

Impacts of Development Activities in the Northeast Kingdom

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Background

Section 34 of Act 199 requested:

The Agency of Commerce and Community Development, with consultation and review by the legislative economist and the Joint Fiscal Office, shall conduct an economic impact analysis, including study of demographic and infrastructure impacts associated with recently announced development projects in the Northeast Kingdom of Vermont, and shall submit its findings to the House Committee on Commerce and Economic Development, the Senate Committee on Economic Development, Housing and Community Affairs, and the Joint Fiscal Committee on or before December 1, 2014.

General approach for the analysis

Orleans County has seen significant investment at the Jay Peak Resort during the period 2008 to the present. Those developments have resulted in measurable changes in employment, and income. The potential for impacts on population growth, housing, traffic, and other outcomes from a development of such magnitude invites an inquiry into the trends in economic conditions. This report identifies those impacts as one way to consider how additional development may affect the region.

Only some of the proposed additional investments in the Northeast Kingdom are similar in nature to the development at Jay Peak. The construction of lodging at Q-Burke resort may have impacts similar in type to the impacts seen resulting from Jay Peak's growth. This report will include those potential impacts as part of the overall analysis of future impacts. However, the proposed developments in Newport and Coventry are not similar to Jay Peak's growth. Downtown renovations, biotechnology manufacturing and airport capacity expansion are qualitatively different than expansion of tourism support activities that are the focus of investment at Jay and Q-Burke. To understand the impacts of those developments, this report is based on economic modeling similar to other modeling used in Vermont to evaluate economic development activities.

Description of developments at Jay Peak 2008-2013

Bill Stenger and a group of investors purchased Jay Peak from Mont Saint Sauver in 2008. The first construction project was the Tram Haus Lodge completed at the end of 2009. In 2010, the indoor skating rink (Ice Haus) and Golf Clubhouse were opened. In 2011, the Pump House, an indoor water park opened and the new Hotel Jay opened in early 2012. The Stateside project includes a new hotel and condominium



housing and opened in 2013. This report is based on the activity through 2013 although construction projects continue at the resort.

Based on public media reports, the investment between 2008 and 2013 in Jay Peak development amounted to more than \$250 million. A large proportion of the financing of these projects was from direct foreign investment through the EB-5 Visa program.

The employment at the resort, as reported in the media increased from about 250 in 2006 to almost 1,500 in 2014. These employment figures are media reports and the seasonal nature of employment means that these numbers are not equivalent to full time positions as more regularly reported by the Vermont Department of Labor. In addition to employment at the resort, the construction projects themselves resulted in significant employment.

Impacts on economic factors resulting from the Jay development

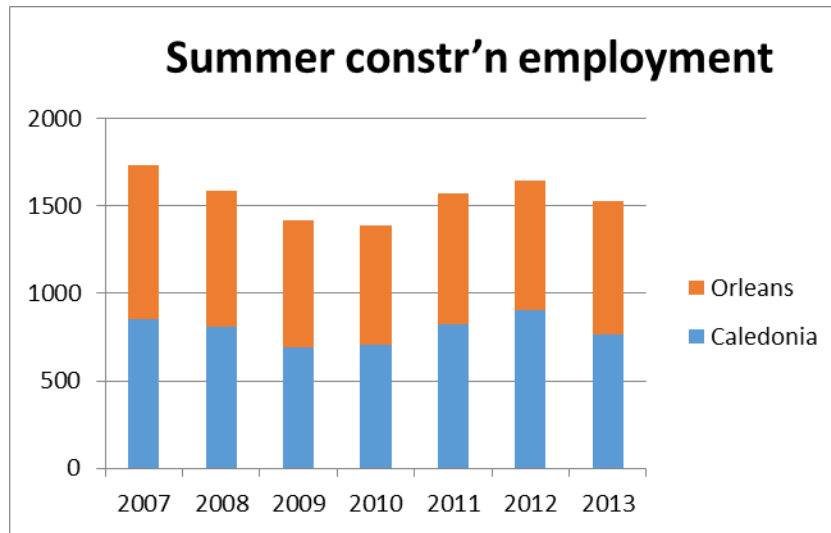
Employment

There are two types of employment resulting from the development investment at Jay Peak. The construction employment and the continuing employment of workers at the resort.

Construction employment is difficult to analyze statistically for projects such as those taking place at Jay. Employment data reported to the Vermont Department of Labor are based on the location of the contractor and not the location of the particular projects. The figure below shows construction trends in Orleans County and the lack of any notable increases with the boost in Jay Peak construction activity suggests that the data does not reflect the actual employment from the projects. Most of the contractors responsible for the large projects are not based in Orleans County.



The data is presented as both “Winter” construction employment and “Summer” construction employment to represent the different types of construction activities that occur. Large construction projects such as those taking place at Jay are less seasonal than smaller (often residential) projects. If there were an increase in large project employment, this statistic would show that increase. The lack of a spike in winter construction employment in Orleans County (showed with Caledonia County as a comparison) is probably the result of Jay resort construction employment not reported as Orleans County employment.



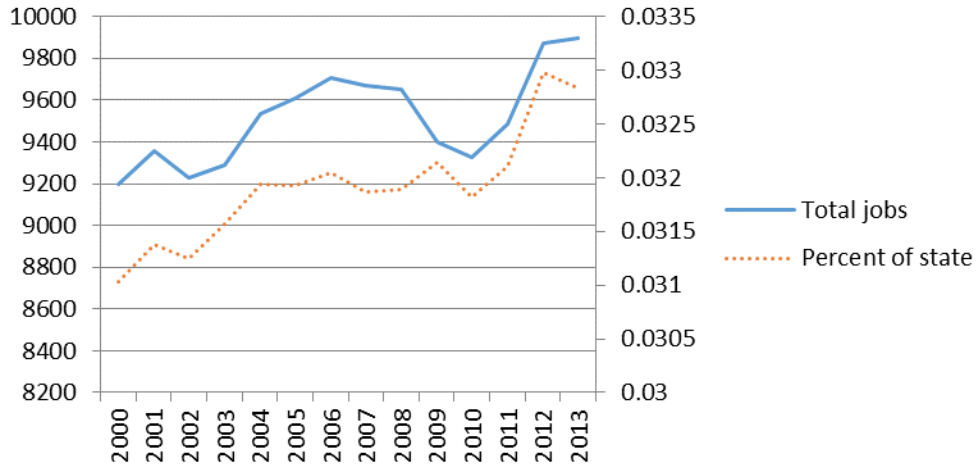
Summer construction employment is included to show that smaller projects are not showing marked increases in Orleans County when compared with neighboring Caledonia County. This suggests that the increased activity at Jay is not having significant impacts on housing construction and renovation activities in the area.

