconomic forecasts underlying the revenue projections herein are largely unchanged from those made last July, there are perceptible shifts on the economic horizon that could soon result in accelerating economic growth and improved State revenues. With near-term federal fiscal policy moving closer to neutral with the recent budget deal, a continuation of accommodative Fed policies with its new Chair, six years of pent up demand, a soaring stock market, improving housing markets, widely optimistic business and consumer sentiment, and an expanding global economy, the stars may finally be aligning for better times ahead.

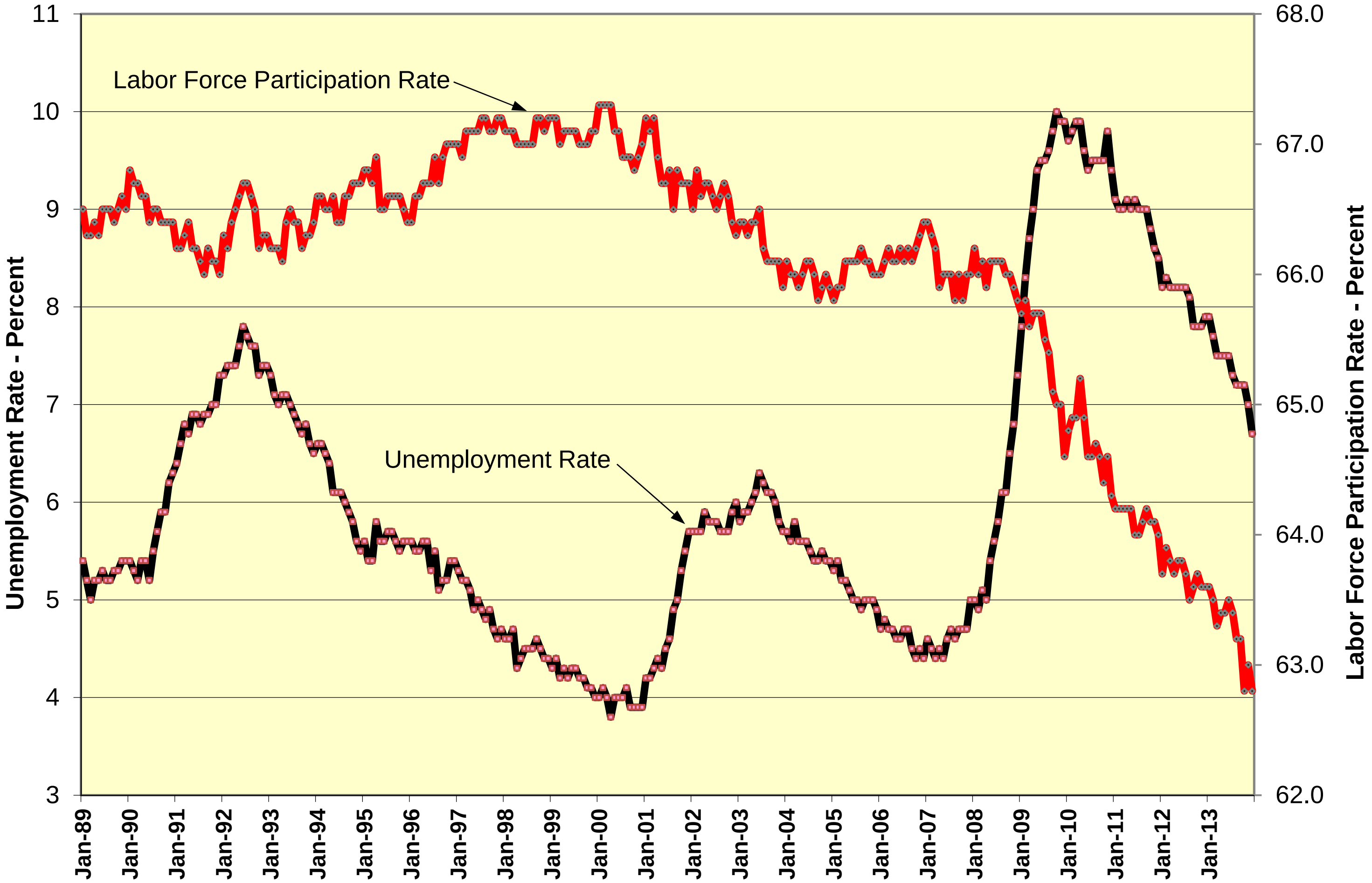
State revenues through the first half of FY14 across all three major funds included in this review were exceptionally close to July expectations (+0.6%), with both the G-Fund (+0.5%) and T-Fund (+2.0%) slightly over target and the E-Fund (-0.3%) slightly below. Accordingly, only minor technical changes have been made to the projections herein, in addition to the loss of about $3 million in FY15 and about $12 million per year thereafter to the G-Fund as a result of the expected closure of the Vermont Yankee nuclear power plant.

Recommended Net Revenue Changes from July 2013 Forecast



- After six long years, the preconditions for stronger economic growth are finally in place. The self-defeating fiscal drag from ill-devised sequestration cuts and political brinksmanship in Washington have been resolved in favor of compromise, housing and construction markets are beginning to heal and grow anew, corporate and household balance sheets are the healthiest they have been in decades, energy prices are being contained by expansive new domestic gas and oil production, monetary policy seems well attuned to a gradual tapering of stimulus, consumer and business confidence indices are strong and rising, and the global economy is poised to grow in tandem with the U.S.. This broad strength in economic fundamentals should ultimately generate demand sufficient for hiring to increase, bringing the unemployment rate below 6% by late 2015 and providing a floor for future real wage growth.

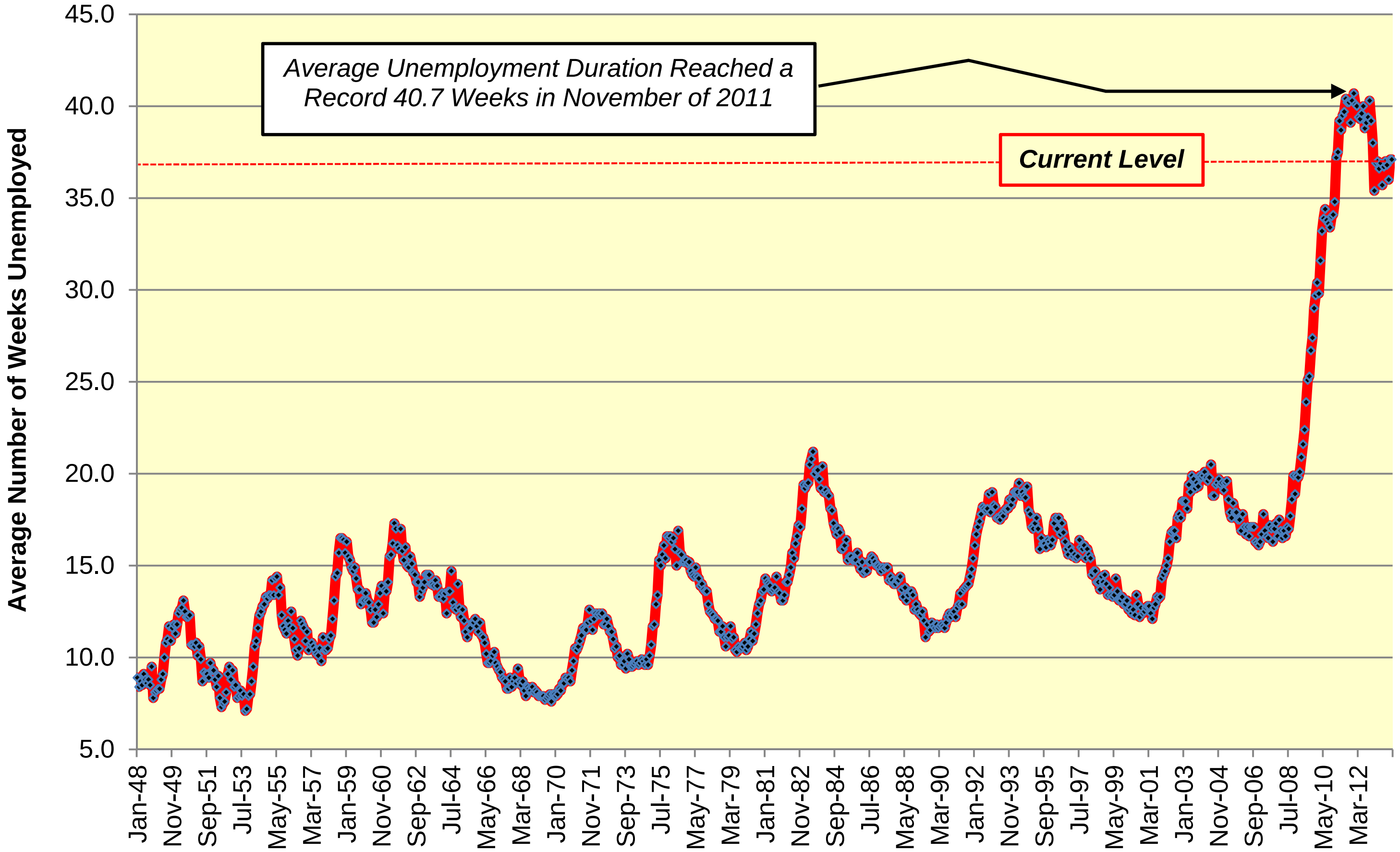
False Read? Unmployment Improvement Driven by Declining Participation
Unemployment Rate - Dark Line, Left Scale; Participation Rate - Red Line, Right Scale
Source: U.S. Bureau of Labor Statistics



- As illustrated in the above chart, much of the recent improvement in the U.S. unemployment rate has been the result of declining labor market participation. In December of 2013, the participation rate dropped to its lowest level in more than 35 years, as unemployed workers discouraged by the persistently weak job market dropped out of the labor force in droves. This serves to lower the unemployment rate, but underscores the exceptionally weak employment growth that has characterized this recovery (see chart on page 5).

- The despair confronting those out of work is illustrated in the below chart, which shows the number of weeks without work for the average unemployed job seeker. Since 1948, this figure had rarely reached 20 weeks. The rate skyrocketed, however, during the current recession and recovery period, with workers in November 2011 unemployed for a record 40.7 weeks. With three workers available for every current job opening, this figure is likely to remain elevated and reflects the need for extended unemployment benefits.

No Break for the Unemployed - Time Off Work Remains Stubbornly Elevated
U.S. Average Number of Weeks Unemployed, Source: U.S. Bureau of Labor Statistics

