



White Paper



Windham Region, VT

Vermont Yankee Closure Impacts
Reviewing Economic Trends
September 28, 2017



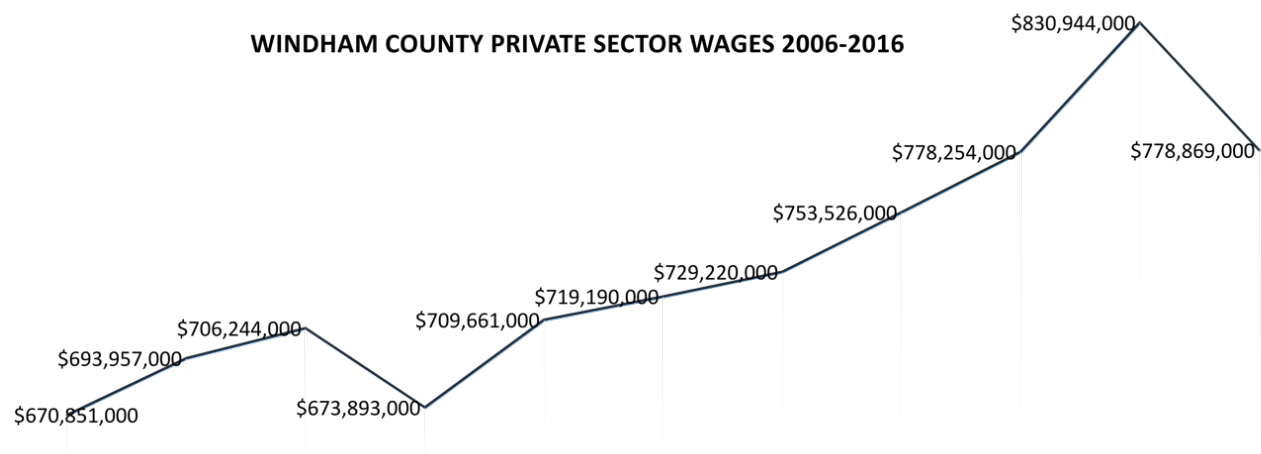
Since the closure of Vermont Yankee nuclear power station (VY) at the end of December 2014 the Brattleboro Development Credit Corporation (BDCC) and Southeastern Vermont Economic Development Strategies (SeVEDS) have been anticipating loss of wages, plant spending, and reduced overall gross regional product based on changes in activity at the plant including a reduction in the labor force. These changes are still ongoing at the time of this report, and there is a lag in some economic data. But the snapshots in this report provide an early look at VY closure economic impacts for Windham County, Vermont. The region is not quite halfway through a ten year process of planning and mitigation. It needs ongoing support, investment, strategic planning and implementation to achieve full recovery.

Overview of plant activity in early closure. Plant employment has dropped from a high of around 625 with some reductions taking place before power generation ceased in December 29, 2014. Staff levels at closure were just below 600 and have since been reduced, mainly in waves. By March 2016 employment levels were down to 150. In May 2017 another round of reductions took place. Changes to plant activity, spending and employment are now dependent upon the cleanup model which had been structured as SAFSTOR, deferring some major activities to a much later time (potentially decades) when the decommissioning trust fund would be deemed by the Nuclear Regulatory Commission (NRC) sufficient to initiate full decommissioning and deconstruction. However, a sale of Vermont Yankee to Northstar is being reviewed by Vermont regulators. If approved this may speed up the timeline, therefore leading to more cleanup activity in the near term, and thus economic activity, with less work deferred. A shift from Entergy managing contractors and staffing many activities directly towards a new entity and group of partners is likely to decrease the amount of local workforce and vendors used. Changes are difficult to predict as this is a new approach to decommissioning being tested in Vermont.

DATASETS: Vermont Yankee Nuclear Power Plant Closure Impacts

- Wages: Private Sector Wages and Salaries
- Wages: National vs. State and Regional Trends
- Wages: Regional Trends Before and After VY Closure Impacts
- Gross Regional Product (GRP) & Utility Sector Contribution to GRP
- Labor Force & Unemployment

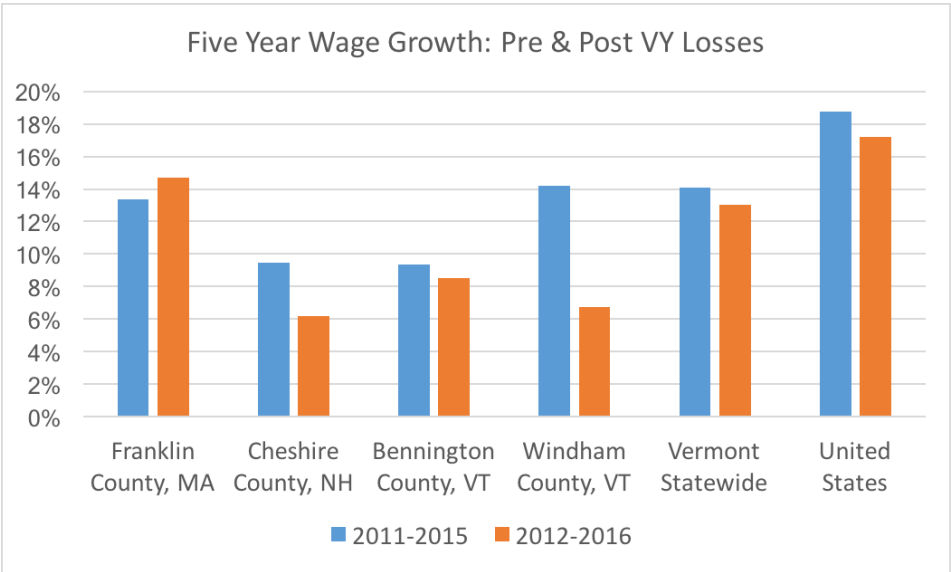
Wages: Private Sector Wages and Salaries