The other half of the employment picture, beyond construction, is the growth in other economic sector employment in Orleans County, particularly in the hospitality economic sector. The charts below show both the Newport Labor Market area which includes Jay and the St. Johnsbury Labor Market Area representing the other half of the Northeast Kingdom labor market.

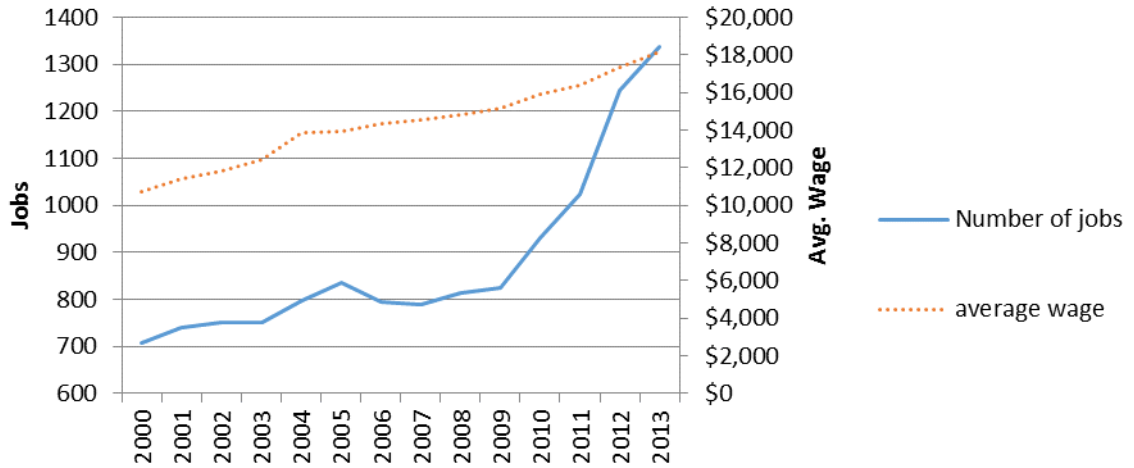
These charts show:

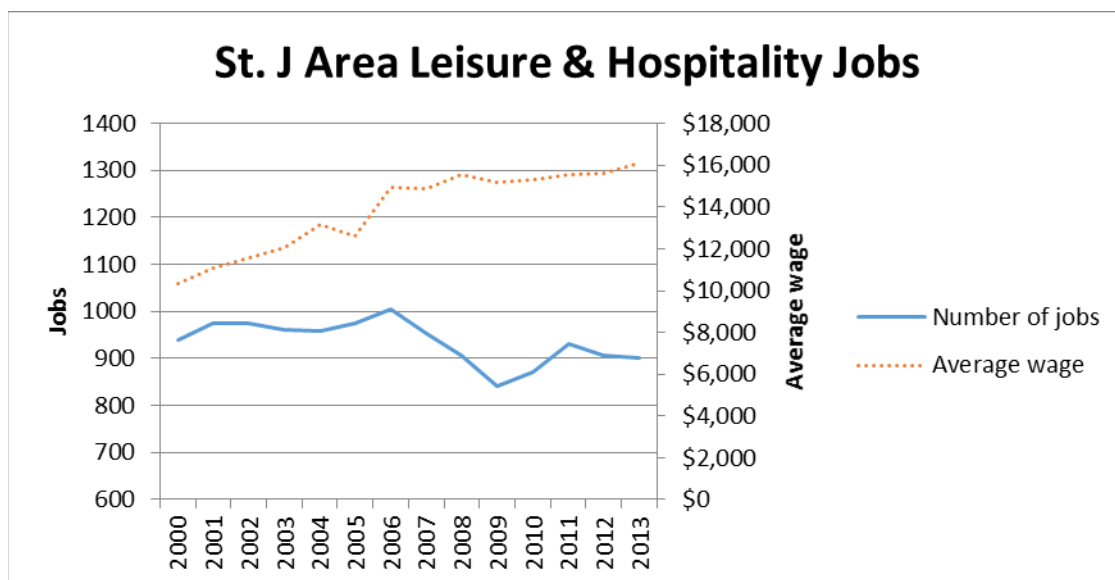
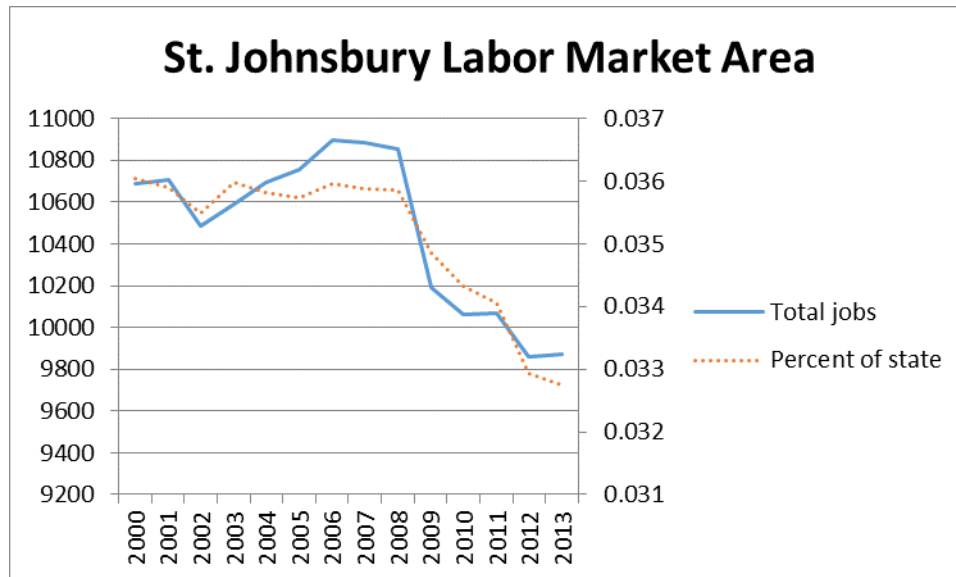
- Newport has increased its share of overall employment in the state while St. Johnsbury continues to lose labor market share. The difference between the Newport growth and St. Johnsbury losses suggests an increase of about 1,000 jobs for the Newport Labor Market Area.
- The Leisure and Hospitality Sector are a primary source of new employment with a net growth in jobs of about 500 in the Newport Labor Market Area while St. Johnsbury Leisure and Hospitality jobs are flat.
- The additional 500 increase in jobs is probably the result of increases in economic activities in a range of sectors. Modeling shows that professional and business service employment often expand when there is a general increase in economic activity. The Newport Labor market area has seen increases in this sector while the St. Johnsbury Labor Market Area has seen decreases. (Data not shown.)
- The slow growth in average wage in the Leisure and Hospitality Sector is partial evidence that labor shortages are not critical. (Average wage figures in hospitality are difficult to interpret because many of the employees are part time and a shift of part time to full time will increase the reported wage but not necessarily mean an increase in hourly wage rate.)

