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January 2017 Economic Review and Revenue Forecast Update

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

January 19, 2017

Economic Review and Revenue Forecast Update

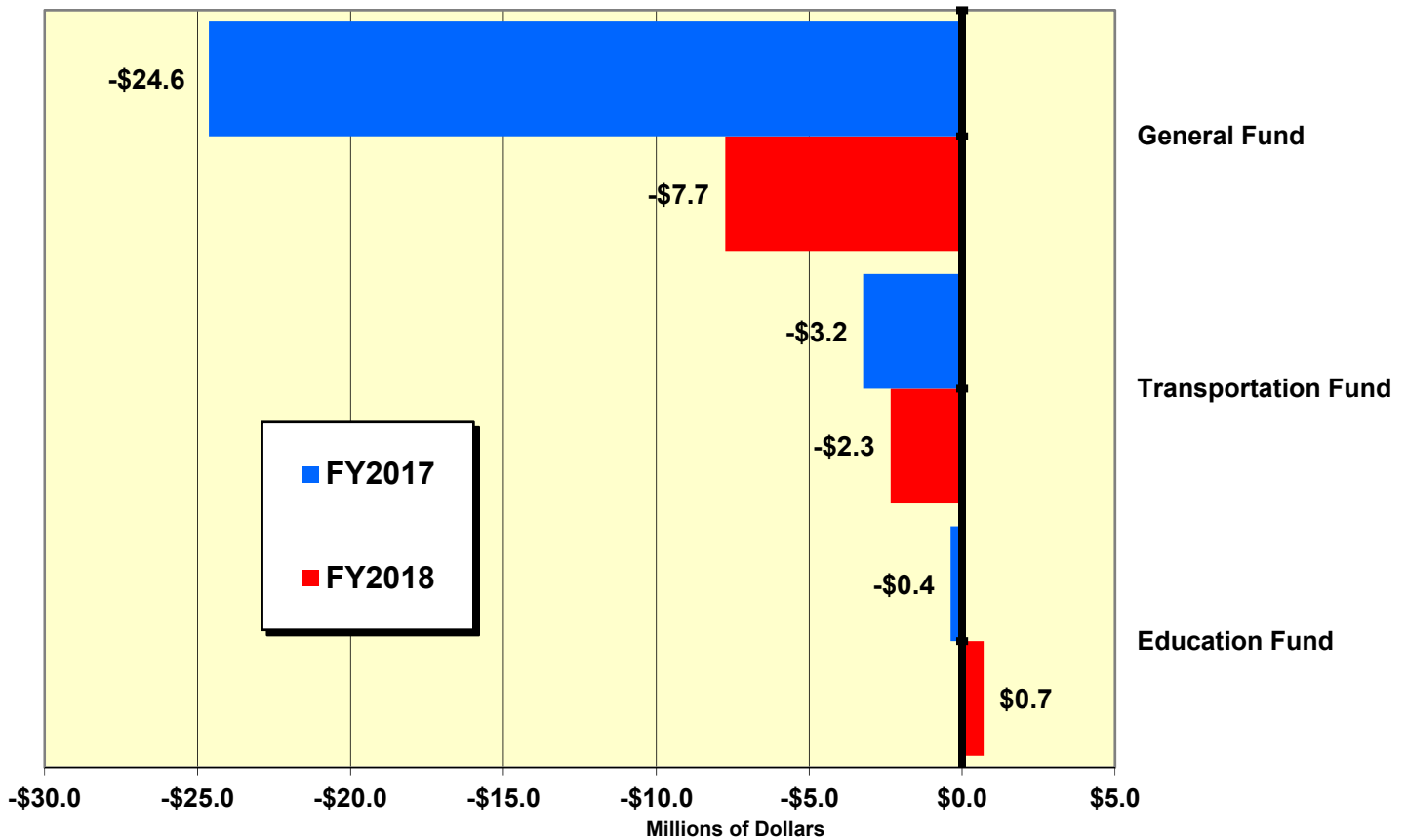
January 2017

Overview

Despite a continuation of the slow, steady economic expansion, now in its 91st month, a confluence of generally weakening corporate profits and unique firm conditions in Vermont have resulted in a slight downgrade of General Fund revenue expectations in both FY17 and FY18. Complex corporate accounting issues and volatile corporate profits have led to both higher refunding activity and lower tax liabilities in FY17. Most of the refunding has yet to be issued, but is expected to be paid in the first three months of 2017, and will result in about 1.7% less FY17 G-Fund revenue than projected in July of 2016. Reduced future liabilities will lower G-Fund revenues in FY18 by about 0.5%.

Lower fee yields and slightly slower car and truck sales growth will also result in small negative Transportation Fund adjustments of about 1% in both FY17 and FY18. The portion of the Education Fund analyzed herein (which excludes State property taxes) is virtually unchanged, with lower Source T-Fund transfers and slightly higher Source G-Fund transfers.

Recommended Net Revenue Changes from July 2016 Forecast



January 2017 Economic and Revenue Forecast Commentary

- In March of this year, the current economic expansion is likely to become third longest since business cycle statistics were first estimated in 1854. During this recovery, the U.S. economy has racked up more than 15.5 million new jobs over a period of unspectacular, but relentless growth spanning 76 consecutive months, driving the unemployment rate to its lowest level in nearly a decade. If the expansion endures through April of 2018, as is now expected, it will be the second longest ever. Though there are no major imbalances in the economy that point towards imminent decline, there has rarely been greater uncertainty regarding federal economic policy. As these policies crystalize into specific measures and actions, they will be the most significant factor affecting the continuation of the current economic expansion.

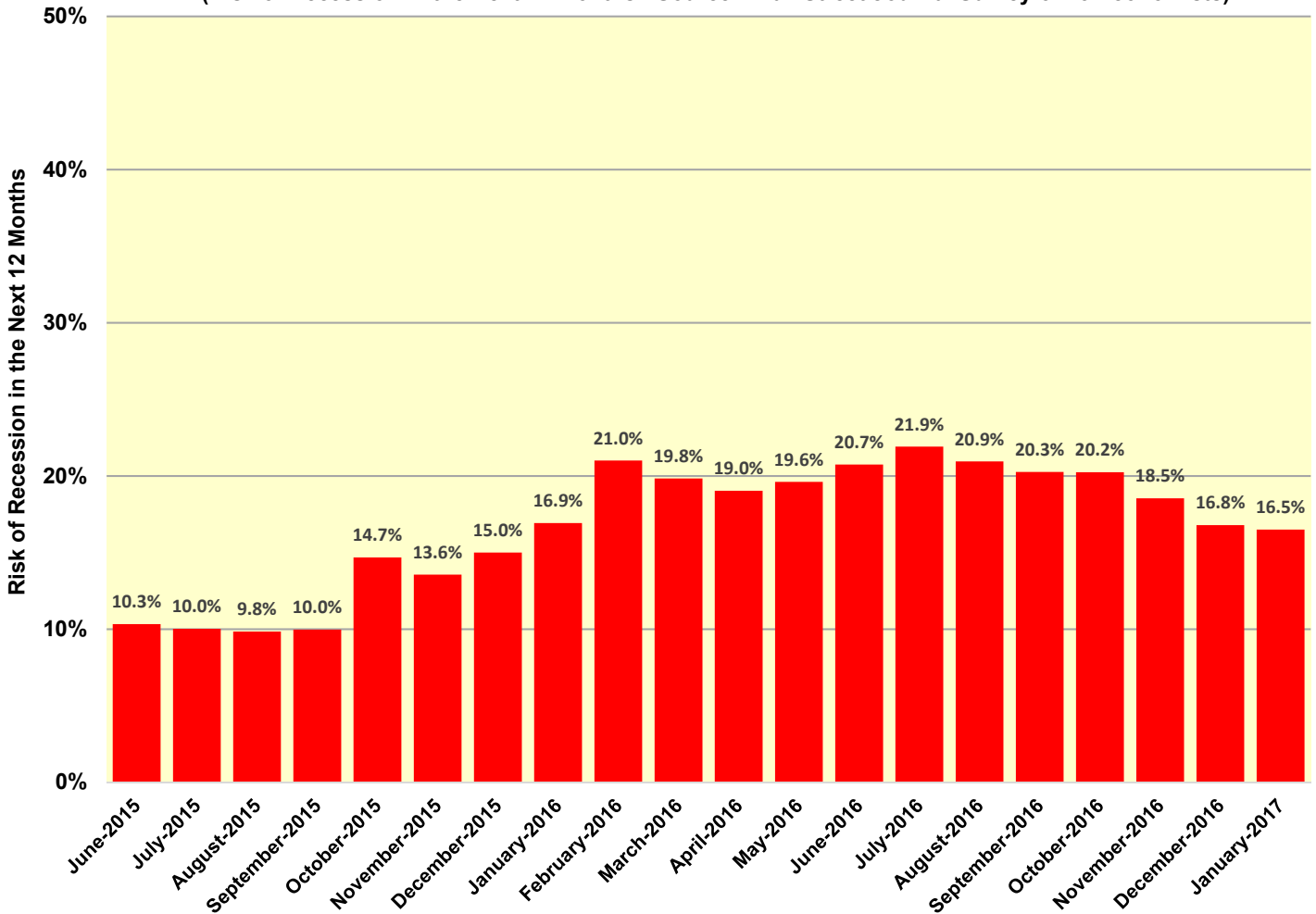
Post-Election Stocks Rally to New Highs, but Policy Uncertainty Abounds (S&P 500 Index, Daily Average)



- After a positive initial post-election bounce evident in many economic metrics (see above stock market chart), recent concerns regarding contradictory policy statements by the incoming Trump Administration have pushed the dollar down and weakened benchmark 10-year Treasury note yields – an important indicator of future growth expectations. While it is still premature to assess likely future economic impacts of the new Administration, proposals that have been floated that reject traditional Republican economic policies on trade, tariffs, immigration, and social spending could upend global political and

military alliances, trade and economic flows. Most macroeconomic analyses to date suggest stated Trump economic policies could result in slightly stronger near term growth potential, especially if infrastructure spending and tax cuts are quickly enacted, with lower longer term growth and higher inflation due to the deficits that could accompany such policies.

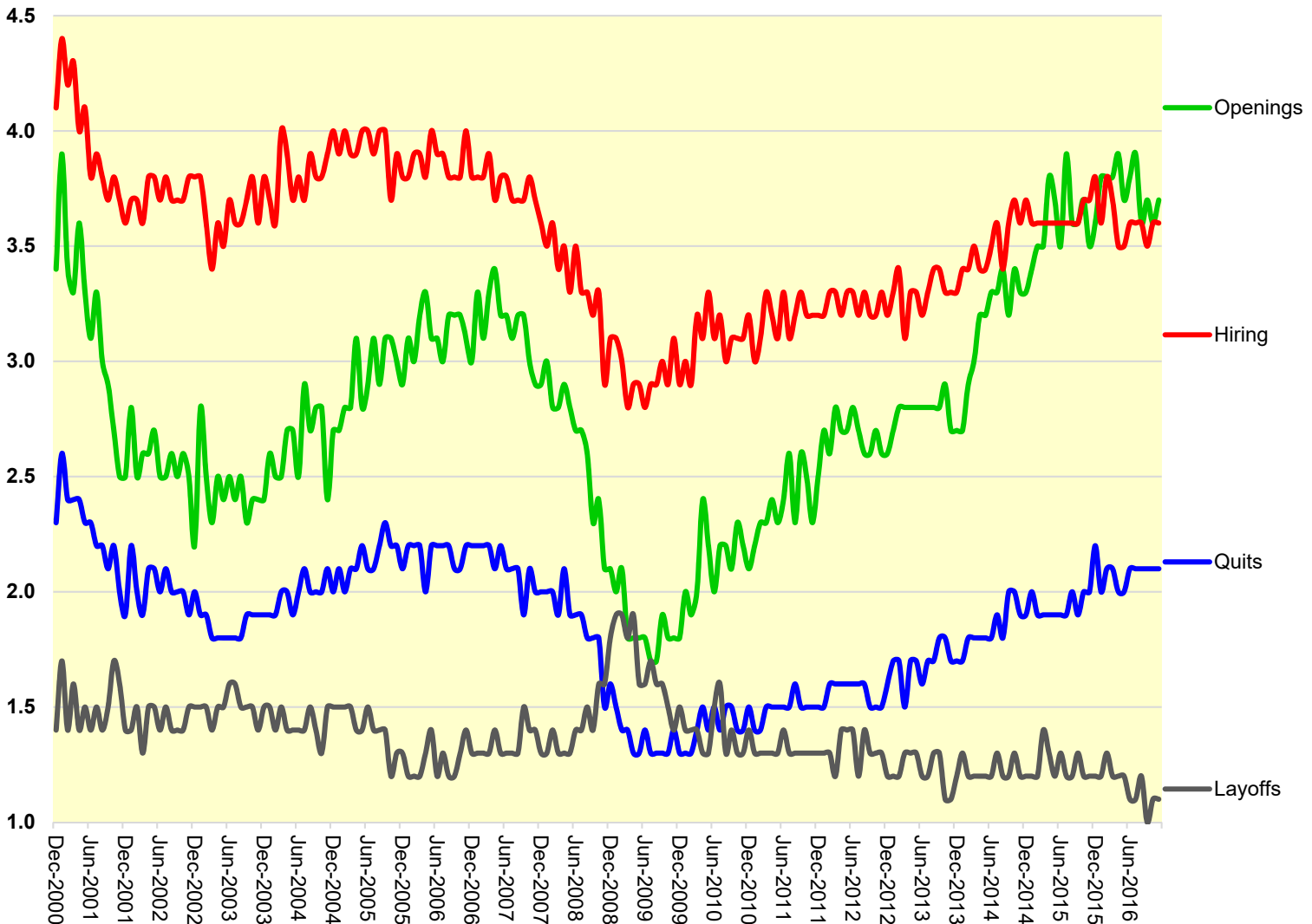
Post-Election Optimism Lowers 2017 Recession Risks, Now at About 1 in 6
 (Risk of Recession In the Next 12 Months - Source: Wall Street Journal Survey of 75 Economists)



- Trump policies that have been mentioned include as much as \$6.4 trillion in tax cuts over 10 years, \$1 trillion in infrastructure spending, higher military spending, maintenance of entitlement program benefits, reduced business and environmental regulations, aggressive trade policies that include the imposition of targeted tariffs on imported goods, and dismantling of the Affordable Care Act. While these program expenditure levels are highly unlikely to be enacted, even passage of a small portion of them would represent a substantial fiscal stimulus. How such measures will be paid for is still unclear, giving rise to concerns regarding deficit spending and higher inflation.
- Labor markets continued to firm in 2016, with steadily declining unemployment rates across all regions and unemployment rate concepts (including so-called “marginally attached” workers, discouraged workers and those working part-time for economic reasons). The U.S. unemployment rate dropped to 4.6% in

November, while Vermont was at 3.2%, the 7th lowest in the nation. Of note, two other New England states logged among the lowest unemployment rates in the country, with New Hampshire tied for 1st with South Dakota at 2.7% and Massachusetts tied for 3rd with North Dakota at 2.9%. This marked the first time in more than 15 years that Massachusetts registered a lower unemployment rate than Vermont.

