

## Questions/ Comments on Draft Chittenden County Forecast

**March 10, 2017**

Reponses are noted in italics.

1. How does Chittenden County/Vermont in-migration patterns compare with other Northern New England State?  
*With these population and employment forecasts, Chittenden County is expected to be the leader in Northwest Vermont and the State of Vermont in population and employment growth*
2. Why is employment growing twice as fast as population?  
*The forecast is predicting jobs/employment and does not focus on where people live*
3. How do demographic changes impact the employment? What affect does of an aging population have on employment?
4. How does this forecast compare to towns to the North where many Chittenden County employees live? [Vermont Population Projections – 2010 - 2030](#)
5. Need to provide the history of employment forecasting, like the graph that was done for population so it's clear how the employment forecast compares to historic employment.  
*Addressed in the Board presentation [here](#)*
6. According to Art Wolfe, employment trends have been flat because any increase in population is just a replacement for job vacancies.
7. GE Healthcare has many employees that work from home during the summer.  
*Telecommuting patterns will be captured through the Travel Demand Model Scenario Development.*
8. Do the RSG calculations for employment etc., take into consideration changes in zoning that can affect development potential? The municipal-level employment forecast for example, EJ changed its zoning to permit fright rail manufacturing, distribution and warehousing on the Global Foundries site to take advantage of the fact that we are the only municipality in Chittenden County that has a national rail standard rail line that is international and coastal in scope as it stretches from Canada to the Atlantic seaports. This is something that, we, the region and the State should be 'shouting from the highest mountains' about. There figures show a percentage decline in employment in Essex as part of their Chittenden County, yet GBIC has said that Essex is the municipality that has the most potential for industrial and manufacturing development moving forward.  
*The forecast does not consider development potential. Employment in Essex Junction and Essex Town can be adjusted with the GBIC report in mind.*
9. The Charlotte numbers are hard to believe. Most employment in Charlotte is either individuals from their homes or small enterprises which employ mostly seasonal or part time help. This brings another thought to mind; the employment calculations don't seem to separate full time and part time, or seasonal, employment. Without this delineation, the figures are not very useful. Unless we are trying to inflate the numbers. *See March 8, 2017 memo from consultant to see how this was addressed.*

10. The 2015 ACS estimates numbers don't seem to take into account all the development since 2010 given an estimated increase in population of 70 people but over that many new units developed in that period. And going forward, I wonder how much consideration was given to what is currently proposed? *See March 8, 2017 memo from consultant to see how this was addressed.*
11. Staff Observations: Winooski households are the same in 2045 and 2050, Burlington households between 2015 and 2020 don't reflect currently planned/permitted projects that will increase the number of households. Cambrian Rise and the Downtown Redevelopment Mall. *See March 8, 2017 memo from consultant to see how this was addressed.*
12. To me, the flat projections of the # of Households for Huntington, Jericho (somewhat), Richmond, Westford and Winooski seem questionable. It seems population in Winooski (and other towns mentioned) is expected to rise modestly, and the persons per household is expected to fall—so it would seem the number of households will increase. It would also seem that the same factors that would apply to other towns in the county, resulting in an increasing number of households, would also to Winooski (and other towns mentioned). Also—one of the constraints on building taller buildings is the ability to provide fire protection—i.e. ladder trucks. But since Winooski already has tall buildings (and I assume a ladder truck), this would not seem to be a constraint on other portions of the city. So, more taller buildings mean more capacity for more households.

*The forecasted growth in household size at the municipal level offers a mix of results which, as expected, don't all conform to the county forecast's downward trend in household size. Burlington, Jericho, and Winooski are all examples of municipalities which are forecasted to increase household size in the long run. The determination of the increase or decrease in the municipalities' household sizes are largely correlated with each municipality's household and persons in households' growth between 2010 and 2015. This series of data is then regressed against the households forecast performed by Moody's Analytics which captures the driving factors in the state and the county. The municipal household size forecasts, much like the population and employment forecasts, are functions of their own historical trends and correlated with the predictive variables at the state and county level.*

13. Population decreasing in Huntington seems unlikely and not consistent and some additional development is likely in the future and would likely keep Huntington's population steady. *See March 8, 2017 memo from consultant to see how this was addressed.*
14. **Persons in Household** (Board Presentation, Slide 17): Why does the average annual growth rate for 'persons in households' jump so significantly between 2040 and 2050? What do we anticipate happening that will cause the 'persons in household' to go back up?

