# FINAL: Chittenden County, VT **Competitive Assessment**

On January 25, 2012 the Steering Committee accepted these Analysis Reports with the understanding that that as a part of the final ECOS product they remain open for amendment until the whole product is finalized.

#### An ECOS Analysis Report 1/25/2012

This document provides an assessment of the competitiveness of Chittenden County as an economic development "product" using the evaluation topics and methodology frequently used by businesses in evaluating potential locations. It provides a foundation for a sustainable regional economic base and employment opportunities for Chittenden County's residents and communities.



ENVIRONMENT | COMMUNITY | OPPORTUNITY | SUSTAINABILITY A SUSTAINABLE FUTURE FOR CHITTENDEN COUNTY

## Contents

HIGHLIGHTS	1
INTRODUCTION	3
METHODOLOGY	5
COMMUNITY ASSESSMENT	-
LOCATIONAL DESCRIPTION	
POPULATION AND DEMOGRAPHICS OVERVIEW	
EMPLOYMENT BASE	-
OCCUPATIONAL BASE	
LABOR QUALITY	
EDUCATION AND TRAINING	-
QUALITY OF LIFE	
REGULATORY ENVIRONMENT	
REAL ESTATE	
CHITTENDEN COUNTY AVAILABLE COMMERCIAL AND INDUSTRIAL BUILDINGS	
CHITTENDEN COUNTY AVAILABLE COMMERCIAL AND INDUSTRIAL LAND	
TRANSPORTATION AND ACCESSIBILITY	32
HIGHWAYS	
TRUCKING	
AIR TRANSPORTATION	
RAIL SERVICE	
PORT	
PUBLIC TRANSPORTATION.	
UTILITIES AND TELECOMMUNICATIONS	
PUBLIC WATER	
PUBLIC SEWER	
ELECTRIC POWER NATURAL GAS	
TELECOMMUNICATIONS	-
OTHER UTILITY INFORMATION	
ECONOMIC DEVELOPMENT PROGRAMS AND SERVICES	
	-
APPENDICES	56

# HIGHLIGHTS

- 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 represents a quarter of the state's population, and is relatively young, with household incomes and educational attainment exceeding state and national norms.
- Chittenden County's employment base is largely (83%) within five private industry sectors: healthcare and social assistance; retail trade; manufacturing; accommodation and food service; and professional, scientific and technical services.
- The number of subsectors with high location quotients shows a diversified employment base that offers opportunities for continued economic diversification and a broad base on which the County's economy can flourish.
- 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.
- The County's labor force has a relatively low unemployment rate and high labor participation rate, with many skills categories, particularly technical skills, reported as difficult to find or unavailable by area employers. To remedy this situation, recruitment of needed skills from other locations, and development of those skills within the area's workforce, retaining graduating students from area educational institutions, limiting the out-migration of skilled residents, and maximizing the return of local students graduating from colleges in other locations are needed.
- 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.
- Employers report very good to excellent workforce quality, with good work ethic and productivity, and low turnover and absenteeism.
- 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 meet 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.
- 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.
- 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 this assessment), with

local property taxes and the local construction permitting process (regulations and procedures) both topics of complaint.

- Chittenden County has a good inventory of available buildings or partial space in buildings, with 388 buildings totaling nearly 2.9 million square feet.
- Chittenden County is currently modestly-supplied with land for business construction. In the future, additional "shovel-ready" sites with good access, full utilities and proper zoning will be necessary if the County is to be competitive in attracting larger projects or retaining local businesses seeking to expand.
- Chittenden County is well-served with a highway network that facilitates multi-directional travel and is well-planned for roadway and related improvements. Those plans must be implemented, often at substantial cost and sometimes (particularly for larger projects) with delays from statemandated permitting. A potential impending decline in the adequacy of the County's roadway system caused by increasing traffic congestion, necessary roadway maintenance, and need for new road construction, coupled with the opportunity and need for future economic development, has resulted in the identification of a number of issues and situations that require immediate and careful consideration.
- 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. A major state-wide initiative to improve telecommunications services is underway.
- Interviews and surveys show there are lingering misconceptions about the mission of GBIC.
- Continued and increased attention must be paid to providing services to existing businesses and entrepreneurs in Chittenden County.

## INTRODUCTION

This portion of the ECOS Sustainable Communities project provides an assessment of the competiveness of Chittenden County, Vermont 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 of place in the future.

This Competitive Assessment is the product of a contract between the Chittenden County Regional Planning Commission (CCRPC), with management oversight by GBIC, and a team of economic development consultants headed by Garnet Consulting Services, Inc. Other members of the consulting team include Wadley-Donovan GrowthTech, LLC; Harold & Associates; and Jeff Blodgett, Vice President of Research Emeritus of the Connecticut Economic Resource Center.

The ECOS Project Steering Committee is a broadly-based 60+ member partnership committed to implementing strategies to improve Chittenden County's long-term sustainability: economically, environmentally and socially. The Steering Committee has committed to a five-phase project:

- 1. Adopt common goal statements
- 2. Analyze reports regarding economic development, housing, energy, land use and transportation, natural resources and health/human services/education
- 3. Develop indicators tied to the goal statements
- 4. Prioritize implementation actions for the next five, ten and twenty years
- 5. Invest in high priority implementation actions.

This assessment is part of a Sustainable Communities project funded by the U.S. Department of Housing and Urban Development, and is one of three project elements intended to lead to the creation of a new economic development Action Plan for the County. The other two elements are:

- A detailed Economic Base Analysis that provides an understanding of the County's economy and trends that have been shaping it up to this point in time; and
- A Strategic Industry Sector Analysis that looks in more detail at how that economic base and County characteristics translate into potentials for the future, with particular attention to assuring that future economic growth contributes positively to the long-term character of the County.

The following graphic shows the interrelationship of the three research and analysis elements and the Economic Development Action Plan that will result.

Economic Development Analysis		
Economic Base Analysis Competitive Assessment		
▲ Target C	ster & Industry	
	Pag	

	Analysis	
	•	
Economic Development Action Plan		
GBIC	Chittenden County	City of Burlington
CEDS	Regional Plan	Legacy Action Plan
CEDS	Economic Development Element	Economic Development Element

The resulting Economic Development Action Plan will have three interrelated elements:

- Creation of a new Comprehensive Economic Development Strategy (CEDS) for GBIC, the County's lead economic development organization, to meet the requirements of the U.S. Economic Development Administration, but also to provide a focused action plan for the County's future economic development efforts.
- 2. Updating of the economic development element of the Chittenden County Regional Planning Commission's Regional Plan.
- 3. Updating of the economic development element of the City of Burlington's Legacy Action Plan.

A result of any Competitive Assessment such as this is the accumulation of ideas about what should be done as a result of the identification of opportunities, issues and challenges in the assessment. Throughout this document the consulting team, in association with GBIC, has identified major issues or opportunities related to each section of the report and suggested ideas that have emerged so far for possible inclusion in the Economic Development Action Plans for Chittenden County.

## METHODOLOGY

This Competitive Assessment is the result of extensive research on the part of the consulting team, with logistical and informational assistance by the staff of GBIC, and research assistance from GBIC and CCRPC. Major research elements included (but are not limited to):

- Accumulation and analysis of all relevant prior plans, studies and other documents
- Two extended field research trips totaling nine person-days in Chittenden County that included interviews or focus group meetings with approximately 110 people
- Preparation of a data profile of the County, which is presented in Appendix A of this report
- Distribution of an electronic survey to nearly 220 County employers of a wide range of sizes, types and locations throughout the County. Seventy-five (75) responses were obtained for a response rate of 34.2%. Responses were received from a broad range of business types, sizes, and locations; the consulting team considers these responses to be a fair representation of the opinions of the County's full spectrum of employers. An analysis of survey responses is presented in Appendix B of this report.
- On-line research as required to supplement information received by other methods.

The topics considered in this Assessment and the methodology used is very similar to that used by companies in comparing potential locations. For the purposes of this Sustainable Communities project, the research findings reported in this document must be - and have been - analyzed for the purposes of identifying opportunities and providing recommendations that will best serve Chittenden County's goals for future economic sustainability.

# **COMMUNITY ASSESSMENT**

## **Locational Description**

Chittenden County, Vermont is located in the northwestern portion of the state adjacent to Lake Champlain and just south of Canada. The County has a total area of 620 square miles, of which 539 square miles are land and 81 square miles are water. With a 2010 population of 156,545, the County is the most populous in the state. Chittenden County is part of the Burlington-South Burlington Metropolitan Statistical Area.

#### Figure 1 - Chittenden County, Vermont



The County's central city is Burlington. Other incorporated and unincorporated places in the County are:

- Bolton
- Buels Gore
- Charlotte
- Colchester
- Essex

- Essex Junction
- Hinesburg
- Huntington
- Jericho
- Milton

- Richmond
- Shelburne
- South Burlington
- St. George
- Underhill

- Westford
- Williston
- Winooski

Chittenden County is a mix of urban, suburban and rural areas, with an essential rural character that is important to many residents. Similarly, the economy includes the largest for-profit employer in the state (IBM with over 5,000 employees); the largest retail area in Vermont with four communities (Burlington, Colchester, South Burlington and Williston) ranking in the top five in the state based on 2007 retail sales tax reports (source: Wikipedia citing a July 13, 2008 Burlington Free Press article); and significant agricultural, recreational and open space areas.

This mix of uses results in a character cherished by its residents (as consistently shown in opinion surveys) and appealing to prospective residents. The challenge is to plan and manage future growth, including economic development, so that it sustains and enhances this community character.

Chittenden County's proximity to markets in eastern Canada is an advantage for companies seeking a location from which to serve both eastern U.S. and Canadian marketplaces.

## **Population and Demographics Overview**

Chittenden County had a 2010 population of 156,545 residents, one quarter of the state's total. During the past decade the population grew significantly more than the state average (6.8% versus 2.8%), but trailed the national average (9.7%).

The population is relatively young (reflecting a significant college-age cohort), with a median age of 36.2 years, according to the 2010 census, versus a state median of 41.2 years and a national median of 37.2 years. The age distribution is strong in the working age cohort groups between the ages of 18 and 64, with the percentage of residents in this age group exceeding the national average. The fact that the ratio of residents in the 18-34 age group exceeds both the national and state averages is important, as many high technology-based business activities gravitate to areas with a high percentage of residents in this cohort.