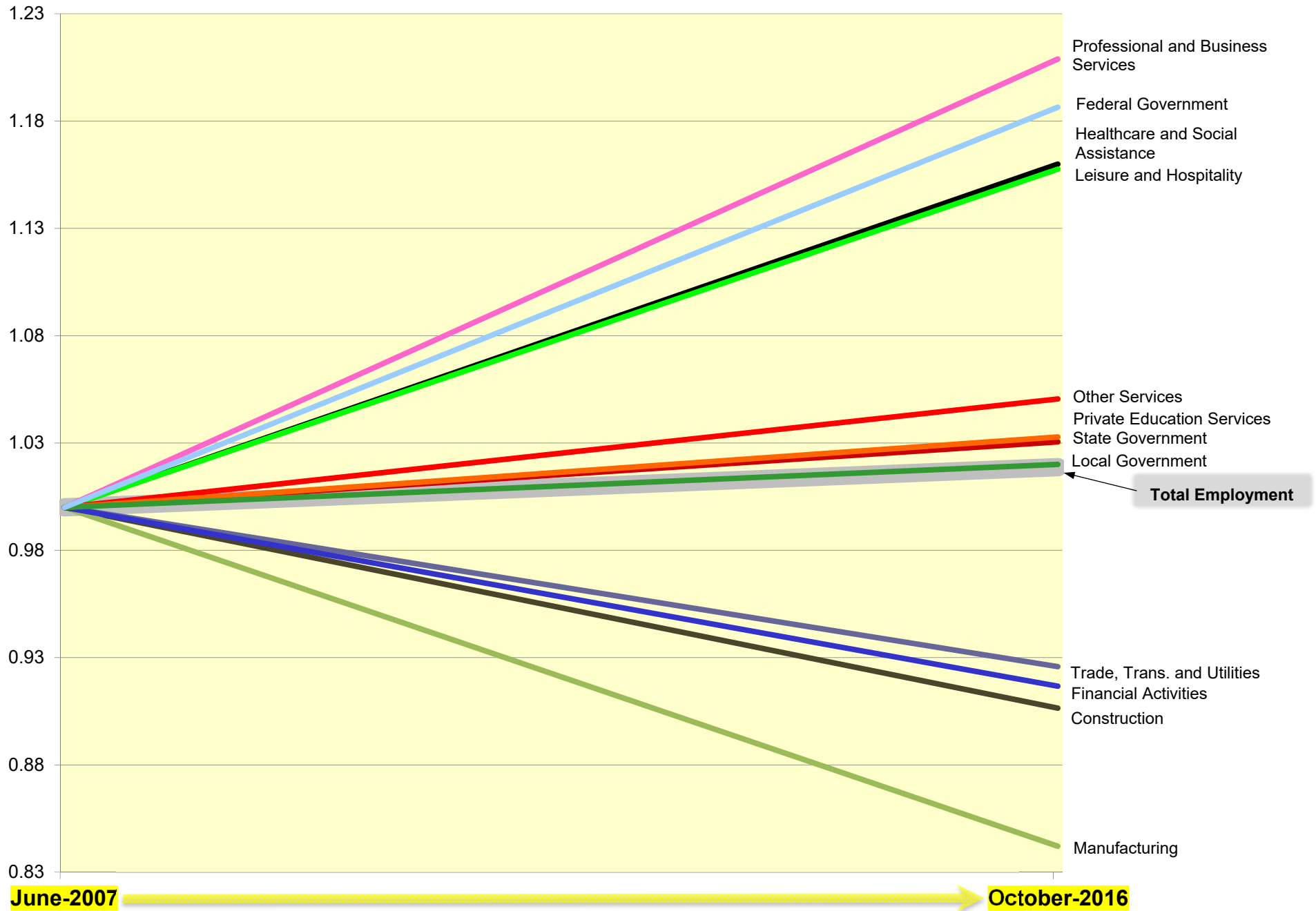
Wage Pressures Will Intensify as Job Openings Now Exceed Hiring
 (Job Opening, Hiring, Quit and Layoff Rates as a Percentage of the Labor Force, Source: U.S. BLS)



- The above chart illustrates the mounting labor market tightness, with job opening rates now exceeding hiring rates, quit rates close to their pre-recession levels, and layoff rates at a 16-year low. These rates vary by industry and region, with the highest job opening, hiring and quit rates in the healthcare, tourism and professional business services industries, and the lowest rates in state and local government, education and durable goods manufacturing. As illustrated in the chart on the following page, this aligns with the industry sectors in Vermont that have experienced the highest growth over the last 10 years. In general, the South and West have experienced the tightest labor market conditions, with the Northeast and Midwest close behind.

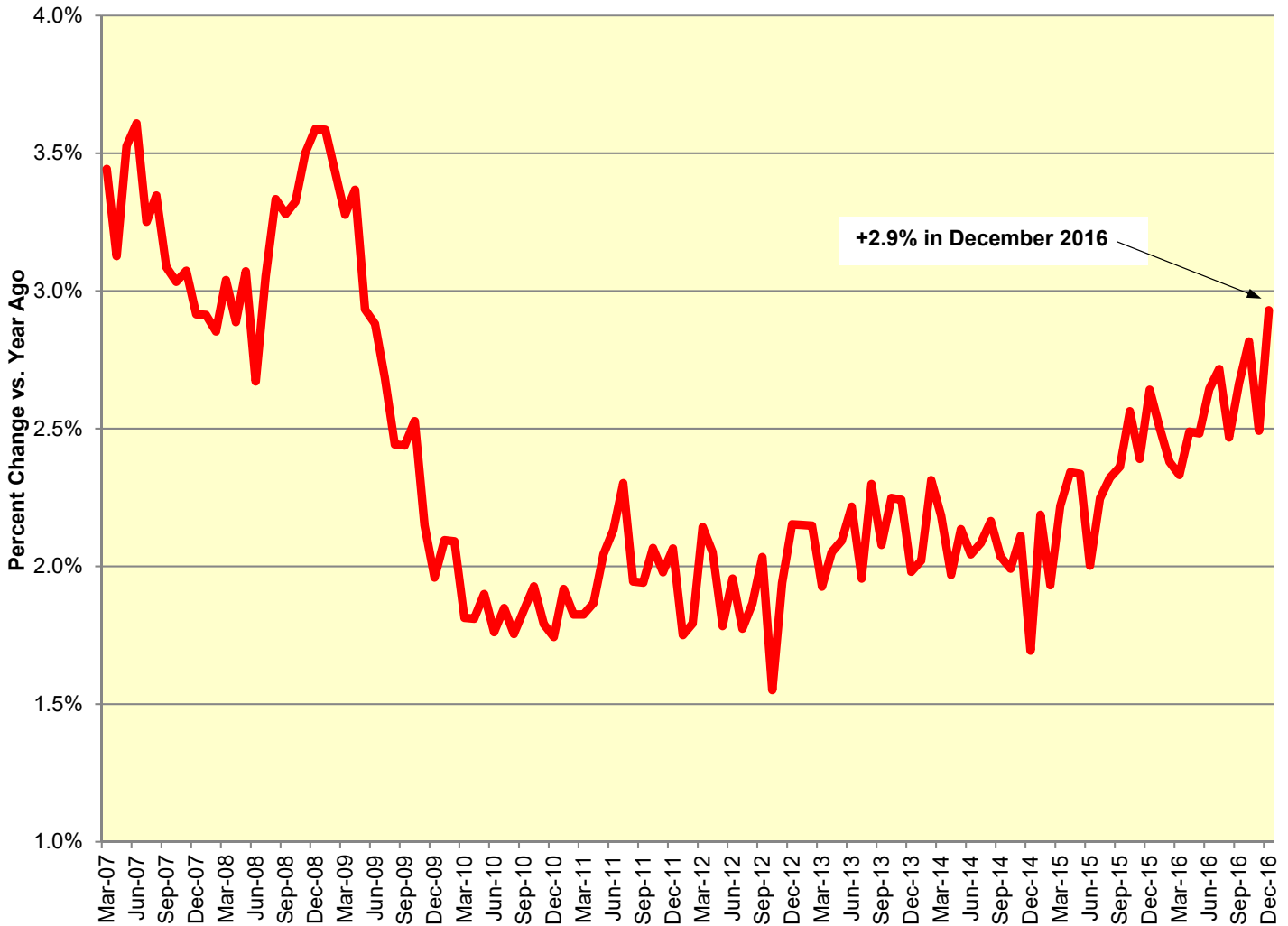
Economic Evolution: Change in Vermont Employment Since Prior Peak

Current Employment by Industry in October 2016 Indexed to Prior Peak Levels (June 2007 = 1.00), Seasonally Adjusted Data , VT DOL



- The employee shortages in many sectors implied in the preceding charts have finally begun to push wage rates up. As shown in the below chart, nominal average hourly earnings in December increased at their highest rate since June of 2009. Unfortunately, real (inflation adjusted) wages are still subaltern, with average annual gains of only 11 cents per year between December of 2008 (at \$25.11 per hour in 2016 dollars) and December of 2016 (at \$26.00 per hour).

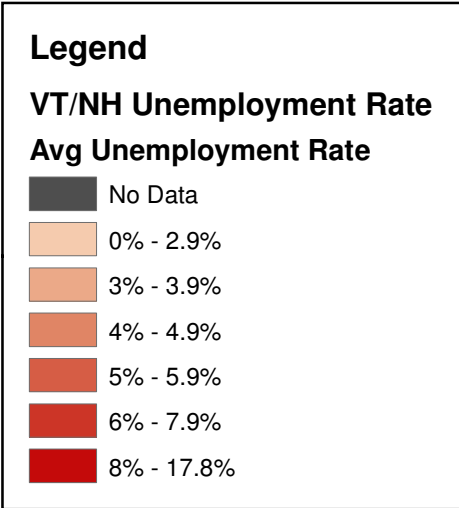
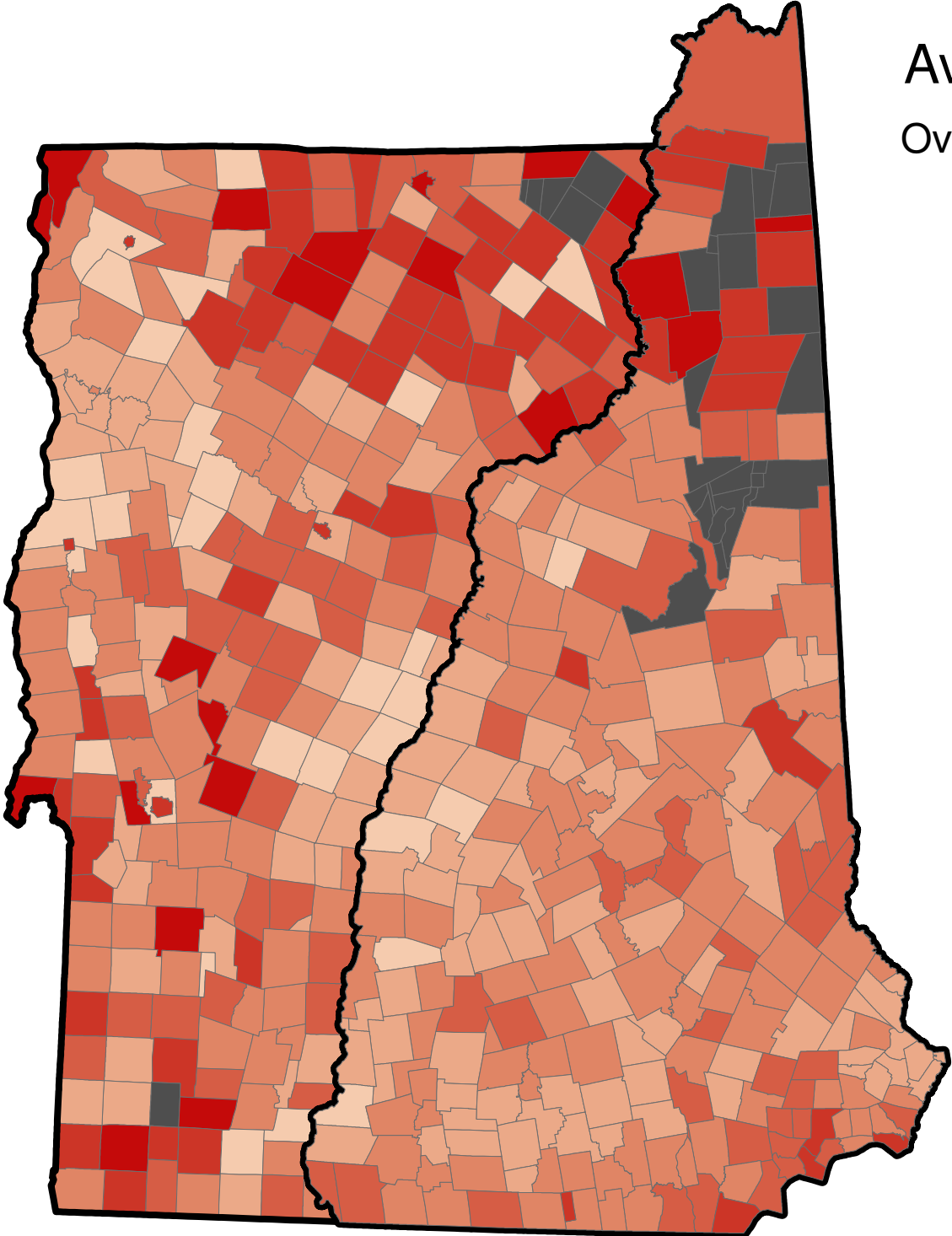
Tightening Labor Markets Finally Nudge Wages Up
 Percent Change vs. Year Ago - Average Hourly Earnings
 All U.S. Private Employees, Source: U.S. Bureau of Labor Statistics



- Vermont initial claims for unemployment insurance also portend continued labor market strength. For the past two years, claims have been close to all-time lows and are less than half the levels experienced during the last recession.
- As shown in the map on the following page, regional variation in Vermont (and New Hampshire) unemployment rates by town reflect a persistent negative variation in the Northeast Kingdom region of Vermont and the related North Country of New Hampshire. These variations have been characteristic for more than 50 years, despite targeted economic development efforts.