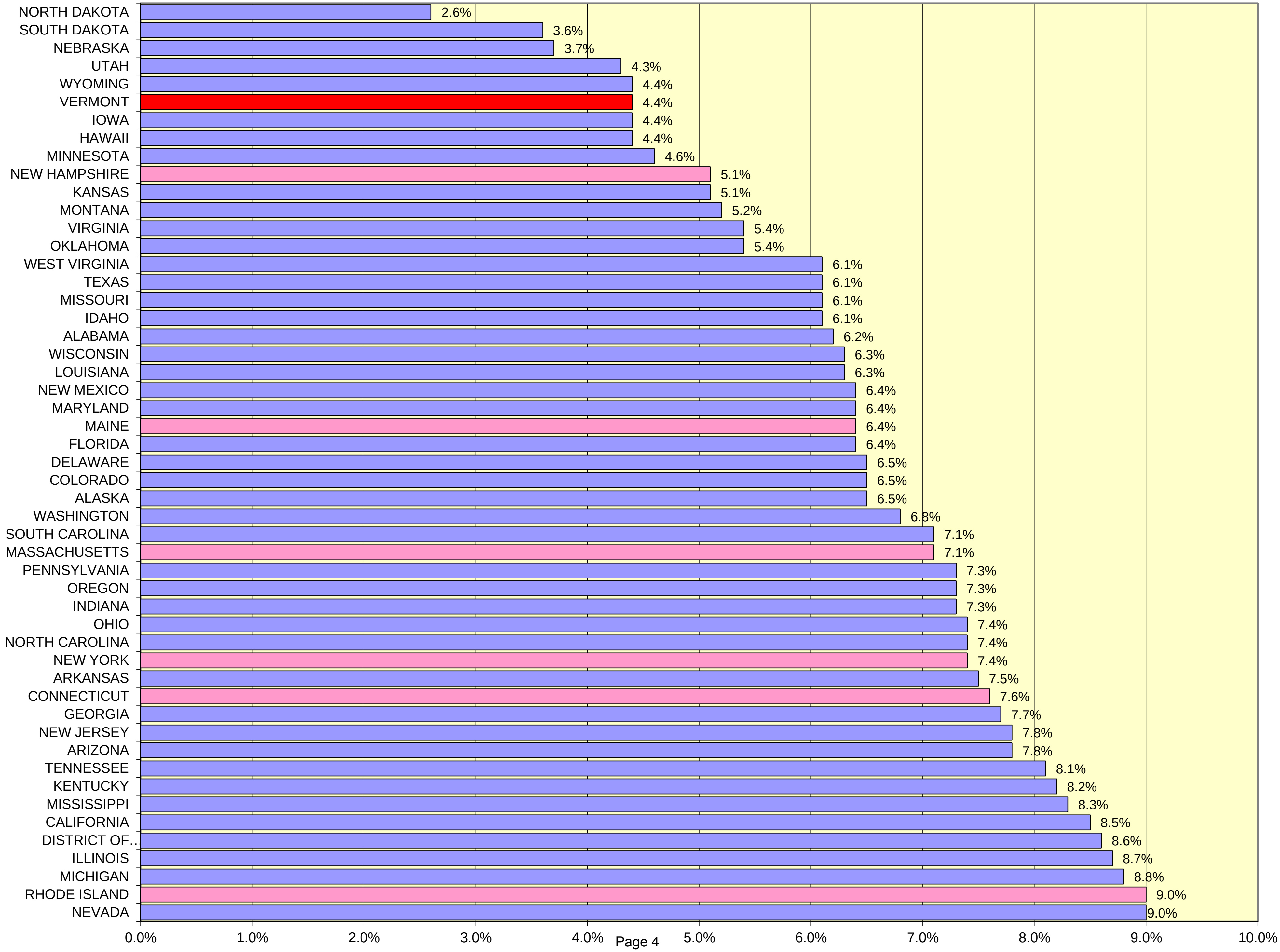


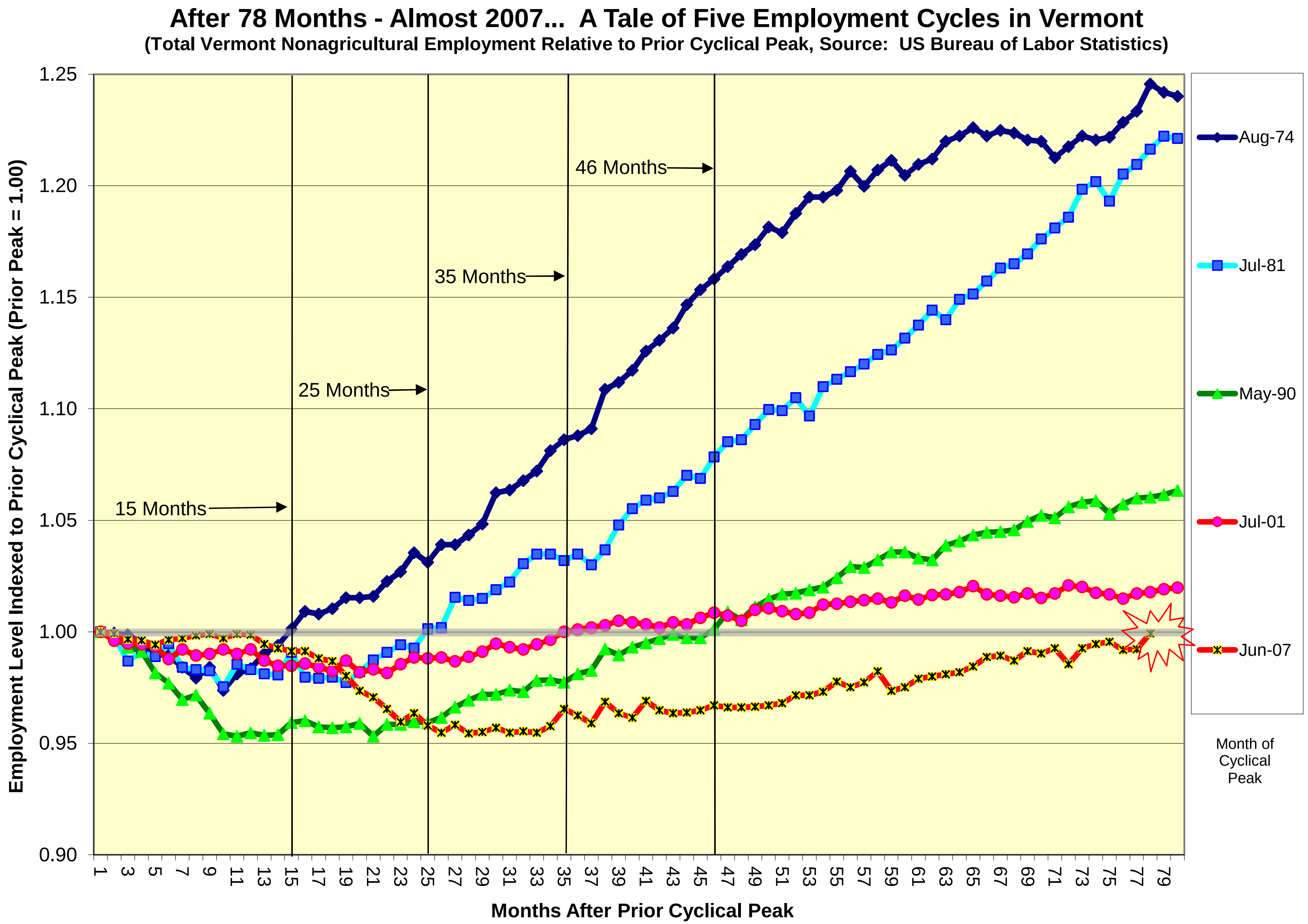
- Vermont labor markets have been afflicted with many of the same ills as the broader U.S. market, including declining participation rates and very slow employment growth, but the unemployment rate in Vermont has been consistently lower than surrounding New England and most U.S. states for much of the recession and recovery.

- As illustrated in the chart on the following page, at 4.4%, Vermont has one of the lowest unemployment rates in the nation (now tied for fifth best with three other states) and has had the lowest unemployment rate in New England for the past 27 months.

Unemployment Rate by State - November 2013

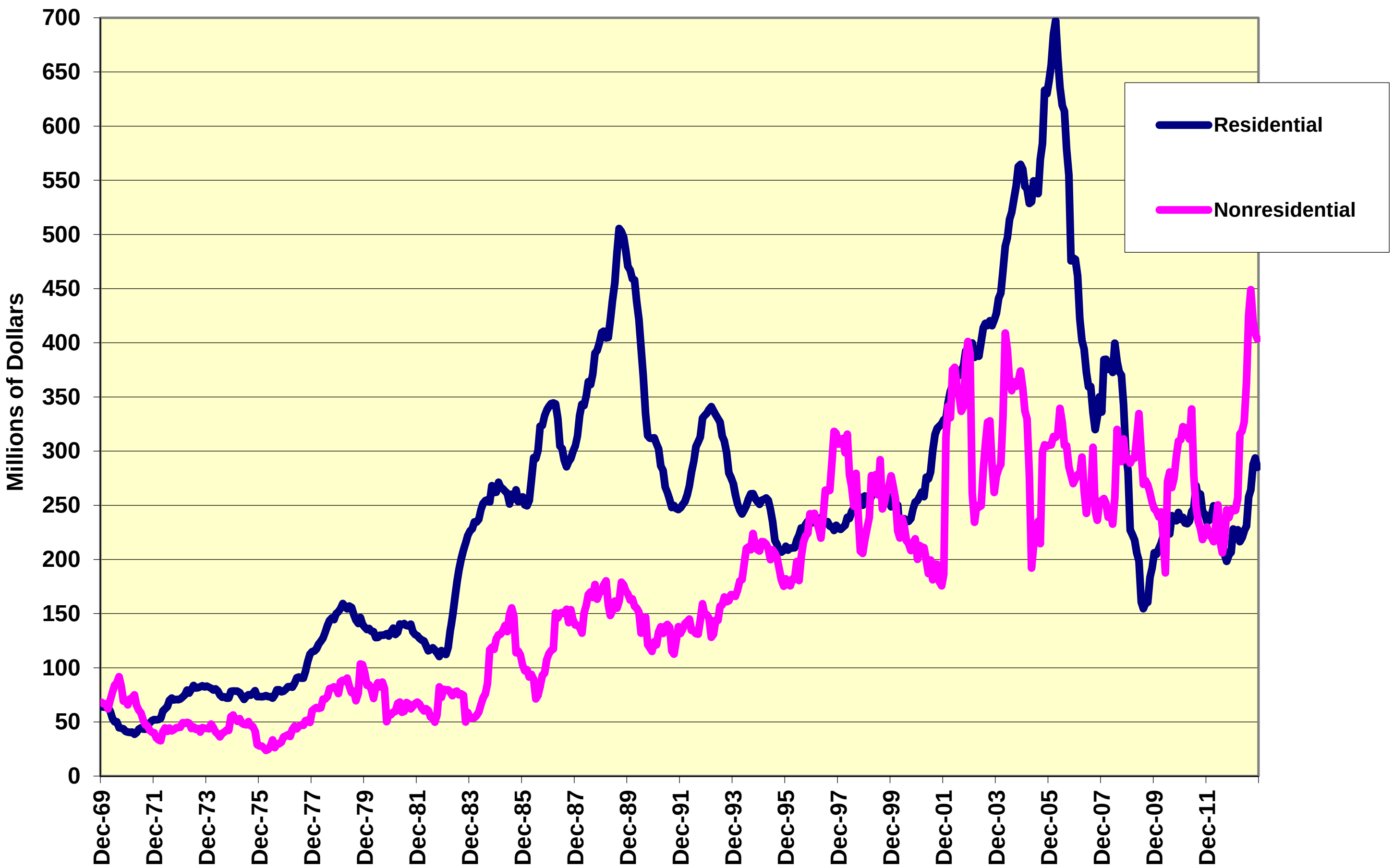
Seasonally Adjusted Data, Source: U.S. Bureau of Labor Statistics




After 78 Months - Almost 2007... A Tale of Five Employment Cycles in Vermont
(Total Vermont Nonagricultural Employment Relative to Prior Cyclical Peak, Source: US Bureau of Labor Statistics)
Employment Level Indexed to Prior Cyclical Peak (Prior Peak = 1.00)
Months After Prior Cyclical Peak
15 Months
25 Months
35 Months
46 Months
Aug-74
Jul-81
May-90
Jul-01
Jun-07
Month of Cyclical Peak

- Housing and construction markets continue to heal in Vermont and throughout the country, as home price declines end and price appreciation returns. As illustrated in the chart on the next page, there are 10 states where housing prices now exceed their pre-recession peak levels (see pink bars on chart) - mostly in energy producing states. There are 8 states, including Vermont, that are within 5% of their prior cyclical peaks. Although home prices in California, Nevada, Florida and Arizona are still 30% to 45% below their prior peak levels, prices have recovered between 11% and 23% in these states (see grey bars on chart). In contrast to this, Rhode Island, easily the poorest performing state in New England, has seen aggregate housing valuation declines of more than 25%, with virtually no recovery to date.