Newport Labor Market Area



Newport Area Leisure and Hospitality Jobs





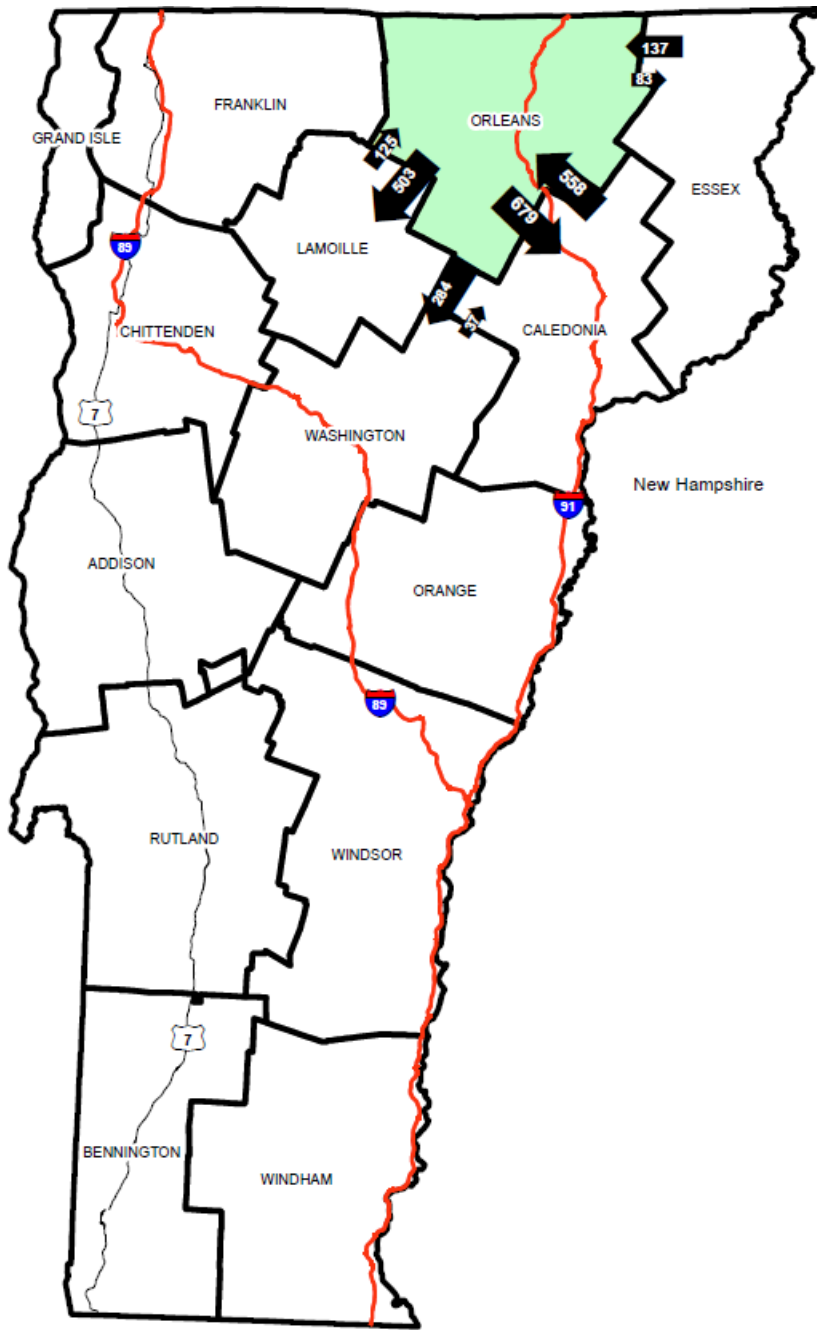
Population growth

The increase in labor market share for Orleans County opens the possibility that the area is also increasing its attractiveness for residents and would result in increases in population. There is not yet evidence to support a significant influx of residents to the Jay area or Orleans County. Census figures are unreliable on an annual basis as they are based on survey results that have low sampling for rural counties. One possible indicator of population growth that is collected annually and consistently is the school population census.

School name	2013 student count	Number change since '08	Percent change since '08
Barnet Elem. (K-8)	190	+12	+6%
Danville (K-12)	328	-21	-6%
Burke Town (K-8)	189	-3	-2%
Jay/Westfield (K-6)	81	-5	-6%
Troy (K-8)	178	+3	+2%
Newport City	317	+9	+3%
North Country Union (9-12)	836	-125	-13%
All Orleans County Schools (K-12)	3781	-281	-7%
Vermont Schools	85,460	-4316	-5%

The student population loss in the Jay/Westfield district closest to the Jay resort development is primary evidence of a lack of significant population growth in the area. Other towns and Newport City mirror the lack of significant growth and reinforce the observation that population growth is minimal.