Average Unemployment Rate Over 10 Year Period from 2006 to 2015

Vermont and New Hampshire Town Map

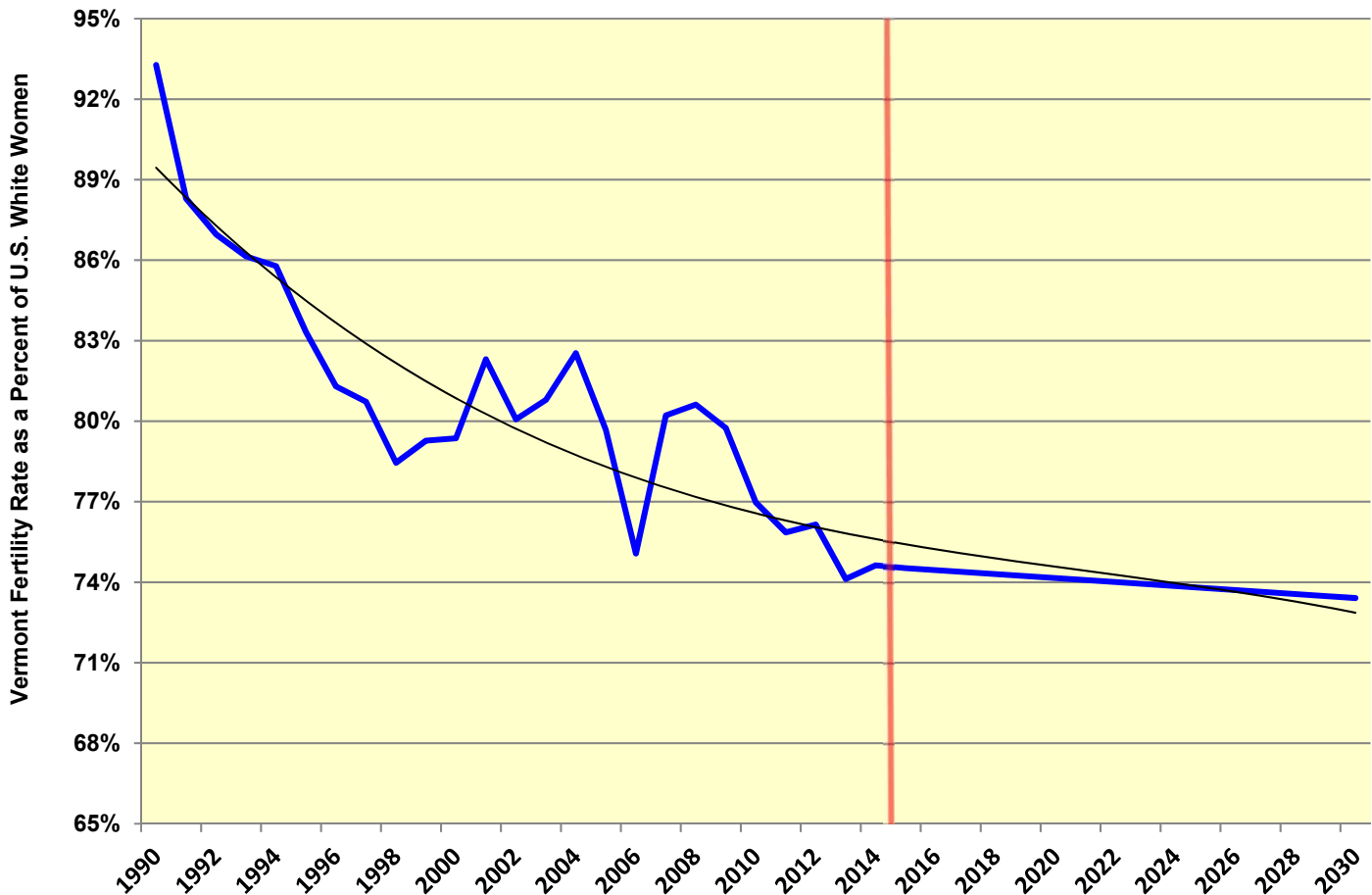


Source: U.S. Bureau of Labor Statistics

- Demographic developments continue to represent a significant headwind that now, and in the future, will affect Vermont revenues in a variety of ways. As detailed in prior revenue forecasts and related analyses, with the aging of the large baby boom cohort, the median age of the population is rising. As fertility rates have declined – and the latest data (2015) now show Vermont with the lowest fertility rate in the nation - almost all State population growth has come from net in-migration. With the last recession freezing real estate markets and depressing prices, migration has slowed dramatically and left total Vermont population virtually unchanged (-0.2%) between 2010 and 2016. As shown on the chart on the following page, Vermont is one of only three states to have lost population during this period (along with Illinois and West Virginia). Of concern, the largest percentage decline occurred in 2016, when housing markets were improving, jobs were more plentiful and net migratory flows were expected to turn positive. If in-migration does not become net positive in the coming years, there will be significant budgetary and revenue challenges that derive from this.

Vermont Single Age Weighted Fertility Rate vs. U.S. White Rate

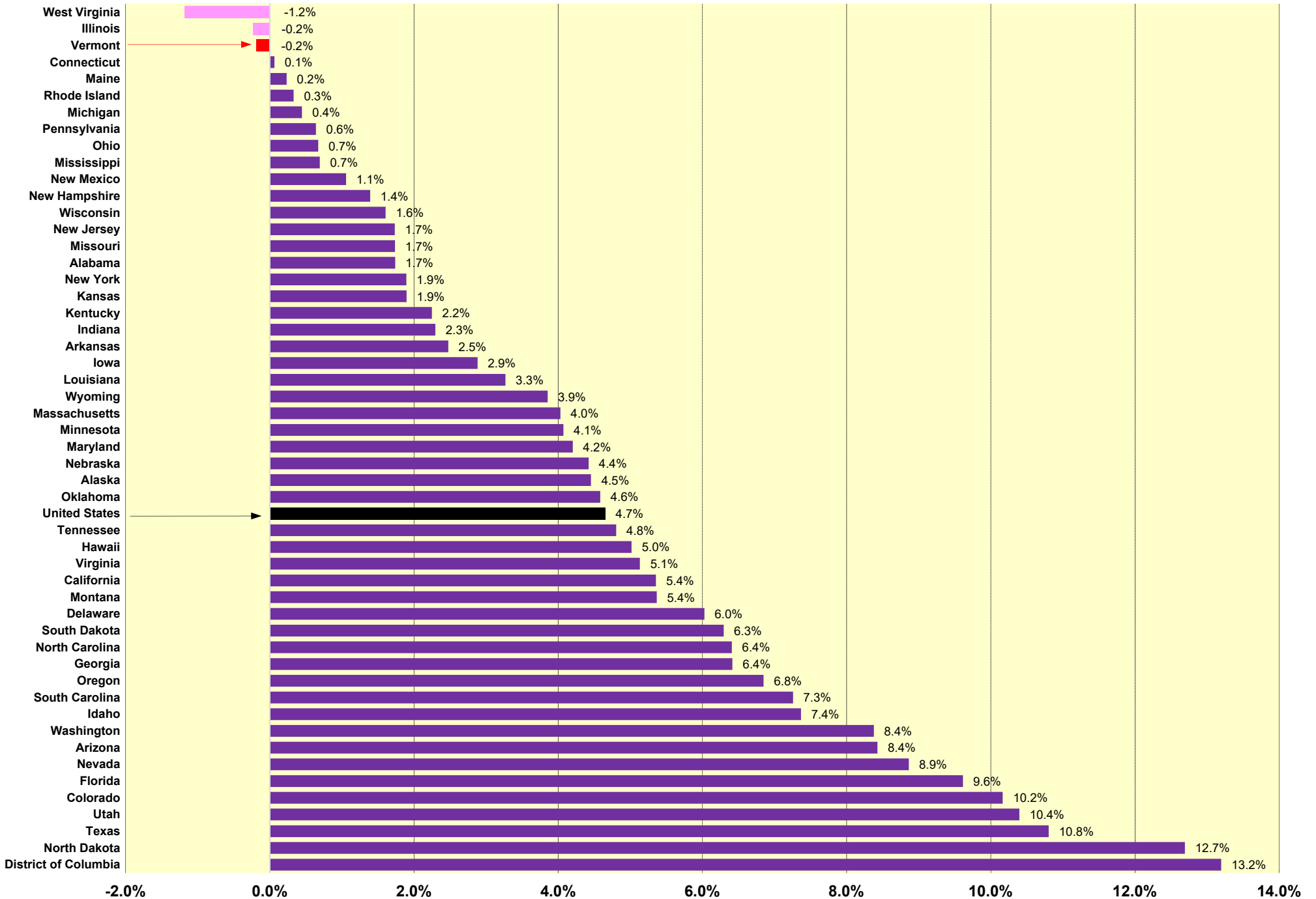
(Sources: U.S. Census Bureau, CDC, VT Department of Health)



- Although these demographic trends are not new, and have already been experienced in the steady public school enrollment declines starting in the mid-1990s, the State’s experience in managing expenditures with a declining served population underscores some of the challenges that could face State government. The demographic changes coming are likely to be even more

Percent Change in Population, 2010 to 2016

(Source: U.S. Census Bureau)

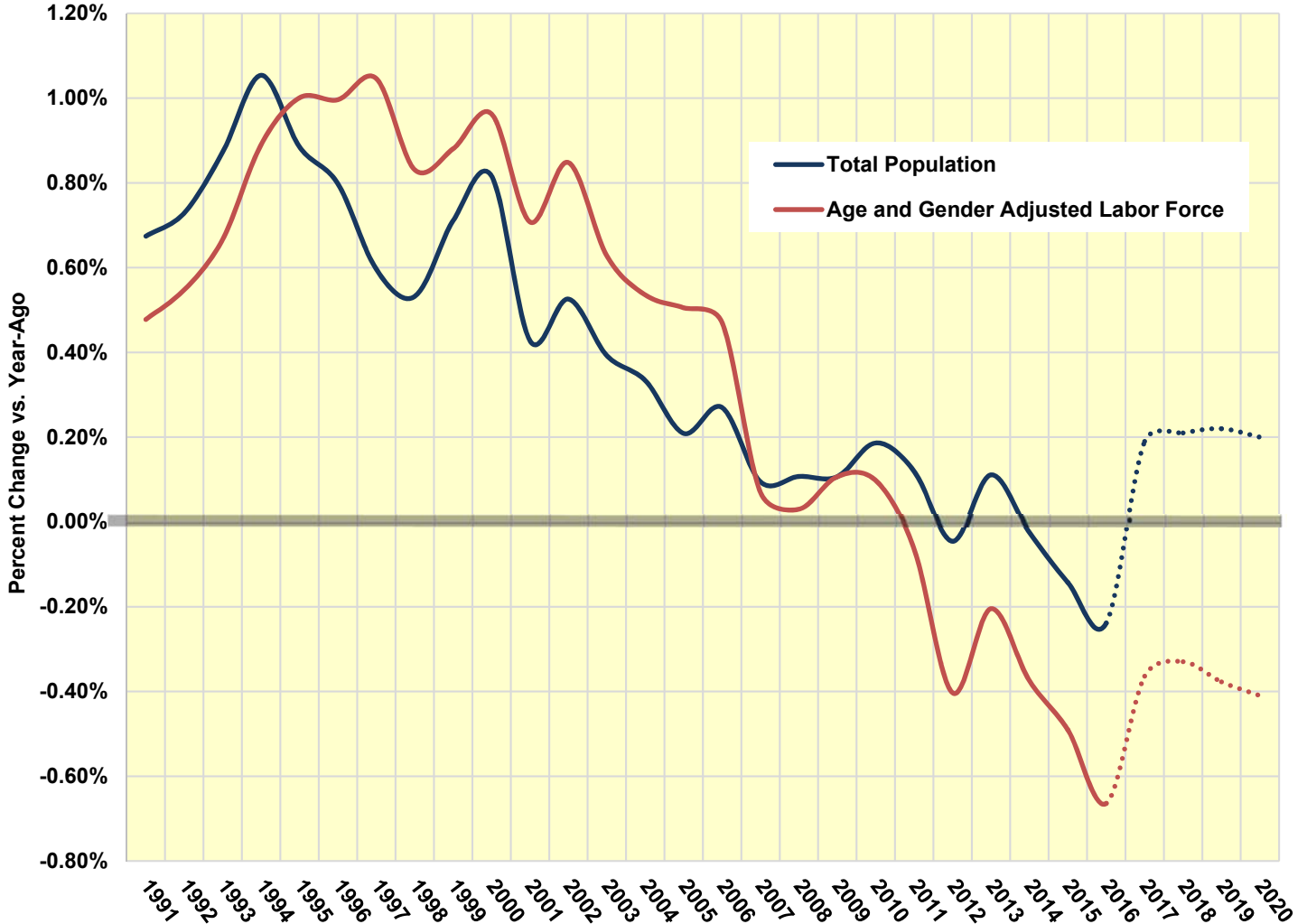


challenging: Employment could decline, and resultant income growth would be slower or even declining. Most consumption taxes would generate less revenue per dollar of income, since older populations spend more on services than goods. Meals & Rooms revenues, however, could benefit from an aging regional population that spends more on travel and increasingly favors locations that are easy to access. Fee and other per capita-based revenue sources will follow population – up or down. It is important to note that intercensal estimates, such as those just released for 2016, are continually revised, sometimes with initial miscounts totaling thousands of persons. Thus, it may be premature to draw conclusions based on this observation alone.

- The below chart illustrates changes in the growth rate of the Vermont working age population – adjusted by single age and gender – and total population. It shows that even with low positive future population growth, the aging of the baby boom population cohort will cause the working age population to decline.

Working Age Population Growth vs. Total Population Growth in Vermont

(Source: Census Bureau and BLS Propensity for Labor Force Participation Based on Age and Gender)



- The primary macroeconomic forecast risks are associated with policy actions that may be pursued by the new Trump Administration - and uncertainty between what has been said and what may be done. While possible that some

of the more extreme Trump proposals will be tempered by legislative processes and the realities of governing, there is a risk that erratic talk will turn into erratic policies and/or erratic policy implementation. The most pronounced economic threat comes from tariff threats and trade war risks – especially with China.



- While Mexico and many smaller countries may be vulnerable to U.S. bluster and protectionist policies in the near term, China, which is the world's second largest economy, most populous nation and a major military power, has much more retaliatory power. Holding trillions in U.S. debt and deeply engaged with trade throughout the world, the U.S. could ultimately lose far more jobs from an escalating trade war with China than it gains from such action.
- Potentially seismic changes in fiscal and monetary policy resulting from Trump economic policies also represent a forecast risk. After years of fiscal austerity and monetary stimulus, planned stimulative spending would trigger a reversal of monetary policy that could generate significant volatility in stock, bond and commodity prices. This transition, if abrupt, could slow growth and create financial instability.

