

Appendix E: DRAFT Comprehensive Economic Development Strategy (CEDS)

SUMMARY BACKGROUND

Over the past several decades, Chittenden County has enjoyed a competitive advantage relative to the balance of the state. The County's share of population, Gross Domestic Product, jobs and income, among other economic indicators, has increased since 2010. Data points in this CEDS, drawn from the Vermont Department of Labor, the US Census, the Vermont Department of Health and other sources, are used to update the findings of the 2012 Economic Base and Competitive Assessment reports.

Despite the advantages the region has enjoyed in many areas, however, there are some disquieting trends that need to be acknowledged. Although job growth has largely recovered from the 2008 recession, recent trends show a continuation of higher job growth in lower-wage industries and less job growth in higher-wage industries, as well as a mismatch between workers and the skills needed for jobs. While the Chittenden County region has a highly desirable quality of life by many measures, housing affordability and availability remains a problem, and our population is projected to grow only 0.4% per year. Our challenge remains how to promote, manage and shape growth to improve our job opportunities and incomes while also improving our quality of life.

Understanding Economic Development

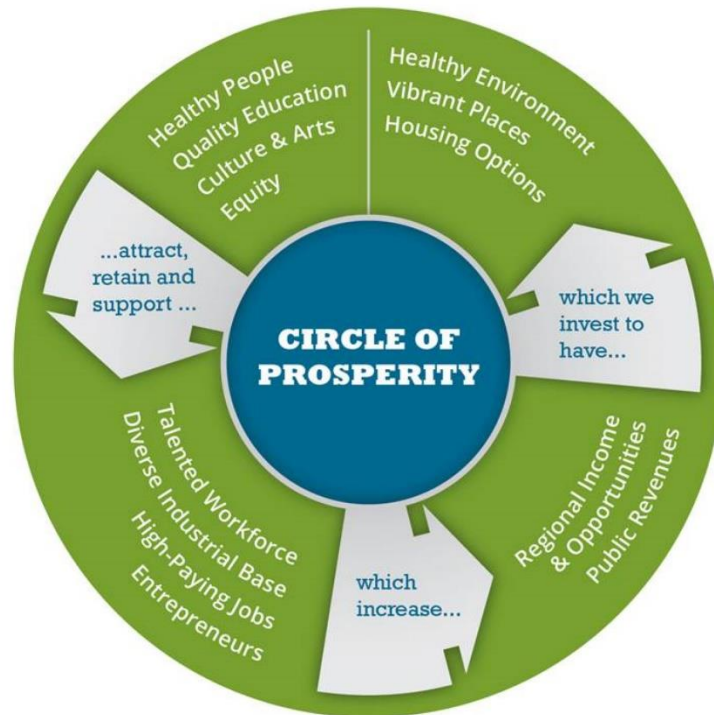
- Economic development is about building a community's capacity for shared and sustainable improvements in the economic well-being of residents.
- Economic development is about access to good jobs that can support an adequate standard of living for all residents of a region or community.
- Economic development is also about continuous and sustainable improvements in the internal functioning of the economy, where its structural underpinnings are made stronger without sacrificing long-term quality of life.
- Economic development provides the means and the continuous process to strengthen the foundation of our communities, and to make them more resilient and able to withstand shocks.

We need economic development:

- To constantly renew and strengthen the "living economy."
- To address on-going infrastructure needs of key dollar-importing regional businesses.
- To supply the financial resources in order to create and sustain healthy communities.

The Circle of Prosperity

When a state has and maintains a talented workforce, it attracts a diverse industrial base of dollar importing businesses that create high wage jobs. From the economic drivers, dollars flow into the private sector to provide taxes, public revenues, capital, resources, and employment opportunities. These private sector actions fund the public sector's operations through taxes and governmental fees, which both the public and private sectors invest in creating and maintaining a clean environment, good schools, access to higher



education and housing, and enhancing the state's quality of life, thereby creating healthy communities. The "Circle of Prosperity" illustrates this interrelationship. First articulated in Vermont in 1997 by the Vermont Business Roundtable, the "Circle of Prosperity" emphasizes the fact that economic development is the result of the collective and sometimes coordinated actions of individuals, businesses, institutions and the government to strengthen the economy, the community and the environment.ⁱ

Key Issues/Trends/Insights

NOTE: This section is a combination of updated information originally included in Chapter 2 and 3 of the 2013 ECOS Plan and information from the CEDS chapter of the 2013 ECOS Plan.

SWOT ANALYSIS

This section analyzes the Region's strengths, weaknesses, opportunities and threats (SWOT). The issues below have been identified by regional work between 2012 and 2017, including initiatives such as the Building Homes Together campaign, work on the Vermont Clean Water Act, research for other plans and the analysis reports completed for the 2013 CEDS. Findings from these background documents were updated with the most recent data and findings. Supporting data on each issue and related actions are included elsewhere in this chapter. It should be noted that one issue can have positive and negative implications for the region, and therefore may be listed multiple times in the SWOT analysis. For example, Vermont's Clean Water Act creates new regulations that will increase costs for municipalities and developers, but

the increased funding dedicated to these issues will also create jobs and clean up the lake – an invaluable economic resource.

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Strengths: A region’s relative competitive advantages (e.g. industry supply chains and clusters, extensive port, rail and broadband assets, specialized workforce skills, higher education levels, collaboration among stakeholders) often internal in nature.

- High concentration of a young and educated population
- Diversified base economic sectors in comparison to the rest of Vermont
- High labor quality
- High concentration of well-regarded institutions such as the University of Vermont, Champlain College and St. Michael’s College.
- More diverse population than the rest of Vermont
- High quality airport
- University of Vermont Medical Center
- High quality of public K-12 education
- Vermont and Burlington “brand”
- Strong creative economy
- Access to high quality infrastructure - natural gas (though non-renewable), interstate, high speed broadband
- Concentration of high net worth individuals
- Access to recreational, entertainment, and cultural opportunities
- Highly networked non-profit and service provider sector

Weaknesses: A region’s relative competitive disadvantages (e.g. a risk-averse or change-resistance regional culture), often internal in nature.

- Rising income inequality
- Labor constraints and skill shortages
- Uneven quality of public K-12 schools throughout the county
- Lack of connection between educational outcomes and employer needs
- Lack of career fairs and career planning
- Lack of affordable child care
- Housing affordability
- Limited developable site inventory
- Lack of racial and ethnic diversity compared to the rest of the US
- Land transportation and commuter mass transit infrastructure
- Wages not keeping pace with high cost of living
- Slow population growth

Opportunities: Chances or occasions for regional improvement or progress (e.g. expansion of a biosciences research lab in the region), often external in nature.

- Increasing involvement of University of Vermont, Champlain College, and St. Michaels in economic development
- Nurturing entrepreneurial environment and support systems
- Improving structured employer engagement in K-16 education curricula and State training programs
- Improving the quality of vocational and technical education programs available in Chittenden County and Vermont, and increasing consistency between governance and funding structures of various programs
- Coordinating and increasing efficacy and efficiency of state and local permitting processes
- Creating more dynamic economic development programs and services
- Increasing policy focus and investment in renewable energy and clean water
- Improving parking management in downtown Burlington
- Promoting telecommuting and remote workforce based upon our regional assets
- Expanding access to career, vocational and technical education in K-12 and to adult Vermonters
- Engaging a highly skilled and trainable retirement age population
- Engaging and supporting a growing New American population

Threats: Chances or occasions for negative impacts on the region or regional decline (e.g. several companies in the region considering moving out of state), often external in nature.

- Permitting costs, redundancies, delays, and appeals in the construction process
- Cost of complying with the Lake Champlain Total Maximum Daily Load for phosphorus
- Declining workforce participation
- Increasing rate of population aging and increase in needed services
- Declining K-12 population
- Labor/skills needs negatively impacting employers' growth, investment, and location decisions
- Aging transportation, water and wastewater infrastructure and limited maintenance funds
- Rising rates of chronic disease and dangerous behaviors, such as addiction, substance abuse, mental health, and obesity,
- Increasing population of economically disconnected young adults in Vermont who do not seek post-secondary education and/or job training and therefore have limited opportunities
- Lack of rental and owner-occupied housing that is affordable

Economic Base Analysis

This sub-section provides an analysis of the current economic base of Chittenden County and the trends that have been shaping the County's economy up to this point in time. It considers those aspects of a regional economy most typically included in the preparation of a Comprehensive Economic Development Strategy (CEDS) or similar economic development strategic plans.

Some disquieting trends need to be acknowledged in Chittenden County. Goods-producing sectors are dropping in economic output and employment. The rate of population growth has declined and that is likely to continue into the future. The population continues to age, and the workforce will shrink because of that. Though unemployment is currently very low, workforce participation is also decreasing. This may mean that businesses will struggle to grow due to a lack of skilled workers. These and other problems are exceedingly difficult to address on a local level, but local efforts, coupled with action by state and federal elected and appointed officials, can mitigate some of these disadvantages.

However, Chittenden County maintains strong advantages as well. Chittenden County remains the largest player in Vermont's economy. Over the past several decades, the County's share of population, GDP, jobs and income, among other factors, has increased. The county includes the largest urban area in the state and the largest for-profit employer in the state, but also significant agricultural, recreational and open space areas. This mix of uses results in a character cherished by its residents and appealing to prospective residents.

The data below illustrate recent positive and negative conditions and trends in Chittenden County.