Available forecasts show the County's median age will rise faster than the national average between 2010 and 2015, due to an anticipated decline in the number of residents under 54 years and growth in the number of residents over the age of 55.

The County's median household income is high (\$61,363) compared to state (\$52,289) and national (\$52,795) medians. The County's median household growth matched the state rate and exceeded the national rate over the past decade. Forecasts, however, show a gain in household income (7.8%) that will lag those of the state (9.0%) and nation (8.2%) over the next five years.

Educational levels among residents 25 years old and older exceed state and national norms. The estimated percentage of County residents with a four year bachelor's degree, or higher is 42.4% compared to a state average of 32.6% and a national average of 27.5%. The percent with graduate degree also exceed state and national averages by significant margins.

Supporting data is provided in Exhibit A-1 in the Appendix. Additional information is also provided in the Economic Base Analysis that is a separate part of this project.

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

Issue Response Maintaining attractiveness for a young and Maintain and accentuate the assets that attract educated population this demographic, such as social venues and events that allow socialization and networking among young and educated residents. Affordable and attractive housing is also important. Continue emphasis on developing and retaining Slower growing household income well-paying jobs to replace lost jobs from company downsizings, to offer career upgrading by employed residents, and to attract more well educated residents in their 20's and 30's to the County.

The table below summarizes the County's major population and demographic issues and opportunities indentified by the consultant team, and suggested responses by GBIC or its allies.

## **Employment Base**

Chittenden County's employment base is largely within five private industry sectors: healthcare and social assistance; retail trade; manufacturing; accommodation and food service; and professional, scientific and technical services, as shown in Table 1. Within the manufacturing sector, most employment is within the durable goods subsector. Although the information on employment within the computer and electronic product manufacturing industry is not provided by the Bureau of Labor Statistics (BLS) due to data suppression for confidentiality, other data shows that IBM has approximately 5,000 employees, and it is within this industry sector. Consequently, available data shows that most of the County's durable goods manufacturing is conducted by one employer, IBM, and that this company comprises roughly 46% of the County's manufacturing employment.

According to BLS, slightly more than 83% of the County's employment is within the private sector, and 16.7% are employed within the government sector, equivalent to the national average. Almost 60% of government jobs are within state and local educational services. If this educational employment is counted with the County's private sector employment, Education is the County's third largest employment sector, as shown in Table 2. Within the healthcare and social services sector, the healthcare subsector accounts for 14,000 of the roughly 16,000 sector jobs.

NAICS Code	Industry sector	Chittenden County	Vermont	U.S.
Private Secto	r	83.3%	82.0%	83.5%
62	Health care and social assistance	15.1%	15.9%	12.7%
44	Retail trade	13.5%	12.9%	11.4%
31	Manufacturing	11.5%	10.5%	9.0%
72	Accommodation & food services	8.2%	9.7%	8.7%
54	Professional, scientific & technical services	7.2%	4.6%	5.9%
23	Construction	4.5%	4.6%	4.3%
56	Admin, support, waste mgt, remediation services	3.4%	3.0%	5.8%
42	Wholesale trade	3.4%	3.2%	4.3%
52	Finance & insurance	3.4%	3.0%	4.3%
81	Other services (except public administration)	2.9%	2.9%	3.4%
51	Information	2.3%	1.8%	2.1%
48	Transportation & warehousing	2.2%	2.2%	3.1%
61	Educational services	2.2%	3.2%	1.9%
71	Arts, entertainment & recreation	1.6%	1.3%	1.5%
53	Real estate & rental & leasing	1.2%	1.0%	1.5%
55	Management of companies & enterprises	0.3%	0.3%	1.5%
22	Utilities	0.3%	0.6%	0.4%
11	Forestry, fishing, hunting, and agriculture support	0.1%	0.9%	0.9%
21	Mining	0.0%	0.2%	0.5%
Government S	Sector	16.7%	18.0%	16.5%

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages

\***Bolded** occupations indicate occupations for which Chittenden County percentages exceed the U.S. average. Data excludes members of the armed forces, the self-employed, proprietors, domestic workers, unpaid family members and rail road workers covered by the railroad unemployment systems

#### Table 2 – Largest Public and Private Industry Sectors by Employment in Chittenden County\*

Industry Sector	Employment
Health care and social assistance	14,060
Retail trade	12,556
Educational services	11,239
Manufacturing	10,744
Accommodation & food services	7,679
Professional, scientific & technical services	6,725

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages, 2010

\* Data excludes members of the armed forces, the self-employed, proprietors, domestic workers, unpaid family members and rail road workers covered by the railroad unemployment systems

A review of the location quotients of Chittenden County show those sectors in which employment concentrations are above national averages, thereby showing a comparative industry advantage for employment and skill availability. Table 3 indicates the two digit NAICS (North American Industry Classification System) Code sectors with location quotients above the national average. Particular strength is shown in the manufacturing and the professional and technical services sectors.

#### Table 3 – Location Quotients for Chittenden County by Two Digit NAICS Code \*

Industrial Category and 2 Digit NAICS Code	Location Quotient (US=1.00)
NAICS 31-33 Manufacturing	1.28
NAICS 54 Professional and technical services	1.23
NAICS 44-45 Retail trade	1.19
NAICS 62 Health care and social assistance	1.19
NAICS 61 Educational services	1.14
NAICS 51 Information	1.08
NAICS 71 Arts, entertainment, and recreation	1.06
NAICS 23 Construction	1.05

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages, 2010

\* Includes only industries with Location Quotients over 1.00

As previously noted, much of the manufacturing employment in the County is with IBM. The dominant role of IBM within the local industry base is indicated in Table 4, which shows an especially high location quotient in the County's computer and electronic product manufacturing subsector. The high location quotient in the non-store retailers is due to the County's comparatively large number of nationally recognized e-commerce and e-marketing related employers, including My Web Grocer, Dealer.com, Gardener's Supply, and Vermont Teddy Bear.

The County has location quotients of 1.0 or more in 31 subsectors, as shown in Table 4. This number of subsectors with high location quotients shows a diversified employment base that offers opportunities for continued economic diversification and a broad base on which the County's economy can flourish. Many places across the country of Chittenden County's size investigated by

the consultant team typically have significantly fewer industry subsectors with location quotients of 1.0 or more, usually fewer than 25.

#### Table 4 – Location Quotients for Chittenden County by Three Digit NAICS Code \*

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages, 2010

Industrial Category and 3 Digit NAICS Code	Location Quotient (US=1.00)
NAICS 334 Computer and electronic product manufacturing	6.63
NAICS 454 Nonstore retailers	2.65
NAICS 339 Miscellaneous manufacturing	2.07
NAICS 451 Sporting goods, hobby, book and music stores	1.95
NAICS 515 Broadcasting, except internet	1.91
NAICS 453 Miscellaneous store retailers	1.78
NAICS 323 Printing and related support activities	1.65
NAICS 492 Couriers and messengers	1.51
NAICS 442 Furniture and home furnishings stores	1.50
NAICS 448 Clothing and clothing accessories stores	1.46
NAICS 621 Ambulatory health care services	1.40
NAICS 445 Food and beverage stores	1.35
NAICS 447 Gasoline stations	1.33
NAICS 562 Waste management and remediation services	1.28
NAICS 541 Professional and technical services	1.23
NAICS 332 Fabricated metal product manufacturing	1.17
NAICS 517 Telecommunications	1.16
NAICS 611 Educational services	1.14
NAICS 441 Motor vehicle and parts dealers	1.12
NAICS 444 Building material and garden supply stores	1.11
NAICS 236 Construction of buildings	1.10
NAICS 511 Publishing industries, except internet	1.10
NAICS 624 Social assistance	1.10
NAICS 238 Specialty trade contractors	1.07
NAICS 333 Machinery manufacturing	1.05
NAICS 335 Electrical equipment and appliance mfg.	1.05
NAICS 721 Accommodation	1.05
NAICS 813 Membership associations and organizations	1.04
NAICS 443 Electronics and appliance stores	1.01
NAICS 532 Rental and leasing services	1.00
NAICS 713 Amusements, gambling, and recreation	1.00

\* Includes only industries with Location Quotients over 1.00

The County has spawned a comparatively large number of entrepreneurial operations that have grown into nationally and internationally recognized companies, including Ben & Jerry's Ice Cream, Seventh Generation, Dealer.com, My Web Grocer, NRG Systems, MicroStrain, BioTek, Vermont Teddy Bear, C<sup>2</sup>, Magic Hat Brewing Company, and Gardener's Supply to name a few – the list is certainly longer. It also has a strong base of "green industry" companies and the captive insurance

industry. The strength of the local economy rests firmly on companies that have been started and/or grown (such as Green Mountain Coffee and Burton Snowboards) in the County.

Burlington is home to the Vermont Technology Council (VTC), a highly motivated organization dedicated to the development of entrepreneurial and other technical business in the state, with significant activity in the County. There are eight organizations that constitute the VTC:

- 1. UVM Innovations
- 2. Vermont Academy of Science & Engineering
- 3. Vermont Center for Emerging Technologies
- 4. Vermont Environmental Consortium
- 5. Vermont EPSCoR (Experimental Program to Stimulate Competitive Research)
- 6. Vermont Information Technology Center
- 7. Vermont Manufacturing Extension Center
- 8. Vermont Small Business Innovation Research (SBIR)

The County is also home to the Vermont Software Developer's Alliance, a trade group founded by and for entrepreneurs to develop the software industry in the state.

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major employment base issues and opportunities indentified by the consultant team, and suggested responses by GBIC or its allies.