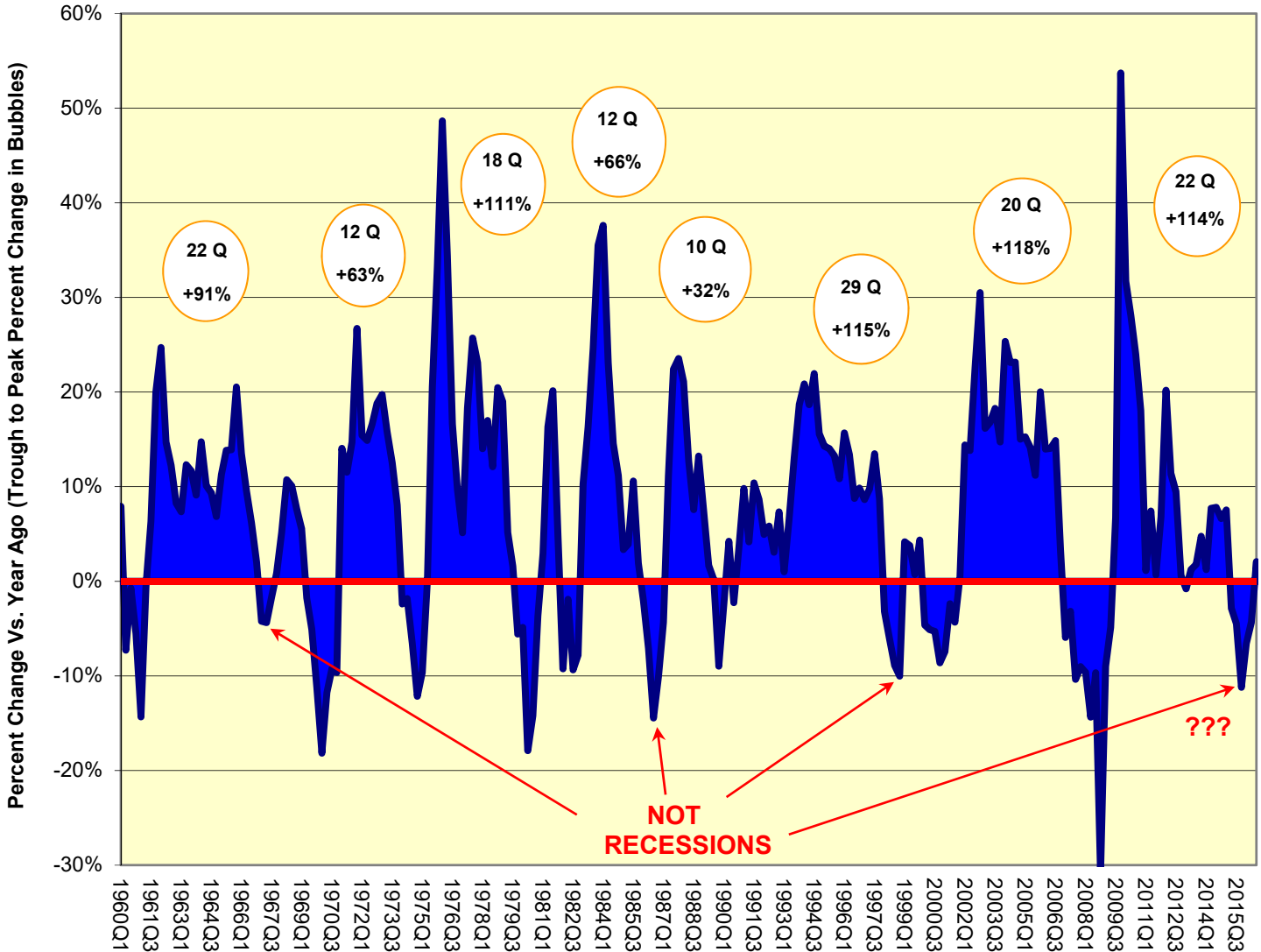
State Revenues

- State revenues for the first six months of the fiscal year were close to expectations (-0.8% across all three major funds), with the exception of the Corporate income tax. Virtually all of the net change in the revised forecast can be attributed to revenue changes in this large category.

- In almost every prior revenue forecast, the extreme volatility inherent in Corporate tax revenues has been stressed. In this forecast update, such volatility is starkly evident. Despite a steep 12.2% FY17 revenue decline projected in the July forecast, a confluence of cyclical decline and negative individual company conditions will result in a likely loss of more than 34%. This represents a revenue swing of more than \$40 million between FY16 and FY17, and accounts for virtually all of the revenue downgrade in the current forecast.

Corporate Profit Declines Do Not Always Signal Recession

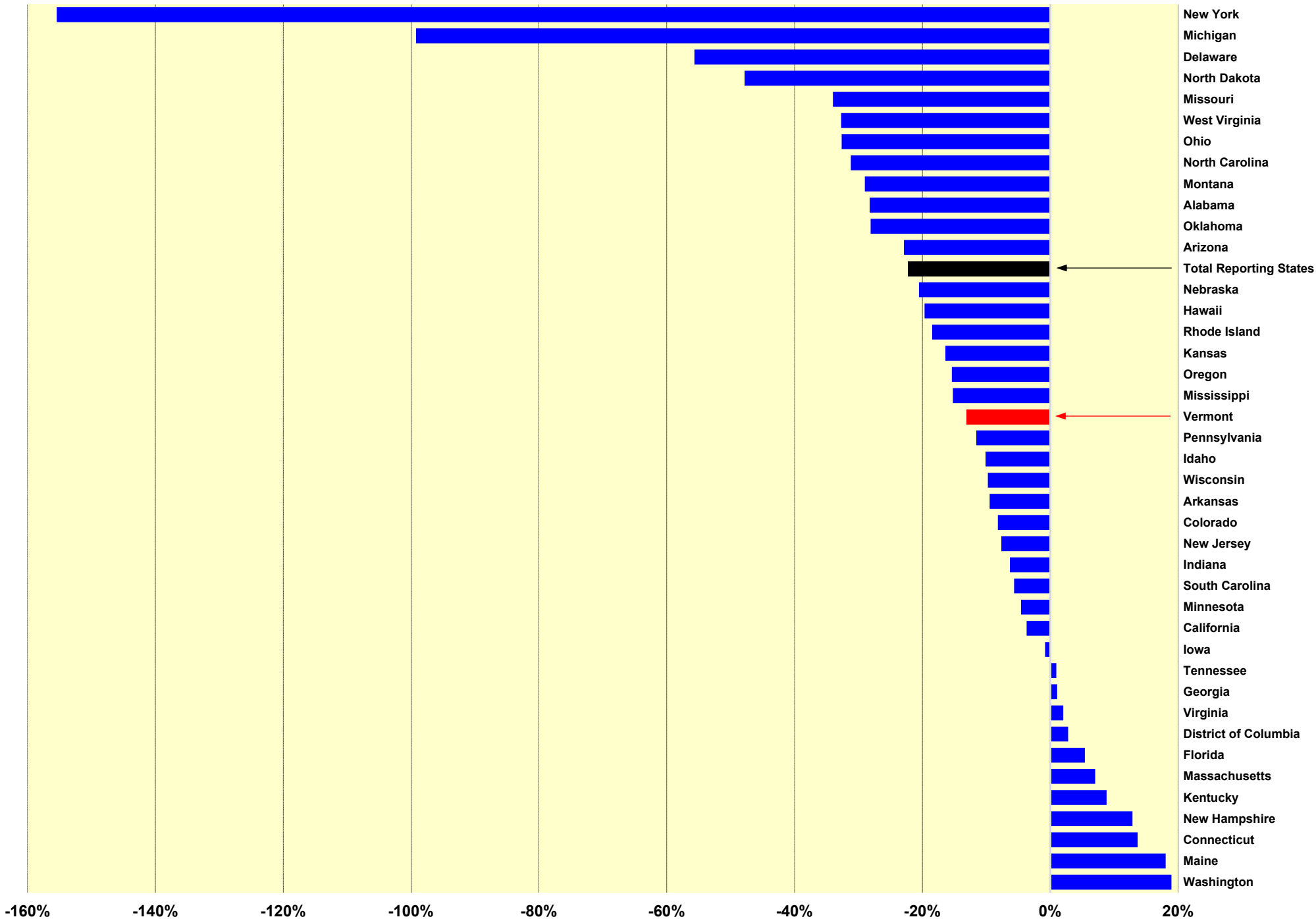
U.S. corporate profits with inventory valuation and capital consumption adjustment; Source: US BEA; Data in bubbles indicate number of consecutive quarters of growth and percent change



- While recessions are always accompanied by declining corporate profits, declining corporate profitability does not always presage a recession. As shown in the above chart, there have been three instances since 1960 in which periods of declining corporate profits have not led to recessions – and the latest period, a five-consecutive quarter decline between the second quarter of 2015 and the second quarter of 2016, is probably a fourth. In the third quarter of 2016, year-over-year profits were again positive, which if persistent, would

Percent Change in Corporate Tax Revenue, 12 Months Ending November 2016 vs. 2015

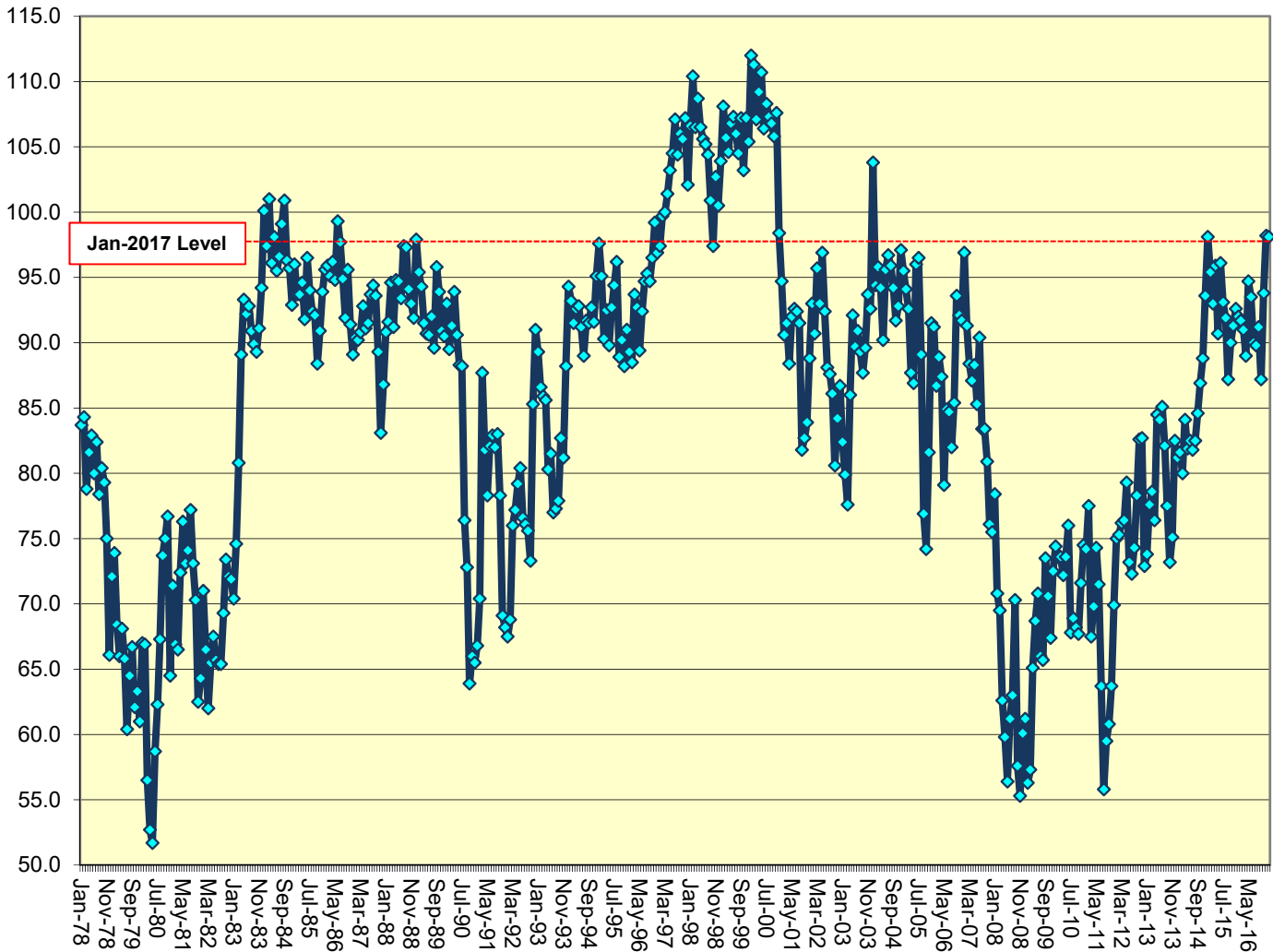
(Source: Federation of Tax Administrators - Preliminary Data)



stabilize tax receipts. In a display of the volatility that is characteristic of this revenue category, the chart on the preceding page depicts other state corporate revenues for the 12 month period ending in November of 2016 vs. the same period in 2015. Losses of more than 20% have been experienced in nearly a third of all states, with losses in about 10% of the reporting states exceeding double this rate.