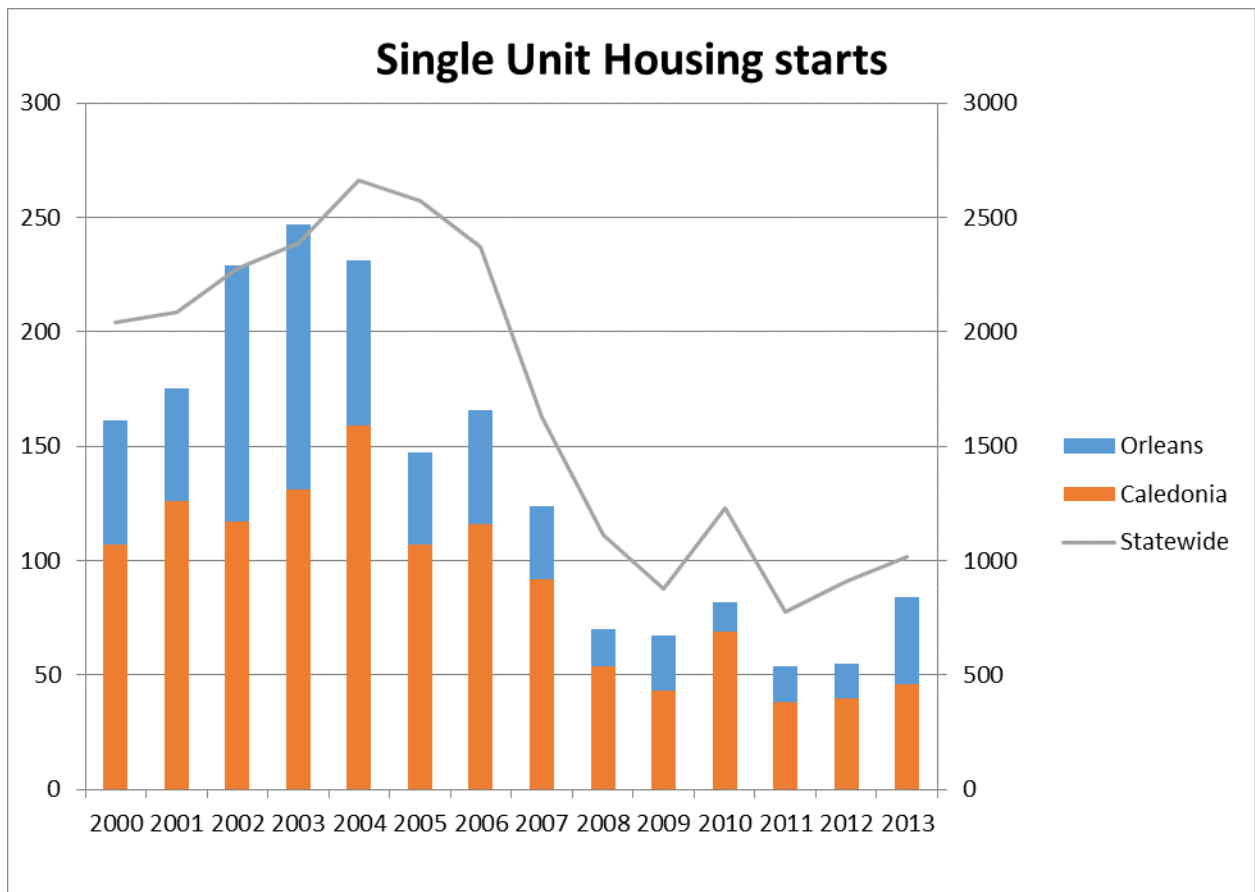
One possible explanation between the disconnect of employment and population is the migration pattern of workers in Orleans county. The map below shows the flow of workers from their Orleans County homes to their workplace in the 2006-2010 time period – the most recent period for such data. This figure shows that more than 1,500 Orleans County residents worked in neighboring counties. It is possible that the increase in job opportunities for Orleans County residents after 2008 has reduced this net flow of workers outside of the region. The result being that the increase in job opportunities is met by more local residents and not by causing an increase in residents moving to the County.



Data source: American Community Survey, US Census Bureau

Housing

The lack of population growth also affects a lack of pressure on housing. Housing shortages in Orleans County are similar to other parts of the state.

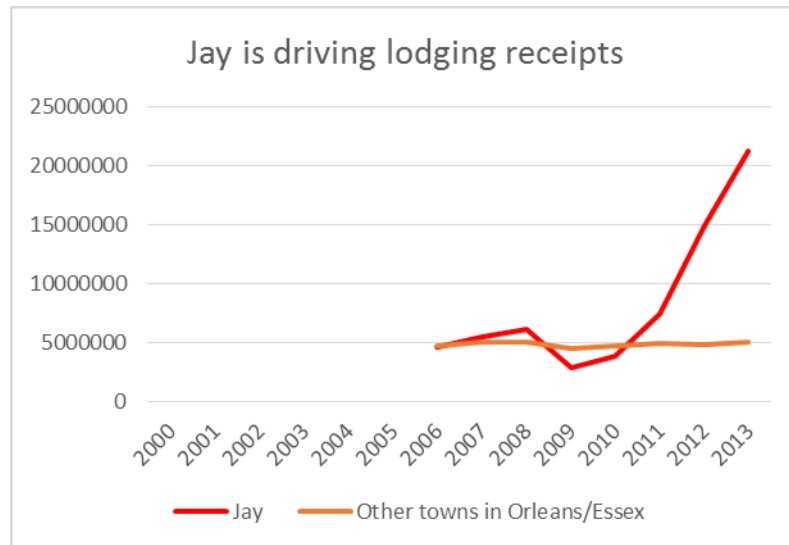
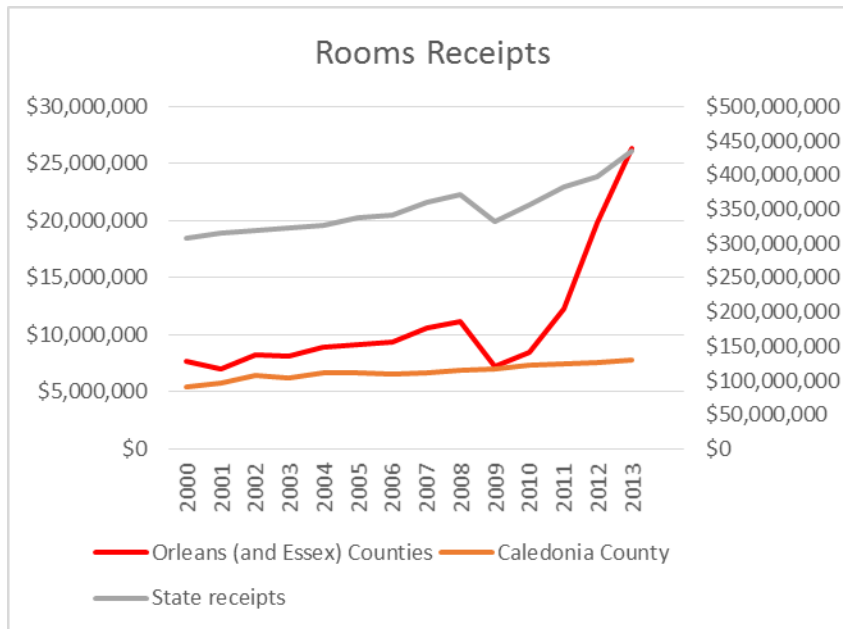


The graph shows that new housing starts in Orleans County plummeted entering the recession and have not recovered.