BLS QCEW Private Sector Wages (2016 preliminary)

The data reflects the loss of jobs from 2015-2016 and a decrease in regional overall private sector wages, reflecting the first major wave of direct VY layoffs. The 2016 wage drop echoes the 2008 recession. However, because of recent job creation particularly in value-added food manufacturing and our CEDS strategies that focus on higher quality jobs and higher wage jobs, the VY layoffs are being offset by underlying gains many of which are the direct result of investments targeted to mitigate the closure impacts. Additionally, growth is taking place within multiple industry segments to foster a more diverse and resilient regional economy.

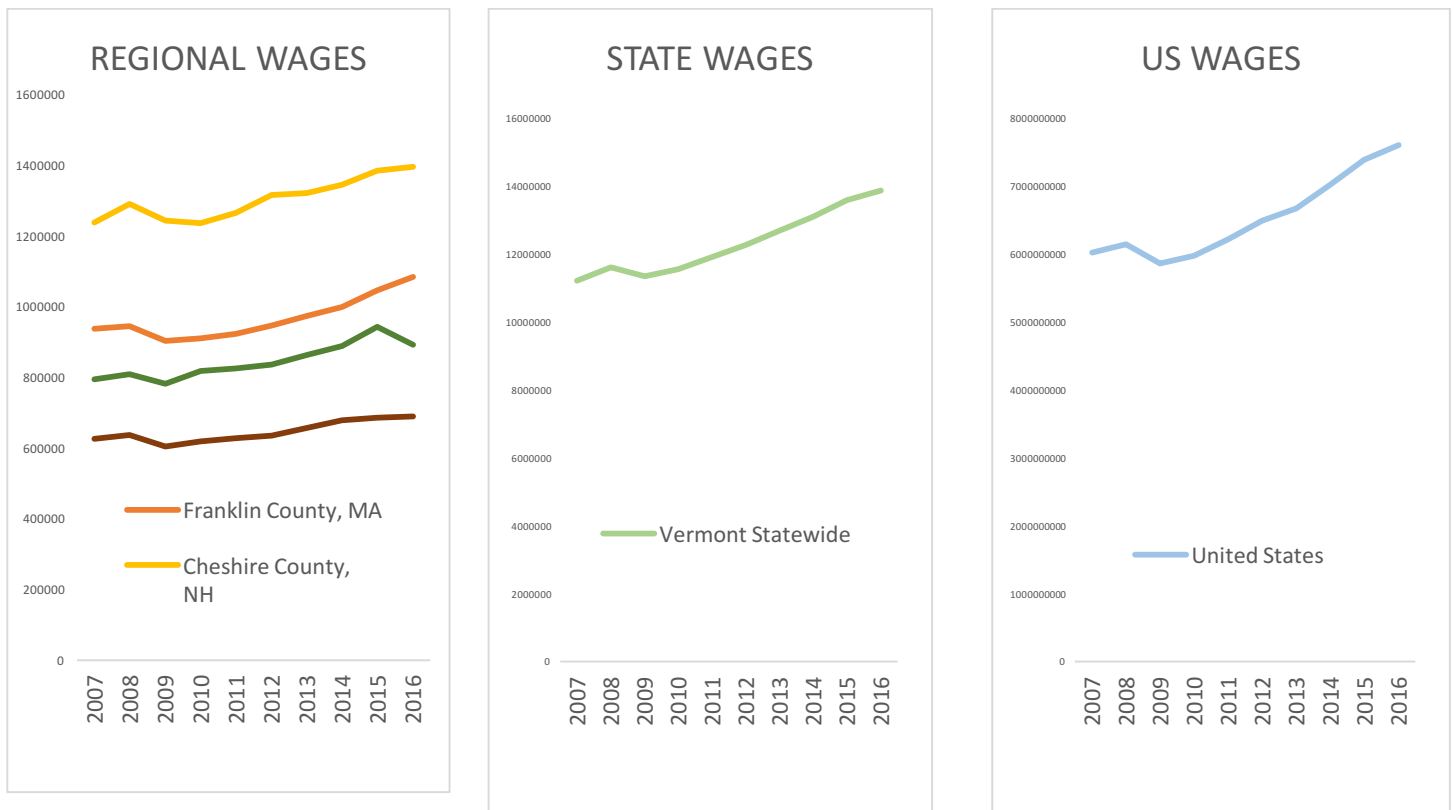
Wages: National vs. State and Regional Trends



BLS QCEW total covered employment

Windham wages were rising faster than surrounding counties from 2011-2015. This trend was particularly significant because it was a major goal of the 2014 Windham S.M.A.R.T. CEDS (Comprehensive Economic Development Strategies, the region's federally approved plan) to overcome the fact that Windham household incomes were lagging behind neighboring counties. The 2012-2016 data set shows that as VY layoffs began to accrue we see a setback, particularly in comparison with Franklin County, MA and Bennington, VT, but also in comparison with state and national 5-year wage growth.