Issue	Response
Diversified employment base	Maintain economic diversity, and deepen
	existing sectors, seek even greater diversity.
	Become familiar with the County's economic
	sectors with high location quotients and provide
	stronger assistance to companies in these
	sectors, where needed, to enhance
	development and expansion.
Skewed data	Manufacturing and overall employment and
	wage numbers are skewed by IBM, so separate
	data should be maintained by GBIC and other
	County economic development agencies that
	exclude this company to give a truer picture of
	the County's manufacturing sector without the
	impact of this single large employer.
Large impact of IBM	IBM has a major impact on the local economy,
	so all possible efforts are needed to help the
	local facility prosper. One specific response by
	GBIC and its partners is to assist the company
	in its recruitment and retention of technicians,
	including reviewing its workplace culture to
	make it as attractive a work environment for
	recruiting technical personnel as exists at many
	of the County's other high tech entrepreneurial

Issue	Response
Issue	operations. Another is to have a special response team at GBIC to work with the facility's needs, including lobbying the state for favorable regulatory and workforce training assistance where needed, to sustain or expand current operations (some communities do this for large government facilities, such as R&D centers and military bases that are major
Entrepreneurial development	employers). Entrepreneurial development is a core characteristic of the area, and needs to be nurtured. Champlain College's entrepreneurial
	programs, local entrepreneurs, the Technology Council and other resources can be used to generate a community entrepreneurial ethos. Opportunities for startups such as incubators and for established but developing firms need to be explored. Create venues where entrepreneurs and creative individuals can personally interface to exchange ideas.
University of Vermont	The university could be more involved in working with area companies, entrepreneurial development and the area's economic development. GBIC and other economic development agencies across the state are encouraged to work with the new president to guide the University in a stronger outreach. The University of Delaware's approach to incubating technology development from the University should be investigated, including increased efforts to open up university resources to area companies.
Vermont Technical Council	Sustain the Council's high energy and focus.

## **Occupational Base**

The occupational base of Chittenden County's residents is strongest in occupations related to sales, office/administrative support and management, just as they are nationally and state-wide. However, as Table 5 shows, the occupational distribution is higher in many fields requiring advanced educational attainment including education, healthcare, computer and mathematical, engineering/architectural, arts and design and the sciences.

Occupation	Chittenden, County	Vermont	U.S.
Sales/Related	12.8%	10.6%	11.3%
Office/Administrative Support	12.5%	12.7%	14.2%
Management including Farmers/Farm Mgrs	12.2%	10.9%	9.6%
Education/Training/Library	7.5%	7.8%	5.8%
Food Preparation/Serving Related	6.3%	5.4%	5.4%
Healthcare Practitioner/Technician	5.6%	5.3%	5.1%
Business and Financial Operations	4.6%	3.9%	4.4%
Production	4.4%	6.4%	6.5%
Building/Grounds Cleaning/Maintenance	4.4%	4.4%	3.9%
Construction/Extraction	4.1%	6.6%	6.0%
Transportation/Material Moving	3.6%	4.3%	6.1%
Computer and Mathematical	3.6%	2.0%	2.4%
Personal Care/Service	3.4%	3.5%	3.3%
Architecture/Engineering	2.7%	1.9%	1.9%
Installation/Maintenance/Repair	2.6%	3.3%	3.4%
Arts/Design/Entertainment/Sports/Media	2.3%	2.2%	1.9%
Community/Social Services	2.0%	2.2%	1.6%
Protective Service	1.7%	1.6%	2.2%
Healthcare Support	1.7%	2.0%	2.3%
Life/Physical/Social Science	1.0%	0.9%	0.9%
Legal	0.8%	0.9%	1.1%
Farming/Fishing/Forestry	0.4%	1.2%	0.7%

#### Table 5 – Occupational Distribution, by Percent of Total (2010)\*

Source: Nielsen-Claritas

\*Bolded occupations indicate occupations for which Chittenden County percentages exceed the U.S. Average

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major occupational base related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its partners.

Issue	Response
High distribution of occupations in high tech	This condition can be leveraged for more high
fields	tech development.
High occupational distribution in	Leverage to expand the area's administrative
office/administrative fields	private sector office base.

#### Labor Availability

The County's employment center is in Burlington and the surrounding communities of Colchester, Essex Junction, Shelburne, South Burlington, Williston and Winooski. The primary labor shed for this employment node extends throughout the County and beyond, including north to St. Albans,

east to Waterbury and Cambridge, south to Vergennes and Bristol, and west into parts of Plattsburgh, NY. See Appendix C for a Commute Zone Map.

Data from the U.S. Census shows in 2009, that almost 68% of the County's workforce resides within the County, and it is the workplace for 84% of the County's residents. The census data shows that the County is a net importer of talent from other counties, with an inflow of 27,500 workers and an outflow of 11,200 residents that work outside of the County, resulting in a net inflow balance of 16,300 workers.

The County's civilian labor force in July 2011 was 93,606, of which 4.8% were unemployed. This unemployment level is below the state average of 5.7% and substantially below the national average of 9.1% at that time. The unemployment rate in the County historically has been below the national average.

The County's labor force participation rate of 73.0% is above the national average of 65%.

An Employers Survey conducted as part of this analysis shows the following evaluation of the availability of various occupational groups. The average and median scores indicated are based upon a five point survey response scale where 5 indicates excellent, 4 very good, 3 satisfactory, 2 fair, and 1 poor labor availability.

- Very Good to Excellent Availability (average availability score of 3.3 and higher and a median score of 3.5 and higher)
  - Customer service representatives
  - Office clerks
- Satisfactory to Good Availability (average availability score of 3.0 3.2, and a median score of 3.0 3.4)
  - Executive secretaries and administrative assistants
  - Bookkeeping, accounting and auditing clerks
  - Packers and packagers, hand
  - Shipping and receiving and traffic clerks
  - Computer support specialists, technicians
  - Web developers/designers
  - Welders/cutters
  - Truck drivers, heavy and tractor trailer
  - Industrial truck & tractor (forklift) operators
  - Assemblers and fabricators
  - General unskilled labor
  - Accountants/auditors
  - Maintenance and repair workers, general
  - Network and computer systems administrators
- Availability is Generally Satisfactory, but Recruiting Can Take Some Time (average availability score of 2.7 2.9, and a median score of 3.0)
  - Database administrators
  - Electricians
  - Machine operators, no set-up
  - Computer systems analysts
  - Engineering technicians

- Technicians, general
- Industrial machinery mechanics
- *Tight Availability (average availability score of 2.0 2.6, and a median score of 2.0 2.5)*
- Maintenance workers, machinery
- Engineers, other
- Computer programmers
- Engineers, software
- Computer-controlled-machine-tool programmers
- Machine setters, operators, and tenders
- Skilled machine trades, general
- Computer-controlled-machine-tool operators
- Machinists

In addition to these responses, some employers indicated recruiting experiences with occupations not included in the survey. Because the reported experiences are restricted to single employers, they cannot be used as an indicator of a broad-based experience for area employers, but they can be used to infer recruiting conditions for some specialized skills that County employers may be facing:

# • Satisfactory to Very Good Availability (average availability score of 3.0 and higher and a median score of 3.0 and higher)

- Project Manager
- Fund Raising Director
- Mechanical Engineers
- Supply Chain Management positions
- Technical Sales Account Manager
- Tight Availability (average and median availability score of 2.0)
  - Buyer
  - Director of Marketing
  - Industrial Designer
  - Inside Sales
  - Lead Carpenters
  - Senior Sales Representatives
  - Software Programmers
- Not available (average and median availability score of 1.0)
  - Application Engineers
  - Digital marketing analyst
  - Digital search engine optimization
  - Financial Analyst
  - IT Manager
  - PhD Scientists with training in protein biochemistry

Surveyed employers indicated labor recruiting difficulties posed only a moderate impediment to the functioning of their local operations, but those that did report having difficulties noted an average of a 10% loss in sales due to local labor shortages.

Employer survey results show the extent of the current demand, and the expected demand in one year for representative sample occupations. Table 6 summarizes the demand for seven occupational groups representing 32 occupations, as noted by employers responding to the survey. The actual number of workers in demand and expected to be in demand one year from now is actually much higher than indicated, since the survey sample consisted of 34% of the sampled universe of County employers. Much of the demand is, and will be in sectors currently experiencing tight labor supply, i.e. professional/technical, production/technical, and computer and mathematical. These results show the growing stress on the area's already pressured skilled labor supply and point to a potentially escalating labor shortage of a variety of skills, which would constrain economic growth and affect the ability of some local companies to meet their operating requirements and production schedules.

Occupational Sector	Current Need	Need in One Year
Office and Administrative Support	233	238
Professional/Technical	229	232
Production/Technical	333	353
Installation, Maintenance, and Repair	32	35
Transportation and Material Moving	51	78
Computer and Mathematical	142	179
Total	1,020	1,115

# Table 6 – Occupational Demand Currently and in One Year Source: WDGT Chittenden Employer Survey, September 2011

Employers responding to the survey report a moderate need to recruit talent from outside the area (average score of 2.6 and a median score of 3 on a 5 point scale where 1=never and 5=frequently). Importantly, their experiences in recruiting this talent are unsatisfactory. Employers rated their ability to recruit talent as difficult (an average of 2.5 and a median of 2 on a 5 point scale when 1=poor and 5=excellent).

Interviewed employers reported to the consultant team particularly difficult experiences recruiting some engineering talent, specialty management, programmers and a variety of software skills from other areas of the country. The best recruiting experiences are typically achieved 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. The reasons given most frequently for recruiting difficulties include limited alternative employment opportunities; limited employment opportunities for spouses (especially in professional and managerial positions); inadequate housing availability for executives and professional level personnel; and fewer urban amenities than those available in larger population centers.

To combat this recruiting difficulty, interviewed employers needing highly skilled technical talent utilize summer internship programs for students from leading national and regional colleges and universities, such as Harvard, Rochester Institute of Technology, MIT, Champlain College, Middlebury College, and the University of Vermont. In many cases these students from schools outside the area are Vermont residents that live at home during the summer. The employer survey indicates that 44% of County employers are currently using internships, which is much higher than the consultant team sees in most of the community assessments across the country.

Another way area employers are combating the recruiting difficulties for top technical talent is by locating technical centers in locations elsewhere in the country such as in Boston and California that have large populations of engineering, programming, IT management and software development talent.

Other employers utilize innovative human resource policies and provide attractive working environments. One example is telecommuting for those occupations where such a policy is feasible. Roughly 56% of employers responding to the survey indicate they have telecommuting policies for their employees. Interviews with employers by the consultant team indicated a typical policy allows for employees to work at home for one to three days and work at the company site the rest of the week. Other examples include flexible work schedules, on-site exercise rooms, casual dress codes, and open work environments.

The two and four year post-secondary educational institutions in the County provide a potential labor force for employers, as detailed in the Training and Education Section of this Assessment. There are roughly 5,000 students that graduate from these institutions.