There is a mismatch between the quality of affordable housing and the income available for many households. A difficult impact to evaluate is related to the changes in housing demand that result from increases in household income. There are some households that benefited from greater income as the result of the growth at the Jay Peak resort. For lower income households with increases, this may relieve the stress of a disproportionate share of income for housing. However, higher income may also result in a change in demand for better quality housing or a movement from rental to owner-occupied housing. These changes are difficult to track and there is no data available for this study to gauge those possible impacts.

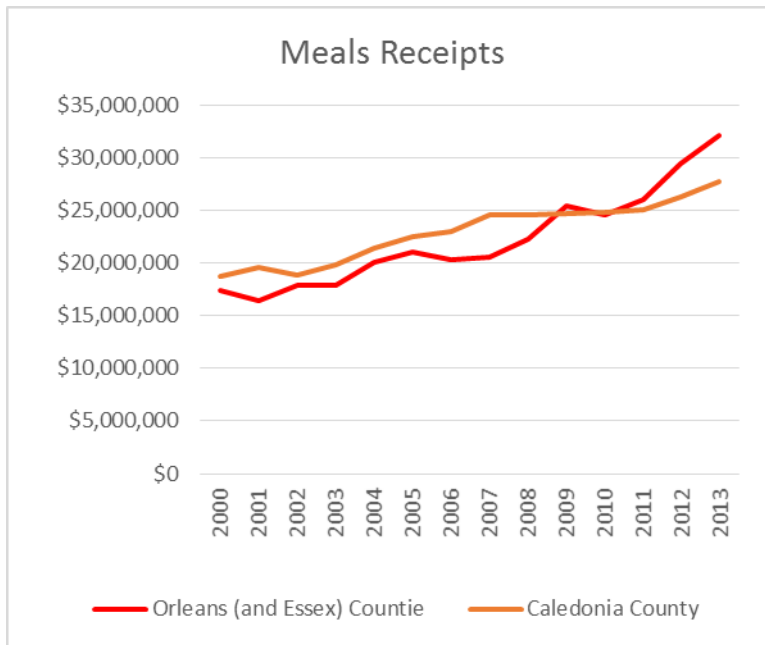
Tax revenues

Unlike the lack of statistical evidence of construction employment and population growth, there has been a significant growth in the rooms tax receipts in Orleans County since the start of the 2008-2013 development activities. The data suggests that the dollar value of this increase is approximately \$15 million annually.

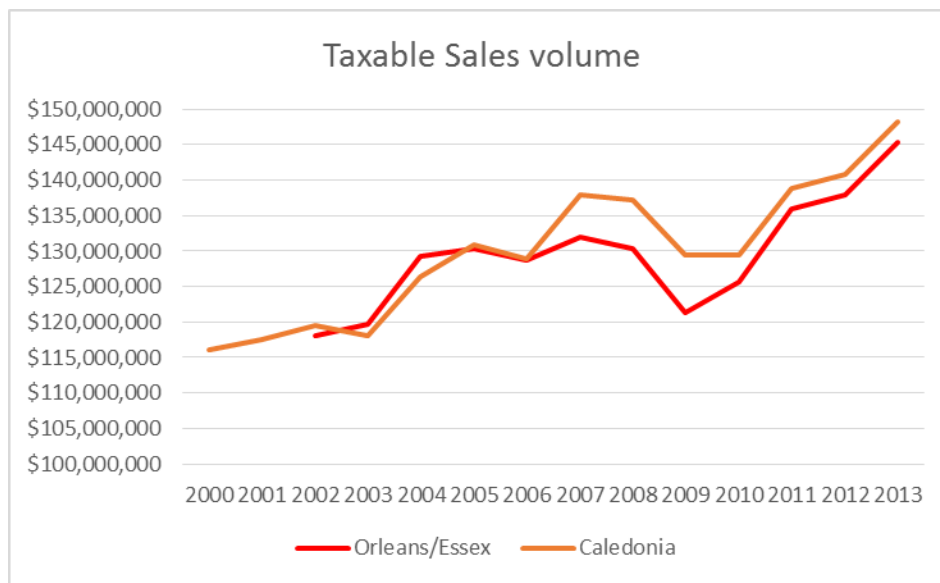


The second graph is further evidence that the increases in regional rooms receipts are due to changes at Jay by showing that other towns in the Orleans/Essex reporting area showed little growth while increases in Jay made up the region's increases.

A review of Meals tax revenues suggest a possible increase of about \$5 million in Orleans County compared to the slow growth in Caledonia County.



Sales Tax receipts do not show significant growth although a review of these statistics makes it difficult to identify changes less than \$5 to \$10 million.



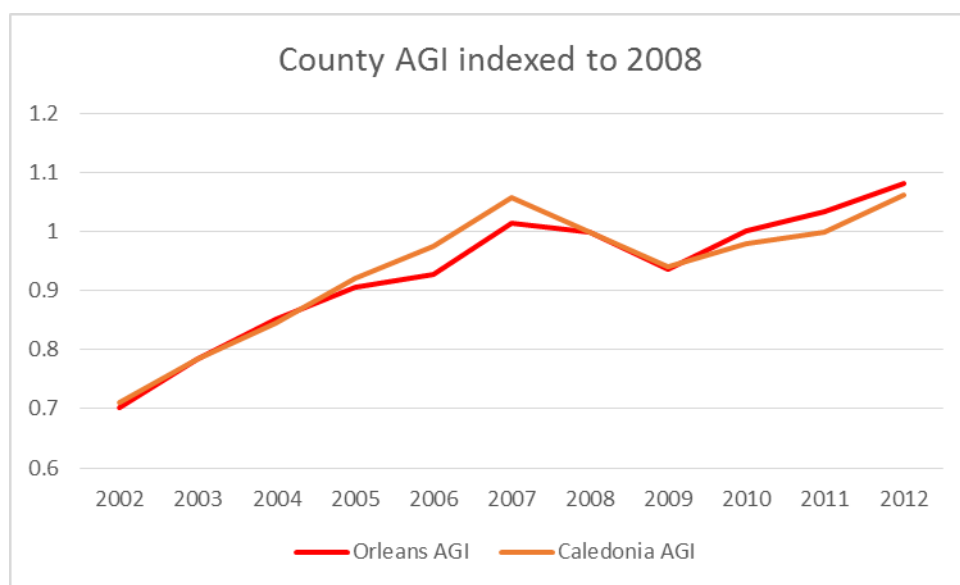
Specific Sales tax data from the Town of Jay show significant increases between 2006 and 2012 (data for 2013 is not available due to the limited number of filers from the Town of Jay). The actual dollar values for sales taxable receipts increased from \$5.2 million in 2006 to \$10.4 million in 2012.