VT Construction Markets Benefit from Recent Surge in Nonresidential Starts
(12 month moving totals)

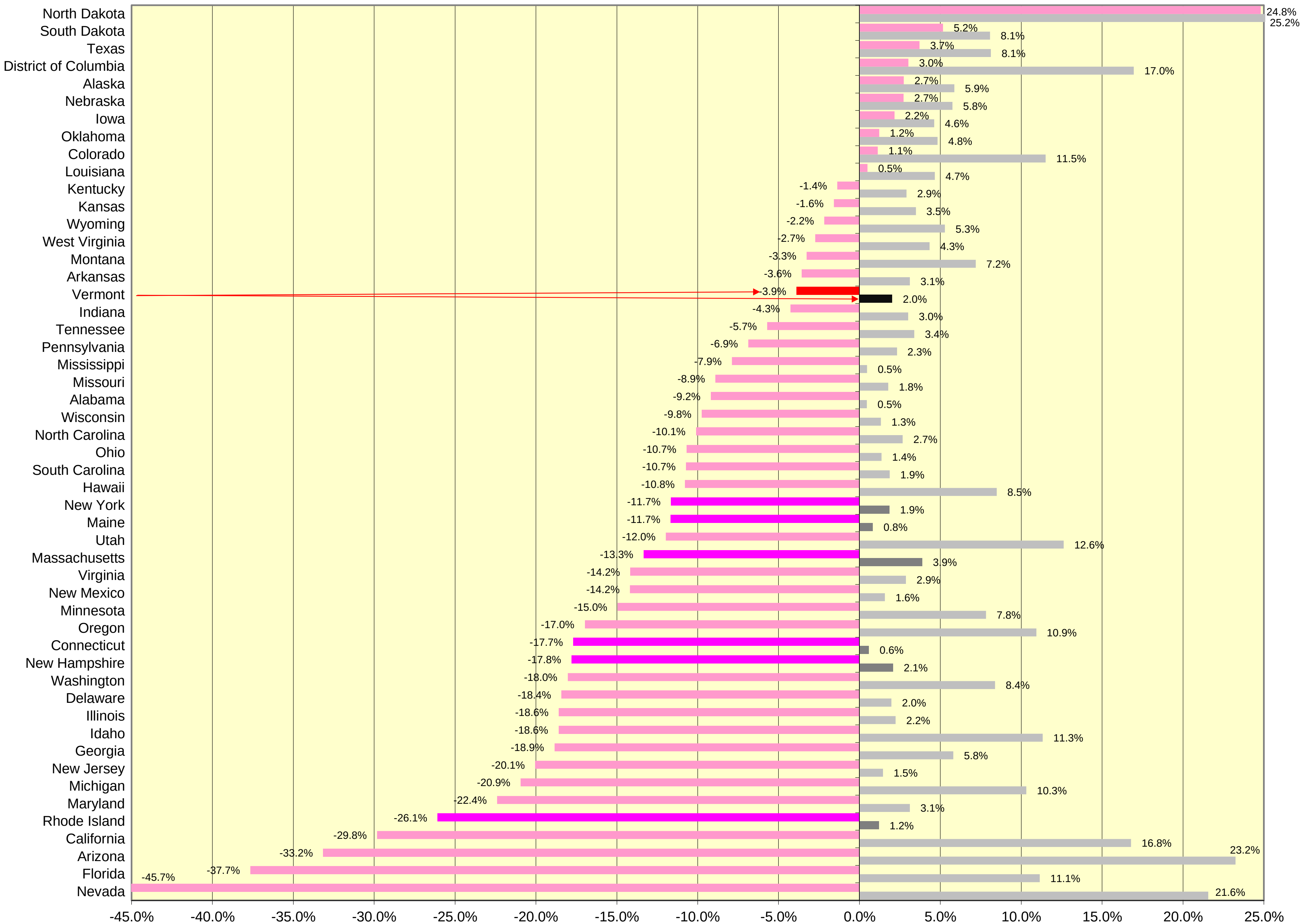


Source: F.W. Dodge/McGraw-Hill

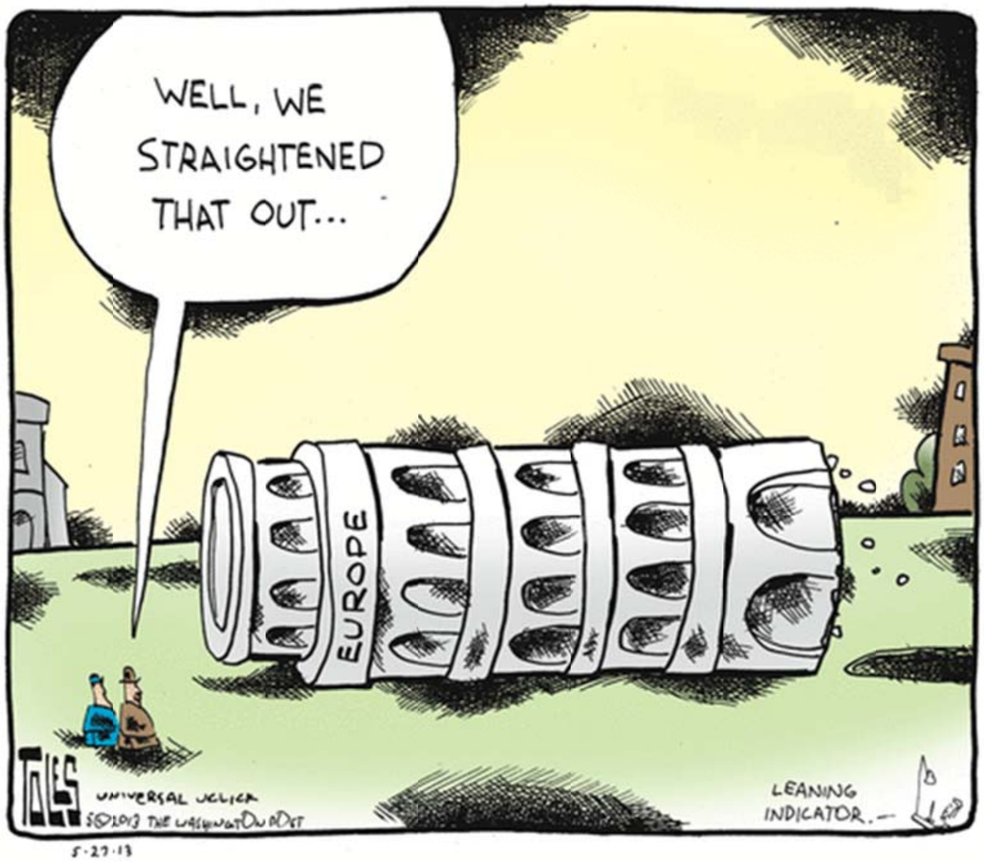
- While residential construction is beginning to emerge from its deep recessionary nadir, nonresidential construction in Vermont has experienced exceptional recent growth. New nonresidential construction contracts in the 12 months ending in August of 2013 totaled nearly $450 million, an all-time record. Of significance, this increase was not due to a handful of large projects, but a wide array of new buildings spanning retail, manufacturing, office, hotel, dormitory, hospital/health and amusement/social/recreational sectors. This surge in building is not only significant in terms of the

Where We Are Now: Housing Values Relative to Last Peak (pink) and Trough (grey)

Percent Change, 2013Q3 vs. Peak Price by State Reached Between 2005Q3 and 2009Q2 - Pink and 2013Q3 vs. Trough Price Reached Between 2009Q3 and 2013Q2 - Grey, Source: FHFA H



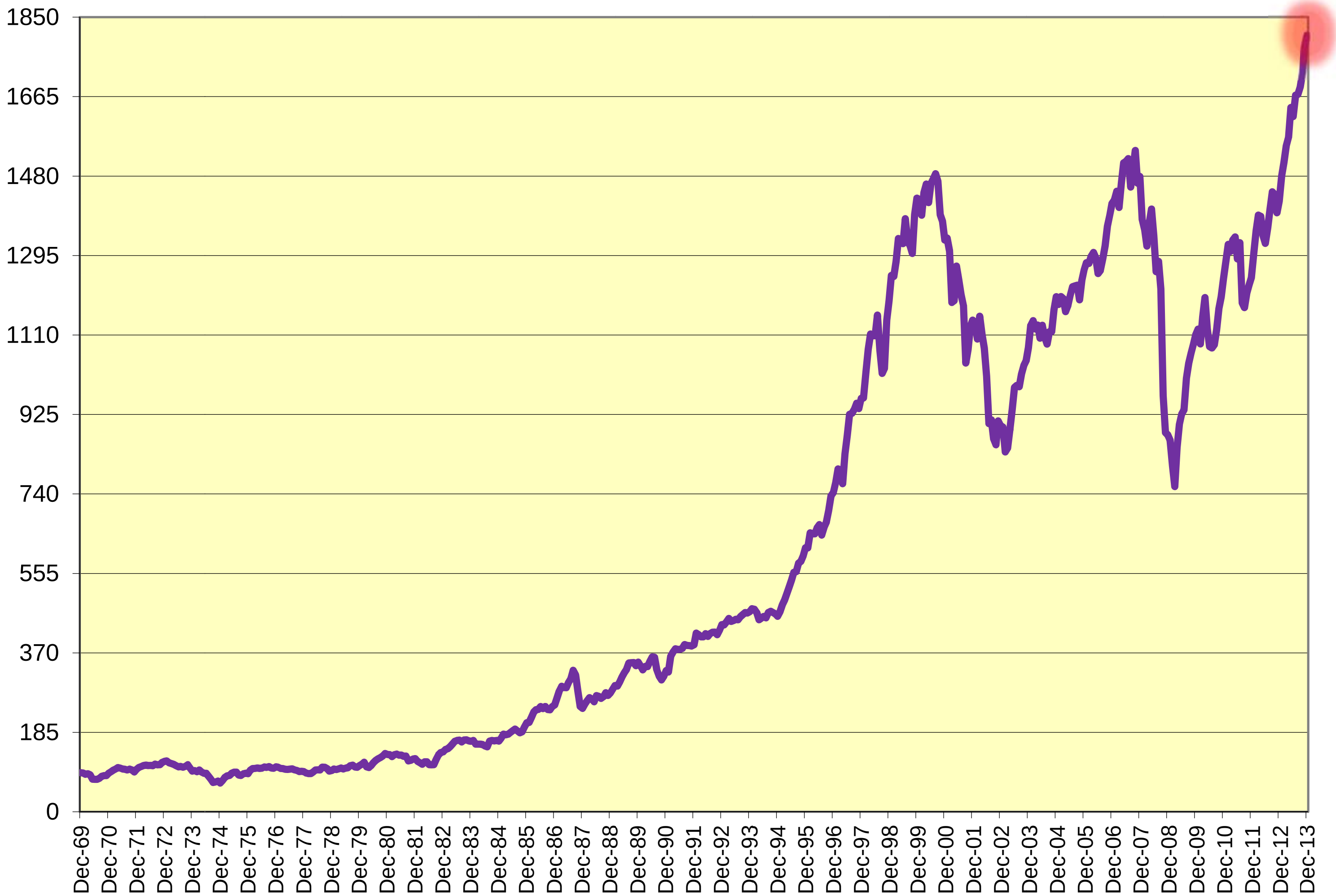
immediate construction and related jobs associated with build-out (interior design, furniture sales, landscaping, etc.), but also as an indicator that businesses are investing in new structures that will ultimately house new employees and expanded economic output.



- Although the darkest clouds over the forecast horizon have been brightening, there are still numerous hazards that could slow or derail the expansion. Aside from political tensions in the Middle East and Asia that could explode at any time, the primary downside risks stem from a return to political brinksmanship in Washington that could lead to a default or related self-inflicted fiscal disaster, and continued political and financial risks in Europe. As painfully slow as the U.S. recovery has been, it has starkly outpaced the economic performance of the European Union. Some of this is due to the presence of more powerful centralized political and economic institutions in the U.S., but some of it is also due to misguided economic policies that have stressed near-term austerity despite vast underutilized productive capacity in many EU states. These policies have failed to recapitalize or eliminate weak financial institutions, worsened many EU state deficits they were intended to correct (including Greece, Ireland, Spain and Portugal) and left tens of millions underemployed and unemployed. Although aggressive actions by the ECB during the past year have stabilized sovereign debt bond yields, continued unemployment rates above 12% could unravel the political and social order necessary for a functional economic union.

U.S. Equity Valuations Soar, Creating Substantial Potential Income Gains

(S&P 500 Monthly Average, Source: Standard & Poor's, The McGraw-Hill Companies, Inc.)