General employee recruiting is largely done via the Internet and company websites, according to surveyed employers, followed by personal referrals and newspaper ads, particularly in *Seven Days* and the *Burlington Free Press*. Job fairs, such as "Tech Jam" are also used. See Appendix B for the summary results of the consulting team's employer survey.

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major labor availability related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its partners.

Issue	Response
In-commuting labor	The County is dependent upon in-commuting labor to sustain its economy; therefore, improved awareness in surrounding counties and localities of employment opportunities, employers and their products/services, prevailing wages and benefits, and other advantages offered in the County is recommended through job fairs, various media services and other information dissemination avenues.
Relatively low unemployment, high labor participation, labor shortages in some skilled professions and occupations gives a minimal base for economic expansion	<ul> <li>Efforts are needed to retain more college students in the area after graduation. One way is through stronger employer-student job recruiting efforts.</li> <li>Improved manufacturing training is needed for the area's manufacturers. The Vermont HiTech Inc. training approach is novel and deserves consideration for expansion.</li> <li>Greater outreach to the immigrant communities for inclusion in the area's</li> </ul>

Issue	Response
	workforce is suggested.
	<ul> <li>workforce is suggested.</li> <li>The area needs to address labor recruitment and development to offer the attractions needed for such recruitment, including more affordable quality housing and school systems that are at least on par (in key quality measurements, such as test scores, percent of graduates going on to post secondary education, extracurricular activities, advanced placement courses, available technical courses and programs such as those in Science, Technology, Engineering and Mathematics-STEM, etc) with those communities in which technical, professional and managerial personnel live in leading technology centers across the country.</li> <li>Identify leading edge human resource policies and work environments from local</li> </ul>
	<ul> <li>experiences to publicize for expanded use.</li> <li>Develop networks with other small to moderate-sized university towns with high entrepreneurial activity to exchange ideas and experiences (e.g. Medford OR, Eugene OR, Ft. Collins CO).</li> </ul>
	<ul> <li>Investigate what can be done to enhance the ability of area companies to recruit summer or other interns, such as low cost housing (e.g. at any available dorms at UVM, St. Michaels College, and Burlington College or boarding opportunities within the community), and transportation.</li> </ul>
	<ul> <li>Develop a social networking effort with area residents who are self employed and/or are long-distance tele-commuters (e.g. to New York, Boston) for engagement in the area's economic and intellectual life and for possible talent recruitment by area companies.</li> </ul>
Employer – employee – training linkages	<ul> <li>Create an online system linking job postings, business and worker training requests, and</li> </ul>
	training providers.
	<ul> <li>Identify ways to better align the business, education and government sectors so that</li> </ul>
	the courses and skills needed by local

Issue	Response
	<ul> <li>businesses are being taught at area schools, and students are being encouraged to take these courses.</li> <li>The local secondary and post secondary educational institutions need to graduate more students with the skills needed by area manufacturers, particularly in the advanced machine trades, such as CNC.</li> <li>Area public schools need to increase the academic abilities of their students, particularly in science, technology, engineering and mathematics (STEM), to meet the expectations of area employers, including those in the manufacturing sector.</li> </ul>

### Labor Quality

Employers report very good to excellent workforce quality. Basic skills, e.g. written communication, reading comprehension, math, thinking and judgment/problem solving, verbal communication/comprehension, and team and cooperative skills are reported as good to very good. The Employer Survey scores are among the highest seen by the consulting team in similar assessments across the country.

The productivity and work ethic of the County's workforce were highly rated by surveyed employers. Issues on overall work ethic, productivity, productivity compared to other company facilities elsewhere, punctuality, willingness to work overtime, and overall employer/employee relations were all rated as Very Good (average scores of 3.7 to 4.0 and a median score of 4.0 on a scale of 1-5, where 1=poor and 5=excellent).

Surveyed and interviewed employers indicate that employee turnover and absenteeism among their employees are not considered problems. The median turnover rate and average daily absenteeism is under 5%.

Employers report that much of their labor force likes to enjoy the outdoor recreational and other quality of life assets of the area, and that these activities are an important part of the area's "live-work-play" attractions. Therefore, while employees are hard working, they do like to spend weekends and other times recreating and enjoying the area's cultural and other quality of life assets, demonstrating the interrelationships, relevance and importance of the various components of the sustainability plan being prepared for Chittenden County.

Interestingly, many interviewed employers reported they do not test job applicants for drugs, as there is no experienced need. This practice varies considerably from the consultant team's experiences in most parts of the country.

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major labor quality related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its partners.

Issue	Response
High labor quality	This asset should be used as part of any
	business attraction or expansion effort.

## Labor Cost

The overall average annual earnings of employees in Chittenden County are above the national average (\$48,213 versus \$46,751); however, this characteristic is led by a significantly higher average in the manufacturing sector (\$67,228 versus \$57,526 for the U.S.), as shown in Exhibit A-5 in Appendix A. The manufacturing sector contains a few large employers, such as IBM, GE Healthcare, and General Dynamics, which produce very high-value products, and therefore likely influence this high average earnings level.

Most of the area's business sectors have average employee earnings that are below the national average. Other than manufacturing, the only sectors with employee earnings above national rates are healthcare and social assistance, and government. The professional, scientific and technical services sector and the management of companies and enterprises sectors' average annual employee earnings are significantly below the national average.

As noted later in the Regulatory Environment section of this report, interviewed employers are very uneasy, at best, about the state's planned health care insurance program. Several employers indicated to the consulting team that they are holding back on expansions, or have short-term leases to give them flexibility to relocate elsewhere if the terms of the program hurt them financially.

Exhibit A-6 in Appendix A contains the average annual salaries for benchmark occupations.

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major labor cost related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its partners.

Issue	Response
Skewed earnings data	The impact of IBM on the County's average
	reported wages is high, especially for the
	manufacturing sector. This high average will
	eliminate the County from many location
	screenings by companies looking for a new
	facility location. GBIC should have information
	gleaned from local company data on average
	wages, by manufacturing sector, on its website
	that do not reflect the impact of IBM, and note
	them as such.
Healthcare insurance	The State is urged to consider the impact any
	new health care plan will have on employers in

Issue	Response
	Vermont. Interviews completed as part of the
	project suggest that some employers will
	seriously contemplate moving their facilities out
	of state if the plan creates higher costs and/or
	less advantageous coverage.

## **Education and Training**

Chittenden County is home to three four-year colleges (Champlain College, St. Michael's College and Burlington College) and one university (University of Vermont). Combined, these four institutions graduate about 4,300 students per year. Champlain College also offers Associate's Degree programs in several disciplines. There are about 19,300 students enrolled at these institutions. The University of Vermont has the most comprehensive program and course offering, including undergraduate and graduate courses in several engineering disciplines, computer science, mathematics, the sciences and business. Exhibit A-7 in Appendix A lists the number of enrolled and graduating students at each of these schools. Exhibit A-8 in the Appendix lists the degrees and certificates offered by these institutions. Meanwhile, Albany College of Pharmacy and Health Sciences opened a satellite campus in Colchester in the fall 2009 that will enroll approximately 280 Doctor of Pharmacy students once it is fully implemented by the 2012-13 academic year.

Champlain College was singled out by several interviewed employers, as well as other interview sources, for its outreach to local companies for cooperative business-to-college linkages. Many employers hire Champlain graduates and are impressed by their quality. Technical and e-commerce employers interviewed by the consulting team made numerous compliments about the college's programs in Management of Creative Media, Digital and Interactive Marketing, Computer and Digital Forensics, Web Development, Game Programming, Managing Information Systems, and Business Administration programs. Champlain has an entrepreneurial program that teaches students the principals of setting up a business. The college was also complimented frequently by employers for its entrepreneurial spirit and outlook, and its cooperative operating philosophy.

In addition to these four colleges, Middlebury College is 40 miles south of Burlington. Employers report that this highly-rated college plays an important role in the County's economic, intellectual and cultural life. Several local entrepreneurs have graduated from Middlebury. The college graduates about 900 students annually with bachelors, masters and doctorial degrees in a diverse set of liberal arts disciplines. Meanwhile, Norwich University, a military college, is 50 miles to the southeast of Burlington in Northfield and graduates about 1,100 students per year with bachelors and masters degrees in assorted disciplines, including information science, civil engineering, social sciences and business administration. Area employers recruit from all of these institutions and use them as sources for interns.

Two year technical and vocational programs are offered by Vermont Technical College (VTC) and the Community College of Vermont (CCV). VTC's main campus is in Randolph Center, about an hour's drive southeast of Burlington. A satellite campus is in Williston, Chittenden County. CCV has a campus in Winooski, Chittenden County, at its Winooski Academic Center.

As shown in Exhibit A-7, there are roughly 623 students that graduate from VTC, including the local Williston campus and the Randolph Center Campus 60 miles south east of Burlington.

VTC offers Bachelor of Science degrees in a variety of engineering and computer technology and other fields. A total of 84 bachelor degrees were awarded in 2009. The college also has Associate of Applied Science, Associate of Science, and Associate of Engineering degree programs, and a certificate program in practical nursing. In 2009, the college awarded 377 Associate degrees and 167 certificates.

A total of 556 students graduated from the CCV's 12 campuses across the state in 2010, including the campus in Winooski. The Winooski Campus has about 2,400 students enrolled each semester, of which 65% are seeking associate degrees in any one of 18 disciplines, including computer systems management, graphic design, multimedia communications and network administration. The college's administrative office is in Montpelier, 40 miles south east of Burlington.

In addition to the area's two and four year educational institutions, Burlington Technical Center (BTC) provides high school juniors and seniors and adults with technical programs designed to be completed in two years. Twelve programs are offered at BTC. There also is Burlington Aviation Technology, which is a small Airframe and Powerplant Technician's course.

Surveyed employers rated the quality of programs and graduates at Champlain College, St. Michael's college, the University of Vermont and Vermont Technical College as Good to Very Good.

Vermont HiTech, Inc. is a local trainer that has an innovative approach to training workers, using a very intensive training methodology. The firm works under contract with employers, many of them highly technical. The firm works with residents who are seeking to change careers, as well as others. The firm is active in Vermont and New Hampshire.