Chittenden County's Place in the Vermont Economy

- Chittenden County contains 26% of the State's populationⁱⁱ
- Median household income is \$67,997 versus \$56,990 for the Stateⁱⁱⁱ
- Between 2010 and 2015, the State's population grew .01%, while Chittenden County's population grew 3%.^{iv}
- Chittenden County is home to 27% of the State's private businesses. Between 2010-2016, the number of private businesses increased by 4.6% in Vermont, and by 14.5% in Chittenden County.^v
- Chittenden County accounted for 36% of total Vermont manufacturers' shipments in 2012, down from 45% in 2007^{vi}
- Thirty percent of the State's retail sales occurred in the County (2012)^{vii} and in 2016, the Department of Taxes reports show that five of the six highest retail sales tax collections occurred in Chittenden County (Williston – #1; Colchester – #2, South Burlington – #3; Burlington – #4; and Essex - #6).^{viii}
- GDP per capita in 2015 was \$53,759 in the Burlington-South Burlington Metropolitan Statistical Area, vs. \$43,495 for the State^{ix}
- Chittenden County provided 24.9 % of sales tax revenue in Vermont in 2016 (a drop from 32% in 2012)^x
- Chittenden County provided 36% of state income tax revenues in 2015 (an increase from 35% in 2012)^{xi}

- The annual rate of population growth in both Chittenden County as well as the State has slowed over the past several years. While regional population growth (3% increase from 2010-2015) is still stronger than statewide growth (.01% increase from 2010-2015), it is lower than the national growth rate (4%). Though the region still has a population growth advantage compared to the state, it does not when compared to the rest of the country.^{xii}
- Chittenden County has the highest percentage of New Americans in the state, and the percentage is growing—1/3 of all new county residents between 2006-2016 were born outside of the US. This group makes up 6.1% of the county's spending power and is strongly represented in key sectors like manufacturing and health care.^{xiii}

Employment, Wages and Key Sectors

- After declining from 2000-2010, employment in the private sector increased by 9.5% between 2010 and 2016. Public sector employment grew more slowly during the same time period (6.2%).^{xiv}
- The growth in the MSA's gross domestic product from 2010 to 2015 has come entirely from the services sectors. Over that time period, the MSA's GDP increased 5.4%, the GDP of private goods producing industries dropped 18.6%, and the GDP of private services-providing industries increased by 10.9%.^{xv}
- Growth in total nominal wages has risen off its sharp decline in 2009, and average wages were 11.4% higher in 2016 than they were in 2010. However, manufacturing, one of the sectors with the highest average wages in Chittenden County, has seen wages decrease by 2% since 2009.^{xvi}
- After decreasing from 2008-2010, the number of private businesses in Chittenden increased by 820 establishments from 2010-2016.^{xvii}
- The largest employers in Chittenden County are the University of Vermont Medical Center and the University of Vermont. While there has been concern in the past that having these institutions as such large employers rather than private sector businesses is a problem, these institutions are an advantage to Chittenden County, and the economy is not overly reliant on them. Both are net dollar importers and are highly stable.^{xviii}
- Services-providing industries have become a larger portion of the economy since 2010. In 2010, private goods-producing industries were 19.7% of the economy, and private services-providing industries were 65.9% of the economy. In 2015, the industries made up 15.2% and 69.3% of the economy respectively.^{xix}
- GDP per capita in the retail sector increased 3.8% between 2010 and 2016.^{xx} However, over that same time period, employment in retail sectors decreased by 0.9%.^{xxi}
- The number of Chittenden County jobs in high-wage industries has declined by more than 5,000 since the year 2000; much of this has been from cutbacks at Global Foundries (formerly IBM). Employment in mid-wage and low-wage industries has increased slightly. The loss of jobs in high wage industries is not unique to this region—it is part of a larger trend that has been seen nationwide.^{xxii xxiii}

- The construction industry has recovered since the 2008 recession, and the numbers of newly permitted projects, both housing and commercial/industrial, have reached pre-recession levels.^{xxiv}
- Global Foundries (formerly IBM) remains a strong part of the economy. The information technology and analytical instruments cluster remains the most important element of traded sector employment (those industries that sell their products and services outside the region and bring new money back in, thus supporting the local, or non-traded, industries). Durable goods manufacturing, which includes electronics manufacturing, remains 7% of the region's GDP.^{xxv} However, following the loss of more than 4,000 jobs at Global Foundries (formerly IBM) over the past decade, the long-term security of these jobs may be in question.
- Working lands and resource extraction industries are critical components of a self-reliant and diverse economy, making a region less vulnerable to market crises. Working lands and resource extraction industries are economically viable within the constraints of our natural landscape. For more information on working lands in Chittenden County, see Section 2.4.3 and Strategy 3.2.4.
- Renewable energy generation, especially solar panels and biodigesters, provide opportunities for farmers to bring in extra income by producing electricity. Both net metering (using the energy produced on-site) and leasing the land to a developer may be valuable economic opportunities. For more information on CCRPC's goals for renewable energy generation and facility siting policies, see Strategy 3.2.2.
- Employment in technology and technology-related fields are growing and becoming a key part of Vermont's economy. Twenty-five percent of Vermont's jobs are either in tech industries, or are tech jobs in other industries. These jobs pay 63% more than the average wage in Vermont, and each tech job creates two additional jobs.^{xxvi}

Household Financial Security

- Although this plan celebrates Chittenden County's high income and education levels, household financial security is still a concern.
- Income inequality is increasing in Vermont. Between 1979 and 2007, average income in Vermont has grown by 42.4%, with the top 1% of income earners seeing an increase of 217% and the bottom 99% seeing an increase of 27.8%. This follows a national trend that has been occurring since the 1980's. As of 2013, the top 1% of income earners in Vermont earn 16.1x the income of the bottom 99%, and in the Burlington-South Burlington MSA, the ratio is 17.1x. While Vermont and Chittenden County have lower levels of income inequality than the country—the average ratio for the United States is 20.1x—this trend is still concerning.^{xxvii}
- Vermont's Basic Needs Budget determines the hourly rate a worker would need to make to pay for their "basic needs," ranging from food and housing to childcare and insurance. This rate is known as the "livable wage," and it is calculated differently depending on household size/makeup and rural or urban location. For full time workers, the Vermont minimum wage is only 74% of the average living wage. However, this varies significantly by household composition and location. For example, the Vermont minimum wage is only 43% of the living wage for two working

- parents with two children in an urban area, and only 25% of the living wage for a single parent with two children in an urban area.^{xxviii}
- In 2016, lower income Vermonters reported higher rates of depressive disorders, poor mental health and chronic conditions, such as obesity, asthma, heart disease, stroke and diabetes. While data on addiction were not available broken down by income, some substance uses, such as using marijuana or tobacco, were higher among adults with lower incomes.^{xxix} Data from 2013 showed similar trends in Chittenden County.^{xxx}
 - Lack of financial resources can also cause food insecurity. For example, in Chittenden County, 29% of students are eligible for free or reduced priced school meals. Food insecurity is also linked to obesity, as “unhealthy,” high calorie foods tend to be cheaper in terms of “calories per dollar” compared to “healthy” food like fresh produce.^{xxxi}
 - The County’s ability to grow its economy in the future will be closely tied to its ability to provide available labor. A broad-based strategy of skills upgrading, new methods of recruiting and alternative working arrangements will be necessary.^{xxxii}
 - More focus is needed on education and workforce development to train employees for the opportunities in the technologies needed for manufacturing, professional services and health care.^{xxxiii}
 - For a more detailed discussion of housing costs in Chittenden County, please see Section 2.5.2.

Competitive Assessment

This sub-section provides an assessment whether Chittenden County, Vermont is competitive as an economic development product. In the economic development marketplace, the product being sold is usually a place, and the characteristics of that place determine its competitiveness. In this instance, the place being assessed is Chittenden County, Vermont and its constituent communities, in particular, the central City of Burlington. Chittenden County is comprised of many communities that have varying degrees of interest in differing forms of economic development. Taken as a whole, this provides the basis for a diverse and sustainable economy and quality place in the future.

In reviewing the findings presented in the Competitive Assessment report (<http://ecosproject.com/analysis>), the following highlights were noted. Statistics and conclusions are from the Competitive Assessment report unless otherwise noted.

- Chittenden County is a mix of urban, suburban and rural areas, with an essential rural character that polling has consistently shown is important to many residents. Protection of this character must be reflected in economic development efforts if public sector economic development efforts are to be broadly supported.
- The County has a high quality of life, making it attractive to businesses and workers. The notable exception is the affordability of housing, which was rated the lowest among quality of life factors included in the 2012 Employers Survey. Recent employer focus groups conducted during the Building Homes Together Campaign show that this issue persists as the most commonly observed weakness of the area. This challenge is exemplified by the fact that the number of Chittenden County workers who live in Chittenden County dropped from 74.6% in 2002 to 68.4% in 2015.^{xxxiv} If conditions

continue as they have been, the forecasts completed for the ECOS plan show that this trend will continue, and the rate of in-commuting will continue to increase.^{xxxv} While there are many reasons an employee in Chittenden County may choose to live outside the region, it is important to increase quality housing stock available to all income levels, to increase quality of life for current residents and to attract those who wish to live near their jobs.