Percentage Shares of U.S. Net Worth and Selected Components Distributed by Net Worth Groups - 2010

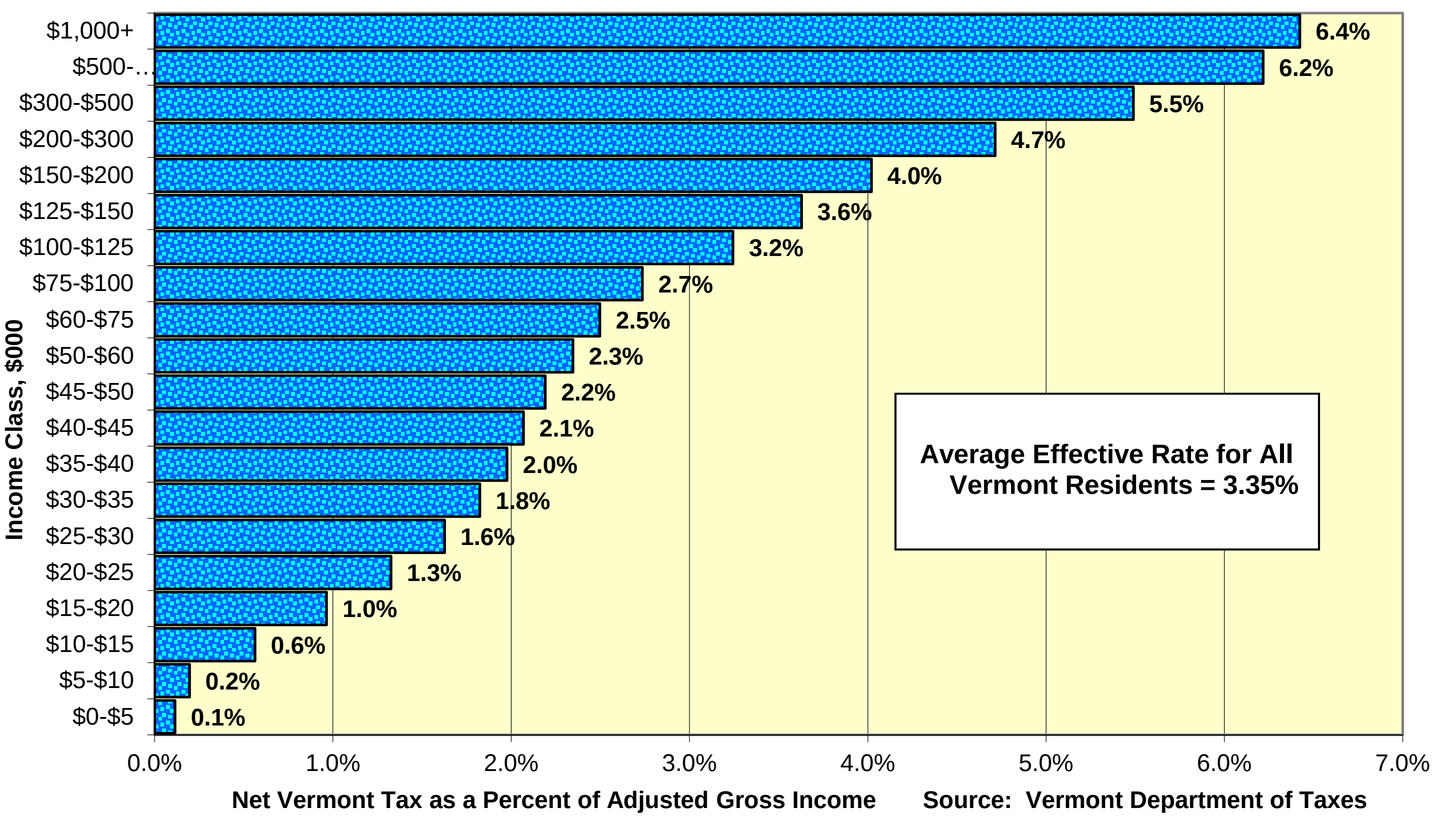
	Wealth Percentile Group		
Item	*99% to 100%*	*90% to 99%*	*Bottom 90%*
All Assets			
Stocks & Mutual Funds	48.8	42.5	8.6
Financial Securities	64.4	29.5	6.1
Trusts	38.0	43.0	19.0
Business Equity	61.4	30.5	8.1
Non-Home Real Estate	35.5	43.6	20.9
Principal Residence	9.2	31.0	59.8
Deposits	28.1	42.5	29.5
Life Insurance	20.6	34.1	45.3
Pension Accounts	15.4	50.2	34.5
Liabilities			
Total Debt	5.9	21.6	72.5
Net Worth	35.4	41.3	23.3

Source: National Bureau of Economic Research Working Paper 18559, Edward N. Wolff, based on data from the Federal Reserve Board Survey of Consumer Finances, 2010

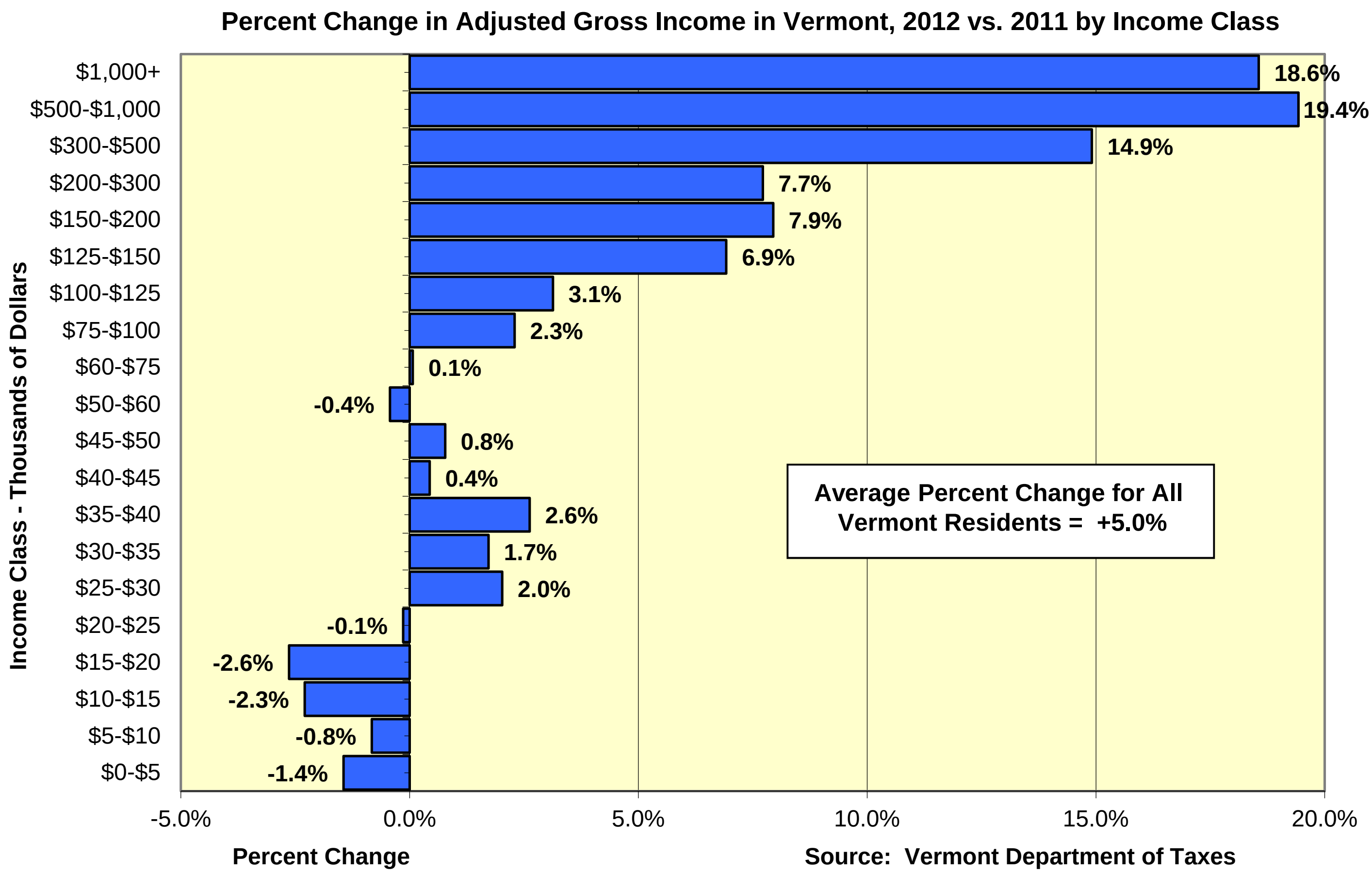
- U.S. stock markets soared in 2013, with the S&P 500 composite index registering gains of nearly 30% (based on year-over-year 12/31 closing prices). While this creates substantial potential taxable income gains, actual tax liabilities can vary widely in years of both market growth and decline. As noted in the table on the preceding page, more than 90% of all stocks and mutual funds are owned by the wealthiest 10% of the population, with nearly 50% owned by the top 1%. Since this same top 10% owns more than 90% of all business equity and other financial assets, a rising stock market can create wealth effects that stimulate other business investment and borrowing.

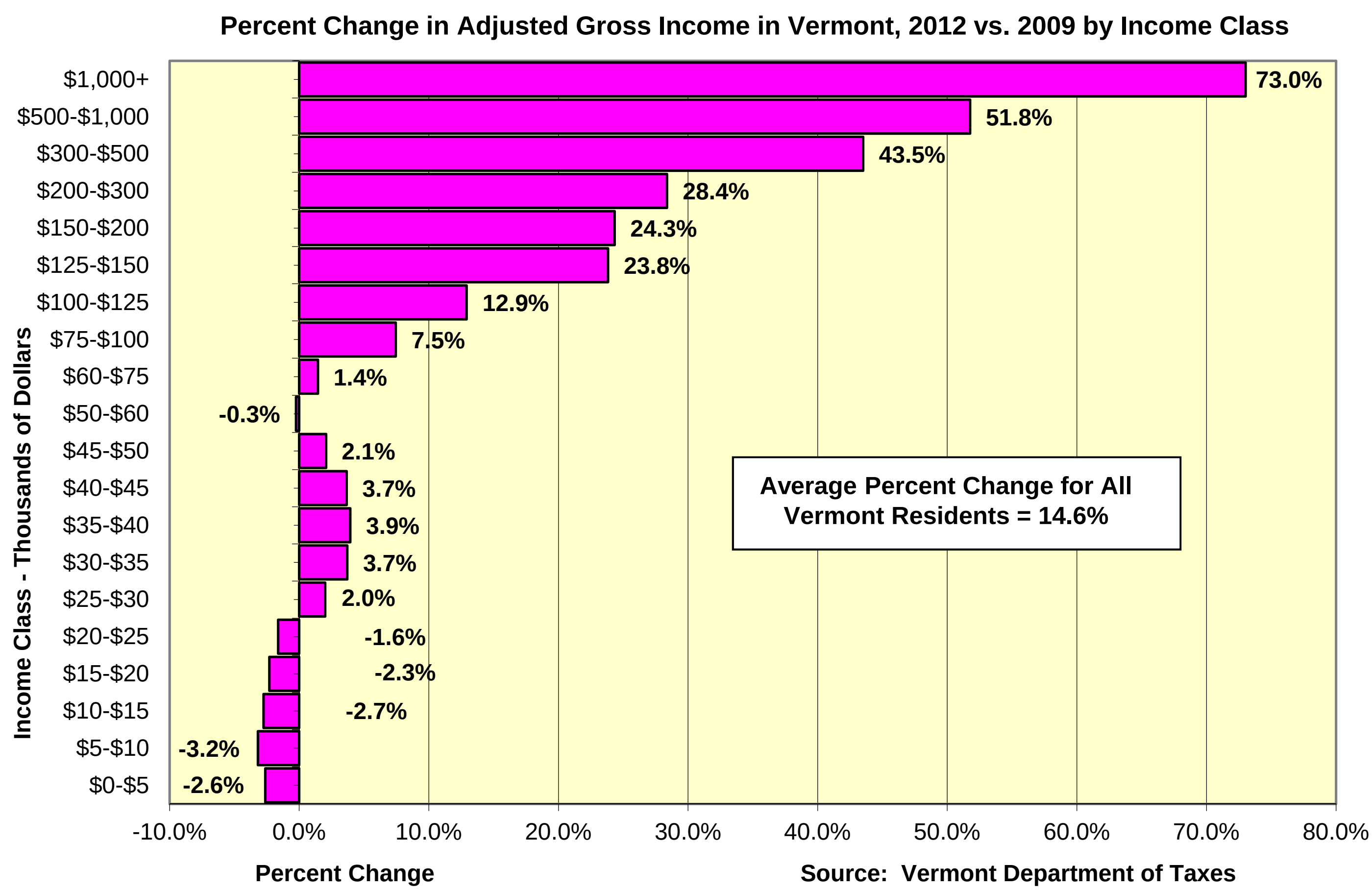
- Most of the $8.4M upward adjustment to FY14 General Fund revenues is the result of stronger projected Personal Income tax receipts this year. This is due in part to Vermont's progressive income tax structure and a continuation of the long term trend towards greater concentrations of income among the highest income taxpayers (see chart on following page), thereby raising the effective tax rate, which was 3.35% of AGI in tax year 2012.