Despite the educational and training resources available to employers in the County, almost 30% of employers participating in the Employer Survey indicated they have training needs that are not being meet by local resources. Specific needs identified by surveyed employers are listed in Exhibit B-5 of Appendix B.

The County has eight high schools, which collectively graduate about 1,800 students per year. As detailed in this Assessment's companion *Economic Base Assessment* report, these schools have varying graduation rates (ranging from 56% to 96%), and the percentage of students that have proficient or higher scores in math, science, reading and writing. Five of the eight schools had 2010 scores in these four topics that exceed the state average, while three had scores below the state average.

*Linking Leaning to Life (LLL)* is a non-profit organization that works with K-12 grade aged youth to prepare them for life after high school, particularly in careers and continuing education. LLL creates student learning opportunities by connecting schools with businesses, colleges and other community organizations. LLL operates statewide, but is headquartered in Burlington.

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major education and training related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its allies.

Issue	Response
Skilled trade education	Surveyed and interviewed employers reported a need for more skilled trades training, such as
	CNC machine programmers and operators and
	punch press operators. Area post secondary institutions are urged to do a coordinated,
	cooperative feasibility analysis that identifies the
	need and the ability to provide such programs in
	the County, and identify the appropriate
	institution(s) to provide these programs.
	Possible alternative instruction programs could
	be considered for development on employer
	sites or as part of an apprenticeship program.
Public schools	Three of the County's public high schools have
	low performance indicators, which are
	supported by employer interviews. The
	performance of these schools must be improved
	to match the other school test scores and
	graduation rates. Such improvement will take
	longer than at the other five schools due to a
	student population that has a higher percentage
	of financially disadvantaged students for which
	English is not their primary language.
	Meanwhile, the math and science test scores, such as those given to 11 <sup>th</sup> graders in 2010, are
	low even though they are generally above the
	state averages. In most cases, less than 50%
	of students in the schools with the best scores
	are proficient in math and science. If
	Chittenden County is to be a high tech
	community, it must enhance its public school
	performance in these fields to attract top
	technology and medical talent from across the
	country and to generate a local labor supply that
	meets employer needs.
Career fairs, career planning	Planning for and execution of improved ways of
	exposing early high school students to the types
	and wages of jobs available in the County and
	the educational requirements for those jobs
	should be developed. Greater involvement of
	employers in career planning and training is
	needed, starting in Middle School.

## Quality of Life

Quality of life is an economic development topic that gets much discussion, but means very different things to most individuals. It is particularly important in recruiting or retaining smaller companies whose owners are making a combined decision as to where to live and work, and new residents, some of whom will enter the labor force. This is particularly true for the "knowledge" or "creative class" workers made famous by Richard Florida (author of *The Rise of the Creative Class, The Flight of the Creative Class, and Who's Your City?*), many of whom already reside in Chittenden County.

The County is blessed with a highly desirable quality of life for those who don't mind winter weather. With the notable exception of affordability of housing, which was both rated the lowest quality of life factor in the Employers Survey as well as being the most commonly observed weakness of the area in interviews, most every kind of quality of life factor sought by most people is readily available in the County. The topic of housing is the subject of a detailed analysis and report prepared by the Vermont Housing Finance Authority for CCRPC as a part of this Sustainable Communities project. The reader should review this Housing Need Assessment for more detailed information.

The availability of affordable housing scored slightly above Fair in the Employers Survey. This may be a limiting factor in attracting and retaining younger workers in the Chittenden County workforce. One Survey respondent stated there is a "Chittenden County discount" that means "pay scales are lower but housing prices are not."

At the other end of the evaluation spectrum for quality of life factors, 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. The types and varieties of recreational and cultural opportunities in Chittenden County are too numerous to list here.

Surprisingly, despite the location of the major Fletcher Allen Health Care complex, healthcare services scored midway between Good and Very Good. Additional research is warranted to identify specific causes of dissatisfaction and allow focused improvement initiatives.

A second quality of life factor scoring below average and therefore requiring attention is the availability of child care services. This is a topic that links employment opportunities and labor force availability, early childhood development needs, obligations communities may have under planning requirements, and Chittenden County's future sustainability.

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major quality of life related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its allies.

Issue	Response
Affordable housing	Continued efforts are necessary to make
	Chittenden County a more affordable place to
	live for more people. This can be a limiting
	factor on the County's ability to grow its labor
	force. Particular attention should be paid to work

Issue	Response
	on this topic being undertaken as part of this ECOS project.
Child care	Efforts are necessary to improve the availability of child care services. This would support expansion of the labor force and if economically priced, could improve the standard of living of area residents.

## **Regulatory Environment**

The Employers Survey conducted as part of this project (see the section on Methodology for information on the number of survey recipients and response rate, and Appendix B of this report for the survey results) included a number of items related to the regulatory environment (also commonly called the business climate) in which Chittenden County businesses must operate. Table 7 provides summary results, and should be a source of concern, since all items scored less than Good, with many closer to Fair. This is a lower evaluation of regulatory environment than the consulting team has encountered in many other locations. Communities or regions that have the reputation of being a difficult place for development may be eliminated from consideration by businesses that are concerned about the extra time and/or cost, or the perceived aggravation of the development process.

Rating Category	Average Rating (5=Excellent/1=Poor)
Workers' compensation costs	2.6
Fairness of workers' compensation enforcement	2.3
Unemployment insurance costs	2.6
Fairness of unemployment insurance enforcement	2.7
State training programs	2.4
Health care costs	2.3
Overall cost of doing business	2.5
State taxes	2.4
Local property taxes	2.3
Local construction-related permitting	2.4
State construction-related permitting	2.3
State government regulations	2.5

 Table 7 – Regulatory Environment Elements

 Source: Wadley-Donovan GrowthTech Employers Survey

It should be noted that many of the factors shown in Table 7 are state-wide issues not under the control of Chittenden County and its communities. Even the topic of local property taxes, which would appear to be under local control, is not a simple one to change since a very high portion of local property taxes goes to the state to support education. Nonetheless, these business climate issues have a bearing on the recruitment, establishment and retention of businesses in Vermont and Chittenden County.

One item that is locally controlled – the local construction permitting process (both the regulations and procedures) – scored quite low. As discussed more in the following section on Real Estate, the local permit and approval system was the source of many complaints by developers and companies that had been through the development process. Dissatisfaction with the permit and approval process at the local level is exacerbated by the state's construction related permitting process. While certainly there are many instances of development projects that occurred with a minimum of pain, and the perceived degree of "business-friendliness" can be shaped by a limited number of bad experiences, continuing efforts to streamline the development process and related regulations and make them more user-friendly are necessary.

As noted in the section on Labor Costs, another source of common complaint – or at least concern – is the state's ongoing program to change the health care system. It is possible the uncertainty of what the system will look like in the future, and more importantly, what it will cost, will reduce the number of companies that will consider Vermont, and may result in some companies leaving. GBIC reports, and company interviews also indicate that local companies are already delaying expansion plans in Vermont because of the uncertainty about this issue.

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major regulatory environment related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its allies.

Issue	Response
Local and state construction permitting	Create a Public/Private Sector Development
	Process Review Task Force for the County and
	similar initiatives at the municipal level to
	identify ways to streamline the development
	permit and approval process and related
	regulations, and incorporate this initiative in the
	County's sustainability planning.
Development – environmental protection	Establish a business-oriented environmental
interface	initiative similar to the Indiana Environmental
	Institute, Inc. to study and mediate
	disagreements between the County's
	development and environmental protection
	sectors. This initiative could be within CCRPC
	or a separate entity.

## **Real Estate**

Along with availability of labor skills, available real estate is one on the top two or three factors most companies in a site selection mode consider carefully. If they cannot find the right building to occupy or piece of land on which to construct that building, other factors about the area are irrelevant.

Evaluation of available business real estate in Chittenden County was impeded by a lack of information from GBIC and community websites where today such information is typically found. The City of Burlington's website suggests information on available properties is available, but

requires a phone call or e-mail contact with space requirements to obtain information. A similar lack of information on available real estate was encountered on other community websites in the County (Colchester, Essex/Essex Junction, Milton, Shelburne, South Burlington, Williston, Winooski).

GBIC and the City of Burlington Community and Economic Development Office typically respond to inquiries by providing specific information. This makes the assumption that all businesses considering the area will make a direct contact with GBIC or the communities. Increasingly, companies are doing their research from information on websites, and if they do not find what they are looking for, they eliminate the area from consideration.

Table 8 provides the results of the Employer Survey responses related to real estate and suggest that attention should be paid to this topic (see the section on Major Issues, Opportunities and Potential Responses).

Rating Category	Average Rating (5=Excellent/1=Poor)
Available sites for business construction	2.9
Costs of sites for business construction	2.4
Available buildings for business occupancy	3.1
Costs of buildings for business occupancy	2.7
Costs of construction	2.6
Availability of financing for construction or business operations	3.1

## Table 8 – Chittenden County Commercial Real Estate

Source: Wadley-Donovan GrowthTech Employers Survey

## Chittenden County Available Commercial and Industrial Buildings

Historically, about 70 to 75% of businesses looking for a location start by looking for an available building. It is faster, and usually less expensive to move into an existing building than it is to design and construct one. Today, when there are many vacant buildings or portions of buildings across the country, as many as 80 to 85% of businesses are looking for an existing building.

Table 9 on the following page summarizes available building space by community and type based on real estate reports provided by local brokers. Table 9 or the source data from which it was drawn show the following:

Chittenden County has a good inventory (based on both survey results reported in Table 8 and the consulting team's analysis of available real estate) of available buildings or partial space in buildings, with 388 buildings totaling nearly 2.9 million square feet. This is comprised of nearly 900,000 square feet of industrial space, 1.2 million square feet of office space, and 780,000 square feet of retail space. (An attempt was made to eliminate duplications from space that was available for both sale and lease, but we cannot guarantee that some duplications do not still exist. On the other hand, it is likely that not all available space is listed with brokers, so that the total inventory of available space is actually greater than shown in Table 9.) The source list includes some projects that have been announced but not yet constructed.

- No information was available to evaluate this space in terms of age, quality, consistency with modern design standards, availability of full utilities, or similar factors that might reduce the County's inventory of highly marketable space.
- Available space is spread across the County, although Burlington and Williston account for more than 50% of the available buildings. Real estate brokers and economic development officials reported that the majority of space that becomes available in Burlington is rapidly renovated and reused, although the current economic climate has slowed down such reuse.