Tax revenue increases attributed to growth at Jay Peak expansion, from Rooms and Meals and Sales taxes amount to a bit less than \$2 million in the 2006 to 2013 period.

Income and Vermont income tax

The increase in visitation and visitor spending represented by the data showing increased room receipts together with the value of the construction activity at Jay suggests an overall increase in income to Orleans County residents. The following graph suggests the possibility, but is not conclusive, that County income increased compared to Caledonia County for the period 2008-2012.

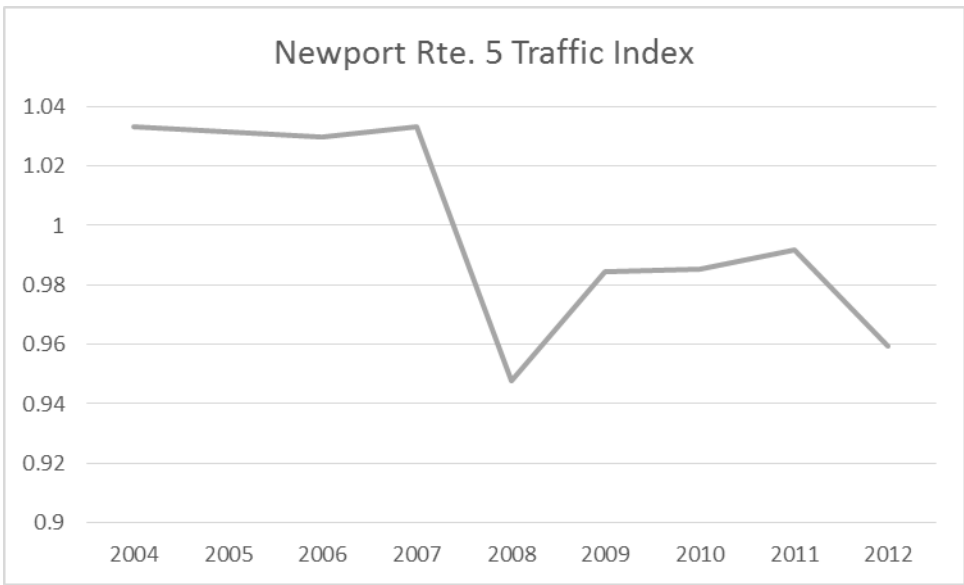
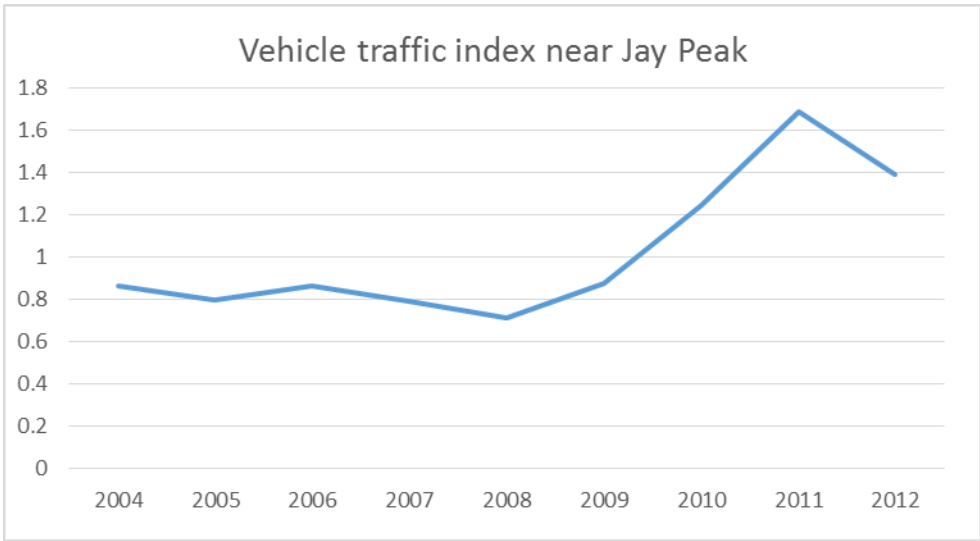
The income total for Orleans County was a bit more than \$530 million in 2012 (as measured by Adjusted Gross Income from tax returns). A two percent difference between Orleans and Caledonia County is about \$10 million. Orleans County has a population of about 27,000 and about 12,000 households. The possible increase of \$10 million amounts to \$370 per person or \$850 per household. The possible increase will not be distributed evenly so that some households could have a few thousand dollar increase while many will not see any increase.



Vermont Income tax revenue is approximately 3.7% of Adjusted Gross Income, therefore an increase of \$10 million income as measured by AGI will result in about an increase of \$0.4 million of Vermont income tax. In addition, increases in income affect the state education property tax receipts. Property tax adjustments are approximately one quarter of the value of income tax payments, therefore the \$10 million in increased income translates to approximately \$0.1 million in reduced property tax adjustments.

Vehicular Traffic

The increase in revenue from the Jay Peak development is the result of increased visitation and visitor spending. Traffic measures only show increases in the immediate vicinity of the Jay Peak resort. Route 5 in the Newport area shows no increases during the time period for this study.



Description of the developments proposed to take place in Newport, Coventry, and Burke

In Newport, there are three large development projects at different stages for the Stenger/Quiros team.