Tax Progressivity: Effective Vermont Income Tax Rates in 2012 by Income Class



- As shown in the charts on the following page, income growth in 2012 continued to be concentrated in the highest income categories. With 5% aggregate income growth between tax year 2012 and 2011, the only income classes with above average growth were those above $125,000. Similarly, between 2012 and the low point of the recession in 2009, income growth averaged 14.6% for all Vermont residents. Above average growth, however, occurred only in income classes exceeding $125,000 and was positively correlated with income, with the top class ($1M+) growing by 73%.

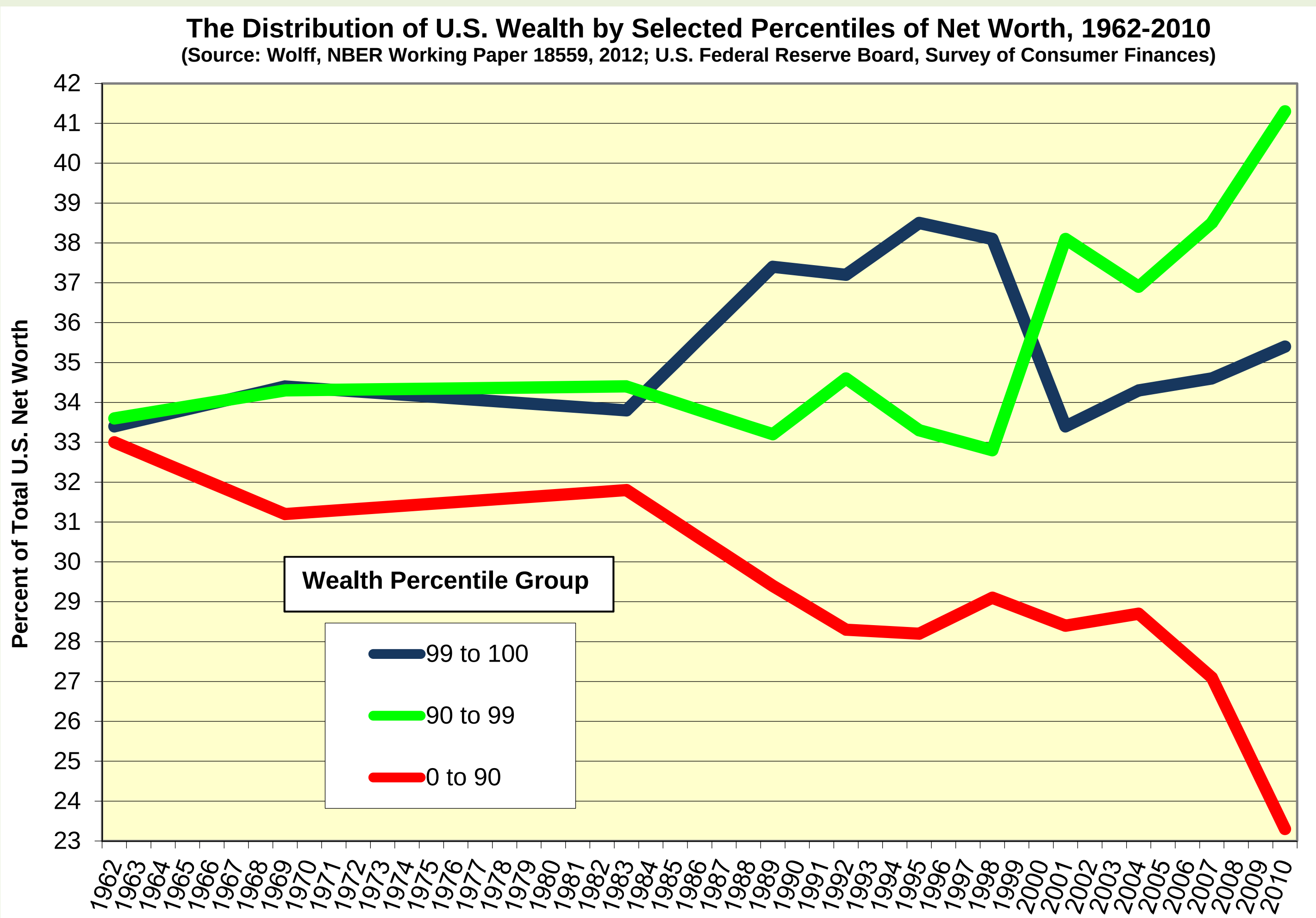

Percent Change in Adjusted Gross Income in Vermont, 2012 vs. 2011 by Income Class
$1,000+
$500-$1,000
$300-$500
$200-$300
$150-$200
$125-$150
$100-$125
$75-$100
$60-$75
$50-$60
$45-$50
$40-$45
$35-$40
$30-$35
$25-$30
$20-$25
$15-$20
$10-$15
$5-$10
$0-$5
18.6%
19.4%
14.9%
7.7%
7.9%
6.9%
3.1%
2.3%
0.1%
-0.4%
0.8%
0.4%
2.6%
1.7%
2.0%
-0.1%
-2.6%
-2.3%
-0.8%
-1.4%
Average Percent Change for All Vermont Residents = +5.0%
Income Class - Thousands of Dollars
-5.0%
0.0%
5.0%
10.0%
15.0%
20.0%
Percent Change
Source: Vermont Department of Taxes


Percent Change in Adjusted Gross Income in Vermont, 2012 vs. 2009 by Income Class
$1,000+
$500-$1,000
$300-$500
$200-$300
$150-$200
$125-$150
$100-$125
$75-$100
$60-$75
$50-$60
$45-$50
$40-$45
$35-$40
$30-$35
$25-$30
$20-$25
$15-$20
$10-$15
$5-$10
$0-$5
73.0%
51.8%
43.5%
28.4%
24.3%
23.8%
12.9%
7.5%
1.4%
-0.3%
2.1%
3.7%
3.9%
3.7%
2.0%
-1.6%
-2.3%
-2.7%
-3.2%
-2.6%
Average Percent Change for All Vermont Residents = 14.6%
Income Class - Thousands of Dollars
-10.0%
0.0%
10.0%
20.0%
30.0%
40.0%
50.0%
60.0%
70.0%
80.0%
Percent Change
Source: Vermont Department of Taxes

Wealth Inequality Exacerbated During Recent Recession

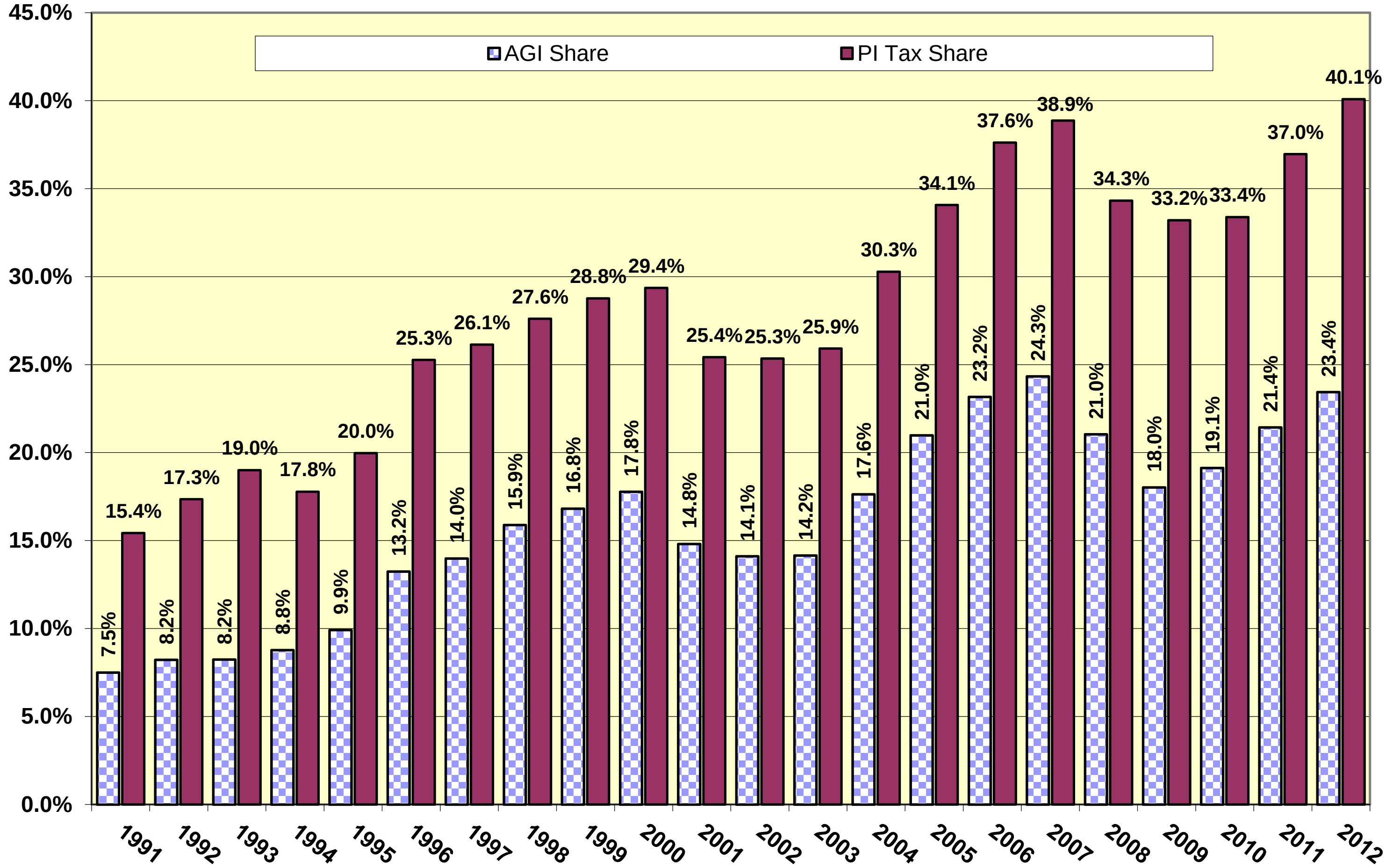
Although income inequality has been growing in Vermont and the U.S. in recent decades, as noted in some of the recent income tax data presented on page 11, the distribution of wealth is even more unequal than income. As illustrated in the below chart, in 1962, about one-third of all U.S. net worth was held by each of three groups: 1) the wealthiest 1 percentile (of net worth), 2) the next 9% (90-99th percentiles) and, 3) the bottom 90%. Over the past 50 years, however, the share of net worth owned by the bottom 90% has shrunk to only 23%, while ownership by the top 10% has grown proportionally, and now approaches 80% of all wealth.

This trend was exacerbated during the last recession, when housing prices throughout the country plunged. As outlined in the Table on page 9, the bottom 90% owns less than half of every asset class except principal residences, of which it owns nearly 60%. With the sharp decline in housing prices, the net worth of the bottom 90% declined in tandem. In contrast to this, business and financial assets are the types of wealth most concentrated in the top net worth percentiles, with more than 60% of all financial securities and business wealth owned by the top 1% and more than 90% of all stocks, mutual funds, bonds, business equity and other financial securities owned by the top 10%. While the value of financial and many business assets also declined steeply during the recession, they have recovered much more quickly than residential real estate markets and now far exceed pre-recession peak valuations. Although there may be a temporary narrowing of inequality when housing prices recover more fully, there is little to suggest that the long term trend towards greater income and wealth inequality will abate at any time in the near future.