	Type of Space						
Community	Industrial		Office		Retail		
	#	Square	#	Square	#	Square	
	Buildings	Feet	Buildings	Feet	Buildings	Feet	
Burlington	6	68,511	54	313,759	21	107,949	
Charlotte	1	41,603	2	2,798			
Colchester	8	45,388	21	119,293	9	22,098	
Essex	7	146,825	7	118,434	5	14,955	
Essex Junction	2	14,400	9	127,562	8	18,174	
Hinesburg			1	22,080			
Milton	5	21,776	1	2,000	4	121,340	
Richmond			1	425	5	31,000	
Shelburne	3	13,384	8	96,584	4	14,558	
South Burlington	10	156,472	29	85,402	16	84,660	
St. George	1	17,800					
Williston	18	287,976	99	288,208	6	374,350	
Winooski	7	41,396	4	9,785	4	16,748	
Chittenden County Total	68	895,531	236	1,186,330	82	779,696	

Table 9 – Available Building Space in Chittenden County as of September 2011

Source: Information from Real Estate Brokers Analyzed by Garnet Consulting Services, Inc.

- The majority of available building space is small in size although some larger blocks of space also are available. This includes seven industrial buildings ranging from 32,000 to 80,000 square feet; ten office buildings ranging from 20,000 to 100,000 square feet; and five retail spaces or complexes ranging from 17,000 to 350,000 square feet. Many of these larger spaces can be subdivided to meet the needs of small and mid-size users.
- The vast majority of available space is for lease only. Of the 68 industrial buildings, 56 are available for lease; 10 are available for sale; and 2 are available for sale or lease. Of the 238 office spaces, 213 are available for lease; 18 are available for sale; and 7 are available for sale or lease. Of the 82 retail spaces, 60 are available for lease; 20 are available for sale; and 2 are available for sale or lease.
- Asking rental price for industrial space ranges from \$3.50 to \$10.50 per square foot with the majority on a triple net basis; very few industrial leases are on a gross basis, ranging from \$4.29 to \$9.33 per square foot. Common Area Maintenance costs range from \$1.16 to

\$3.00 per square foot. Asking sale prices for industrial space range from \$36 to \$85 per square foot.

- Asking rental price for office space ranges from \$6.00 to \$18.00 per square foot with the majority on a triple net basis; some office leases are on a gross basis ranging from \$10.59 to \$32.63 per square foot. Common Area Maintenance costs range from \$1.20 to \$8.60 per square foot. Asking sale prices for office space range from \$70.36 to \$304.74 per square foot.
- Asking rental price for retail space ranges from \$6.00 to \$35.00 per square foot with the majority on a triple net basis; some retail leases are on a gross basis ranging from \$9.60 to \$15.60 per square foot. Common Area Maintenance range from \$1.86 to \$11.20 per square foot. Asking sale prices for retail space range from \$69.00 to \$154.65 per square foot (with one listing at \$19.62 per square foot).
- These prices for industrial, office and retail space provide a good range to meet differing budgets. No attempt was made to compare Chittenden County prices with other competing marketplaces. However, neither real estate brokers nor companies interviewed indicated they thought the Chittenden County market was significantly overpriced.

As shown in Table 8, Employer Survey respondents rated the availability of business buildings as slightly better than Good but the cost of those buildings as less than Good. It should be noted that surveys such as the one used in this project usually obtain low ratings for almost every cost category because businesses always want to have lower costs. If occupancy of an existing building required construction for fit-up, the evaluation of construction costs was between Fair and Good and the evaluation of financing for that construction was slightly above Good.

In summary, the analysis above shows Chittenden County is currently well-supplied with available buildings for business occupancy, although it was not possible to evaluate the quality and desirability of individual properties. Some developers interviewed categorized the current office market as "a little overbuilt" and "soft"; the consulting team found no evidence that this was an inaccurate assessment. In the future, attention should be paid to streamlining the development permit process wherever possible for the retrofitting of available buildings to reduce the need for new construction.

#### Chittenden County Available Commercial and Industrial Land

Not every company is able to find an existing building that meets their needs. New construction does still occur. Increasingly, companies considering sites for new construction are looking for "shovel-ready" or "certified" sites where much of the initial site evaluation and preparation has already occurred. While such sites for larger projects do exist (certified "Mega-sites" across the country), the majority are smaller sites in master-planned business parks. Table 10 on the following page provides information on business parks in Chittenden Country.

Table 10 shows that Chittenden County has 23 existing business parks, a healthy level for a county of its size. However, eight of these parks are fully built out, with no remaining lots or areas for development. The remaining 15 parks have 77 available lots totaling 312 acres. The vast majority of these are smaller lots that would not meet the needs of a business needing a larger facility. GBIC notes that much of the land left in the County's existing business parks is the least desirable because of development limitations or other factors.

Two areas with a larger amount of available land (80 acres in the South Burlington Tech Park and 25 acres in the South Burlington Mountain View Park) are only available on a ground lease, although land in the Tech Park may be sold "for the right project". This reduces the amount of land available for purchase to 207 acres, the majority in small lots.

Location	Developed Lots	Vacant Lots	Approx. Acres Available	Price Per Acre (Most Recent Sale)	
Burlington	6	1	4	Not Available	
Colchester: Watertower	14	9	20	\$209,000 (Hotel Development) \$154,000 (Office Development)	
Colchester: Hercules	20	3	A 3.4 acre lot with 2.5 usa acres sold for \$300,000 in 2		
Colchester: Brentwood	5	3	10	\$57,000 (2010); \$75,000 and \$91,000 (2006)	
Essex: New England Dr.	16	3	4 \$117,500 in April of 2010		
Essex: Saxon	6	15	30	\$70,000 - \$78,000 per usable acre	
Essex: Morse	12	0	0		
Hinesburg: Giroux	9	1	4	\$107,000 per acre (2006)	
Milton	17	8	24	\$90,000 per acre	
Shelburne	3	2	5	\$71,000 per acre (2006)	
S.Burlington: Ethan Allen	39	2	3	\$102,500 (1.2 acres, in 2006)	
S. Burlington: Tech Park	3	12	80	Last sale at \$152,000 per acre Currently for lease only	
S. Burlington: Meadowlands	6	6	80	\$111,500 and \$140,000 per usable acre	
S. Burlington: Mt. View	5	5	25	Build to suit with ground lease and option to buy.	
S: Burlington: Green Tree	20	0	0		
Williston: Commerce	20	0	0		
Williston: Adams	12	0	0		
Williston: Griswold	17	0	0		
Williston: Whitcomb	17	1	1	Not Available	
Williston: E-Commerce	1	0	0		
Williston: Production	26	3	10	Not Available	
Williston: Engineers	12	3	0		
Winooski	10	0	0		
Total	296	77	312		

#### Table 10 – Chittenden County Business Parks

Source: GBIC

In addition to the lots currently available in business parks, there are also some "greenfield" areas that are on the market or available. Information obtained from brokers includes sites ranging from less than 2 acres to 177 acres in size; the two largest sites (112 and 177 acres) are in South Burlington.

GBIC reports that some of these sites lack critical infrastructure and/or face a lengthy permitting process. Examples include available land in Colchester near I-89 Exit 17 that lacks sewer (a current permit prohibits Colchester from tying in to Milton's sewer system despite substantial excess treatment capacity; it was also reported Milton will not allow such a hookup); and excess portions of the Husky site in Milton that require access improvements.

Much of the excess IBM land in Williston requires rezoning because the existing zone is overly restrictive. Allowable uses are limited to computer and electronic product manufacturing; waste management and remediation services; nonmetallic mineral mining and quarrying accessory to waste management and disposal operations; utilities and telecommunications facilities; and public parks. All other uses, many of which would normally be found in a mixed use business park (for instance, corporate offices, research and development facilities, other types of manufacturing) are specifically prohibited.

Some communities are reported to have a sewer avoidance policy (often unofficial) because the expansion of sewer services is seen as a cause of potential growth and related municipal expenses. This sustainability initiative requires that an appropriate balance be sought between adequate development areas for the future and the avoidance of leapfrog development and sprawl.

Based on sales over the past five years, pricing of land in business parks ranges from \$57,000 to \$152,000 per acre with sites for "special" uses (e.g., hotels, major offices) more costly. No information was obtained on land lease prices for those sites available on that basis.

As Table 8 above shows, local businesses responding to the Employers Survey rated the availability of business sites as slightly less than Good and the cost of those sites and the cost of business construction as between Fair and Good. The rating of financing for business construction (or operations) was slightly better than Good. Since these survey respondents are already occupying space in Chittenden County and most are probably not looking for a new location, their assessment of the availability of business sites may be better than a company from outside the area but considering it as a location for new building construction and actually conducting research on the topic.

A related issue discussed in an earlier section on Regulatory Environment showed that respondents to the Employer Survey rated both local and state construction-related permit requirements as closer to Fair than to Good (see Table 7). The complexity, time and cost of the permit and approval process at both the regional and state level was also a topic of complaint by those active in the real estate development process who stated that while they ultimately get the permits they need, the process is painful. As noted earlier, care must be taken here to assure that both good and bad experiences are taken into account in assessing the perceptions of the regulatory environment.

Chittenden County is currently modestly-supplied with land for business construction. While the County may be able to accommodate the short-term needs for new sites, additional planning should begin now to meet longer term needs. This should include a "longevity analysis" to project how many years the current inventory will last under most likely levels of demand. In the future, additional "shovel-ready" sites with good access, full utilities, proper zoning and pre-permitting where possible will be necessary if the County is to be competitive in attracting larger projects or retaining local businesses seeking to expand. Attention should also be paid to streamlining the development permit process wherever possible to support site development and building construction.

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major real estate related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its allies.

Issue	Response
Developable site inventory	Given the relatively limited supply of "shovel-
	ready" sites, GBIC should prepare a "longevity
	analysis" to project when additional fully-
	serviced land should be added to the regional
	inventory.
New developable sites	Based on the results of the "site inventory
	longevity analysis", GBIC should begin the
	process of identifying new sites suitable for
	development and take action to make them
	"shovel ready" and where possible, pre-
	permitted.
Available commercial real estate information	The GBIC website should include more
	information on available commercial real estate
	to meet the research needs of companies and
	site location consultants.