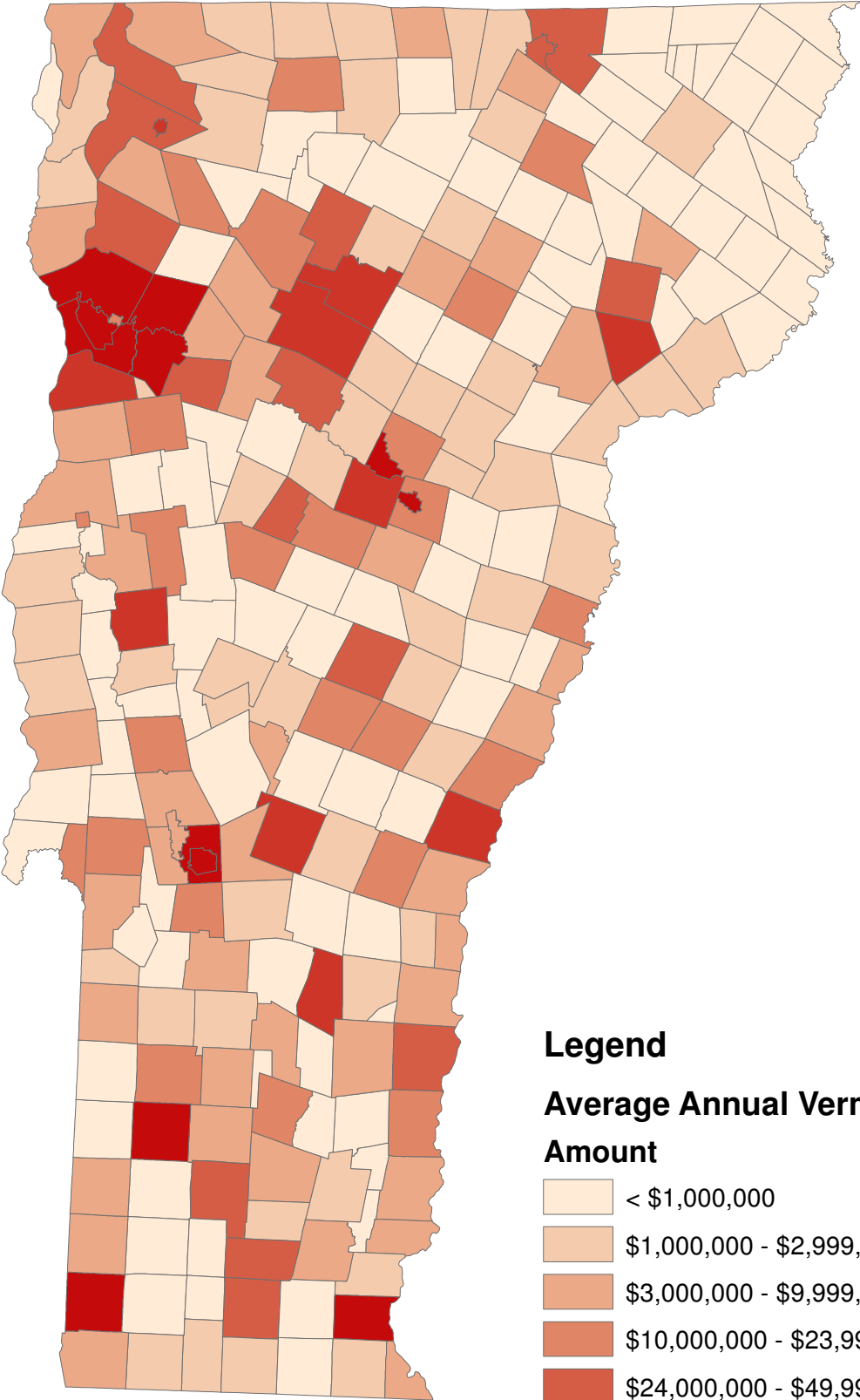
- Meals & Rooms tax receipts are off to one of their best starts ever, with first half FY17 receipts running about \$3.5 million above targets. Growing summer visitation and a strong fall foliage season this year were enhanced by an important agreement with Airbnb to collect tax revenues from their hosting locations beginning in October. Because Airbnb remits for all their Vermont hosts at the time of reservation payment, tax compliance is facilitated and insured. This kind of tax base retention (and even enhancement) despite disruptive technological changes in a marketplace, is critical in avoiding rate increases to preserve State revenue flows. If the weather continues to cooperate with this year's ski season, total FY17 Meals & Rooms tax revenue could exceed prior July projections by nearly \$5 million.

Consumer Sentiment Hopeful, With Post-Election Uptick
 (University of Michigan Survey, Index of Consumer Sentiment)










Average Annual Vermont Taxable Retail Sales

2005-2014, Constant 2014 Dollars



Legend

Average Annual Vermont Taxable Retail Sales Amount

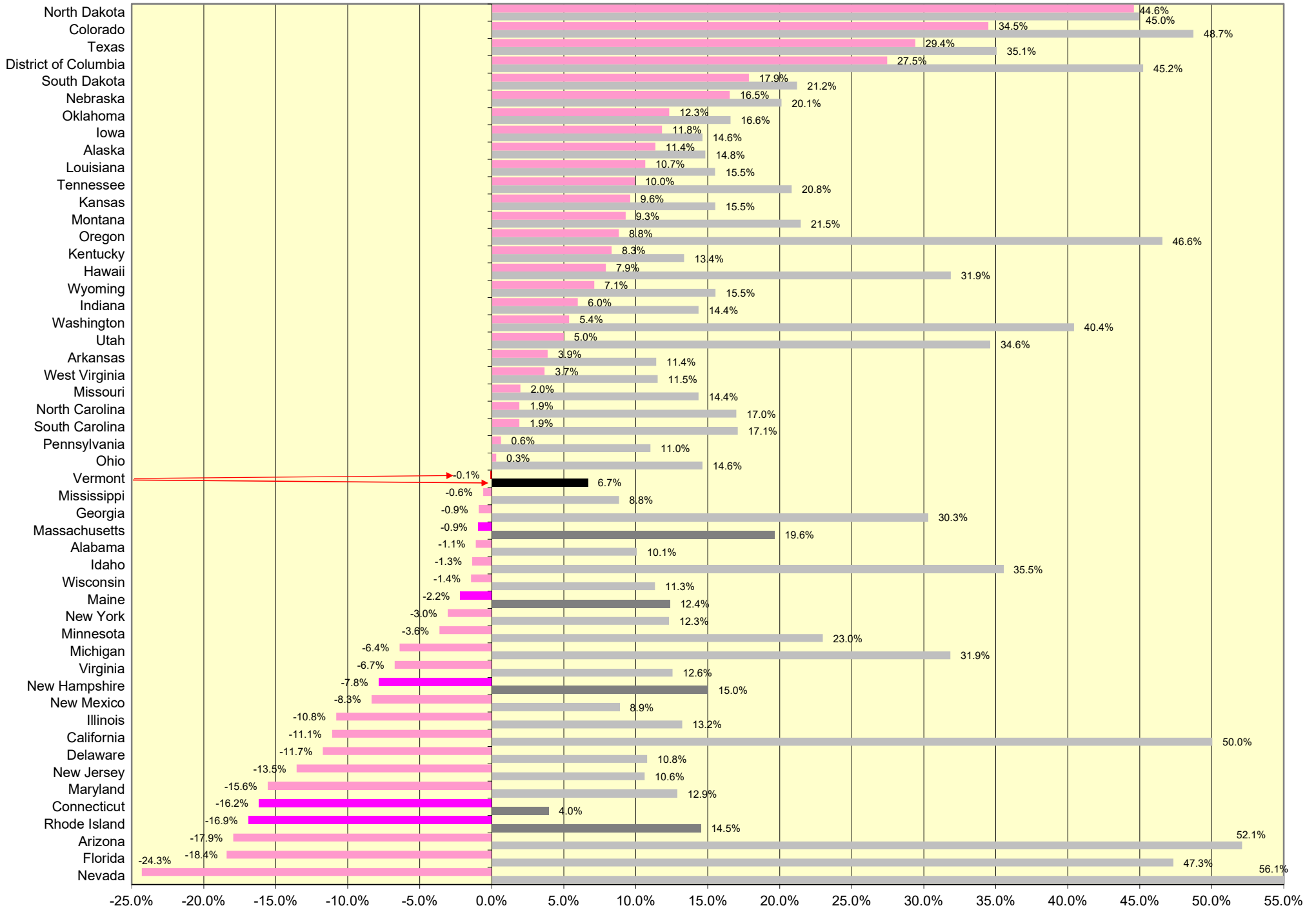
-  < \$1,000,000
-  \$1,000,000 - \$2,999,999
-  \$3,000,000 - \$9,999,999
-  \$10,000,000 - \$23,999,999
-  \$24,000,000 - \$49,999,999
-  \$50,000,000 - \$99,999,999
-  \$100,000,000 - \$424,020,146

Data Source: Vermont Department of Taxes

- Sales & Use tax revenues will also benefit from more “normal” winter weather than in FY16 and the higher tourist visitation it brings. The importance of tourism spending to Sales and Use tax revenue is underscored in the map on the preceding page, which shows average annual constant dollar Sales and Use tax revenues by Town for the period from 2005 to 2014. Aside from the taxable sales concentrations in the regional retailing centers connected to larger towns and cities, the highest taxable sales occur in “ski towns” from Mt. Snow in the south to Jay Peak in the north. The highest per capita taxable sales are virtually all in communities noted for winter recreation.
- Property transfer tax revenues had been projected to grow at more than 9% in FY17 and are on track to meet or exceed this expectation. As real estate prices continue to recover and eventually exceed prior cyclical peaks, sales activity will generate above-trend growth in this revenue source. If returns on alternative investments such as stocks and bonds are more limited, investment in real estate could further accelerate.
- For the ninth consecutive quarter (based on data through the third quarter of 2016, the latest available), housing prices increased on a year over year basis in every state in the nation. 27 states now have reached or exceed their peak pre-recession levels (see chart on following page) and although no New England state has achieved this yet, when the fourth quarter 2016 data are released, Vermont is likely to be the first to do so, followed by Massachusetts. When this happens, construction markets will begin to respond to this price signal and eventually recover. New residential construction activity, however, will be tempered by both demographics (an older population with reduced housing needs) and income (more concentrated income and lower earnings among those forming new households).
- Transportation Fund revenues ended the first half of the fiscal year about 1.7% below target (-\$2.3M), due to lower than expected yields from recent fee increases and other revenue-enhancement measures, and slightly slower growth in auto and truck sales than anticipated. Motor fuel tax receipts were very close to targets, with gasoline and diesel prices generally rising. Year-end FY17 Transportation Fund revenues are expected to be about 1% below prior July projections, with growth in FY18 and beyond only between about 0.8% and 1.9% per year – well below rates of inflation during this period.
- The U.S. and Vermont macroeconomic forecasts upon which the revenue forecasts in this Update are based are summarized in Tables A and B at the end of this report, and represent a consensus JFO and Administration forecast developed using internal JFO and Administration State economic models with input from Moody’s Analytics December 2016 projections and other major forecasting entities, including the Federal Reserve, EIA, CBO, IMF, The Conference Board and other private forecasting firms.
- Due to the reduced availability of forecasts from the New England Economic Partnership (NEEP), State consensus macroeconomic forecasts were

Real Estate Update: Housing Values Relative to Last Peak (pink) and Trough (grey)

Percent Change, 2016Q3 vs. Peak Price by State Reached Between 2005Q3 and 2009Q2 - Pink and 2016Q3 vs. Trough Price Reached Between 2009Q3 and 2016Q3 - Grey
 Source: FHFA House Price Index



developed using a State on-line modeling capability provided by Moody's Analytics. This forecasting capability allows timely, customized state forecasts with modeling capabilities similar to the prior NEEP capability.

- Five-year revenue projections are included in Appendix A, following Tables A and B at the end of this report. Although these are not required by statute, they have been requested by both the JFO and Administration for several years for longer term planning purposes. During the 2015 legislative session, there was considerable misinformation and confusion regarding the role these longer term projections played in the recent (though not new) discussions of structural budget deficits. As a result of this, these tables are now published on a regular basis, so as to provide clarity with respect to longer term revenue potential and expectations. As illustrated in these tables, and consistent with virtually all past projections, longer term revenue growth from the mix and structure of the taxes in the three funds analyzed herein is unlikely to keep pace with recent levels of expenditure growth, at current law tax rates.



TABLE A
Comparison of Recent Consensus U.S. Macroeconomic Forecasts
June 2015 through December 2016, Selected Variables, Calendar Year Basis

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real GDP Growth									
June-15	1.6	2.3	2.2	2.4	2.6	3.2	3.0	2.8	2.2
December-15	1.6	2.2	1.5	2.4	2.5	2.9	3.1	2.8	2.2
June-16	1.6	2.2	1.5	2.4	2.4	2.2	2.9	2.6	1.8
December-16	1.6	2.2	1.7	2.4	2.6	1.7	2.9	3.1	2.2
S&P 500 Growth (Annual Avg.)									
June-15	11.4	8.7	19.1	17.5	7.8	1.9	2.3	6.8	6.7
December-15	11.4	8.7	19.1	17.5	-0.7	2.7	4.8	6.9	5.6
June-16	11.4	8.7	19.1	17.5	6.8	-2.1	1.5	0.2	0.5
December-16	11.4	8.7	19.1	17.5	6.8	1.5	5.4	-1.6	-2.0
Employment Growth (Non-Ag)									
June-15	1.2	1.7	1.7	1.9	2.2	2.2	2.3	1.6	0.9
December-15	1.2	1.7	1.7	1.9	2.1	2.0	2.0	1.9	1.2
June-16	1.2	1.7	1.6	0.9	2.1	1.8	1.8	1.5	1.1
December-16	1.2	1.7	1.6	1.9	2.1	1.7	1.6	1.6	1.3
Unemployment Rate									
June-15	8.9	8.1	7.4	6.1	5.3	4.9	4.7	4.7	4.8
December-15	8.9	8.1	7.4	6.2	5.3	4.8	4.7	4.9	5.0
June-16	8.9	8.1	7.4	6.2	5.3	4.7	4.6	4.5	4.6
December-16	8.9	8.1	7.4	6.2	5.3	4.9	4.7	4.5	4.4
West Texas Int. Crude Oil \$/Bbl									
June-15	95	94	98	94	58	70	79	80	83
December-15	95	94	98	93	49	55	64	71	76
June-16	95	94	98	93	49	43	53	55	69
December-16	95	94	98	93	49	43	57	63	70
Prime Rate									
June-15	3.25	3.25	3.25	3.25	3.30	4.70	6.20	6.83	6.71
December-15	3.25	3.25	3.25	3.25	3.26	3.97	5.74	6.91	6.84
June-16	3.25	3.25	3.25	3.25	3.26	3.50	4.20	5.50	6.50
December-16	3.25	3.25	3.25	3.25	3.26	3.51	4.10	5.00	6.50
Consumer Price Index Growth									
June-15	3.1	2.1	1.5	1.6	0.5	2.5	2.6	2.5	2.3
December-15	3.1	2.1	1.5	1.6	0.2	2.2	2.9	3.1	2.8
June-16	3.1	2.1	1.5	1.6	0.1	1.2	2.1	2.4	2.6
December-16	3.1	2.1	1.5	1.6	0.1	1.2	2.6	2.8	3.1
Average Home Price Growth									
June-15	-3.7	-0.1	4.1	5.7	4.7	5.1	5.5	6.1	6.6
December-15	-3.7	-0.1	4.0	5.6	5.5	5.7	5.9	6.1	6.6
June-16	-3.8	-0.2	4.0	5.5	5.6	5.7	5.9	6.1	6.2
December-16	-3.9	-0.2	4.0	5.4	5.5	5.6	5.9	6.3	6.1

TABLE B
Comparison of Consensus Administration and JFO Vermont State Forecasts
June 2014 through December 2016, Selected Variables, Calendar Year Basis