- Based upon the results of the Employers Survey, recreational opportunities, safety from crime, and cultural opportunities all scored Very Good or higher, while the quality of the K – 12 educational system scored just below Very Good.^{xxxvi}
- Educational levels among residents 25 years old and older exceed state and national norms.^{xxxvii} However, 30% of employers report that they have training needs that are not met by local resources, and significant racial and income based achievement gaps remain (See Section 2.5: Education for more detail).^{xxxviii}
- Vermont Agency of Education data show that roughly 40% of graduating high school seniors do not go on to further education (industry recognized credentials, certificates, or two and four-year degrees) once they leave school.^{xxxix} This often means they have limited ability to engage in the workforce, and disproportionately suffer from negative social, economic, and health outcomes. These issues will be characterized in greater detail by the State Workforce Development Working Group’s efforts, which are currently ongoing.^{xi}
- The County represents 26% of the state’s population, and is relatively young, with household incomes and educational attainment exceeding state and national norms.^{xii}
- Between 2012 and 2016, Chittenden County’s employment base has remained concentrated within five private industry sectors: healthcare and social assistance; retail trade; manufacturing; accommodation and food service; and professional, scientific and technical services. However, the proportion of jobs in these sectors has dropped from 71% of total employment in the County in 2012 to 54% in 2016.^{xiii}
- The number of subsectors with high location quotients (goods production, construction, manufacturing, education and health services and other services) shows a diversified employment base that offers opportunities for continued economic diversification and a broad base on which the County’s economy can flourish.^{xiiii}
- The County’s ability to grow its economy in the future will be closely tied to its ability to provide available skilled labor, particularly once the currently unemployed are absorbed back into the ranks of the employed as much as their skills will allow. A broad-based strategy of skills upgrading, training, new methods of recruiting and alternative working arrangements will be necessary. An integrated workforce delivery system plan will need to be considered and implemented.^{xlv}
- Unemployment in Chittenden County is low. In August 2017, unemployment in Chittenden County was 2.5%, compared to the Vermont rate of 3.0%^{xlv} and US rate of 4.5%.^{xlvi} However, Vermont’s percentage of “underutilized” workers is 6.3%, much higher than the unemployment rate. Workers who are unemployed, involuntarily part time, or marginally attached fall into this category. Although Vermont’s rate of underutilized workers is lower than the national average (8.9%), many Vermonters are still searching for a job that fits their skills and economic needs.^{xlvii}
- The best recruiting experiences reported by county employers are typically from workers in the Northeast, the upper Midwest and areas with similar climate and outdoor

recreational opportunities, such as the Northwest and Colorado. Recruiting people from large technology centers such as Boston, Austin and California is difficult.^{xlviii}

- Employers report very good to excellent workforce quality, with good work ethic and productivity, and low turnover and absenteeism.^{xlix}
- The County's higher education infrastructure is excellent, although almost 30% of employers participating in the Employer Survey indicated that they have training needs that are not being met by local resources. While some of these needs are for skills that are unique to specific companies, several employers surveyed for this assessment reported similar training needs for skilled manufacturing occupations particularly in the machine trades. Interviewed manufacturers emphasized the strong need for local training programs in machining and other skilled occupations to support their growth and sustainability.ⁱ
- With the notable exception of affordability of housing, most every kind of quality of life factor sought by most people is readily available in the County.ⁱⁱ
- The County's perceived regulatory environment rates as less than Good (where Good = 3 on the five point scale used in the Employer Survey conducted as part of the competitive assessment), with local property taxes and the local construction permitting process (regulations and procedures) both topics of complaint.ⁱⁱⁱ
- As of 2016, most permitted industrial parks are approaching full build out.ⁱⁱⁱⁱ While the availability of square feet of industrial space may not make it seem as though there is a shortage, having adequate industrial space is as much about having a wide variety of spaces as it is vacant square footage. GBIC reports that most industrial operations have very specific requirements for what size and configuration of space they need to begin or expand their business. If the right kind of space is not available in the county, GBIC finds that companies often choose to expand elsewhere rather than reconfigure or build new space in Chittenden County.
- As of 2016, commercial land sales have increased since the 2008 recession and high sales activity is projected to continue. However, the market for office space is currently somewhat oversupplied, and construction will likely slow.^{lv}
- Chittenden County features a well-developed transportation network that facilitates multi-modal travel. While the physical infrastructure is adequate for future demand, strategic investments will be needed in: 1) technology, such as coordinated signals, to improve the function of existing infrastructure, and 2) Single Occupant Vehicle (SOV) alternatives such as walking, biking and transit. Over the next 35 years, the majority of transportation spending will be on maintaining the system we've invested in over the past several decades. See the Metropolitan Transportation Plan for more details on the Region's transportation infrastructure.
- The County is generally well-served with utilities and telecommunications services necessary to support economic development. The weakest part of the County's utilities and telecommunications system is the quality and costs of telecommunications, in particular cell phone service in our rural areas.^{lv} Though almost all Chittenden County households are served by broadband internet, faster internet is an important utility for many of the region's key sectors, and for employees who work at home.^{lvi}
- Continued and increased attention must be paid to providing services to existing businesses and entrepreneurs in Chittenden County. Organizations such as the Vermont Center for Emerging Technologies, BTV Ignite and the South End Arts and Business

Association are key to the region. Encouraging the creation and growth of small, “home-grown” businesses is key to diversifying the economy instead of relying solely on large employers like Global Foundries (formerly IBM) for all technology jobs.^{lvii}

- Three of the County’s public high schools have low performance indicators, and employer interviews indicate that the limited proficiency of students remains a concern as they move into the workforce.^{lviii} Equal education that meets or exceeds state standards, especially for disadvantaged students and those for whom English is not their primary language, is key to the economy. Quality education is especially important as the number of children who face disadvantages increases. For example, the rate of children under age 9 in Department for Children and Families custody has recently increased in Chittenden County, rising from four children per 1,000 in 2012 to six per 1,000 in 2015.^{lix}
- Funding the water quality projects necessitated by the Lake Champlain TMDL will present a challenge for Chittenden County municipalities by straining municipal budgets. Additionally, complying with increased stormwater management requirements will increase the cost of development.^{lix}

Strategic Industry Sector Analysis

This sub-section provides a summary of the identification of target clusters and industry sectors that will likely be significant economic drivers for Chittenden County. The full Strategic Industry Sector Analysis report can be found at <http://ecosproject.com/analysis>. Based on the Economic Base Analysis and Competitive Assessment, the following 14 initial target clusters and industries for attraction and development efforts were identified and submitted to GBIC for consideration:

- Information Technology
- Value Added/Sustainable Agriculture
- Digital Media
- E-Commerce
- Clean Tech/Green Technology
- Tourism
- Retail
- Non-profit Organizations
- Health Care
- Business and Administrative Services
- Value-Added Manufacturing
- Higher Education
- Outdoor Recreation
- Food systems

From this initial selection, five primary targets, one of which is a combination of three of the initial recommendations, were selected as value-adding industries with high location quotients and are profiled in the Strategic Industry Sector Analysis report referenced above:

1. Information Technology, Communications, and Media

- Information Technology
 - E-Commerce
 - Digital Media
2. High Value-Added Manufacturing
 3. Higher Education
 4. Clean Tech/Green Tech
 5. Health Care and Wellness

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ECONOMIC RESILIENCE

Economic resilience is an area's ability to withstand, prevent, or quickly recover from major disruptions (i.e., 'shocks') to its underlying economic base, identify vulnerabilities and withstand or recover from disruptions. Depending on the character of the hazard, employees in certain industries, residents of certain areas or people with lower incomes or a more limited social safety net will be impacted more than others. Increasing economic resilience means that all Chittenden County residents, institutions and businesses will be better equipped to handle economic shocks.

As identified in the Weaknesses and Threats section of the SWOT analysis, Chittenden County faces a number of economic challenges. In addition, the Chittenden County Multi-Jurisdictional All Hazards Mitigation Plan^{lxii} identifies two hazards facing the county's economy:

1. Economic Recession: While employment and property values have recovered strongly since the 2008 recession, Chittenden County could be affected by another national recession.
2. Major Employer Loss: The loss of a major employer, either through severe job cutbacks or outright closure, has the potential to dramatically increase unemployment and reduce property values due to out-migration of terminated employees or facilities closure

To work towards greater resilience, and preparedness for the above hazards, the County CEDS is incorporated into the ECOS Plan as it requires more than traditional economic development activities alone. The State of Vermont CEDS states that any economic development activity that meets one or more of the following criteria increases economic resilience.^{lxiii}

1. Embraces complexity
2. Plans for change
3. Expands opportunities
4. Develops diverse relationships
5. Designs for learning
6. Builds local and regional self-reliance

The table below, organized by the above criteria, shows the different strategies and actions throughout the ECOS Plan that increase the region's economic resilience. Continued implementation of these strategies and actions will help the County be resilient to the hazards identified above.