## **Transportation and Accessibility**

#### Highways

Chittenden County is well-served with a highway network that facilitates multi-directional travel. The backbone of this highway network is Interstate 89 which runs southeast to I-91 in White River Junction and continues into New Hampshire, terminating in Concord where it connects with I-93. From Burlington, I-89 also runs north to the Canadian border, thereby providing a convenient cross-border trading link.

Other major highway routes serving the County are U.S. Highways 2 and 7; State Highways 2A, 15, 116, 117, 127, and 128; and a network of local roads. I-189 provides a short, high-speed link between I-89 and U.S. 7. This road network facilitates easy travel within the County and linkages to surrounding counties. The Chittenden County Metropolitan Planning Organization (which has recently merged with the Chittenden County Regional Planning Commission) has extensive long-range plans for roadway improvements (as well as other transportation needs) in the County. A part of the MPO's prioritization system includes the impact of needs and plans on economic development.

However, plans alone do not solve problems or make improvements. Those plans must be implemented, often at substantial cost, and after a lengthy and expensive permitting process. While the overall transportation network provides ample access and egress during off-peak traffic, there are significant challenges during peak hours, with portions of the urbanized areas of the County facing undesirable levels of congestion due to increased traffic load not being met with necessary Level of Service (LOS) improvements. As shown in Figure 2 (taken from the 2010 VTrans Annual Report), the traffic flow for Chittenden County is substantial (among the highest in the state), with US Route 2, US Route 7, and Vermont Route 15 being relied upon to supply transit for a majority of non-interstate commuters.

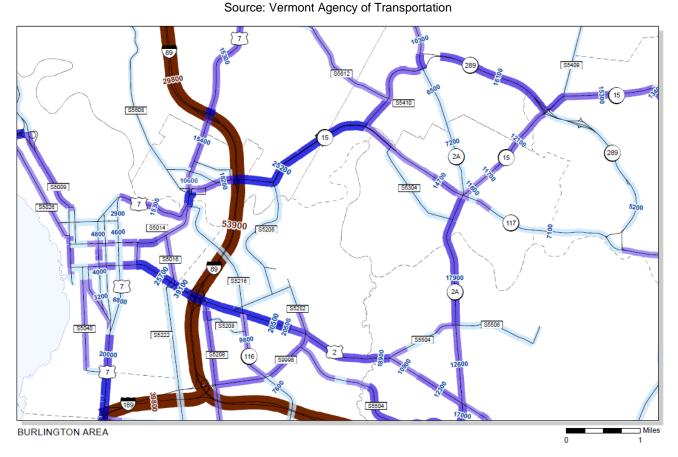


Figure 2 – Burlington Area Traffic Counts

No information was available from CCRPC on Level of Service ratings of roads in the County that would more clearly indicate roadways at or near maximum carrying capacity. Figure 3 provides a map showing areas in the County with known road congestion at peak hours in 2010.

Roadway congestion is of particular concern for municipalities and to large area employers for whom a majority of employees are commuters. Peak traffic load in the morning and afternoon render many access points unusable for practical purposes, and pose safety concerns for transporting hazardous materials. Previous potential solutions have not been implemented, most notably the indefinitely delayed status of the Southern Connector (Champlain Parkway).

Though the true travel time impact is hard to estimate, these areas of peak load coincide with areas graded as "Poor" or "Very Poor" for pavement condition in the 2010 Transit Authority's Year End Report (submitted prior to damage from both the 2011 spring flooding and Hurricane Irene). This not only is an issue for those working in the Burlington-South Burlington (B-SB) MSA, but impacts the tourism experience as well. More sophisticated modeling of travel demand, peak hour flow, and similar topics is necessary to more accurately understand traffic conditions and necessary improvements.

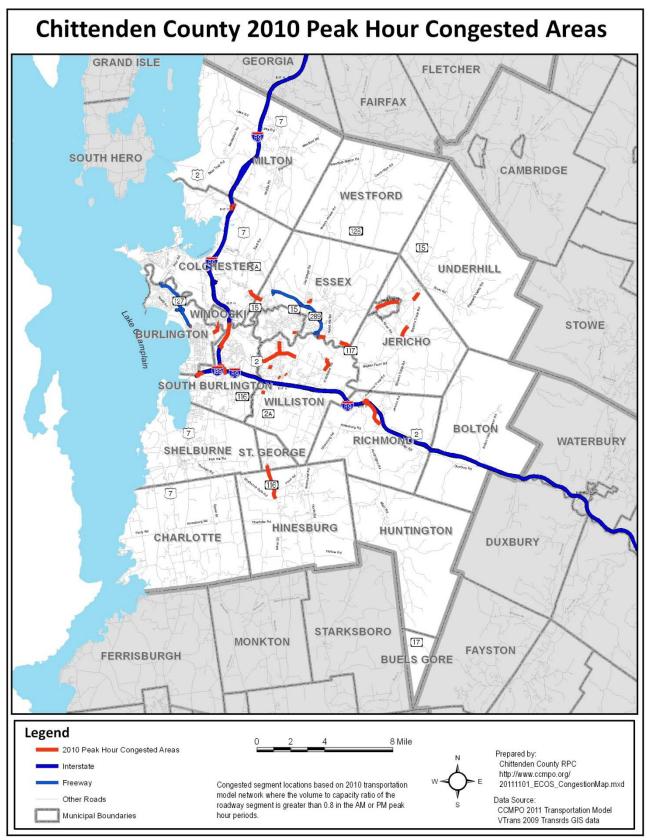


Figure 3 – Chittenden County Road Congestion Source: CCRPC

Also of concern is the current parking deficiency in the urban core of the B-SB MSA. With most of the lots with full infrastructure already built out, parking capacity has not kept pace with infill growth. Though the last Department of Public Works parking study was conducted in 2003, the findings indicated that Burlington faces a projected 2020 net parking deficiency of more than 3,500 spaces (a parking study for the City has recently been funded with results and recommendations expected early 2012). The parking deficit is a challenge for many B-SB employers, and has curtailed potential employment growth in the downtown core. The interrelationship among the reduction of reliance on the single-occupant automobile, public transit services, and adequate parking is an important element of sustainability planning.

While it appears that the Circ Highway project is dead, the current transportation viability of the IBM Campus for the movement of people and products is a top economic and transportation priority for the B-SB MSA, for Northwestern Vermont, and for Vermont's economy.

A direct highway access ("Innovation Road") to provide direct access to the IBM Campus is critical to maintain the economic viability of the campus for IBM, General Dynamics, and other existing campus employer/employee occupants. In addition, in the next 10 years the County, MSA, and state will need the remainder of the developable and fully serviced land on the IBM Campus to obtain permits to house future economic driver employers. The land base of the campus and its built infrastructure should be leveraged and utilized for a high technology industrial and enterprise park for the future, which is estimated to have a development capacity of more than one million square feet of building space. This site provides a perfect example of the focused use of a densely developed area with adequate support infrastructure to provide a major employment hub within the context of the broader regional sustainability planning and development.

A potential impending decline in the adequacy of the County's roadway system (as reported during several interviews conducted as part of this project), coupled with the opportunity and need for future economic development, has resulted in the identification of a number of situations that require immediate and careful consideration:

- Planning, funding and permitting of transportation improvements in the MSA are critical to accommodate current and future commuter and visitor traffic.
- Affordable workforce housing supported by multiple transit options serving employment hubs (including transit-oriented development) must be available in the B-SB area to lessen urban commute load.
- A direct highway access road to the IBM Campus ("Innovation Road") should be constructed.
- Development of the IBM Campus should be maximized fully to leverage and realize full potential of the site
- Special attention needs to be paid to rectifying deferred maintenance facing the urban transportation infrastructure in the County.
- Aggressive redevelopment within the City of Burlington should include using some underutilized property to increase the supply of available parking.

### Trucking

Table 11 shows the approximate driving distance and time between the County (using Burlington as the starting point) and various other destinations. All of these driving times fall below the maximum a truck driver is allowed to drive in a day (11 cumulative hours per day).

Destination	Distance from Burlington	Drive Time From Burlington
Albany, NY	150 Miles	3 Hours 9 Minutes
Baltimore, MD	489 Miles	8 Hours 57 Minutes
Boston, MA	217 Miles	3 Hours 43 Minutes
Hartford, CT	236 Miles	3 Hours 55 Minutes
Montreal, QC	96 Miles	2 Hours 25 Minutes
New York City, NY	298 Miles	5 Hours 50 Minutes
Ottawa, ON	216 Miles	4 Hours 40 Minutes
Philadelphia, PA	377 Miles	7 Hours 24 Minutes
Pittsburgh, PA	611 Miles	10 Hours 53 Minutes
Quebec City, QC	263 Miles	5 Hours 20 Minutes
Washington, DC	577 Miles	10 Hours 41 Minutes

# Table 11 – Drive Time Between Burlington and Other Destinations Source: ManQueet

Source: MapQuest

The GBIC website does not provide information on trucking services. However, the current Yellowbook for the Champlain Valley includes nearly 50 listings under the heading Trucking, indicating that such services are readily available. A survey of local employers asked them to rate the service and costs of trucking and overnight mail and package delivery services. Table 12 provides the results.

### Table 12 – Trucking and Overnight Mail and Package Delivery

Source: Wadley-Donovan GrowthTech Employers Survey

Rating Category	Average Rating (5=Excellent/1=Poor)
Trucking Service	3.4
Trucking Costs	2.8
Overnight mail and package delivery services	3.7
Overnight mail and package delivery costs	3.2

These results suggest attention should be paid to trucking costs, although it should be noted that the survey was conducted during a period of escalating fuel costs which was likely causing shipping costs to rise noticeably.

The area appears to be adequately served by overnight mail and package delivery services with 15 or more delivery services listed in the Champlain Valley Yellowbook.

### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major road transportation related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its allies.

Issue	Response
Roadway and parking improvements	An impending decline in the adequacy of the
	County's roadway system, coupled with the
	opportunity and need for future economic
	development, has resulted in the identification of
	a number of issues and situations that require
	immediate and careful consideration. A
	continued aggressive and coordinated approach
	is essential to assure timely planning, permitting
	and funding of necessary improvements to
	existing roads and construction of new ones, as
	well as the provision of adequate parking in
	downtown Burlington.