Wages: Regional Trends Before and After VY Closure Impacts



BLS QCEW total covered employment

While recovery from the recession and growth have generally been weaker in the rural counties of the VY impact region covering VT, NH and MA (in comparison with the Burlington area and national trends) the general trends have been similar. However, in 2015-2016 as we start to see the VY payroll decline sharply there is a dramatic downturn visible in Windham County, a change that is remarkably divergent from the adjacent counties, the state and the nation.

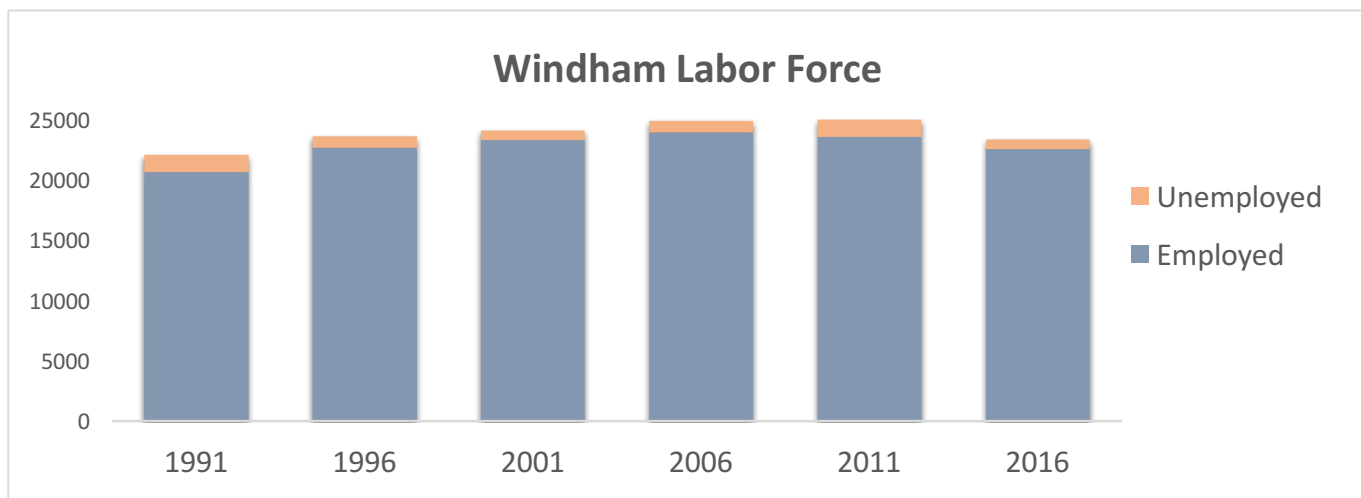
Gross Regional Product (GRP) & Utility Sector Contribution to GRP

	2015	2016	Diff
GRP	2,364,400,000	2,149,300,000	(215,100,000)
Utilities Share	15%	7%	
Utilities Contribution	359,730,076	141,801,151	(217,928,925)

Source EMSI 2017

Gross Regional Product (GRP) from 2015 to 2016 declined by almost the precise amount of change in the utility sector - \$215M vs \$217M respectively. The utilities share of the Windham County economy dropped in that interval from 15% to 7%. These changes are in keeping with the general predictions contained within the University of Massachusetts Donahue Institute study commissioned by the the regional agencies of Windham, Cheshire and Franklin Counties (funded by the Franklin Regional Council of Governments (FRCOG)). The 2015 Windham GRP was near equal to that in 2009 (per EMSI baseline data established in the CEDS research process). Given the overarching trends in the regional economy, a flat GRP represents having made progress towards another major CEDS goal which was to reverse the region's economic decline. BDCC's emphasis on supporting growth in manufacturing and the value-added food sector is designed to continue to bolster not just the number of jobs, but better wages and growth in the region's economic output as exhibited by GRP.

Labor Force and Unemployment



BLS and Vermont DOL Labor Market data

While the VY closure will mean the ultimate displacement of most of the 600 workers, based on precedent and anecdotal evidence pertaining to relocation of the VY workforce, we did not anticipate a major unemployment impact. Rather, while some displaced workers remain in the area, many of which have found other employment, there were also many workers who retired or relocated (either as Entergy employers or to other plants). The Labor Force impacts have therefore seemed to feed the ongoing reduction in labor due to demographic trends and outmigration, and unemployment continues to trend lower and lower.