- ANc Bio is a biotechnology production facility that will also include clean room laboratories for others to rent and build their own production processes.
- The Renaissance Block is a redevelopment project to provide housing and office space in Newport's downtown.
- The Marina-Waterfront is also a redevelopment along the shore of Lake Memphramagog in downtown Newport.

The construction costs for these projects are estimated at greater than \$200 million and will be spread out over a few years. Unlike the Jay Peak projects, employment impacts from these projects are not concentrated in hospitality and leisure.

In Coventry, there is expansion at the regional airport and construction of new manufacturing buildings. The construction value of these projects is about \$20 million and manufacturing employment at the airport facilities will be about 60 persons- three fifths in manufacturing and two-fifths managing the operations and businesses.

At the Q-Burke Mountain Resort, construction is underway for the first phase of a lodging/conference facility. This development may be similar to those having already taken place at Jay Peak. The value of the construction is about \$110 million and employment expectations are for 300 new positions.

In addition to the projects fostered by the efforts of Stenger and Quiros, a new Walmart is under construction in Derby. This project will result in expanded low cost retail opportunities for the region. *This report will not consider the possible economic impacts from the Walmart project. Others have weighed in how Big Box stores change the retail environment and its income and employment impacts.*

Extrapolation of the impacts from Jay to Burke

The proposed expansion at Q-Burke is currently about 40% of the dollar volume as that undertaken at Jay. Because of the similarities in expanding the ski-focused resorts, a first estimate of impacts is using 40% of the impacts at Jay for forecasting impacts at Q-Burke

Employment

There is no statistical support for construction employment impacts at Jay and no reason to believe the statistical increase in construction workers will arise in Caledonia County as the result of the Q-Burke expansion.

Longer term employment associated with facilities growth at Q-Burke should result in approximately 400 additional workers half in the Leisure and Hospitality sector and located in the Saint Johnsbury-centered job market. If patterns in Caledonia County and Saint Johnsbury mimic the changes that took place in Orleans County and Newport, this job growth may result in job commuting patterns with a greater number of county residents working in-county and fewer working in New Hampshire, and Washington, Orleans, Lamoille and Orange Counties in Vermont.

Population growth

If the parallel with Orleans County holds, it is possible that Caledonia County residents may provide the workforce for this increased demand without requiring new households to move into the area. Therefore, there is no basis to project a particular increase in population for the county.

Housing

With no increase in population, the impacts on housing are going to be related to the increase in income for some households. There are no estimates on those impacts from this study.

Income

Forty percent of a \$10 million increase which is estimated from the Jay Peak development equals \$4 million for Caledonia County or about .75% increase from the county's total income. On a per household basis, the possible increase would be an average of \$300 but, as with Orleans County, the actual increases will be gained in some households with a few thousand dollar increases. The difficulty in discerning a 2% increase in Orleans County is even more pronounced when considering the impact at less than 1% in Caledonia County and it will be difficult to measure the overall county increases from income tax data.

Taxable receipts

An increase in rooms receipts at Q-Burke equal to 40% of the increase of the Jay Peak increase is about \$6 million annually. An increase in meals receipts would be equal to about \$3 million annually. An increase in Sales Tax receipts would equal about \$2 million. The resulting tax revenue from these increases will be less than \$1 million.

Traffic

The access roads to Q-Burke may see an increase in traffic of about 20% if growth at the resort is 40% of the growth seen at Jay. The impacts on roads leading from Lyndon to Burke are uncertain.

Additional impacts due to the different nature of developments in Newport and Coventry

The developments taking place in Newport and Coventry are significantly different than the improvements being made at Q-Burke. Manufacturing and other economic activities, different from Hospitality and Leisure, have employment requirements that may not be met by local residents. Because of this kind of increase in labor demand, Orleans County may see net in- migration as the result of these investments. This study uses the REMI Input-Output model¹ to gauge a range of potential impacts. The following sections are developed running the model with the total impacts from the developments. The inherent uncertainty in the model’s application makes developing detailed impact assessments from each project problematic and the data presented should not be considered hard and fast projections.

The model was run using confidential data supplied by the developers of the projects in Newport and Coventry. Run #1 assumed that all of the projects would be developed in a three year time frame from 2014-2016. This will concentrate the impacts.

Run #2 does not include the employment impacts from the Q-Burke development (estimates reported earlier in this report) or the construction contribution based on the possibility that the income revenues may be exported out of the region to construction workers from outside of the Northeast Kingdom. The report summary adds the impacts from the Jay extrapolation to this model run.

	Run #1	Run #2
Employment	2053	1148
Income	\$100 million	\$65 million
Housing construction	\$40 million	\$29 million
Population change	1143	638
New housing units	457	255

Housing

The REMI output from housing is in dollar terms. The model does not estimate the number of housing units added from the expanded economic activity. The increase in dollar value of housing is a combination of new housing and improved housing stock through renovation.

The population change suggests a number of housing units that will need to be added to meet the demand. An average household size of 2.5 is used to develop the “new housing units” figures for the Table.

Income

The two runs from the REMI output provide an estimate of the overall income growth from both the Q-Burke development and the activities in Newport and Coventry. Consistent with the estimate based on Jay Peak development extrapolation (\$40 million), the income growth from the Q-Burke development is about \$35 million from model results. The developments in Newport and Coventry are modelled to yield \$65 million in increased income.

¹ REMI is a product of the Regional Economic Modeling Inc. of Amherst, MA.

Tax revenues

In addition to Rooms and Meals tax revenues from the growth at Q-Burke, income tax revenue is a product of the increased investment from these projects. In general, income tax revenue is about 3.7% of any increase in income so the model suggests an increase in Vermont income tax revenue of about \$2.4 million.

The value of increased housing stock will contribute property taxes to both local governments and the State Education Fund. A statewide average of 1.5% yields \$0.6 million from housing growth, while the commercial properties at Burke and in Newport will add an additional \$4.5 million.

Traffic

While increased employment at the ski areas increases traffic somewhat, the larger impact on traffic from development at Q-Burke will be from visitors using the upgraded facilities described earlier in this report. The developments in Newport and Coventry considered in this part of the analysis will not have same degree of visitor traffic increases and because most of the area's roads have witnessed reduced traffic in the past few years, modest increases will be countered by those recent reductions.