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real GSP Growth									
June-14	1.3	1.2	0.5	2.9	4.0	3.2	2.4		
December-14	2.2	1.1	1.9	1.0	3.3	3.6	2.8	1.9	1.8
June-15	2.2	1.1	1.9	1.2	2.4	3.0	2.6	2.1	1.7
December-15	2.8	0.4	-0.3	0.6	2.2	2.8	2.4	2.0	1.6
June-16	2.9	0.6	-0.9	0.3	-0.1	1.9	2.3	1.7	1.2
December-16	2.8	0.0	-0.4	1.5	0.2	1.8	2.4	2.0	1.5
Population Growth									
June-14	0.1	-0.1	0.1	0.1	0.1	0.2	0.2		
December-14	0.1	0.0	0.1	0.0	0.1	0.2	0.3	0.2	0.2
June-15	0.1	0.0	0.1	0.0	0.1	0.2	0.3	0.2	0.2
December-15	0.1	-0.1	0.1	-0.1	-0.1	0.2	0.2	0.3	0.3
June-16	0.1	-0.0	0.1	-0.1	-0.1	0.1	0.2	0.3	0.3
December-16	0.1	-0.1	0.1	-0.0	-0.1	-0.2	0.2	0.2	0.2
Employment Growth									
June-14	0.8	1.3	0.5	1.4	2.0	1.8	1.6		
December-14	0.8	1.3	0.5	1.0	1.6	1.9	1.3	0.7	0.4
June-15	0.9	1.3	0.8	1.0	1.7	1.9	1.8	1.3	0.8
December-15	0.9	1.3	0.8	1.0	1.6	1.7	1.8	1.6	1.0
June-16	0.9	1.3	0.7	0.9	0.9	1.6	1.7	1.5	1.1
December-16	0.9	1.3	0.7	0.9	0.9	1.6	1.7	1.5	1.2
Unemployment Rate									
June-14	5.6	4.9	4.4	3.9	3.6	3.3	3.0		
December-14	5.6	4.9	4.4	3.7	3.5	3.2	2.9	2.8	2.9
June-15	5.5	4.9	4.4	4.1	3.6	3.2	2.9	2.8	3.0
December-15	5.5	4.9	4.4	4.1	3.7	3.4	3.3	3.2	3.3
June-16	5.5	4.9	4.4	4.0	3.7	3.3	3.2	3.1	3.2
December-16	5.5	4.9	4.4	4.0	3.7	3.2	3.1	3.0	3.0
Personal Income Growth									
June-14	7.1	3.7	2.9	4.9	5.6	5.0	4.6		
December-14	7.1	3.7	2.9	3.8	5.1	5.4	4.7	4.4	4.1
June-15	7.2	3.4	2.5	4.0	4.8	5.2	4.7	4.4	3.9
December-15	6.8	3.6	1.4	3.5	4.5	5.1	4.6	4.6	3.7
June-16	6.8	3.6	1.4	3.5	3.0	3.3	4.1	4.2	3.4
December-16	6.3	3.3	1.7	3.3	2.9	3.0	3.4	3.7	3.4
Home Price Growth (JFO)									
June-14	-0.6	0.5	0.2	0.4	1.7	2.9	3.7		
December-14	-0.6	0.5	0.2	0.9	2.1	2.7	3.4	4.1	4.8
June-15	-0.7	0.4	0.2	0.7	2.3	2.8	3.4	4.1	4.8
December-15	-0.8	0.4	0.1	0.7	2.5	2.9	3.4	4.1	4.8
June-16	-0.8	0.4	0.1	0.6	2.2	2.3	3.0	3.8	4.4
December-16	-0.8	0.4	0.1	0.5	1.9	1.4	2.4	3.1	3.7

Methodological Notes and Other Comments

- This analysis has benefited significantly from the input and support of Tax Department and Joint Fiscal Office personnel, as well as Deb Brighton of Ad Hoc Associates. In the Joint Fiscal Office, Sara Teachout, Theresa Utton-Jermaine, Stephanie Barrett, Dan Dickerson, Catherine Benham, Neil Schickner, Chloe Wexler and Mark Perrault have contributed to numerous policy and revenue impact analyses and coordinated JFO forecast production and related legislative committee support functions. They have also painstakingly organized and updated large tax and other databases in support of JFO revenue forecasting activities. In the Tax Department, Sharon Asay, Mary Cox, Rebecca Sameroff, Jake Feldman, Andrew Stein and Doug Farnham provided important 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 40 years of data for each of the 25 General Fund categories (three aggregates), 37 years of data for most of the Transportation Fund categories (one aggregate), and 18 to 40 years for each of the Education Fund categories. The analyses employed includes seasonal adjustment using U.S. Census Bureau X-12, X-13-ARIMA-SEATS and TRAMO-SEATS 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 macroeconomic models from Moody's Analytics and, when available, 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 the Joint Fiscal Office through KRA. In this forecast cycle, consensus macroeconomic State forecasts were developed using a customized Moody's on-line Vermont model. 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 and KRA 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 2017**

SOURCE G-FUND

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

	FY 2013	%	FY 2014	%	FY 2015	%	FY 2016	%	FY 2017	%	FY 2018	%	FY 2019	%
	(Actual)	Change	(Actual)	Change	(Actual)	Change	(Actual)	Change	(Forecast)	Change	(Forecast)	Change	(Forecast)	Change
REVENUE SOURCE														
Personal Income	\$660.6	10.7%	\$671.1	1.6%	\$705.9	5.2%	\$747.0	5.8%	\$770.3	3.1%	\$795.2	3.2%	\$818.7	3.0%
Sales & Use*	\$346.8	1.4%	\$353.6	2.0%	\$364.6	3.1%	\$370.7	1.7%	\$382.1	3.1%	\$396.6	3.8%	\$407.0	2.6%
Corporate	\$95.0	10.5%	\$94.8	-0.1%	\$121.9	28.5%	\$117.0	-4.0%	\$76.3	-34.8%	\$87.1	14.2%	\$83.4	-4.2%
Meals and Rooms	\$134.8	6.2%	\$142.7	5.9%	\$150.8	5.7%	\$154.2	2.2%	\$165.8	7.6%	\$172.1	3.8%	\$177.9	3.4%
Cigarette and Tobacco**	\$74.3	-7.2%	\$71.9	-3.3%	\$76.8	6.7%	\$80.7	5.2%	\$77.3	-4.2%	\$75.3	-2.6%	\$73.45	-2.5%
Liquor	\$17.0	3.4%	\$17.7	4.0%	\$18.2	2.9%	\$18.3	0.8%	\$19.0	3.7%	\$19.6	3.2%	\$20.2	3.1%
Insurance	\$55.0	-2.3%	\$57.1	3.7%	\$55.3	-3.1%	\$56.2	1.7%	\$57.3	1.9%	\$58.3	1.7%	\$59.1	1.4%
Telephone	\$9.4	-2.6%	\$9.1	-2.9%	\$7.7	-14.9%	\$3.2	-59.2%	\$6.3	99.3%	\$6.1	-3.2%	\$5.9	-3.3%
Beverage	\$6.2	3.3%	\$6.4	3.6%	\$6.7	4.2%	\$6.7	0.6%	\$6.9	3.0%	\$7.1	2.9%	\$7.3	2.8%
Electric***	\$8.9	204.5%	\$13.1	46.9%	\$9.4	-28.2%	\$0.0	-100.0%	\$0.0	NM	\$0.0	NM	\$0.0	NM
Estate	\$15.4	15.4%	\$35.5	131.0%	\$9.9	-72.2%	\$12.5	26.5%	\$17.3	38.3%	\$19.2	11.0%	\$20.4	6.3%
Property	\$28.5	18.3%	\$30.9	8.5%	\$33.6	8.6%	\$35.7	6.2%	\$39.4	10.4%	\$41.9	6.3%	\$44.1	5.3%
Bank	\$10.7	0.2%	\$11.0	2.7%	\$10.7	-2.0%	\$10.7	-0.6%	\$12.7	18.9%	\$11.0	-13.4%	\$11.1	0.9%
Other Tax	\$1.8	42.9%	\$1.9	9.6%	\$2.0	4.5%	\$1.8	-9.0%	\$2.0	8.6%	\$2.2	10.0%	\$2.4	9.1%
Total Tax Revenue	\$1464.3	6.7%	\$1517.0	3.6%	\$1573.5	3.7%	\$1614.8	2.6%	\$1632.7	1.1%	\$1691.7	3.6%	\$1731.0	2.3%
Business Licenses	\$2.8	-8.0%	\$1.1	-61.4%	\$1.1	0.2%	\$1.1	-1.6%	\$1.1	3.1%	\$1.1	2.7%	\$1.2	2.7%
Fees	\$21.4	2.2%	\$20.6	-3.4%	\$22.1	7.0%	\$23.0	4.2%	\$47.6	107.1%	\$49.0	2.9%	\$50.3	2.7%
Services	\$2.5	8.3%	\$1.3	-47.3%	\$1.5	12.5%	\$2.8	86.6%	\$2.9	4.0%	\$3.1	6.9%	\$3.2	3.2%
Fines	\$4.7	-35.9%	\$3.6	-24.2%	\$3.5	-3.1%	\$3.7	5.5%	\$4.4	20.4%	\$4.2	-4.5%	\$4.3	2.4%
Interest	\$0.6	26.3%	\$0.2	-59.2%	\$0.3	40.4%	\$0.7	130.6%	\$1.5	98.2%	\$2.2	48.3%	\$2.9	32.6%
Lottery	\$22.9	2.7%	\$22.6	-1.6%	\$22.8	0.8%	\$26.4	16.1%	\$24.6	-6.8%	\$24.8	0.8%	\$25.0	0.8%
All Other****	\$1.7	93.1%	\$1.3	-24.0%	\$1.0	-20.4%	\$1.3	25.9%	\$3.7	190.9%	\$1.7	-54.1%	\$1.8	5.9%
Total Other Revenue	\$56.6	-1.2%	\$50.7	-10.4%	\$52.2	3.0%	\$58.9	12.9%	\$85.750	45.6%	\$86.080	0.4%	\$88.6	2.9%
TOTAL GENERAL FUND	\$1520.9	6.4%	\$1567.6	3.1%	\$1625.7	3.7%	\$1673.7	2.9%	\$1718.5	2.7%	\$1777.8	3.5%	\$1819.6	2.4%

* 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.

*** Reflects closure of Vermont Yankee in December of 2014, 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 \$5 million Vermont Yankee settlement agreement transitional payment in FY2015.

*****Includes \$2.3 million in one-time payments in FY2017 by tax software vendors for errors related to Personal Income tax deduction changes effective in tax year 2015.

**TABLE 1 - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
AVAILABLE GENERAL FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2017**

CURRENT LAW BASIS

including all Education Fund

allocations and other out-transfers

	FY 2013	%	FY 2014	%	FY 2015	%	FY 2016	%	FY 2017	%	FY 2018	%	FY 2019	%
	(Actual)	Change	(Actual)	Change	(Actual)	Change	(Actual)	Change	(Forecast)	Change	(Forecast)	Change	(Forecast)	Change
REVENUE SOURCE														
Personal Income	\$660.6	10.7%	\$671.1	1.6%	\$705.9	5.2%	\$747.0	5.8%	\$770.3	3.1%	\$795.2	3.2%	\$818.7	3.0%
Sales and Use*	\$231.2	1.4%	\$229.9	-0.6%	\$237.0	3.1%	\$241.0	1.7%	\$248.4	3.1%	\$257.8	3.8%	\$264.6	2.6%
Corporate	\$95.0	10.5%	\$94.8	-0.1%	\$121.9	28.5%	\$117.0	-4.0%	\$76.3	-34.8%	\$87.1	14.2%	\$83.4	-4.2%
Meals and Rooms	\$134.8	6.2%	\$142.7	5.9%	\$150.8	5.7%	\$154.2	2.2%	\$165.8	7.6%	\$172.1	3.8%	\$177.9	3.4%
Cigarette and Tobacco	\$0.0	NM	\$0.0	NM	\$0.0	NM	\$0.0	NM	\$0.0	NM	\$0.0	NM	\$0.0	NM
Liquor	\$17.0	3.4%	\$17.7	4.0%	\$18.2	2.9%	\$18.3	0.8%	\$19.0	3.7%	\$19.6	3.2%	\$20.2	3.1%
Insurance	\$55.0	-2.3%	\$57.1	3.7%	\$55.3	-3.1%	\$56.2	1.7%	\$57.3	1.9%	\$58.3	1.7%	\$59.1	1.4%
Telephone	\$9.4	-2.6%	\$9.1	-2.9%	\$7.7	-14.9%	\$3.2	-59.2%	\$6.3	99.3%	\$6.1	-3.2%	\$5.9	-3.3%
Beverage	\$6.2	3.3%	\$6.4	3.6%	\$6.7	4.2%	\$6.7	0.6%	\$6.9	3.0%	\$7.1	2.9%	\$7.3	2.8%
Electric**	\$8.9	204.5%	\$13.1	46.9%	\$9.4	-28.2%	\$0.0	-100.0%	\$0.0	NM	\$0.0	NM	\$0.0	NM
Estate***	\$15.4	15.4%	\$35.5	131.0%	\$9.9	-72.2%	\$12.5	26.5%	\$17.3	38.3%	\$19.2	11.0%	\$20.4	6.3%
Property	\$9.2	16.5%	\$10.0	9.3%	\$10.9	8.7%	\$11.5	6.0%	\$12.7	10.6%	\$13.6	6.3%	\$14.3	5.3%
Bank	\$10.7	0.2%	\$11.0	2.7%	\$10.7	-2.0%	\$10.7	-0.6%	\$12.7	18.9%	\$11.0	-13.4%	\$11.1	0.9%
Other Tax	\$1.8	42.9%	\$1.9	9.6%	\$2.0	4.5%	\$1.8	-9.0%	\$2.0	8.6%	\$2.2	10.0%	\$2.4	9.1%
Total Tax Revenue	\$1255.0	8.0%	\$1300.3	3.6%	\$1346.4	3.5%	\$1380.1	2.5%	\$1395.0	1.1%	\$1449.2	3.9%	\$1485.2	2.5%
Business Licenses	\$2.8	-8.0%	\$1.1	-61.4%	\$1.1	0.2%	\$1.1	-1.6%	\$1.1	3.1%	\$1.1	2.7%	\$1.2	2.7%
Fees	\$21.4	2.2%	\$20.6	-3.4%	\$22.1	7.0%	\$23.0	4.2%	\$47.6	107.1%	\$49.0	2.9%	\$50.3	2.7%
Services	\$2.5	8.3%	\$1.3	-47.3%	\$1.5	12.5%	\$2.8	86.6%	\$2.9	4.0%	\$3.1	6.9%	\$3.2	3.2%
Fines	\$4.7	-35.9%	\$3.6	-24.2%	\$3.5	-3.1%	\$3.7	5.5%	\$4.4	20.4%	\$4.2	-4.5%	\$4.3	2.4%
Interest	\$0.5	20.5%	\$0.2	-66.6%	\$0.2	51.9%	\$0.6	136.1%	\$1.2	113.3%	\$1.8	50.0%	\$2.4	33.3%
All Other****	\$1.7	93.1%	\$1.3	-24.0%	\$1.0	-20.4%	\$1.3	25.9%	\$3.7	190.9%	\$1.7	-54.1%	\$1.8	5.9%
Total Other Revenue	\$33.5	-3.9%	\$28.0	-16.4%	\$29.4	4.7%	\$32.3	10.1%	\$60.9	88.4%	\$60.9	0.0%	\$63.2	3.7%
TOTAL GENERAL FUND	\$1288.6	7.7%	\$1328.4	3.1%	\$1375.8	3.6%	\$1412.4	2.7%	\$1455.9	3.1%	\$1510.2	3.7%	\$1548.4	2.5%

* 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.