- Recently released Tax Department data for tax year 2012 also show that high income taxpayers (those earning more than $200K), now pay more than 40% of all Vermont income tax (see below chart). Although some of this increase can be explained by tax bracket creep due to inflation, there is a growing concentration of income tax paid by a relatively small number of taxpayers that reflects the growing concentration of AGI among these same groups.

High Income ($200K+) Taxpayers' Share of Total Vermont Income and Income Tax Receipts

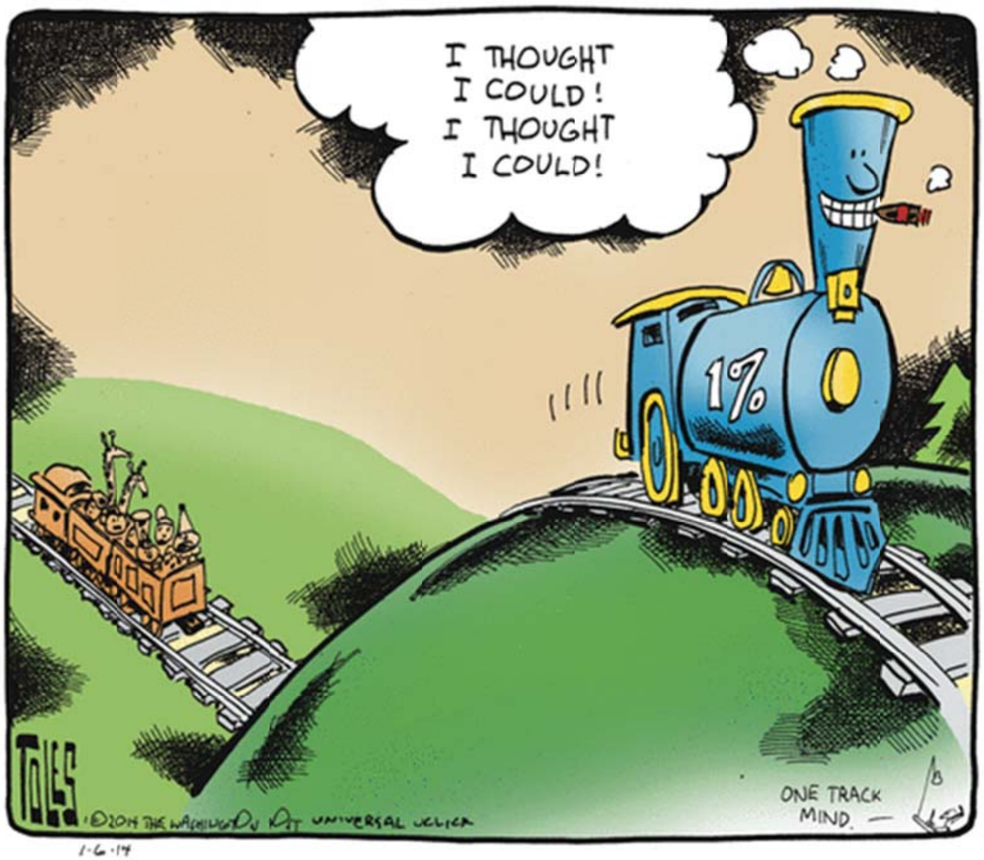


Source: Vermont Department of Taxes

- The number of filers with incomes above $1 million in Vermont increased from 360 in 2011 to 502 in 2012, the highest number since 2007 (at 531). Despite all the hand-wringing over the purported economic and fiscal dangers of a growing elderly population in the State, 2012 Tax data show that older taxpayers (65 and older) represent 18% of all resident taxpayers, but 31% of all taxpayers earning $1 million or more, and are similarly over-represented in every high income category from $125,000 and up. The average AGI per return among residents 65 and older is 7.4% above those under 65 and the average Vermont tax paid per return is 17.1% higher than those under 65. Despite claims of potential fiscal burden, most older residents do not have children in the public school system (the largest public expenditure) and most of their healthcare-related expenses are federal, not state obligations.

- With the announced closure of the Vermont Yankee nuclear power plant at the end of calendar 2014, electric energy tax revenues will drop $2.8 million below the prior July forecast for FY15 and no longer exist in FY16 and beyond, reducing General Fund revenues by about $12 million per year. The FY15 forecast assumes a gradual decline in VY output beginning in the fall of 2014, with complete operational shutdown in late December of 2014.

- Source Transportation Fund revenues (and derived Available T-Fund and E-Fund revenues) will benefit from upward revisions to the Motor Vehicle Purchase and Use tax, adding about $4 million to FY14 and $2 million to FY15. Downward revisions to longer term gasoline price forecasts by Moody's resulted in comparable declines in the new Motor Fuel Assessment tax and related TIB Gasoline revenues in FY15 and beyond. Moody's had previously estimated more rapidly rising prices as the global economy recovered, but now believes slower global growth and new domestic supplies will keep prices significantly below prior estimates.



- The U.S. and Vermont macro-economic forecasts upon which the revenue forecasts in this Update are based are summarized in Tables A and B on pages 15 and 16, and represent a consensus JFO and Administration forecast developed using internal JFO and Administration State economic models with input from Moody's Analytics December 2013 projections and New England Economic Partnership (NEEP) November 2013 forecasts.

TABLE A
Comparison of Recent Consensus U.S. Macroeconomic Forecasts
June 2012 Through December 2013, Selected Variables, Calendar Year Basis

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Real GDP Growth									
June-12	*-0.3*	*-3.5*	*3.0*	*1.7*	*2.2*	*2.6*	*4.0*	*3.7*	*3.1*
December-12	*-0.3*	*-3.1*	*2.4*	*1.8*	*2.2*	*2.0*	*3.9*	*4.2*	*3.5*
June-13	*-0.3*	*-3.1*	*2.4*	*1.8*	*2.2*	*2.0*	*3.4*	*4.3*	*3.3*
December-13	*-0.3*	*-2.8*	*2.5*	*1.8*	*2.8*	*1.8*	*3.1*	*4.0*	*2.9*
S&P 500 Growth (Annual Avg.)									
June-12	*-17.3*	*-22.5*	*20.3*	*11.4*	*4.8*	*4.2*	*4.8*	*0.6*	*2.1*
December-12	*-17.3*	*-22.5*	*20.3*	*11.4*	*8.1*	*6.9*	*7.1*	*-0.4*	*1.7*
June-13	*-17.3*	*-22.5*	*20.3*	*11.4*	*8.7*	*14.4*	*3.6*	*-0.7*	*0.4*
December-13	*-17.3*	*-22.5*	*20.3*	*11.4*	*8.7*	*19.2*	*9.6*	*-0.1*	*0.4*
Employment Growth (Non-Ag)									
June-12	*-0.6*	*-4.4*	*-0.7*	*1.2*	*1.4*	*1.5*	*2.3*	*2.6*	*2.1*
December-12	*-0.6*	*-4.4*	*-0.7*	*1.2*	*1.4*	*1.3*	*2.1*	*2.6*	*2.2*
June-13	*-0.6*	*-4.4*	*-0.7*	*1.2*	*1.7*	*1.4*	*1.6*	*2.7*	*2.4*
December-13	*-0.6*	*-4.4*	*-0.7*	*1.2*	*1.7*	*1.6*	*1.7*	*2.2*	*2.1*
Unemployment Rate									
June-12	*5.8*	*9.3*	*9.6*	*9.0*	*8.1*	*7.8*	*6.9*	*6.0*	*5.6*
December-12	*5.8*	*9.3*	*9.6*	*9.0*	*8.1*	*7.8*	*7.1*	*6.3*	*5.8*
June-13	*5.8*	*9.3*	*9.6*	*8.9*	*8.1*	*7.7*	*7.0*	*6.2*	*5.7*
December-13	*5.8*	*9.3*	*9.6*	*8.9*	*8.1*	*7.4*	*6.6*	*6.1*	*5.8*
West Texas Int. Crude Oil $/Bbl									
June-12	*99.6*	*61.7*	*79.4*	*95.1*	*98.1*	*100.9*	*110.7*	*108.9*	*110.7*
December-12	*99.6*	*61.7*	*79.4*	*95.1*	*94.4*	*95.7*	*105.3*	*110.3*	*114.0*
June-13	*99.6*	*61.7*	*79.4*	*95.1*	*94.2*	*96.8*	*104.6*	*110.3*	*114.0*
December-13	*99.6*	*61.7*	*79.4*	*95.0*	*94.1*	*98.2*	*104.8*	*111.8*	*114.5*
Prime Rate									
June-12	*5.09*	*3.25*	*3.25*	*3.25*	*3.13*	*3.12*	*4.30*	*6.02*	*6.98*
December-12	*5.09*	*3.25*	*3.25*	*3.25*	*3.25*	*3.25*	*3.32*	*4.92*	*6.86*
June-13	*5.09*	*3.25*	*3.25*	*3.25*	*3.25*	*3.25*	*3.25*	*4.26*	*6.60*
December-13	*5.09*	*3.25*	*3.25*	*3.25*	*3.25*	*3.25*	*3.25*	*3.38*	*5.31*
Consumer Price Index Growth									
June-12	*3.8*	*-0.3*	*1.6*	*3.1*	*1.9*	*1.9*	*2.7*	*2.7*	*2.4*
December-12	*3.8*	*-0.3*	*1.6*	*3.1*	*2.1*	*2.2*	*2.6*	*2.6*	*2.4*
June-13	*3.8*	*-0.3*	*1.6*	*3.1*	*2.1*	*1.7*	*2.1*	*2.3*	*2.5*
December-13	*3.8*	*-0.3*	*1.6*	*3.1*	*2.1*	*1.5*	*1.7*	*2.1*	*2.4*
Average Home Price Growth									
June-12	*-4.5*	*-4.8*	*-3.7*	*-3.9*	*-0.9*	*0.0*	*3.1*	*4.7*	*4.1*
December-12	*-4.6*	*-5.1*	*-3.8*	*-3.9*	*-0.5*	*0.8*	*4.6*	*5.3*	*3.5*
June-13	*-4.7*	*-5.3*	*-3.9*	*-3.6*	*-0.1*	*2.7*	*4.9*	*3.7*	*2.3*
December-13	*-4.8*	*-5.4*	*-4.0*	*-3.7*	*0.0*	*4.1*	*6.2*	*2.2*	*0.3*

TABLE B
Comparison of Consensus Administration and JFO Vermont State Forecasts
June 2011 Through December 2013, Selected Variables, Calendar Year Basis