The possibility of a “tipping point”

One important observation from the Jay Peak development impacts is that there has been little population change in the region. Potential population changes would cause secondary growth to support the increased number of households. The possibility that the perception of the Northeast Kingdom may change from an historic image as a rural backwater to a more current image of economic vitality may lead to growth in the population that cannot be directly tied to any particular economic expansion project. There is no way to gauge the probability or magnitude of such a change, but the possibility exists and government leaders will need to pay attention to any evidence for such a change. As noted in this report, it may be that school enrollment figures are the “canary in the coal mine” and if certain schools see enrollment patterns indicating population growth, a review of the assumptions in this study that do not lead to conclusions about growth beyond the specific projects are in order.

Adding up the economic impacts

The following table includes the impacts from Jay Peak that occurred from 2006-2013 and the projected impacts from the developments at Q-Burke, Newport and Coventry.

	Jay Peak (2006-2013)	Q-Burke (2015→)	Newport/Coventry (2015→)
Employment	1,000	400	1,148
Income	\$100 million	\$40 million	\$65 million
Population	---	---	638
Annual tax revenues (income, state education property, sales, meals and rooms)	\$5.4 million	\$2.1 million	\$5.5 million

Summary of non economic impacts

The development in the Northeast Kingdom may result in other changes that require the attention of policy makers. During the first half of 2014, Kristin Smith, a graduate student at the University of Vermont worked with the Agency of Commerce and Community Development to describe, qualitatively, the types of changes that may result from rural economic development activities.

- Impacts of tourism based employment
- Cost of living and land prices
- Transportation
- Crime
- Education
- Resident's Quality of Life
- Governance and Power dynamics
- Environmental impacts

The following is a brief summary of those findings.

Impacts of tourism based employment

While it is true that hospitality sector jobs are lower paying than other economic sectors, studies at a national level show that rural counties with a concentration of tourism based activity have higher levels of income than rural counties without tourism.

Cost of living and land prices

Different studies have developed conflicting conclusions regarding the impact of tourism on the housing aspect of cost of living. The consistent finding is that significant tourism growth leads to housing cost increases. In some areas, income growth is more than enough to meet housing costs increases, while in other cases, the income growth is consumed by higher rents. This is one topic that deserves continuing review in the Northeast Kingdom as development occurs.

Transportation

There is no consistent impact of rural development on transportation needs. In some rural areas, the capacity of roads is sufficient to avoid traffic disruptions. In other areas, including mountain recreation areas, limited access to tourist destinations does lead to traffic problems.

In addition to traffic, workers require transportation to rural jobs that can be a hurdle for low income households with limited transportation options. The situation for low income workers with limited transportation options exists in the Northeast Kingdom and there is no attribute in the projects described in this report that is different from other jobs in the region. Therefore, the projects themselves will not exacerbate transportation access difficulties for low income households.

Crime

In some cases, the increased density of economic activity results in increases in crime. As with other categories of impact, there is no obvious change in crime rates as the result of the economic development investments for the Northeast Kingdom. However, tracking crime rates may help local law enforcement offices stay ahead of potential problems.

Education

Educational attainment in Northeast Kingdom communities tends to lag state wide averages for rates of college completion. However, at a national level, areas with concentrations of recreational tourism have higher educational attainment than rural counties with less recreational tourism. It may be that the increase in income for households in the Kingdom increase opportunities for higher education.

Some of the other developments underway in the Northeast Kingdom will require workers with college degrees and advanced degrees. Cause and effect for the relationship between business needs and residents' skills is difficult to establish. However, for the new businesses to be successful, there will need to be an increase in educated workers.

Resident's quality of life

Any changes in the character of a community will have an impact on the quality of life of its residents. The strongest predictor of the direction of quality of life changes is the perception that a development has for residents. If residents feel a development is an addition to their community, their quality of life increases, and if residents feel a development degrades their community, the quality of life decreases. With this observation in mind, it is clear that working with community members on the positives and negatives of any development may help strengthen the perception of the impact.

Governance and power dynamics

Economic activities sponsored by individuals and corporations from outside of a community result in a shift in the perception and reality of who is in control. The projects taking place in Jay appear to have had minimal impacts on community issues as the ski area is isolated from residential villages. Q-Burke is more integrated with the Burke villages and Lyndon and there has been more discussion in those communities about changes at the ski area.

The changes in Newport are the most likely to alter community dynamics. There have been efforts to promote community discussion for the past two years, and this dialog will need to continue as the Newport projects move to implementation. One of the specific issues in Newport is the transition period between the demolition at the Renaissance project site and its re-construction that may take several months to more than a year. The presence of an empty large lot in the middle of the city has a ripple effect on adjoining properties.

Environmental impacts

There are two categories of environmental impacts resulting from significant development. The impacts on individual construction sites are those regularly considered in the Act 250 process and there have not been any unique circumstances identified for the Jay-Burke-Newport-Coventry projects that will make the Act 250 process any more or less effective. The more general impacts from significant regional growth are more difficult to address in individual permitting processes. However, this report suggests that there is not yet strong evidence to suggest that a tipping point has been reached that will lead to systemic negative growth impacts such as air quality from increased traffic or point source emissions, significant impervious surface increases for entire watersheds or land fragmentation affecting the largely intact forests of the Northeast Kingdom. However, as noted earlier, keeping an eye on whether the region is seeing evidence of more general growth will help prevent the transition to these larger scale environmental damages.

Summing up the impacts

The primary drivers for impacts to the region from the developments in the Northeast Kingdom are income and population. This report suggests that the income impacts in the next few years will be about equal to the impacts from the developments that occurred at Jay Peak between 2008 and 2013. However, the income impacts during that period coincided with the entry and exit to and from the Great Recession. Therefore, the

approximately \$100 million in income gain coincided with income lost as the result of that recession. Future economic activity that may yield another \$100 million in income may be on top of other impacts from the slow economic recovery.

The population impacts that will occur are probably based on developments to take place in Newport and Coventry as developments at the ski areas may not require additional workers to move into the area. Input-output modeling suggests that the Newport-Coventry developments could add somewhat more than 600 people to the region (Orleans County). Because the Northeast Kingdom (and Vermont) is facing a lag in population growth due to changing demographics, the population gain will be similar to previously experienced population growth in past decades.

It is possible that the developments in the Northeast Kingdom provide a general shift in the perception of the region and its potential for future economic opportunities. If this shift occurs, additional growth in population and income may be possible. Keeping track of this possibility may highlight changes not described in this report.