** Reflects closure of Vermont Yankee in December of 2014, 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.

**** Excludes \$5 million Vermont Yankee settlement agreement transitional payment in FY2015.

*****Includes \$2.3 million in one-time payments in FY2017 by tax software vendors for errors related to Personal Income tax deduction changes effective in tax year 2015.

**TABLE 2A - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
SOURCE TRANSPORTATION FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2017**

SOURCE T-FUND

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

	FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018		FY 2019	
	(Actual)	% Change	(Actual)	% Change	(Actual)	% Change	(Actual)	% Change	(Forecast)	% Change	(Forecast)	% Change	(Forecast)	% Change
REVENUE SOURCE														
Gasoline	\$59.9	1.1%	\$76.5	27.6%	\$77.6	1.5%	\$78.0	0.5%	\$78.2	0.2%	\$78.4	0.3%	\$78.2	-0.3%
Diesel	\$15.6	-2.2%	\$17.2	9.7%	\$19.1	11.5%	\$18.3	-4.4%	\$19.1	4.3%	\$19.5	2.1%	\$19.9	2.1%
Purchase and Use*	\$83.6	2.0%	\$91.8	9.9%	\$97.3	5.9%	\$100.1	2.9%	\$103.3	3.2%	\$106.8	3.4%	\$110.5	3.5%
Motor Vehicle Fees	\$77.9	5.9%	\$79.0	1.5%	\$80.1	1.4%	\$82.0	2.3%	\$89.0	8.6%	\$90.8	2.0%	\$90.9	0.1%
Other Revenue**	\$19.1	4.2%	\$19.5	2.3%	\$19.7	0.8%	\$19.6	-0.5%	\$19.3	-1.3%	\$19.8	2.6%	\$20.2	2.0%
TOTAL TRANS. FUND	\$256.0	2.8%	\$284.0	10.9%	\$293.8	3.5%	\$298.0	1.4%	\$308.9	3.7%	\$315.3	2.1%	\$319.7	1.4%

**TABLE 2 - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
AVAILABLE TRANSPORTATION FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2017**

CURRENT LAW BASIS

including all Education Fund
allocations and other out-transfers

	FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018		FY 2019	
	(Actual)	% Change	(Actual)	% Change	(Actual)	% Change	(Actual)	% Change	(Forecast)	% Change	(Forecast)	% Change	(Forecast)	% Change
REVENUE SOURCE														
Gasoline	\$59.9	1.1%	\$76.5	27.6%	\$77.6	1.5%	\$78.0	0.5%	\$78.2	0.2%	\$78.4	0.3%	\$78.2	-0.3%
Diesel	\$15.6	-2.2%	\$17.2	9.7%	\$19.1	11.5%	\$18.3	-4.4%	\$19.1	4.3%	\$19.5	2.1%	\$19.9	2.1%
Purchase and Use*	\$55.7	2.0%	\$61.2	9.9%	\$64.8	5.9%	\$66.8	2.9%	\$68.9	3.2%	\$71.2	3.4%	\$73.7	3.5%
Motor Vehicle Fees	\$77.9	5.9%	\$79.0	1.5%	\$80.1	1.4%	\$82.0	2.3%	\$89.0	8.6%	\$90.8	2.0%	\$90.9	0.1%
Other Revenue**	\$19.1	4.2%	\$19.5	2.3%	\$19.7	0.8%	\$19.6	-0.5%	\$19.3	-1.3%	\$19.8	2.6%	\$20.2	2.0%
TOTAL TRANS. FUND	\$228.2	2.9%	\$253.4	11.0%	\$261.4	3.2%	\$264.6	1.2%	\$274.5	3.7%	\$279.7	1.9%	\$282.9	1.1%

OTHER

TIB Gasoline	\$21.2	1.4%	\$19.2	-9.5%	\$18.2	-5.2%	\$13.0	-28.4%	\$12.5	-3.9%	\$12.7	1.1%	\$13.0	3.0%
TIB Diesel and Other***	\$1.8	-8.1%	\$1.8	4.0%	\$2.1	11.4%	\$1.9	-6.1%	\$2.0	6.2%	\$2.1	2.1%	\$2.1	2.1%
Total TIB	\$23.0	0.6%	\$21.0	-8.4%	\$20.2	-3.8%	\$15.0	-26.1%	\$14.6	-2.6%	\$14.7	1.3%	\$15.2	2.9%

* 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 (which has never exceeded \$20,000 per year).

**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 2017**

CURRENT LAW BASIS

Source General and Transportation

Fund taxes allocated to or associated
with the Education Fund only

	FY 2013	%	FY 2014	%	FY 2015	%	FY 2016	%	FY 2017	%	FY 2018	%	FY 2019	%
	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>
GENERAL FUND														
Sales & Use**	\$115.6	1.4%	\$123.8	7.1%	127.6	3.1%	\$129.8	1.7%	\$133.7	3.1%	\$138.8	3.8%	\$142.5	2.6%
Interest	\$0.1	72.8%	\$0.1	-17.2%	0.1	3.6%	\$0.2	135.7%	\$0.3	48.1%	\$0.4	40.0%	\$0.5	28.6%
Lottery	\$22.9	2.7%	\$22.6	-1.6%	22.8	0.8%	\$26.4	16.1%	\$24.6	-6.8%	\$24.8	0.8%	\$25.0	0.8%
TRANSPORTATION FUND														
Purchase and Use***	\$27.9	2.0%	\$30.6	9.9%	32.4	5.9%	\$33.4	2.9%	\$34.4	3.2%	\$35.6	3.4%	\$36.8	3.5%
TOTAL EDUCATION FUND	\$166.5	1.7%	\$177.0	6.3%	182.9	3.3%	\$189.7	3.7%	\$193.0	1.7%	\$199.6	3.4%	\$204.7	2.6%

* Includes only General and Transportation Fund taxes allocated to the Education Fund.

This Table excludes all Education Fund property taxes, which are updated in October/November of each year and are the largest Education Fund tax sources.

** 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

Appendix A

Five Year Revenue Forecast Tables

January 2017

**TABLE 1A - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
SOURCE GENERAL FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2017**

SOURCE G-FUND	<i>revenues are prior to all E-Fund allocations and other out-transfers; used for analytic and comparative purposes only</i>																					
	FY 2013	%	FY 2014	%	FY 2015	%	FY 2016	%	FY 2017	%	FY 2018	%	FY 2019	%	FY2020	%	FY2021	%	FY2022	%		
	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>		
REVENUE SOURCE																						
Personal Income	\$660.6	10.7%	\$671.1	1.6%	\$705.9	5.2%	\$747.0	5.8%	\$770.3	3.1%	\$795.2	3.2%	\$818.7	3.0%	\$839.7	2.6%	\$859.7	2.4%	\$879.3	2.3%		
Sales & Use*	\$346.8	1.4%	\$353.6	2.0%	\$364.6	3.1%	\$370.7	1.7%	\$382.1	3.1%	\$396.6	3.8%	\$407.0	2.6%	\$417.1	2.5%	\$427.6	2.5%	\$438.1	2.5%		
Corporate	\$95.0	10.5%	\$94.8	-0.1%	\$121.9	28.5%	\$117.0	-4.0%	\$76.3	-34.8%	\$87.1	14.2%	\$83.4	-4.2%	\$84.8	1.7%	\$86.7	2.2%	\$88.2	1.7%		
Meals and Rooms	\$134.8	6.2%	\$142.7	5.9%	\$150.8	5.7%	\$154.2	2.2%	\$165.8	7.6%	\$172.1	3.8%	\$177.9	3.4%	\$183.6	3.2%	\$188.9	2.9%	\$194.1	2.8%		
Cigarette and Tobacco**	\$74.3	-7.2%	\$71.9	-3.3%	\$76.8	6.7%	\$80.7	5.2%	\$77.3	-4.2%	\$75.3	-2.6%	\$73.45	-2.5%	\$71.6	-2.6%	\$69.7	-2.5%	\$67.9	-2.7%		
Liquor	\$17.0	3.4%	\$17.7	4.0%	\$18.2	2.9%	\$18.3	0.8%	\$19.0	3.7%	\$19.6	3.2%	\$20.2	3.1%	\$20.8	3.0%	\$21.4	2.9%	\$22.0	2.8%		
Insurance	\$55.0	-2.3%	\$57.1	3.7%	\$55.3	-3.1%	\$56.2	1.7%	\$57.3	1.9%	\$58.3	1.7%	\$59.1	1.4%	\$59.9	1.4%	\$60.5	1.0%	\$61.1	1.0%		
Telephone	\$9.4	-2.6%	\$9.1	-2.9%	\$7.7	-14.9%	\$3.2	-59.2%	\$6.3	99.3%	\$6.1	-3.2%	\$5.9	-3.3%	\$5.8	-1.7%	\$5.7	-1.7%	\$5.6	-1.8%		
Beverage	\$6.2	3.3%	\$6.4	3.6%	\$6.7	4.2%	\$6.7	0.6%	\$6.9	3.0%	\$7.1	2.9%	\$7.3	2.8%	\$7.5	2.7%	\$7.7	2.7%	\$7.9	2.6%		
Electric***	\$8.9	204.5%	\$13.1	46.9%	\$9.4	-28.2%	\$0.0	-100.0%	\$0.0	NM	\$0.0	NM	\$0.0	NM	\$0.0	NM	\$0.0	NM	\$0.0	NM		
Estate	\$15.4	15.4%	\$35.5	131.0%	\$9.9	-72.2%	\$12.5	26.5%	\$17.3	38.3%	\$19.2	11.0%	\$20.4	6.3%	\$21.4	4.9%	\$22.2	3.7%	\$23.0	3.6%		
Property	\$28.5	18.3%	\$30.9	8.5%	\$33.6	8.6%	\$35.7	6.2%	\$39.4	10.4%	\$41.9	6.3%	\$44.1	5.3%	\$46.0	4.3%	\$46.9	2.0%	\$47.7	1.7%		
Bank	\$10.7	0.2%	\$11.0	2.7%	\$10.7	-2.0%	\$10.7	-0.6%	\$12.7	18.9%	\$11.0	-13.4%	\$11.1	0.9%	\$11.2	0.9%	\$11.3	0.9%	\$11.4	0.9%		
Other Tax	\$1.8	42.9%	\$1.9	9.6%	\$2.0	4.5%	\$1.8	-9.0%	\$2.0	8.6%	\$2.2	10.0%	\$2.4	9.1%	\$2.6	8.3%	\$2.8	7.7%	\$2.9	3.6%		
Total Tax Revenue	\$1464.3	6.7%	\$1517.0	3.6%	\$1573.5	3.7%	\$1614.8	2.6%	\$1632.7	1.1%	\$1691.7	3.6%	\$1731.0	2.3%	\$1772.0	2.4%	\$1811.1	2.2%	\$1849.2	2.1%		
Business Licenses	\$2.8	-8.0%	\$1.1	-61.4%	\$1.1	0.2%	\$1.1	-1.6%	\$1.1	3.1%	\$1.1	2.7%	\$1.2	2.7%	\$1.2	2.6%	\$1.2	2.5%	\$1.3	2.5%		
Fees	\$21.4	2.2%	\$20.6	-3.4%	\$22.1	7.0%	\$23.0	4.2%	\$47.6	107.1%	\$49.0	2.9%	\$50.3	2.7%	\$51.6	2.6%	\$52.9	2.5%	\$54.2	2.5%		
Services	\$2.5	8.3%	\$1.3	-47.3%	\$1.5	12.5%	\$2.8	86.6%	\$2.9	4.0%	\$3.1	6.9%	\$3.2	3.2%	\$3.3	3.1%	\$3.4	3.0%	\$3.5	2.9%		
Fines	\$4.7	-35.9%	\$3.6	-24.2%	\$3.5	-3.1%	\$3.7	5.5%	\$4.4	20.4%	\$4.2	-4.5%	\$4.3	2.4%	\$4.4	2.3%	\$4.5	2.3%	\$4.6	2.2%		
Interest	\$0.6	26.3%	\$0.2	-59.2%	\$0.3	40.4%	\$0.7	130.6%	\$1.5	98.2%	\$2.2	48.3%	\$2.9	32.6%	\$3.6	24.6%	\$3.8	7.0%	\$3.9	3.3%		
Lottery	\$22.9	2.7%	\$22.6	-1.6%	\$22.8	0.8%	\$26.4	16.1%	\$24.6	-6.8%	\$24.8	0.8%	\$25.0	0.8%	\$25.2	0.8%	\$25.4	0.8%	\$25.6	0.8%		
All Other****	\$1.7	93.1%	\$1.3	-24.0%	\$1.0	-20.4%	\$1.3	25.9%	\$3.7	190.9%	\$1.7	-54.1%	\$1.8	5.9%	\$1.9	5.6%	\$2.0	5.3%	\$2.1	5.0%		
Total Other Revenue	\$56.6	-1.2%	\$50.7	-10.4%	\$52.2	3.0%	\$58.9	12.9%	\$85.750	45.6%	\$86.080	0.4%	\$88.6	2.9%	\$91.1	2.9%	\$93.2	2.3%	\$95.2	2.1%		
TOTAL GENERAL FUND	\$1520.9	6.4%	\$1567.6	3.1%	\$1625.7	3.7%	\$1673.7	2.9%	\$1718.5	2.7%	\$1777.8	3.5%	\$1819.6	2.4%	\$1863.1	2.4%	\$1904.4	2.2%	\$1944.4	2.1%		

* 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.

*** Reflects closure of Vermont Yankee in December of 2014, 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 \$5 million Vermont Yankee settlement agreement transitional payment in FY2015.

*****Includes \$2.3 million in one-time payments in FY2017 by tax software vendors for errors related to Personal Income tax deduction changes effective in tax year 2015.