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Real GSP Growth									
June-11	0.4	-2.3	3.2	3.5	4.0	3.9	3.0	1.9	1.5
December-11	0.4	-2.3	3.2	2.3	2.8	3.5	3.6	3.3	2.3
June-12	-0.2	-3.6	4.1	0.5	2.3	2.9	3.3	3.4	2.5
December-12	-0.2	-3.6	4.1	0.5	2.0	2.2	3.7	4.0	3.1
June-13	-0.2	-2.9	5.6	1.3	1.2	1.3	3.0	4.2	2.9
December-13	-0.2	-2.9	5.6	1.3	1.2	1.4	3.1	4.1	2.9
Population Growth									
June-11	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.4
December-11	0.2	0.1	0.2	0.3	0.3	0.3	0.4	0.3	0.4
June-12	0.1	0.1	0.2	0.1	0.3	0.3	0.4	0.4	0.4
December-12	0.1	0.1	0.2	0.1	0.3	0.3	0.3	0.4	0.5
June-13	0.1	0.1	0.2	0.1	-0.1	0.3	0.3	0.3	0.4
December-13	0.1	0.1	0.2	0.1	-0.1	0.1	0.1	0.1	0.2
Employment Growth									
June-11	-0.4	-3.2	0.1	2.6	1.0	1.9	2.4	1.3	0.2
December-11	-0.4	-3.2	0.1	1.8	1.3	1.9	2.5	2.2	1.4
June-12	-0.3	-3.3	0.2	0.7	1.2	1.1	2.0	2.3	1.4
December-12	-0.3	-3.3	0.2	0.7	1.1	0.9	1.8	2.3	1.8
June-13	-0.4	-3.3	-0.2	0.7	1.2	1.0	0.9	2.2	1.9
December-13	-0.4	-3.3	-0.2	0.7	1.2	1.0	1.3	2.2	1.9
Unemployment Rate									
June-11	4.5	6.9	6.2	5.7	5.5	4.6	3.4	3.1	3.2
December-11	4.5	6.9	6.2	5.5	5.4	5.1	4.4	3.5	3.1
June-12	4.6	6.9	6.4	5.6	4.8	4.7	4.3	3.9	3.2
December-12	4.6	6.9	6.4	5.6	5.0	5.0	4.4	3.9	3.5
June-13	4.6	6.9	6.4	6.6	5.0	4.4	4.1	3.6	3.3
December-13	4.6	6.9	6.4	6.6	5.0	4.4	4.1	3.6	3.3
Personal Income Growth									
June-11	3.7	-0.3	3.4	5.5	4.8	6.8	6.1	4.5	3.7
December-11	3.7	-1.3	3.4	4.0	5.0	5.3	5.1	4.8	4.0
June-12	4.4	-1.3	3.4	4.3	3.3	4.4	6.0	6.2	5.0
December-12	4.4	-2.2	3.3	4.7	3.2	3.4	5.6	6.3	5.2
June-13	4.4	-2.2	3.3	4.7	3.4	1.0	2.8	4.2	3.7
December-13	4.4	-2.2	3.3	4.7	3.4	3.8	5.7	6.2	5.1
Home Price Growth (JFO)									
June-11	0.1	-1.5	-0.9	0.0	0.7	1.3	1.5	2.0	3.0
December-11	0.1	-1.5	-0.8	-0.5	0.5	1.2	1.6	2.1	3.0
June-12	0.0	-1.6	-0.9	-0.4	0.6	1.1	1.6	2.0	3.0
December-12	0.0	-1.9	-1.0	-0.4	0.5	1.0	1.5	2.0	3.1
June-13	0.0	-2.0	-1.1	-0.5	0.5	0.7	1.5	2.0	3.2
December-13	-0.1	-2.0	-1.2	-0.6	0.5	0.5	1.5	2.1	3.1

Methodological Notes and Other Comments

- This analysis has benefited significantly from the input and support of Tax Department and Joint Fiscal Office personnel. In the Joint Fiscal Office, Sara Teachout, Stephanie Barrett, Catherine Benham, Neil Schickner and Mark Perrault have contributed to numerous policy and revenue impact analyses and coordinated JFO forecast production and related legislative committee support functions. Theresa Utton-Jerman has diligently organized and updated large tax and other databases in support of JFO revenue forecasting activities. In the Tax Department, Sharon Asay, Victor Gauto, Doug Farnham and Terry Edwards provided significant analytic contributions to many tax and revenue forecasts, including tax law change analyses and statistical and related background information associated with the detailed tax databases they maintain. Our thanks to all of the above for their many contributions to this analysis.

- The analysis in support of JFO economic and revenue projections are based on statistical and econometric models, and professional analytic judgment. All models are based on 36 years of data for each of the 25 General Fund categories (three aggregates), 32 years of data for each of the Transportation Fund categories (one aggregate), and 14 to 36 years for each of the Education Fund categories. The analyses employed includes seasonal adjustment using the X-11 and X-12 Census methods, various moving average techniques (such as Henderson Curves, etc.), Box-Jenkins ARIMA type models, pressure curve analysis, comparable-pattern analysis of monthly, quarterly and half year trends for current year estimation, and behavioral econometric forecasting models.

- Because the State does not currently fund an internal State or U.S. macro-economic model, this analysis relies primarily on macro-economic models from Moody's/Economy.com and the New England Economic Partnership (NEEP). The NEEP forecast for Vermont is managed by Jeff Carr, of Economic & Policy Resources, Inc., who is also the current Administration economist. Since October of 2001, input and review of initial Vermont NEEP model design and output prior to its release has been provided by KRA, as the State Economist and Principal Economic Advisor to the Vermont Legislature. Dynamic and other input/output-based models for the State of Vermont, including those from Regional Economic Models, Inc. (REMI), Regional Dynamics, Inc. (REDYN), and IMPLAN are also maintained and managed by the JFO for use in selected economic impact and simulation analyses used herein.

- The Consensus JFO and Administration forecasts are developed following discussion, analysis and synthesis of independent revenue projections, econometric models and source data produced by Administration and Joint Fiscal Office economic advisors.

TABLE 1A - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
SOURCE GENERAL FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2014

SOURCE G-FUND

revenues are prior to all E-Fund allocations and other out-transfers; used for analytic and comparative purposes only

	FY 2009 (Actual)	% Change	FY 2010 (Actual)	% Change	FY 2011 (Actual)	% Change	FY 2012 (Actual)	% Change	FY 2013 (Actual)	% Change	FY 2014 (Forecast)	% Change	FY 2015 (Forecast)	% Change	FY 2016 (Forecast)	% Change
REVENUE SOURCE																
Personal Income	$530.3	-14.8%	$498.0	-6.1%	$553.3	11.1%	$597.0	7.9%	$660.6	10.7%	$693.2	4.9%	$738.5	6.5%	$773.2	4.7%
Sales & Use*	$321.2	-5.1%	$311.1	-3.1%	$325.6	4.7%	$341.8	5.0%	$346.8	1.4%	$356.2	2.7%	$367.3	3.1%	$377.8	2.9%
Corporate	$66.2	-11.3%	$62.8	-5.1%	$89.7	42.7%	$85.9	-4.2%	$95.0	10.5%	$89.2	-6.1%	$92.6	3.8%	$90.5	-2.3%
Meals and Rooms	$117.1	-3.3%	$118.0	0.8%	$122.6	4.0%	$126.9	3.5%	$134.8	6.2%	$140.1	3.9%	$145.5	3.9%	$150.2	3.2%
Cigarette and Tobacco**	$64.1	8.3%	$70.1	9.2%	$72.9	4.0%	$80.1	9.9%	$74.3	-7.2%	$72.6	-2.4%	$70.7	-2.7%	$68.7	-2.8%
Liquor	$15.0	6.0%	$14.9	-1.0%	$15.4	3.1%	$16.4	7.0%	$17.0	3.4%	$17.7	4.2%	$18.3	3.4%	$18.9	3.3%
Insurance	$53.7	-2.1%	$53.3	-0.9%	$55.0	3.3%	$56.3	2.5%	$55.0	-2.3%	$56.5	2.7%	$57.4	1.6%	$57.8	0.7%
Telephone	$9.1	-3.8%	$7.9	-13.9%	$11.4	44.4%	$9.6	-15.3%	$9.4	-2.6%	$9.2	-1.9%	$9.1	-1.1%	$9.0	-1.1%
Beverage	$5.6	0.3%	$5.7	0.4%	$5.8	2.2%	$6.0	3.3%	$6.2	3.3%	$6.4	3.7%	$6.6	3.1%	$6.8	3.0%
Electric***	$2.8	4.0%	$2.9	2.5%	$2.9	0.8%	$2.9	0.3%	$8.9	204.5%	$12.8	43.5%	$8.9	-30.5%	$0.0	-100.0%
Estate	$23.4	49.1%	$14.2	-39.5%	$35.9	153.3%	$13.3	-62.8%	$15.4	15.4%	$20.4	32.6%	$21.4	4.9%	$22.3	4.2%
Property	$25.9	-23.7%	$23.8	-8.2%	$25.6	7.7%	$24.1	-6.0%	$28.5	18.3%	$32.7	14.7%	$36.3	11.0%	$39.3	8.3%
Bank	$20.6	102.5%	$10.4	-49.7%	$15.4	49.0%	$10.7	-30.9%	$10.7	0.2%	$10.8	1.1%	$10.9	0.9%	$11.0	0.9%
Other Tax	$2.8	-12.7%	$3.7	32.1%	$3.7	1.7%	$1.2	-66.7%	$1.8	42.9%	$2.0	13.1%	$2.3	15.0%	$2.5	8.7%
Total Tax Revenue	$1257.9	-7.9%	$1196.5	-4.9%	$1335.1	11.6%	$1372.4	2.8%	$1464.3	6.7%	$1519.8	3.8%	$1585.8	4.3%	$1628.0	2.7%
Business Licenses	$3.0	9.4%	$3.0	-0.2%	$3.0	-0.6%	$3.0	2.8%	$2.8	-8.0%	$3.0	7.0%	$3.2	6.7%	$3.3	3.1%
Fees	$19.1	29.5%	$19.2	0.9%	$20.5	6.4%	$20.9	2.1%	$21.4	2.2%	$21.7	1.6%	$22.3	2.8%	$22.9	2.7%
Services	$1.5	-11.0%	$1.2	-19.9%	$1.1	-8.7%	$2.3	105.8%	$2.5	8.3%	$1.4	-44.5%	$1.8	28.6%	$1.9	5.6%
Fines	$9.8	122.0%	$7.4	-24.8%	$5.7	-22.2%	$7.4	28.7%	$4.7	-35.9%	$4.5	-4.6%	$5.1	13.3%	$5.5	7.8%
Interest	$1.4	-63.9%	$0.6	-57.0%	$0.3	-49.7%	$0.4	42.4%	$0.6	26.3%	$0.7	26.6%	$1.3	85.7%	$2.2	69.2%
Lottery	$20.9	-7.7%	$21.6	3.0%	$21.4	-0.7%	$22.3	4.2%	$22.9	2.7%	$22.9	-0.2%	$23.4	2.2%	$23.9	2.1%
All Other	$0.2	-64.7%	$0.3	57.4%	$0.7	115.7%	$0.9	15.8%	$1.7	93.1%	$1.0	-40.1%	$1.1	10.0%	$1.2	9.1%
Total Other Revenue	$56.0	10.0%	$53.3	-4.7%	$52.8	-1.1%	$57.3	8.6%	$56.6	-1.2%	$55.2	-2.4%	$58.2	5.4%	$60.9	4.6%
TOTAL GENERAL FUND	**$1313.9**	**-7.2%**	**$1249.9**	**-4.9%**	**$1387.9**	**11.0%**	**$1429.7**	**3.0%**	**$1520.9**	**6.4%**	**$1575.0**	**3.6%**	**$1644.0**	**4.4%**	**$1688.9**	**2.7%**

* Includes Telecommunications Tax; includes $3.76M transfer in FY08 to the T-Fund for prior years Jet Fuel tax processing error

** Includes Cigarette, Tobacco Products and Floor Stock tax revenues

*** Assumes Vermont Yankee continues to operate through calendar 2014, with a gradual reduction in output towards the end of the year, and is taxed per Act 143 of 2012 effective in FY13;
Stated Electric Energy Tax revenues exclude appropriations to the Clean Energy Development Fund and Education Fund

TABLE 1 - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
AVAILABLE GENERAL FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2014