*The difference between the 2040 and 2050 mostly is due to the fact that the last ten-year projection wasn't developed by EPR and their macro modeling. It is difficult to marry different approaches. As RSG had agreed to do, was to extrapolate existing datasets to arrive at a 2050 figure but also incorporate how the existing VEIC 2050 projections could be considered in our 2050 projection.*

*The county population estimate developed using a combination of data sources such as annual growth rate projections by 2040, past rates of growth, and developed a basic model of birth dates*

*and death rates and migration that has resulted in about 183,000 population by 2050. Past work done by EPR for VTrans this summer suggested that by 2040 there is a peak in the baby boomer population and a rising population of younger ages. In addition, the birth rate might be assumed to stabilize at some value. It has been on a downward trajectory for some time and at some point, it would likely reach a lower bound, I think anyway! These factors point to a period around 2035-2037 with almost zero internal growth, with increasing internal growth thereafter.*

*Using this population projection and then linearly extrapolating households, it results in more residents per household. This to me is logical given the forecast rising younger population in the future, living at home (ages 0 – 25). There might be some justification to increase the number of households faster than the current projection.*

*However, as stated earlier. The absolute magnitude of these numbers and the range of likely values that we are ‘discussing’ is very narrow given how far out in the future this is. I would caution anyone betting on these values by this date, but it presents an informed picture based on available data today.*

*The annual rate of growth for the household size, isn’t a direct driving factor for the regional travel model.*

15. **Household Size** (Feb. 10<sup>th</sup> EPR Memo, Table 1): Why is the household size forecast increasing in Burlington, but decreasing in So. Burlington? Seems odd that we’d see a difference between these two.

*The households in Burlington (denominator) are expected to increase at a slower rate than the population (numerator). The data shows that is the reverse for South Burlington.*

*Household size in Burlington is a bit counterintuitive to the housing development story. It is true that the type of development is targeted to be apartment style, which would indicate that on average we would expect smaller numbers in a household. However, it is the case that population in Burlington is forecasted to grow at a relatively faster rate than households are forecasted to grow in Burlington, resulting in household size to go up. This rise is a function of the numerator increasing at a faster rate than the denominator. The household size increase is a reflection of the recent household size history in Burlington according to the US Census and its correlation to the forecasted county trends in housing. With all of the planned housing, there is certainly room for the adjustments to the household size in the future and that certainly good be the case if that housing story plays out in the next 5 to 10 years. For this forecast however, we went with what was being predicted.*

16. **Jobs** (Board Presentation, Slide 21): In absolute numbers Williston’s total job growth is significantly greater than So. Burlington’s total job growth. Percentage growth would make more sense, but not absolute numbers. What is the reason for this?

*See March 8, 2017 memo from consultant to see how this was addressed.*

17. I continue to feel that the forecast is a little bit conservative, at least as applied to Shelburne. Not sure what data I can assemble to support that contention (open to suggestions) or that the community leadership would want to pursue further adjustment. I am currently discussing with the Town Manager.

*If there are known potential development projects that are in the permitting pipeline that would increase Shelburne's housing and employment over the next 10 year then we could use that as a basis to adjust the demographics*

18. Confused as to why the 2010 population numbers in the various documents do not match up with the 2010 Census numbers per the American Factfinder website. The 2010 numbers shown in the forecast tables appear to be a bit larger than the actual Census numbers. If we start with exaggerated numbers for the presumed base in 2010, does this compound the error in the forecast years? For example:

Chittenden County – 2010 Census: 156,545, 2010 Forecast: 156,805

Hinesburg – 2010 Census: 4,396, 2010 Forecast: 4,439

*The value for 2010 population is not the decennial census number. EPR used a different Census data product which is the Annual Estimates of the Resident Population. The U.S. Census Bureau's Population Estimates program measures changes in population and updates the last decennial census to produce updated population estimates every year. Changes in population are attributed to births, deaths, and migration. The number EPR is starting from is not an inflated number it is an updated number. For the towns, the starting point is the ACS 5-year data for 2010 and 2015 and then it is adjusted based on percentage share of county population. This was done so the numbers matched up with the mid-year estimate of 156,805. For the towns, the starting point is the ACS 5-year data for 2010 and 2015 and then it is adjusted based on the percentage share of county population.*

19. It seems as though there is a noticeable dip in annual household growth rate over the decade from 2015-2025, but a limited explanation as to why. Are there projects over that time period (like the Building Homes Together campaign) that are being factored into the household growth rate? Otherwise it is confusing as to why the growth rate slows and then picks up again only once in the data cycle. Staff discussed whether the trend of Burlington losing so many households between 2010-2015 would affect this growth rate when projected for the county; however those households were absorbed primarily into South Burlington so one would expect to see their higher growth rate over that time evening out the net rate for the county.

*See March 8, 2017 memo from consultant to see how this was addressed*