A RESILIENT ECONOMY:	THE ECOS PLAN'S STRATEGIES INCLUDE:	ECOS PLAN ACTIONS TO IMPLEMENT THESE STRATEGIES INCLUDE:
<p>Embraces complexity (Does it encourage flexibility, economic diversity, and awareness of uncertainty?)</p>	<p>Improving and strengthening the economic systems of our region to increase opportunities for Vermont employers and employees (3.2.1)</p>	<p>3.2.1.2: Identify and plan for new industrial site locations</p> <p>3.2.1.5: Support creative economy efforts</p> <p>3.2.1.8: Economic Development Coordination - Work with the State of Vermont to implement the State CEDS</p>
<p>Plans for change (Does it reflect systems thinking and foresight? Does it consider multiple scales? Does it build adaptive capacities?)</p>	<p>Directing growth in a way that benefits all sectors of the economy and enables economic diversity—trying to make development for homes, retail and industrial uses easier in the areas planned for their growth, and simultaneously decreasing the destruction of working lands (Strategies 3.2.1, 3.2.2 and 3.2.4).</p>	<p>3.2.1.4: Innovation and Entrepreneurial Development - Create an economic system of resources that is easily navigable at all stages of the innovation and entrepreneurial continuum.</p>
<p>Expands opportunities (Does it enrich human, social, cultural, economic, and ecological wellbeing? Does it build diverse and accessible forms of livelihood and local wealth?)</p>	<p>Implementing strategies about education and equity, and seeking to improve the water quality of the region's lakes, rivers and streams, and to increase investment in and reduce fragmentation of the working landscaping (3.2.3 and 3.2.4)</p>	<p>3.2.1.3: Workforce education and skills development - connect educational programs with the needs of the Vermont workforce</p> <p>3.2.4.2: Protect farmland and forestland and support existing and new operations</p>
<p>Develops diverse relationships (Does it forge trusted partnerships and rich feedback loops amongst a flexible network of people and resources?)</p>	<p>Partnering with health and social welfare groups to increase the health and safety of every community member (Strategy 3.2.5).</p>	<p>3.2.5.1: Basic Needs - Provide the basic needs of all people</p> <p>3.2.5.7: Social Connectedness - Increase opportunities for residents to come together, interact and network</p>

**Designs for learning
(Does it facilitate continuous learning, adaptation, knowledge sharing, and innovation?)**

Supporting educational efforts for all ages to ensure that children have equal opportunity for good educations, that teenagers are prepared for future careers, and that adults have the skills they need to thrive at work (Strategy 3.2.6).

3.2.6.2: Elementary Readiness and Comprehensive Student Needs

3.2.6.3: Student-centered, proficiency based, flexible pathways to graduate

3.2.6.5: Career Awareness and Skill Alignment

<p>Builds local and regional self-reliance (Does it empower communities?)</p>	<p>Making equity a focus of planning through government partnerships data analysis, project prioritization and public participation (Strategies 3.2.7 and 3.2.8).</p>	<p>3.2.7.1: Community Development Finance Tools - Expand and improve implementation of financial tools available to municipalities</p> <p>3.2.7.7: County coordination and alignment</p> <p>3.2.7.8: Multi-jurisdictional services</p> <p>3.2.8.3: Increase opportunities and remove barriers for civic engagement for all, including underrepresented populations</p>
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4.2.3 STRATEGIC DIRECTION/ACTION PLAN

[Note: A Project List is no longer required, but one will be included. It will hopefully include identifying funding sources besides EDA grants. See the attached draft project list.]

Goals

Broad Goal: Build the region’s capacity for shared and sustainable improvements in the economic wellbeing of the community through support of both local and globally competitive initiatives.

Economy Goal: Retain and support existing employers and job growth, grow target sector employers and entrepreneurs, and work to attract a greater diversity of employers and employees.

Household Financial Security Goal: Improve the financial security of households.

Working Lands Goal: Support the growth and vitality of working farms and managed forests; and sustainably manage sand and gravel extraction operations.

Strategies

[Note: These strategies are currently found in Chapter 3 of the ECOS Plan, most in Strategy 1. However, other issues are addressed in detail elsewhere in the ECOS Plan. If no edits are proposed, those actions are not included here. For example, actions related to housing affordability can be found in Section 3.2.2.3.]

The strategic direction and action plan for this CEDS can be found throughout the ECOS Plan. While many of the strategies that would traditionally be considered “economic development” are included in Strategy 1, this plan views economic development as a wide-ranging issue. For example, Strategy 2 discusses housing affordability, Strategy 4 discusses working lands and Strategy 6 discusses education and workforce development.

1 IMPROVE AND STRENGTHEN THE ECONOMIC SYSTEMS OF OUR REGION TO INCREASE OPPORTUNITIES FOR VERMONT EMPLOYERS AND EMPLOYEES.

Economic development is about building a community’s capacity for shared and sustainable improvements in the economic well-being of residents. Providing access to good jobs that can support an adequate standard of living for all residents of a region or community; continuous and sustainable improvements in the internal functioning of the economy, where its structural underpinnings are made stronger without sacrificing long-term quality of life; and providing the means and the continuous processes to strengthen the foundation of our communities.

Actions

- 1. High wage employers** – The primary goal of any economic development strategy is retaining and growing the already existing high wage jobs within the economy. The region should maintain economic diversity by deepening existing sectors, and increase diversity by identifying and supporting businesses in sectors with high location quotients

(a higher concentration in the region compared to the country as a whole). Providing support and connecting available resources is critical to ensuring that this economic base remains vital and is able to grow. The high wage sectors in which Chittenden County expects to drive our economy are: Information Technology, Communications, and Media (including Information Technology, E-Commerce, and Digital Media); High Value-Added Manufacturing; Higher Education; Clean Tech/Green Tech; and, Health Care and Wellness (see the Target Sector Analysis – will be located here www.ecosproject.com/analysis shortly.).

- a. Build relationships with these employers. For example, the Region's Tech Jam highlights some of the region's many successful tech companies. Success here connects to the action on innovation and entrepreneurial development and includes: developing and attracting a tech workforce, access to financing, marketing VT and the region as a home for tech jobs and tech companies, supportive infrastructure such as broadband access, incubator space, and networking.
 - b. Facilitate access to employment and infrastructure development resources made available by the State. Currently these include programs such as the Vermont Employment Growth Incentive, the Vermont Training Program and the Vermont Tax Increment Financing (TIF) District Program.
 - c. Market the quality of life and the Vermont and Burlington "brand" as appealing places to start or expand a company, especially in target sectors such as tech.
- 2. Industrial Site Locations** – With only a few years supply of existing buildings or permitted sites left for high wage industrial or manufacturing businesses in the region, additional sites need to be identified and carefully planned to ensure a smooth permitting process to be ready for employers' needs for expansion or relocation in Chittenden County. The most likely employment sectors with this need are high wage, technology-based and other types of manufacturing. The best opportunities for these sites are on vacant portions of land owned by current major employers, within close proximity to - or already connected to - existing infrastructure services for long term efficiency.
- a. CCRPC and GBIC will work with ACCD to have business/industrial parks recognized as benefit locations in state designation programs. (Funded by GBIC and CCRPC. No direct additional employment is expected, but this would help to create future opportunities.)
 - b. Efforts should be made by CCRPC to educate businesses and developers about "Smart Growth"—development practices that achieve a higher level of density, greater compatibility within traditional development patterns, use less land, and provide for all modes of transportation.
 - c. Prepare a "longevity analysis" to project when additional fully-serviced land should be added to the regional inventory (GBIC action).
- 3. Workforce Education and Skills Development** – Promote public/private partnerships for education that connect the skills development infrastructure of our institutions of higher education, vocational programs, and technical schools with the direct needs of

the Vermont workforce. Data from the Vermont Department of Education show that roughly 40% of high school seniors do not go on to further education and/or career training after graduating. After graduation is too late to start career-focused skill education—education needs to be coordinated with our economic needs and teach students skills throughout the K-16 system and beyond.

- a. Maintain, improve and market the assets that attract and retain young professionals, such as the “Vermont brand,” social and professional opportunities, and affordable and attractive housing.
 - b. Review the recommendations of the Act 69 Working Group on State Workforce Development and the Vermont Futures Project’s Workforce Solution Report when complete, and determine how to best advance the recommendations.
 - c. See Strategy 3.2.6 for more actions related to education.
- 4. Innovation and Entrepreneurial Development** – Promote and expand the support ecosystem for entrepreneurs: providers, programs, and services available in the State to create an economic system of resources that is easily navigable at all stages of the innovation and entrepreneurial continuum. This support ecosystem must aggregate and address services such as finding capital, mentorship, prototyping, commercialization, etc.
- a. Encourage home-based small businesses throughout the Region as allowed by municipal zoning, and ensure that sufficient telecommunications infrastructure, especially high-speed internet, is available to make these businesses possible.
 - b. Research successful efforts to capitalize on the entrepreneurial spirit of recent immigrants and ensure that they are a cornerstone of economic development policy and actions, and incorporate strategies as appropriate.
- 5. Creative Economy and the Arts** – Arts and the creative economy are what drives a large and diverse amount of economic activity in our region (e.g. local foods, design, technology, media, craftsmanship/fabrication, arts, emergent media, music, dance, festivals, education, and recreation). This portion of the economy is fundamentally unique in that it is a significant contributor to the culture in our region. Support creative economy and arts programs and efforts. Create collaborations between arts, culture and recreation groups and the Chamber of Commerce and local businesses to promote the use of local artists in regular business needs (i.e. advertising, branding, communications, etc.) and to share vacant or underutilized commercial spaces with artists for gallery and/or studio space.
- 6. Working Lands** - Support value-added foods, farms and forest products through the work of Farm to Plate by Vermont Sustainable Jobs Fund and Working Lands Enterprise Board. See Strategy 4 for more details.
- 7. Tourism** – Continue good efforts in tourism including VT Convention Bureau, Lake Champlain Regional Chamber of Commerce, and Lake Champlain Byway. Support the work of the Vermont Outdoor Recreation Economic Collaborative, a task force created by Governor Phil Scott in 2017, to strengthen and expand Vermont’s outdoor recreation economy.