**TABLE 1 - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
AVAILABLE GENERAL FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2017**

CURRENT LAW BASIS

including all Education Fund

allocations and other out-transfers

	FY 2013	%	FY 2014	%	FY 2015	%	FY 2016	%	FY 2017	%	FY 2018	%	FY 2019	%	FY2020	%	FY2021	%	FY2022	%
	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>
REVENUE SOURCE																				
Personal Income	\$660.6	10.7%	\$671.1	1.6%	\$705.9	5.2%	\$747.0	5.8%	\$770.3	3.1%	\$795.2	3.2%	\$818.7	3.0%	\$839.7	2.6%	\$859.7	2.4%	\$879.3	2.3%
Sales and Use*	\$231.2	1.4%	\$229.9	-0.6%	\$237.0	3.1%	\$241.0	1.7%	\$248.4	3.1%	\$257.8	3.8%	\$264.6	2.6%	\$271.1	2.5%	\$277.9	2.5%	\$284.8	2.5%
Corporate	\$95.0	10.5%	\$94.8	-0.1%	\$121.9	28.5%	\$117.0	-4.0%	\$76.3	-34.8%	\$87.1	14.2%	\$83.4	-4.2%	\$84.8	1.7%	\$86.7	2.2%	\$88.2	1.7%
Meals and Rooms	\$134.8	6.2%	\$142.7	5.9%	\$150.8	5.7%	\$154.2	2.2%	\$165.8	7.6%	\$172.1	3.8%	\$177.9	3.4%	\$183.6	3.2%	\$188.9	2.9%	\$194.1	2.8%
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	\$0.0	NM	\$0.0	NM
Liquor	\$17.0	3.4%	\$17.7	4.0%	\$18.2	2.9%	\$18.3	0.8%	\$19.0	3.7%	\$19.6	3.2%	\$20.2	3.1%	\$20.8	3.0%	\$21.4	2.9%	\$22.0	2.8%
Insurance	\$55.0	-2.3%	\$57.1	3.7%	\$55.3	-3.1%	\$56.2	1.7%	\$57.3	1.9%	\$58.3	1.7%	\$59.1	1.4%	\$59.9	1.4%	\$60.5	1.0%	\$61.1	1.0%
Telephone	\$9.4	-2.6%	\$9.1	-2.9%	\$7.7	-14.9%	\$3.2	-59.2%	\$6.3	99.3%	\$6.1	-3.2%	\$5.9	-3.3%	\$5.8	-1.7%	\$5.7	-1.7%	\$5.6	-1.8%
Beverage	\$6.2	3.3%	\$6.4	3.6%	\$6.7	4.2%	\$6.7	0.6%	\$6.9	3.0%	\$7.1	2.9%	\$7.3	2.8%	\$7.5	2.7%	\$7.7	2.7%	\$7.9	2.6%
Electric**	\$8.9	204.5%	\$13.1	46.9%	\$9.4	-28.2%	\$0.0	-100.0%	\$0.0	NM	\$0.0	NM	\$0.0	NM	\$0.0	NM	\$0.0	NM	\$0.0	NM
Estate***	\$15.4	15.4%	\$35.5	131.0%	\$9.9	-72.2%	\$12.5	26.5%	\$17.3	38.3%	\$19.2	11.0%	\$20.4	6.3%	\$21.4	4.9%	\$22.2	3.7%	\$23.0	3.6%
Property	\$9.2	16.5%	\$10.0	9.3%	\$10.9	8.7%	\$11.5	6.0%	\$12.7	10.6%	\$13.6	6.3%	\$14.3	5.3%	\$14.9	4.3%	\$15.2	2.0%	\$15.4	1.7%
Bank	\$10.7	0.2%	\$11.0	2.7%	\$10.7	-2.0%	\$10.7	-0.6%	\$12.7	18.9%	\$11.0	-13.4%	\$11.1	0.9%	\$11.2	0.9%	\$11.3	0.9%	\$11.4	0.9%
Other Tax	\$1.8	42.9%	\$1.9	9.6%	\$2.0	4.5%	\$1.8	-9.0%	\$2.0	8.6%	\$2.2	10.0%	\$2.4	9.1%	\$2.6	8.3%	\$2.8	7.7%	\$2.9	3.6%
Total Tax Revenue	\$1255.0	8.0%	\$1300.3	3.6%	\$1346.4	3.5%	\$1380.1	2.5%	\$1395.0	1.1%	\$1449.2	3.9%	\$1485.2	2.5%	\$1523.3	2.6%	\$1560.0	2.4%	\$1595.7	2.3%
Business Licenses	\$2.8	-8.0%	\$1.1	-61.4%	\$1.1	0.2%	\$1.1	-1.6%	\$1.1	3.1%	\$1.1	2.7%	\$1.2	2.7%	\$1.2	2.6%	\$1.2	2.5%	\$1.3	2.5%
Fees	\$21.4	2.2%	\$20.6	-3.4%	\$22.1	7.0%	\$23.0	4.2%	\$47.6	107.1%	\$49.0	2.9%	\$50.3	2.7%	\$51.6	2.6%	\$52.9	2.5%	\$54.2	2.5%
Services	\$2.5	8.3%	\$1.3	-47.3%	\$1.5	12.5%	\$2.8	86.6%	\$2.9	4.0%	\$3.1	6.9%	\$3.2	3.2%	\$3.3	3.1%	\$3.4	3.0%	\$3.5	2.9%
Fines	\$4.7	-35.9%	\$3.6	-24.2%	\$3.5	-3.1%	\$3.7	5.5%	\$4.4	20.4%	\$4.2	-4.5%	\$4.3	2.4%	\$4.4	2.3%	\$4.5	2.3%	\$4.6	2.2%
Interest	\$0.5	20.5%	\$0.2	-66.6%	\$0.2	51.9%	\$0.6	136.1%	\$1.2	113.3%	\$1.8	50.0%	\$2.4	33.3%	\$3.0	25.0%	\$3.2	6.7%	\$3.3	3.1%
All Other****	\$1.7	93.1%	\$1.3	-24.0%	\$1.0	-20.4%	\$1.3	25.9%	\$3.7	190.9%	\$1.7	-54.1%	\$1.8	5.9%	\$1.9	5.6%	\$2.0	5.3%	\$2.1	5.0%
Total Other Revenue	\$33.5	-3.9%	\$28.0	-16.4%	\$29.4	4.7%	\$32.3	10.1%	\$60.9	88.4%	\$60.9	0.0%	\$63.2	3.7%	\$65.4	3.5%	\$67.2	2.8%	\$69.0	2.6%
TOTAL GENERAL FUND	\$1288.6	7.7%	\$1328.4	3.1%	\$1375.8	3.6%	\$1412.4	2.7%	\$1455.9	3.1%	\$1510.2	3.7%	\$1548.4	2.5%	\$1588.7	2.6%	\$1627.2	2.4%	\$1664.6	2.3%

* 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.

** Reflects closure of Vermont Yankee in December of 2014, 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.

**** Excludes \$5 million Vermont Yankee settlement agreement transitional payment in FY2015.

*****Includes \$2.3 million in one-time payments in FY2017 by tax software vendors for errors related to Personal Income tax deduction changes effective in tax year 2015.

**TABLE 2A - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
SOURCE TRANSPORTATION FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2017**

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

	FY 2013	%	FY 2014	%	FY 2015	%	FY 2016	%	FY 2017	%	FY 2018	%	FY 2019	%	FY2020	%	FY2021	%	FY2022	%
	(Actual)	Change	(Actual)	Change	(Actual)	Change	(Actual)	Change	(Forecast)	Change	(Forecast)	Change	(Forecast)	Change	(Forecast)	Change	(Forecast)	Change	(Forecast)	Change
REVENUE SOURCE																				
Gasoline	\$59.9	1.1%	\$76.5	27.6%	\$77.6	1.5%	\$78.0	0.5%	\$78.2	0.2%	\$78.4	0.3%	\$78.2	-0.3%	\$77.9	-0.4%	\$77.5	-0.5%	\$76.8	-0.9%
Diesel	\$15.6	-2.2%	\$17.2	9.7%	\$19.1	11.5%	\$18.3	-4.4%	\$19.1	4.3%	\$19.5	2.1%	\$19.9	2.1%	\$20.2	1.5%	\$20.4	1.0%	\$20.6	1.0%
Purchase and Use*	\$83.6	2.0%	\$91.8	9.9%	\$97.3	5.9%	\$100.1	2.9%	\$103.3	3.2%	\$106.8	3.4%	\$110.5	3.5%	\$114.2	3.3%	\$117.4	2.8%	\$120.1	2.3%
Motor Vehicle Fees	\$77.9	5.9%	\$79.0	1.5%	\$80.1	1.4%	\$82.0	2.3%	\$89.0	8.6%	\$90.8	2.0%	\$90.9	0.1%	\$92.1	1.3%	\$92.3	0.2%	\$93.5	1.3%
Other Revenue**	\$19.1	4.2%	\$19.5	2.3%	\$19.7	0.8%	\$19.6	-0.5%	\$19.3	-1.3%	\$19.8	2.6%	\$20.2	2.0%	\$20.5	1.5%	\$20.8	1.5%	\$21.1	1.4%
TOTAL TRANS. FUND	\$256.0	2.8%	\$284.0	10.9%	\$293.8	3.5%	\$298.0	1.4%	\$308.9	3.7%	\$315.3	2.1%	\$319.7	1.4%	\$324.9	1.6%	\$328.4	1.1%	\$332.1	1.1%

**TABLE 2 - STATE OF VERMONT
LEGISLATIVE JOINT FISCAL OFFICE
AVAILABLE TRANSPORTATION FUND REVENUE FORECAST UPDATE
Consensus JFO and Administration Forecast - January 2017**

CURRENT LAW BASIS
including all Education Fund allocations and other out-transfers

	FY 2013	%	FY 2014	%	FY 2015	%	FY 2016	%	FY 2017	%	FY 2018	%	FY 2019	%	FY2020	%	FY2021	%	FY2022	%
	(Actual)	Change	(Actual)	Change	(Actual)	Change	(Actual)	Change	(Forecast)	Change	(Forecast)	Change	(Forecast)	Change	(Forecast)	Change	(Forecast)	Change	(Forecast)	Change
REVENUE SOURCE																				
Gasoline	\$59.9	1.1%	\$76.5	27.6%	\$77.6	1.5%	\$78.0	0.5%	\$78.2	0.2%	\$78.4	0.3%	\$78.2	-0.3%	\$77.9	-0.4%	\$77.5	-0.5%	\$76.8	-0.9%
Diesel	\$15.6	-2.2%	\$17.2	9.7%	\$19.1	11.5%	\$18.3	-4.4%	\$19.1	4.3%	\$19.5	2.1%	\$19.9	2.1%	\$20.2	1.5%	\$20.4	1.0%	\$20.6	1.0%
Purchase and Use*	\$55.7	2.0%	\$61.2	9.9%	\$64.8	5.9%	\$66.8	2.9%	\$68.9	3.2%	\$71.2	3.4%	\$73.7	3.5%	\$76.1	3.3%	\$78.3	2.8%	\$80.1	2.3%
Motor Vehicle Fees	\$77.9	5.9%	\$79.0	1.5%	\$80.1	1.4%	\$82.0	2.3%	\$89.0	8.6%	\$90.8	2.0%	\$90.9	0.1%	\$92.1	1.3%	\$92.3	0.2%	\$93.5	1.3%
Other Revenue**	\$19.1	4.2%	\$19.5	2.3%	\$19.7	0.8%	\$19.6	-0.5%	\$19.3	-1.3%	\$19.8	2.6%	\$20.2	2.0%	\$20.5	1.5%	\$20.8	1.5%	\$21.1	1.4%
TOTAL TRANS. FUND	\$228.2	2.9%	\$253.4	11.0%	\$261.4	3.2%	\$264.6	1.2%	\$274.5	3.7%	\$279.7	1.9%	\$282.9	1.1%	\$286.8	1.4%	\$289.3	0.8%	\$292.1	1.0%
OTHER																				
TIB Gasoline	\$21.2	1.4%	\$19.2	-9.5%	\$18.2	-5.2%	\$13.0	-28.4%	\$12.5	-3.9%	\$12.7	1.1%	\$13.0	3.0%	\$14.0	7.1%	\$14.9	6.9%	\$16.0	7.1%
TIB Diesel and Other***	\$1.8	-8.1%	\$1.8	4.0%	\$2.1	11.4%	\$1.9	-6.1%	\$2.0	6.2%	\$2.1	2.1%	\$2.1	2.1%	\$2.2	1.5%	\$2.2	1.0%	\$2.2	1.0%
Total TIB	\$23.0	0.6%	\$21.0	-8.4%	\$20.2	-3.8%	\$15.0	-26.1%	\$14.6	-2.6%	\$14.7	1.3%	\$15.2	2.9%	\$16.1	6.3%	\$17.1	6.1%	\$18.2	6.3%

* 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 (which has never exceeded \$20,000 per year).

**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 2017**

CURRENT LAW BASIS

Source General and Transportation

Fund taxes allocated to or associated
with the Education Fund only

	FY 2013	%	FY 2014	%	FY 2015	%	FY 2016	%	FY 2017	%	FY 2018	%	FY 2019	%	FY2020	%	FY2021	%	FY2022	%
	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Actual)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>	<i>(Forecast)</i>	<i>Change</i>
GENERAL FUND																				
Sales & Use**	\$115.6	1.4%	\$123.8	7.1%	127.6	3.1%	\$129.8	1.7%	\$133.7	3.1%	\$138.8	3.8%	\$142.5	2.6%	\$146.0	2.5%	\$149.7	2.5%	\$153.3	2.5%
Interest	\$0.1	72.8%	\$0.1	-17.2%	0.1	3.6%	\$0.2	135.7%	\$0.3	48.1%	\$0.4	40.0%	\$0.5	28.6%	\$0.6	22.2%	\$0.6	9.1%	\$0.6	4.2%
Lottery	\$22.9	2.7%	\$22.6	-1.6%	22.8	0.8%	\$26.4	16.1%	\$24.6	-6.8%	\$24.8	0.8%	\$25.0	0.8%	\$25.2	0.8%	\$25.4	0.8%	\$25.6	0.8%
TRANSPORTATION FUND																				
Purchase and Use***	\$27.9	2.0%	\$30.6	9.9%	32.4	5.9%	\$33.4	2.9%	\$34.4	3.2%	\$35.6	3.4%	\$36.8	3.5%	\$38.1	3.3%	\$39.1	2.8%	\$40.0	2.3%
TOTAL EDUCATION FUND	\$166.5	1.7%	\$177.0	6.3%	182.9	3.3%	\$189.7	3.7%	\$193.0	1.7%	\$199.6	3.4%	\$204.7	2.6%	\$209.8	2.5%	\$214.8	2.4%	\$219.6	2.2%

* Includes only General and Transportation Fund taxes allocated to the Education Fund.

This Table excludes all Education Fund property taxes, which are updated in October/November of each year and are the largest Education Fund tax sources.

** 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