CURRENT LAW BASIS *including all Education Fund allocations and other out-transfers*	**FY 2009** *(Actual)*	**%** Change	**FY 2010** *(Actual)*	**%** Change	**FY 2011** *(Actual)*	**%** Change	**FY 2012** *(Actual)*	**%** Change	**FY 2013** *(Actual)*	**%** Change	**FY 2014** *(Forecast)*	**%** Change	**FY 2015** *(Forecast)*	**%** Change	**FY 2016** *(Forecast)*	**%** Change
REVENUE SOURCE																
Personal Income	$530.3	-14.8%	$498.0	-6.1%	$553.3	11.1%	$597.0	7.9%	$660.6	10.7%	$693.2	4.9%	$738.5	6.5%	$773.2	4.7%
Sales and Use*	$214.1	-5.1%	$207.4	-3.1%	$217.1	4.7%	$227.9	5.0%	$231.2	1.4%	$231.5	0.2%	$238.7	3.1%	$245.6	2.9%
Corporate	$66.2	-11.3%	$62.8	-5.1%	$89.7	42.7%	$85.9	-4.2%	$95.0	10.5%	$89.2	-6.1%	$92.6	3.8%	$90.5	-2.3%
Meals and Rooms	$117.1	-3.3%	$118.0	0.8%	$122.6	4.0%	$126.9	3.5%	$134.8	6.2%	$140.1	3.9%	$145.5	3.9%	$150.2	3.2%
Cigarette and Tobacco	$0.0	NM	$0.0	NM	$0.0	NM	$0.0	NM	$0.0	NM	$0.0	NM	$0.0	NM	$0.0	NM
Liquor	$15.0	6.0%	$14.9	-1.0%	$15.4	3.1%	$16.4	7.0%	$17.0	3.4%	$17.7	4.2%	$18.3	3.4%	$18.9	3.3%
Insurance	$53.7	-2.1%	$53.3	-0.9%	$55.0	3.3%	$56.3	2.5%	$55.0	-2.3%	$56.5	2.7%	$57.4	1.6%	$57.8	0.7%
Telephone	$9.1	-3.8%	$7.9	-13.9%	$11.4	44.4%	$9.6	-15.3%	$9.4	-2.6%	$9.2	-1.9%	$9.1	-1.1%	$9.0	-1.1%
Beverage	$5.6	0.3%	$5.7	0.4%	$5.8	2.2%	$6.0	3.3%	$6.2	3.3%	$6.4	3.7%	$6.6	3.1%	$6.8	3.0%
Electric**	$2.8	4.0%	$2.9	2.5%	$2.9	0.8%	$2.9	0.3%	$8.9	204.5%	$12.8	43.5%	$8.9	-30.5%	$0.0	-100.0%
Estate***	$21.9	39.4%	$14.2	-35.2%	$21.0	48.3%	$13.3	-36.5%	$15.4	15.4%	$20.4	32.6%	$21.4	4.9%	$22.3	4.2%
Property	$8.5	-21.1%	$7.8	-8.2%	$8.4	7.7%	$7.9	-6.2%	$9.2	16.5%	$10.6	15.5%	$11.7	11.0%	$12.7	8.3%
Bank	$20.6	102.5%	$10.4	-49.7%	$15.4	49.0%	$10.7	-30.9%	$10.7	0.2%	$10.8	1.1%	$10.9	0.9%	$11.0	0.9%
Other Tax	$2.8	-12.7%	$3.7	32.1%	$3.7	1.7%	$1.2	-66.7%	$1.8	42.9%	$2.0	13.1%	$2.3	15.0%	$2.5	8.7%
Total Tax Revenue	$1067.7	-8.8%	$1006.7	-5.7%	$1121.6	11.4%	$1162.1	3.6%	$1255.0	8.0%	$1300.4	3.6%	$1362.0	4.7%	$1400.5	2.8%
Business Licenses	$3.0	9.4%	$3.0	-0.2%	$3.0	-0.6%	$3.0	2.8%	$2.8	-8.0%	$3.0	7.0%	$3.2	6.7%	$3.3	3.1%
Fees	$19.1	29.5%	$19.2	0.9%	$20.5	6.4%	$20.9	2.1%	$21.4	2.2%	$21.7	1.6%	$22.3	2.8%	$22.9	2.7%
Services	$1.5	-11.0%	$1.2	-19.9%	$1.1	-8.7%	$2.3	105.8%	$2.5	8.3%	$1.4	-44.5%	$1.8	28.6%	$1.9	5.6%
Fines	$9.8	122.0%	$7.4	-24.8%	$5.7	-22.2%	$7.4	28.7%	$4.7	-35.9%	$4.5	-4.6%	$5.1	13.3%	$5.5	7.8%
Interest	$1.2	-77.8%	$0.5	-56.3%	$0.3	-49.9%	$0.4	52.6%	$0.5	20.5%	$0.6	27.8%	$1.2	100.0%	$2.1	75.0%
All Other	$0.2	-64.7%	$0.3	57.4%	$0.7	115.7%	$0.9	15.8%	$1.7	93.1%	$1.0	-40.1%	$1.1	10.0%	$1.2	9.1%
Total Other Revenue	$34.8	18.0%	$31.7	-8.9%	$31.3	-1.2%	$34.9	11.5%	$33.5	-3.9%	$32.2	-4.0%	$34.7	7.8%	$36.9	6.3%
TOTAL GENERAL FUND	**$1102.5**	**-8.1%**	**$1038.4**	**-5.8%**	**$1152.8**	**11.0%**	**$1197.0**	**3.8%**	**$1288.6**	**7.7%**	**$1332.6**	**3.4%**	**$1396.7**	**4.8%**	**$1437.4**	**2.9%**

* Includes $2.5M transfer to the T-Fund in FY08 for prior years Jet Fuel tax processing errors; Transfer to the Education Fund increases from 33.3% to 35.0% effective in FY14

** Assumes Vermont Yankee continues to operate beyond FY12, pending legal and regulatory rulings, and is taxed per Act 143 of 2012 effective in FY13;
Stated Electric Energy Tax revenues exclude appropriations to the Clean Energy Development Fund and Education Fund

*** Excludes transfer to the Higher Education Trust Fund of $2.4M in FY05, $5.2M in FY06 and $11.0M in FY11

TABLE 2A - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
SOURCE TRANSPORTATION FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2014

SOURCE T-FUND

revenues are prior to all E-Fund allocations and other out-transfers; used for analytic and comparative purposes only	**FY 2009** (Actual)	% Change	**FY 2010** (Actual)	% Change	**FY 2011** (Actual)	% Change	**FY 2012** (Actual)	% Change	**FY 2013** (Actual)	% Change	**FY 2014** (Forecast)	% Change	**FY 2015** (Forecast)	% Change	**FY 2016** (Forecast)	% Change
REVENUE SOURCE																
Gasoline	$60.6	-3.1%	$61.0	0.6%	$60.6	-0.6%	$59.3	-2.2%	$59.9	1.1%	$77.7	29.7%	$80.3	3.3%	$81.6	1.6%
Diesel	$15.5	-6.5%	$15.1	-2.6%	$15.4	2.0%	$16.0	3.9%	$15.6	-2.2%	$17.2	9.9%	$18.3	6.4%	$18.8	2.7%
Purchase and Use*	$65.9	-16.6%	$69.7	5.7%	$77.1	10.5%	$81.9	6.3%	$83.6	2.0%	$92.4	10.6%	$96.4	4.3%	$99.7	3.4%
Motor Vehicle Fees	$65.5	-3.0%	$72.5	10.7%	$72.3	-0.3%	$73.5	1.7%	$77.9	5.9%	$79.3	1.8%	$80.3	1.3%	$80.9	0.7%
Other Revenue**	$18.0	-24.0%	$18.2	1.4%	$17.9	-1.9%	$18.3	2.2%	$19.1	4.2%	$19.3	1.3%	$19.7	2.1%	$20.1	2.0%
TOTAL TRANS. FUND	**$225.6**	**-9.6%**	**$236.6**	**4.9%**	**$243.3**	**2.8%**	**$249.0**	**2.3%**	**$256.0**	**2.8%**	**$285.9**	**11.7%**	**$295.0**	**3.2%**	**$301.1**	**2.1%**

TABLE 2 - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
AVAILABLE TRANSPORTATION FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2014

CURRENT LAW BASIS

including all Education Fund allocations and other out-transfers	**FY 2009** (Actual)	% Change	**FY 2010** (Actual)	% Change	**FY 2011** (Actual)	% Change	**FY 2012** (Actual)	% Change	**FY 2013** (Actual)	% Change	**FY 2014** (Forecast)	% Change	**FY 2015** (Forecast)	% Change	**FY 2016** (Forecast)	% Change
REVENUE SOURCE																
Gasoline	$60.6	-3.1%	$61.0	0.6%	$60.6	-0.6%	$59.3	-2.2%	$59.9	1.1%	$77.7	29.7%	$80.3	3.3%	$81.6	1.6%
Diesel	$15.5	-6.5%	$15.1	-2.6%	$15.4	2.0%	$16.0	3.9%	$15.6	-2.2%	$17.2	9.9%	$18.3	6.4%	$18.8	2.7%
Purchase and Use*	$44.0	-16.6%	$46.5	5.7%	$51.4	10.5%	$54.6	6.3%	$55.7	2.0%	$61.6	10.6%	$64.3	4.3%	$66.5	3.4%
Motor Vehicle Fees	$65.5	-3.0%	$72.5	10.7%	$72.3	-0.3%	$73.5	1.7%	$77.9	5.9%	$79.3	1.8%	$80.3	1.3%	$80.9	0.7%
Other Revenue**	$18.0	-24.0%	$18.2	1.4%	$17.9	-1.9%	$18.3	2.2%	$19.1	4.2%	$19.3	1.3%	$19.7	2.1%	$20.1	2.0%
TOTAL TRANS. FUND	**$203.6**	**-8.7%**	**$213.3**	**4.8%**	**$217.6**	**2.0%**	**$221.7**	**1.9%**	**$228.2**	**2.9%**	**$255.1**	**11.8%**	**$262.9**	**3.0%**	**$267.9**	**1.9%**
OTHER																
TIB Gasoline			$13.4	NM	$16.5	23.6%	$20.9	26.6%	$21.2	1.4%	$19.8	-6.6%	$20.4	3.0%	$21.4	4.9%
TIB Diesel and Other***			$1.5	NM	$2.0	32.1%	$1.9	-2.1%	$1.8	-8.1%	$1.9	7.7%	$2.0	2.6%	$2.0	3.1%
Total TIB			$14.9	NM	$18.5	24.4%	$22.8	23.5%	$23.0	0.6%	$21.7	-5.5%	$22.4	3.0%	$23.4	4.7%

* As of FY04, includes Motor Vehicle Rental tax revenue

** Beginning in FY07, includes Stabilization Reserve interest; FY08 data includes $3.76M transfer from G-Fund for prior Jet Fuel tax processing errors and inclusion of this tax in subsequent years

*** Includes TIB Fund interest income of less than $15,000

TABLE 3 - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
AVAILABLE EDUCATION FUND* REVENUE FORECAST UPDATE

(Partial Education Fund Total - Includes Source General and Transportation Fund Allocations Only)
Consensus JFO and Administration Forecast - January 2014

CURRENT LAW BASIS

** Source General and Transportation Fund taxes allocated to or associated with the Education Fund only*	**FY 2009** *(Actual)*	% Change	**FY 2010** *(Actual)*	% Change	**FY 2011** *(Actual)*	% Change	**FY 2012** *(Actual)*	% Change	**FY 2013** *(Actual)*	% Change	**FY 2014** *(Forecast)*	% Change	**FY 2015** *(Forecast)*	% Change	**FY 2016** *(Forecast)*	% Change
GENERAL FUND																
Sales & Use**	$107.1	-5.1%	$103.7	-3.1%	$108.5	4.7%	$113.9	5.0%	$115.6	1.4%	$124.7	7.9%	$128.6	3.1%	$132.2	2.9%
Interest	$0.3	NM	$0.1	-60.2%	$0.1	-48.8%	$0.0	-7.5%	$0.1	72.8%	$0.1	19.9%	$0.1	0.0%	$0.1	0.0%
Lottery	$20.9	-7.7%	$21.6	3.0%	$21.4	-0.7%	$22.3	4.2%	$22.9	2.7%	$22.9	-0.2%	$23.4	2.2%	$23.9	2.1%
TRANSPORTATION FUND																
Purchase and Use***	$22.0	-16.6%	$23.2	5.7%	$25.7	10.5%	$27.3	6.3%	$27.9	2.0%	$30.8	10.6%	$32.1	4.3%	$33.2	3.4%
TOTAL	**$150.2**	**-6.4%**	**$148.6**	**-1.1%**	**$155.7**	**4.8%**	**$163.6**	**5.1%**	**$166.5**	**1.7%**	**$178.5**	**7.2%**	**$184.2**	**3.2%**	**$189.5**	**2.9%**

** Includes Telecommunications Tax; Includes $1.25M transfer to T-Fund in FY08 for prior Jet Fuel Tax processing errors; Transfer percentage from the General Fund increases from 33.3% to 35.0% effective in FY14

*** Includes Motor Vehicle Rental revenues, restated