- 8. Economic Development Coordination** –Work with the State of Vermont to implement the 2014 Vermont Comprehensive Economic Development Strategy (Vermont 2020); and coordinate with Northwest Regional Planning Commission on their economic development efforts.
- 9. Public Infrastructure and Project Lists** – Adequate funding for public infrastructure is necessary to maintain and expand our economy. See the Metropolitan Transportation Plan and the ECOS/CEDS Project List for more details on critical projects. These lists include some of the projects necessary to support the region’s economic development: The Metropolitan Transportation Plan Project List includes transportation infrastructure projects and the CEDS Project List includes other infrastructure and utility projects.
- 10. Project Support** – the ECOS/CEDS and Metropolitan Transportation Project Lists should not be taken to mean that this plan only supports funding applications for infrastructure and utility projects. Rather, we will support the funding applications of any project that supports the strategies of this plan, such projects aimed at housing construction or business recruitment, retention and growth, and projects supporting our five target industries (Information Technology, Communications, and Media; High Value-Added Manufacturing; Higher Education; Clean Tech/Green Tech and Health Care and Wellness).
- 11. Housing Affordability** – Rental and owner-occupied housing that is affordable is a key component of economic development. The proportion of Chittenden County employees who live outside the county has increased since 2002, and this is projected to continue if housing trends continue as they have been. Reversing this trend will require two things: enough housing to accommodate all Chittenden County workers, and housing stock that is affordable and accessible to a wide variety of residents.
- a. Strive for 75% of Chittenden County workers to live in the region.
 - b. See Strategy 3.2.2.3 for detailed actions related to housing.
- 12. State/Local Permitting Coordination & Improvement (Currently in the ECOS Plan as Action 3.2.2.5)**
- a. Support changes to the local and state permitting process to make the two more coordinated and effective. Participate in the Commission on Act 250.
 - b. Collaborate with stakeholders to ensure local and state regulations, bylaws and plans encourage transparency, predictability and timely review of sustainable and environmentally sound development applications.
 - c. Develop a transportation assessment process that supports existing and planned land use densities and patterns in Center, Metro, Suburban, Village, and Enterprise Planning Areas to allow for more congestion and greater mode choice than allowed by current standards. The CCRPC will collaborate with the Vermont Agency of Transportation (VTTrans), the Natural Resources Board, and other

state and local stakeholders to develop a process that evaluates the transportation impact from a multi-modal perspective rather than just a traffic flow standpoint.

- d. Policies and planning studies that are adopted as part of this ECOS Plan and subsequent amendments will guide CCRPC's position in permit proceedings

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EVALUATION FRAMEWORK

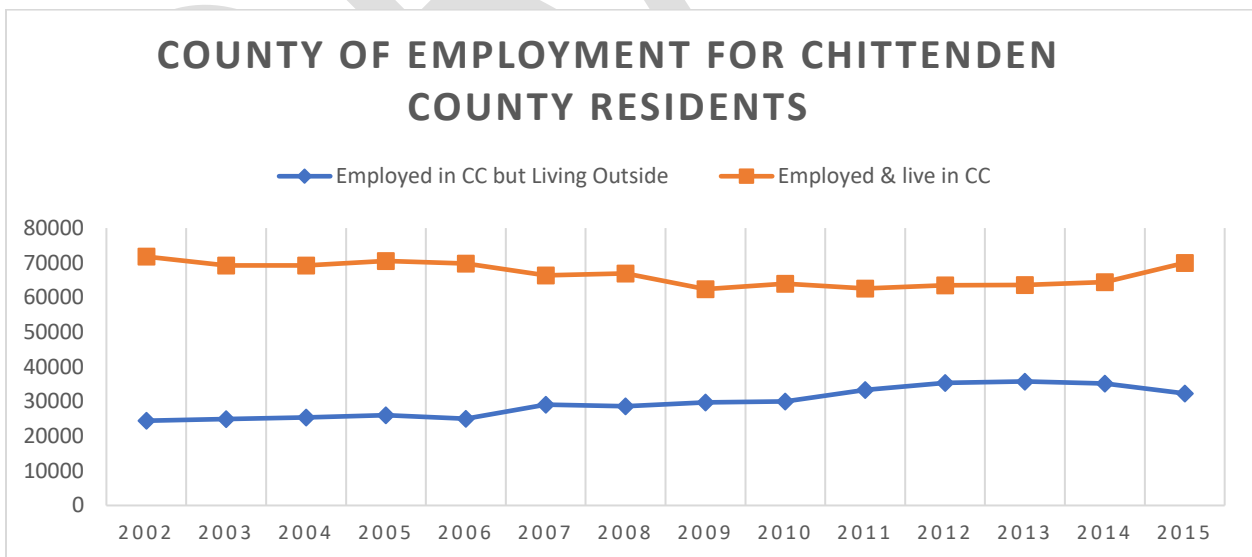
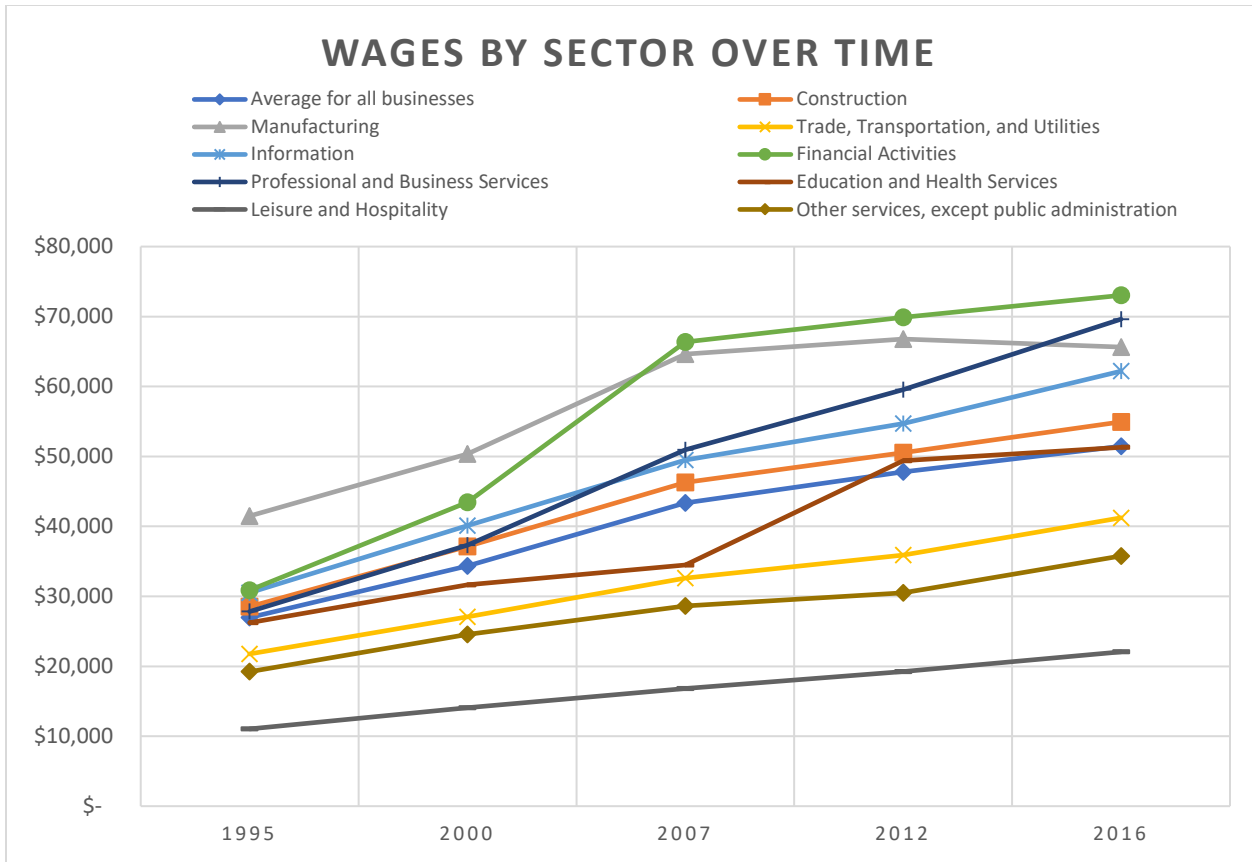
The Key Indicators below are reported on the ECOS Scorecard:

<https://app.resultsscorecard.com/Scorecard/Embed/8502>

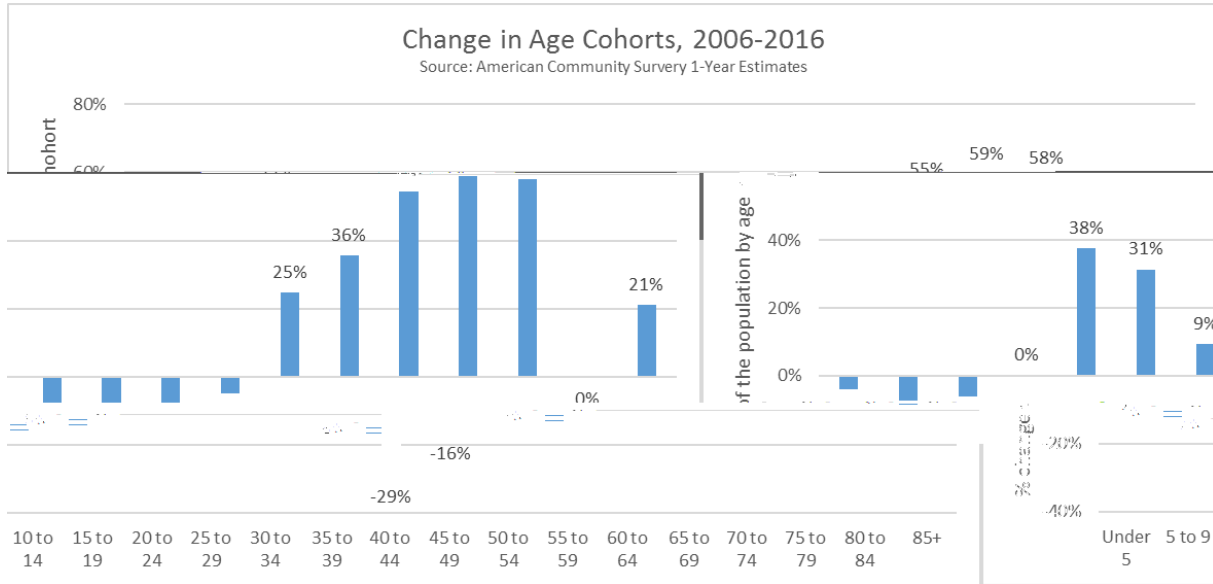
Proposed New Indicators:

- Percent of employment and location quotient of target industry sectors in Chittenden County – Will add
- Economic Diversity – Will add
- Affordability Index, especially focused on tax and fee burdens for residents – Will add

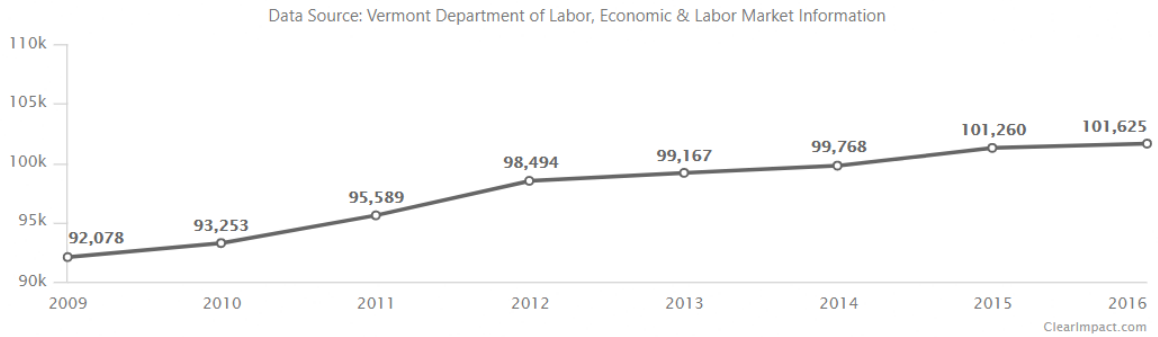
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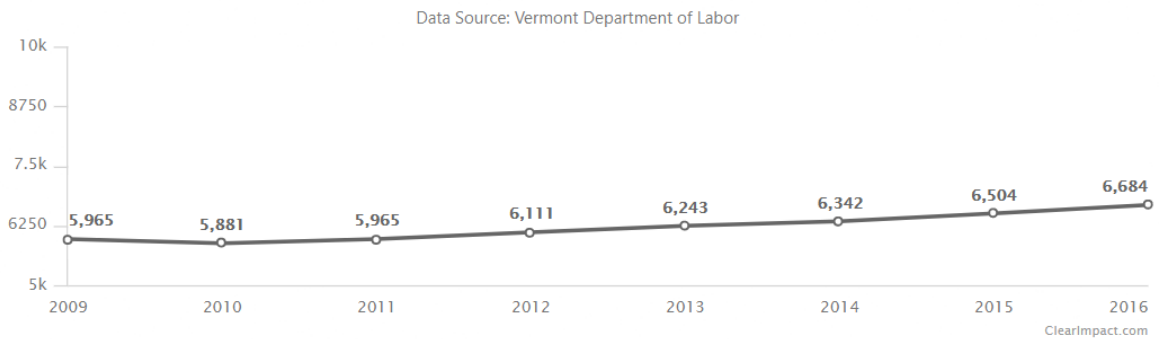
Current Indicators (From ECOS Scorecard Unless Otherwise Noted -



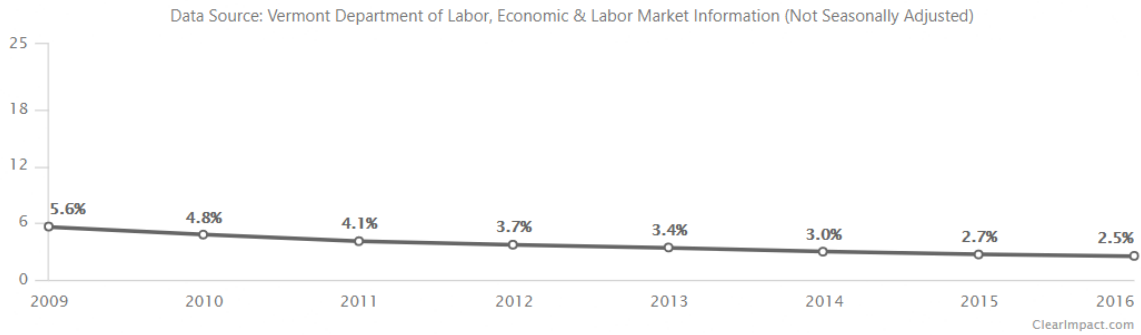
ECOS Total (Covered) Employment - Chittenden County



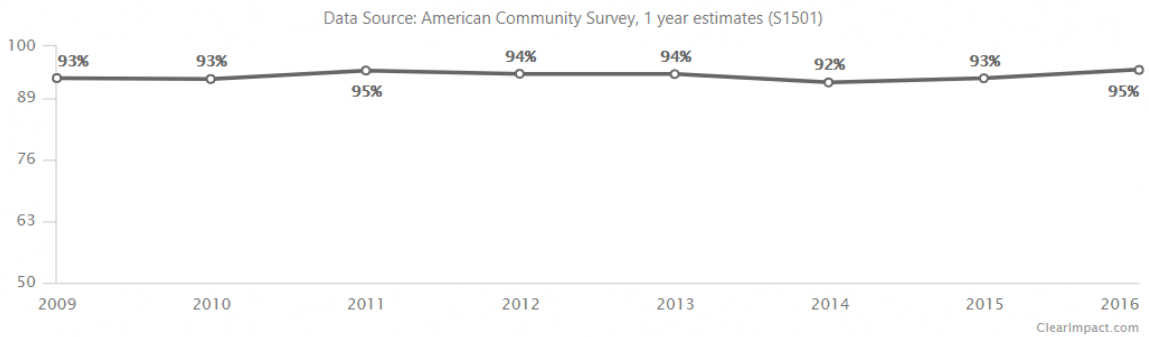
ECOS Number of Businesses



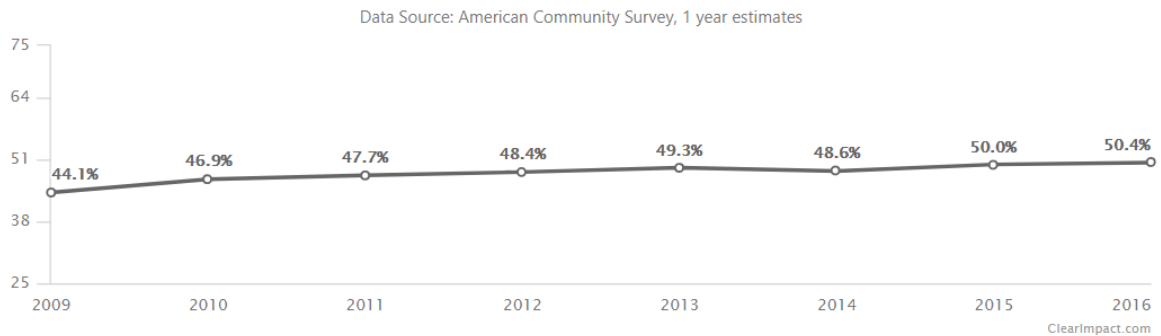
ECOS Unemployment Rate, Chittenden County



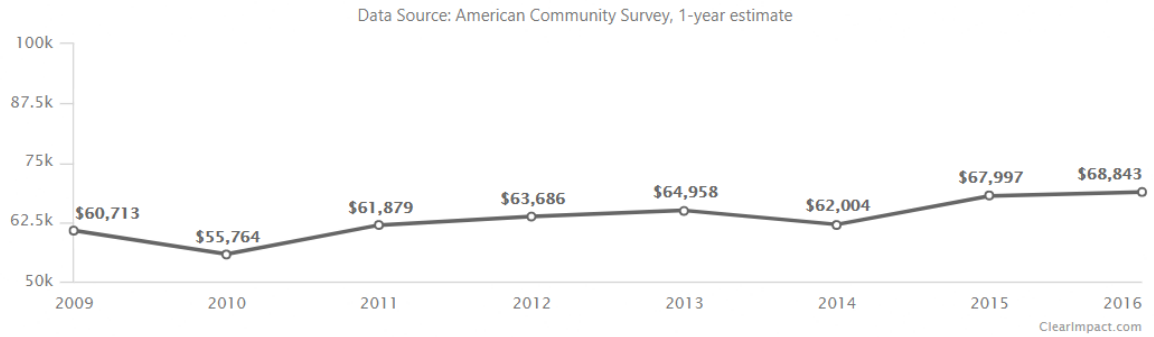
ECOS Percent of Adults (25+) with High School Degree or Higher in Chittenden County



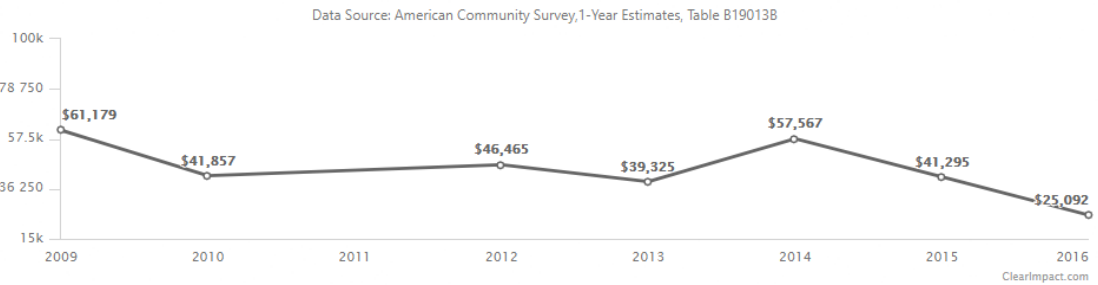
ECOS Percent of Adults (25+) with Bachelor's Degree or Higher in Chittenden County



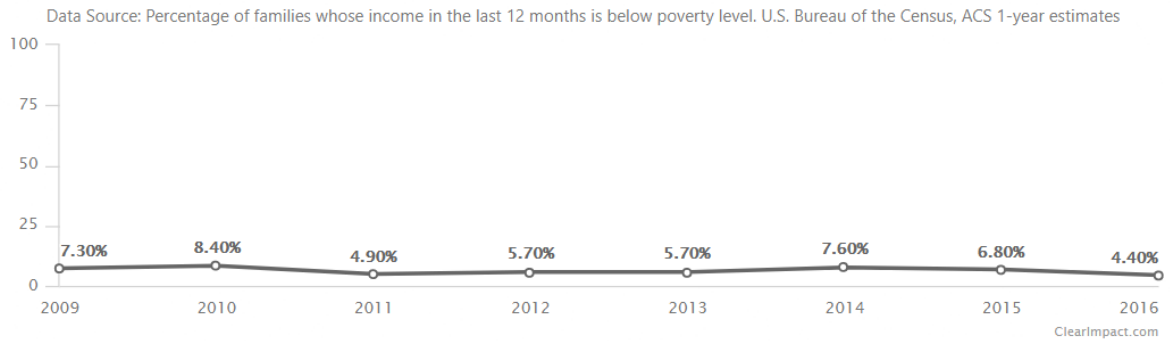
ECOS Median Household Income, Chittenden County



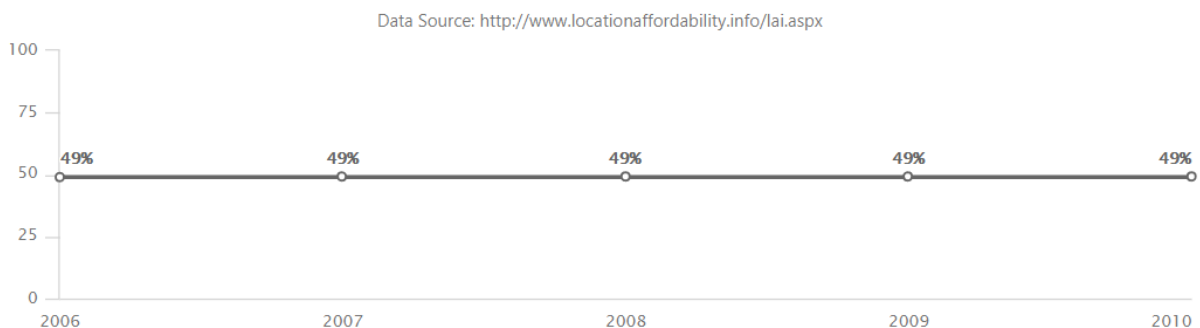
ECOS Median Household Income by Race, (Black/African American Householder)



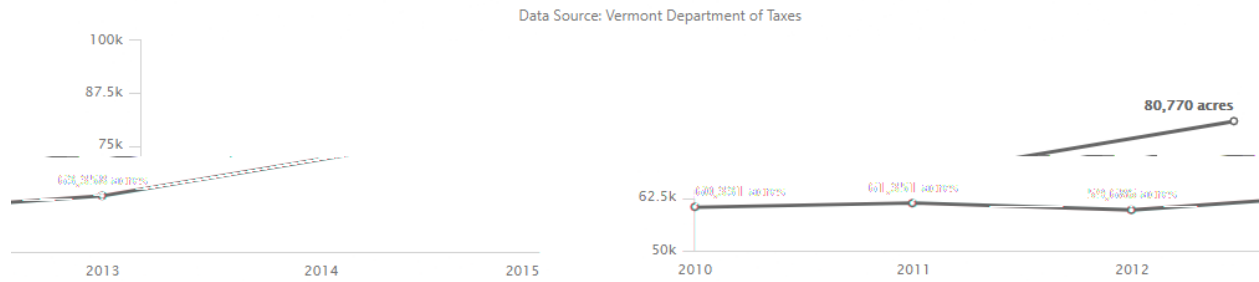
ECOS Percentage of families whose income in the last 12 months is below poverty level, Chittenden County



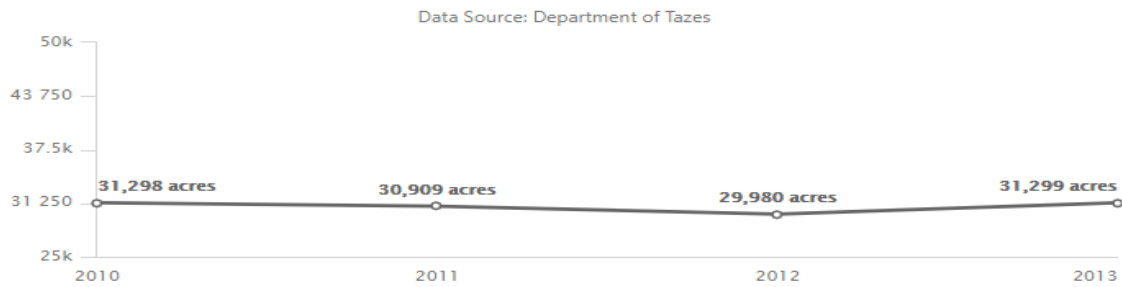
ECOS Housing + Transportation Costs for Median Income Family



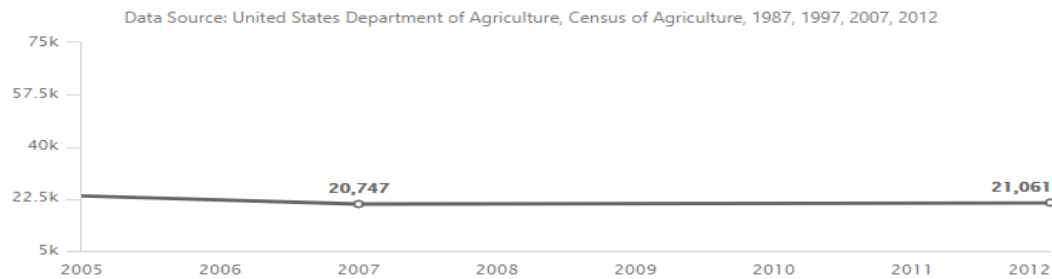
ECOS Economy: Number of Forested Acres enrolled in the Current Use Program



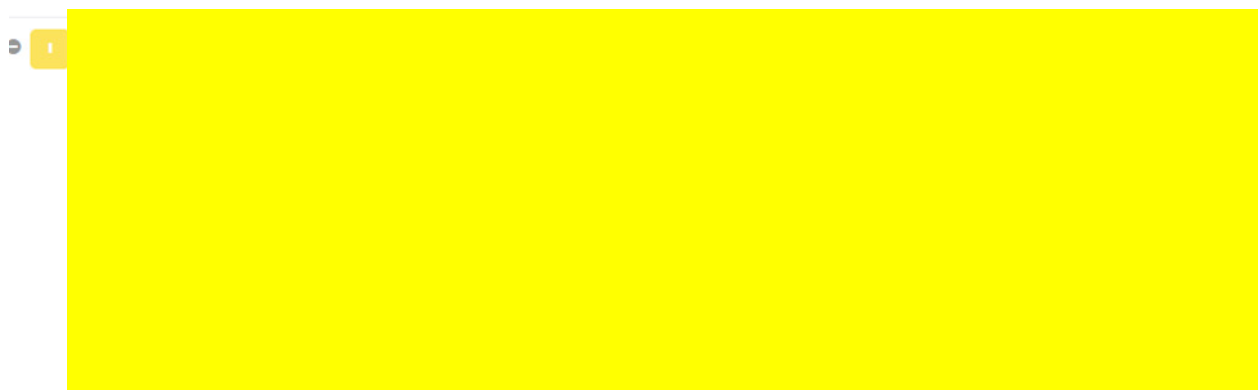
ECOS Economy: Number of Agricultural Acres enrolled in the Current Use Program



ECOS Economy: Acres Devoted to Crops and Forests



ECOS Economy: Total Number of Farms by size



- ⁱ Economic and Policy Resources 2004 Chittenden County Economic Plan. The Role of the Vermont Business Roundtable in the Evaluation, Coordination and Support of Economic Development Policy in Vermont, Report of the Economic Development Task Force, 1997. pp.1-2.
- ⁱⁱ 2015 American Community Survey 1-Year Estimates, Table DP05.
- ⁱⁱⁱ 2015 American Community Survey 1-Year Estimates, Table DP03.
- ^{iv} 2010 American Community Survey 1-Year Estimates and 2015 American Community Survey 1-Year Estimates, Table DP05.
- ^v Vermont Department of Labor Economic and Labor Market Information, Covered Employment and Wages. <http://www.vtlni.info/indnaics.htm> Please note that this does not include businesses with non-covered employment, such as sole proprietorships.
- ^{vi} 2012 Economic Census. Data from the 2017 Economic Census will be available in 2019.
- ^{vii} Ibid.
- ^{viii} Vermont Department of Taxes Sales and Use Tax Statistics Report, Period Summary by County/Town, 1/1/2016-12/31/2016. <http://tax.vermont.gov/research-and-reports/statistical-data/sales-and-use/2016>
- ^{ix} US Department of Commerce Bureau of Economic Analysis Regional Data, Per Capita Real Gross Domestic Product by Metropolitan Area, 2015. <https://goo.gl/4KqXiD>
- ^x Vermont Department of Taxes Sales and Use Tax by County, 2016. <http://tax.vermont.gov/research-and-reports/statistical-data/sales-and-use/2016>
- ^{xi} Vermont Department of Taxes Income Tax Statistics by County, 2015. http://tax.vermont.gov/sites/tax/files/documents/income_stats_2015_county.pdf
- ^{xii} 2010 American Community Survey 1-Year Estimates and 2015 American Community Survey 1-Year Estimates, Table DP05. <https://goo.gl/R2QiYc>
- ^{xiii} Champlain Valley Office of Economic Opportunity: The Demographic and Economic Contributions of New Americans to Chittenden County. 2017. https://www.cvoeo.org/fileLibrary/file_296.pdf
- ^{xiv} Vermont Department of Labor Economic and Labor Market Information, Covered Employment and Wages. <http://www.vtlni.info/indnaics.htm>
- ^{xv} US Department of Commerce Bureau of Economic Analysis Regional Data, Gross Domestic Product by Metropolitan Area, 2010 and 2015. <https://goo.gl/ejqrLj>
- ^{xvi} Vermont Department of Labor Economic and Labor Market Information, Covered Employment and Wages Data. <https://goo.gl/xRRqb8>
- ^{xvii} Ibid.
- ^{xviii} Chittenden County, VT Economic Base Analysis: An ECOS Analysis Report. 2012. <http://www.ecosproject.com/wp/wp-content/uploads/2016/07/ECOS-Economic-Base-Analysis-FINAL.pdf>
- ^{xix} Vermont Department of Labor Economic and Labor Market Information, Covered Employment and Wages Data. <https://goo.gl/xRRqb8>
- ^{xx} US Department of Commerce Bureau of Economic Analysis, Gross Domestic Product (GDP) by Metropolitan Area, 2010 and 2015. <https://goo.gl/D3c8Qf>
- ^{xxi} Vermont Department of Labor Economic and Labor Market Information, Covered Employment and Wages Data. <https://goo.gl/xRRqb8>
- ^{xxii} Chittenden County, VT Economic Base Analysis: An ECOS Analysis Report. 2012. <http://www.ecosproject.com/wp/wp-content/uploads/2016/07/ECOS-Economic-Base-Analysis-FINAL.pdf>
- ^{xxiii} Vermont Department of Labor Economic and Labor Market Information, Covered Employment and Wages Data. <https://goo.gl/xRRqb8>
- ^{xxiv} Allen, Brooks and Minor Report, June 2017.
- ^{xxv} US Department of Commerce Bureau of Economic Analysis, Gross Domestic Product (GDP) by Metropolitan Area, 2010 and 2015. <https://goo.gl/D3c8Qf>
- ^{xxvi} "Vermont's Tech Employment: The Hidden Driver of Our Economic Growth." Vermont Technology Alliance, 2016. https://c.ymcdn.com/sites/vtsda.site-ym.com/resource/resmgr/files/vtTA_Report_on_Vermont's_Tec.pdf
- ^{xxvii} Sommeiller, Estelle, Mark Price and Ellis Wazeter. Income inequality in the US by state, metropolitan area, and county. Economic Policy Institute, June 16, 2016. <http://www.epi.org/publication/income-inequality-in-the-us/>
- ^{xxviii} Vermont Joint Fiscal Office. Basic Needs Budget and the Livable Wage. February 1, 2017. <https://goo.gl/mMo4Ny>

- xxix Vermont Department of Health, Vermont Behavioral Risk Factor Surveillance Survey 2016 Data Summary, September 2017. <https://goo.gl/jGspFU>
- xxx Vermont Department of Health, Burlington District Office 2014 Behavioral Risk Factor Surveillance Survey, May 2016. <https://goo.gl/jGspFU> 0
- xxxi Vermont Agency of Education Child Nutrition Programs Annual Statistical Report, Percent of Students Eligible for Free and Reduced Price School Meals, School Year 2016-2017. <https://goo.gl/t6YR8K>
- xxxii Chittenden County, VT Competitive Assessment: An ECOS Analysis Report, 2012. <http://www.ecosproject.com/wp/wp-content/uploads/2016/07/ECOS-Competitive-Assessment-FINAL.pdf>
- xxxiii Ibid.
- xxxiv US Census Bureau Longitudinal Employer-Household Dynamics, 2015. onthemap.ces.census.gov
- xxxv CCRPC ECOS Plan 2050 Forecasts, March 22, 2017. <https://www.ccrpcvt.org/our-work/our-plans/ecos-regional-plan/>
- xxxvi Chittenden County, VT Competitive Assessment: An ECOS Analysis Report, 2012. <http://www.ecosproject.com/wp/wp-content/uploads/2016/07/ECOS-Competitive-Assessment-FINAL.pdf>
- xxxvii 2015 American Community Survey 1-Year Estimates, Table S1501.
- xxxviii Chittenden County, VT Competitive Assessment: An ECOS Analysis Report, 2012. <http://www.ecosproject.com/wp/wp-content/uploads/2016/07/ECOS-Competitive-Assessment-FINAL.pdf>
- xxxix Vermont Agency of Education Report: High School Graduates – Postsecondary Reports, 2017. <http://education.vermont.gov/documents/data-high-school-graduates-postsecondary-reports>
- xl Vermont State Workforce Development Board, <http://labor.vermont.gov/workforce-development-council/>
- xli 2015 American Community Survey 1-Year Estimates, Table DP05 and DP03.
- xlii Vermont Department of Labor Economic and Labor Market Information, Covered Employment and Wages Data. <https://goo.gl/xRRqb8>
- xliii US Bureau of Labor Statistics, Quarterly Census of Employment and Wages. Private NAICS Sectors, Chittenden County Vermont, 2016 Annual Averages. <https://goo.gl/kCMdtL>
- xliv Chittenden County, VT Competitive Assessment: An ECOS Analysis Report, 2012. <http://www.ecosproject.com/wp/wp-content/uploads/2016/07/ECOS-Competitive-Assessment-FINAL.pdf>
- xlv United States Department of Labor Bureau of Labor Statistics, Local Area Unemployment Statistics, Chittenden County and Vermont, August 2017 (Not Seasonally Adjusted). <https://www.bls.gov/lau/>
- xlvi United States Department of Labor Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, August 2017 (Not Seasonally Adjusted). <https://beta.bls.gov/dataViewer/view/timeseries/LNU04000000>
- xlvii United States Department of Labor Bureau of Labor Statistics, Alternative Measures of Labor Underutilization for States, Fourth Quarter of 2016 through Third Quarter of 2017 Averages. <https://www.bls.gov/lau/stalt.htm>
- xlviii Chittenden County, VT Competitive Assessment: An ECOS Analysis Report, 2012. <http://www.ecosproject.com/wp/wp-content/uploads/2016/07/ECOS-Competitive-Assessment-FINAL.pdf>
- xlix Ibid.
- ¹ Ibid.
- ⁱⁱ Ibid.
- ⁱⁱⁱ Ibid.
- ⁱⁱⁱⁱ Allen, Brooks and Minor Report, December 2016.
- ^{lv} Ibid.
- ^{lv} Chittenden County, VT Competitive Assessment: An ECOS Analysis Report, 2012. <http://www.ecosproject.com/wp/wp-content/uploads/2016/07/ECOS-Competitive-Assessment-FINAL.pdf>
- ^{lvilvi} Vermont Department of Public Service: Broadband Availability. <http://publicservice.vermont.gov/content/broadband-availability>
- ^{lvii} Chittenden County Regional Planning Commission White Paper: Supporting the STEM Cluster and Young Professionals in Chittenden County, 2016. https://www.ccrpcvt.org/wp-content/uploads/2016/01/STEMandYoungProfessionals_FinalDraft_20160620.pdf
- ^{lviii} Vermont Agency of Education Assessment Information, 2013-2014 School Year. <https://goo.gl/ceR9K1>
- ^{lix} Building Bright Futures. How Are Vermont’s Young Children and Families? Report, 2017 draft.
- ^{lx} Vermont Department of Environmental Conservation: Lake Champlain Total Maximum Daily Load. <http://dec.vermont.gov/watershed/cwi/restoring/champlain>

^{lxi} See CCRPC’s website for the full 2017 Chittenden County Multi-Jurisdictional All Hazards Mitigation Plan <http://www.ccrpcvt.org/our-work/emergency-management/hazard-mitigation-plan/#2017-plan>

^{lxii} Vermont Agency of Commerce and Community Development, Vermont 2020: Comprehensive Economic Development Strategy, 2014. <http://accd.vermont.gov/economic-development/major-initiatives/ceds>

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