# Air Transportation

Burlington International Airport is the major airport for northwestern New England; an Airport Master Plan calls for the continuation of ongoing improvements through the year 2030. A major passenger segment is Canadians, although some of that market is being captured by Plattsburgh, NY. The change in the Canadian-U.S. exchange rate has recently caused the U.S. and Burlington to lose its cost advantage.

Burlington International Airport is currently served by six airlines (Continental, Delta, Jet Blue, Porter, United and USAirways) with direct flights to 11 destinations (Cleveland, Chicago, Detroit, Newark, New York-JFK, New York-LGA, Orlando, Philadelphia, Toronto (seasonally by Porter Airlines) Washington-DCA and Washington-IAD). Depending on the day of the week, there are between 32 and 40 daily departures and arrivals, with all weekdays having 40. Current carrying capacity is approximately 2,500 seats per day, down from a high of about 3,400 seats per day in 2004-2006. This cutback included two very popular flights a day to Atlanta because the flight segments were judged too long by the airline (Delta).

A common complaint received during project interviews was on the lack of direct air service to Boston. A second complaint was the replacement of service by larger jets with regional jets. This opinion was summarized by one Employer Survey response which said "The Burlington Airport is one of our best assets, although its value has declined as the number of main line flights (i.e. actual jets instead of the commuter planes) has steadily declined; thank God for JetBlue."

Annual emplanements at Burlington International Airport rose almost continually from 451,582 in 2000 to 759,021 in 2008. Since that time emplanements have dropped to 651,277 in 2010 and totaled 303,319 through the first half of 2011, a decline of 2.4% from the first half of 2010. The airport has substantial excess capacity to support increased passenger activity, which in turn might convince airlines to increase flight frequency or destinations in the future. Given the trend in the

airline industry away from larger jets to the more cost-efficient regional jets, it is unlikely that that Burlington International Airport will see a great increase in use of larger jets.

Neither the Airport nor GBIC websites provide information on air freight services in the County making it difficult to discuss such services in this assessment. [Note: the consulting team's reliance on information available from websites here and other places in this assessment reflects the fact that this is now the predominant research method used by businesses and site location consultants in obtaining information about potential locations.] Similarly, only one air cargo service was found in the Yellowbook for the area. The lack of conveniently available information on this topic may negatively impact the County's ability to recruit more companies to the area and should be rectified. One interview source reported that air freight has been badly hurt by both the termination of Airborne Express services and FedEx's shelving of plans to replace 727s with 757s.

Approximately 55% of the respondents to the Employers Survey conducted as part of this assessment rated air freight services and costs with the results shown in Table 13. While this is not a category of importance to all employers in the County, it is important to many. As with the cost of trucking services, air freight costs were also rated as less than Good, suggesting that attention should be paid to this topic.

Rating Category	Average Rating (5=Excellent/1=Poor)
Airfreight Services	3.4
Airfreight Costs	2.8

Table 13 – Air Freight	3 – Air Freight
------------------------	-----------------

Source: Wadley-Donovan GrowthTech Employers Survey

# Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the air transportation related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its allies.

Issue	Response
Air service to Boston	Seek direct air service to Boston.

# **Rail Service**

Rail service includes both passenger and rail freight services. Exclusive of tourist oriented sightseeing trains, passenger rail service into Chittenden County is currently limited. Two Amtrak trains a day (the Vermonter) stop in Essex Junction. The northbound train arrives in Essex Junction at approximately 8:45 p.m. while the southbound train departs at approximately 9:00 a.m. This route connects from Washington, DC to St. Albans, VT with stops in Baltimore, Philadelphia, New York City (Penn Station), Hartford, CT, Springfield, MA and many other locations along the route (see Figure 4).



# Figure 4 – Amtrak Vermonter Route

Source: Amtrak Website

Because of the number of stops, the travel time is lengthy (more than nine hours between Essex Junction and New York City). Also, as the station is not located in Burlington, anyone traveling to that city needs connecting transportation. Efforts are underway to extend service to Montreal within the next three years. Long range plans may include commuter rail service between Burlington and St. Albans. However, at this time the infrequency of service and travel time do not make passenger rail service a major element of Chittenden County's economic development program.

The Vermont Rail System (VRS) serves Chittenden County with two freight lines: Vermont Railway's main line that comes in from the south through Rutland, with connections to both Bennington and Bellows Falls; and the New England Central Railroad (NECR) that connects to Montpelier, White River Junction and south into Massachusetts where it links with other rail lines. NECR is part of the RailAmerica Inc. network and operates between St. Albans, VT just south of the Quebec border and the Port of New London, CT. It is a major bulk commodities hauler.

The rail system serving Chittenden County intersects with several Class 1 Railroads. A Class 1 railroad is defined by the Surface Transportation Board (U.S. Department of Transportation) as "having annual carrier operating revenues of \$250 million or more" after adjusting for inflation using a Railroad Freight Price Index developed by the Bureau of Labor Statistics (BLS). According to the Association of American Railroads (AAR), Class I railroads had minimum carrier operating revenues of \$378.8 million (USD) in 2009.

Figure 5 shows the rail freight system serving Chittenden County.



Figure 5 – Vermont Rail Freight System Network Source: VRS Website

Freight stations in Chittenden County are located in South Burlington and Burlington (with one proposed in Shelburne). The VRS website describes its services as heavy haul freight service at least five days a week on most lines, with extra service available to meet customer needs. The Burlington station is a major operating hub and interchange point with NECR that can provide bulk or reload services. There is a new transload facility at this rail yard.

Rail freight services are not a requirement of most businesses, but most that need it are highly dependent on it. Only 14% if respondents to the Employer Survey conducted as part of this project answered questions about rail freight; Table 14 summarizes their responses.

Rating Category	Average Rating (5=Excellent/1=Poor)
Rail Freight Services	2.4
Rail Freight Costs	2.8
Intermodal Rail Center	2.0

Table 14 – Rail Freight

Source: Wadley-Donovan GrowthTech Employers Survey

With all responses related to rail freight services at less than Good, additional attention needs to be focused on this aspect of Chittenden County's economic development infrastructure to ascertain whether these ratings are indicative of a problem.

#### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major rail transportation related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its allies.

Issue	Response
Trucking, air freight and rail freight services	Additional attention needs to be focused on
	these aspects of Chittenden County's economic
	development program. Due to a less than Good
	evaluation of trucking and air freight costs and
	rail freight services in the Employer Survey
	conducted as part of this project, attention
	should be paid to this issue to determine if this
	evaluation primarily reflects rising fuel costs at
	the time of the survey, or is a deeper seated
	issue for area employers. Employer research
	should be conducted to obtain additional
	information related to low evaluations of this
	topic in the Employer Survey conducted in this
	project.

### Port

Although located on a major lake (Lake Champlain), commercial use of the Chittenden County waterfront is largely limited to tourism and commuter ferry use. In this last instance, the ferries support the County's economic development efforts by enlarging the laborshed that would otherwise be cut off to the west by the lake and supporting cross-lake tourism. Some companies are reported to use the Port of Montreal for waterborne shipping, which is a transportation asset for Chittenden County, although some distance removed. No businesses interviewed or responding to the Employers Survey reported any customs issues that were problematic. As noted earlier in this Assessment, Chittenden County's proximity to markets in eastern Canada is an advantage for companies seeking a location from which to serve both eastern U.S. and Canadian marketplaces.

### **Public Transportation**

The Chittenden County Transportation Authority (CCTA) is the primary provider of public transportation in the County. CCTA operates approximately 20 routes within the County and into other counties, plus some specialized services.

Figure 6 shows CCTA's overall route map. Figure 7 shows the major portion of the system in and around Burlington. The system connects to both Burlington International Airport and the Amtrak station in Essex Junction.

#### Figure 6 – CCTA System Map Source: CCRPC



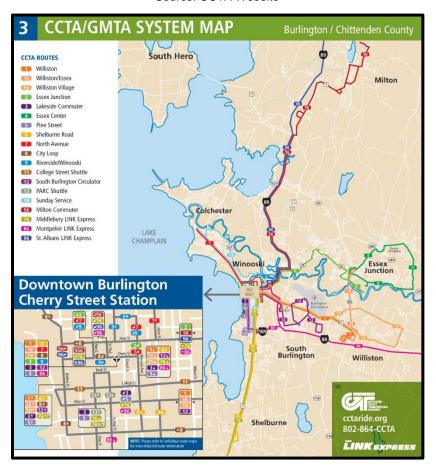


Figure 7 – Greater Burlington Portion of the CCTA System Source: CCTA Website

CCTA offers a variety of services including regular local bus service, commuter shuttles, shopping shuttles and paratransit services. CCTA cooperates with employers through its Smart Business program that provides tax incentives for supporting employee use of public transportation. Public transportation was not a topic included in the Employer Survey that was part of this project. Some interview sources characterized the region as having a good public transportation system; however, during several of our interviews, the topic was commented upon unfavorably, particularly about the frequency of service and length of travel time between residential and employment areas in the County. Colchester in particular was cited by several interview sources as needing improved public transportation, although this is contingent in part on Colchester joining CCTA and taxing its properties to support public transit. Additional attention should be paid to this topic, although to be realistic, the costs of such service and the preference for use of private automobiles by many residents must be recognized.

Long distance bus service from Chittenden County is provided by Greyhound with stations at Burlington International Airport and Main Street in Winooski. Four buses a day leave Chittenden County and stop at both stations in the County. Megabus also provides low cost bus service between Burlington and Boston.

### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major public transportation related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its allies.

Issue	Response
Improved public transportation	Improvements to the County's public bus system should continue to be sought, particularly to link residential and employment areas. Additional employer input should be sought on this topic.

# **Utilities and Telecommunications**

Table 15 provides information from the Employer Survey conducted as part of this project about the range of utility and telecommunications services in Chittenden County. With all utility and telecommunications categories scored Good or better, this is a strong selling point for the County in its economic development efforts.

#### **Table 15 - Utilities and Telecommunications**

Source: Wadley-Donovan GrowthTech Employers Survey

Rating Category	Average Rating (5=Excellent/1=Poor)
Electric power reliability	3.7
Electric power costs	3.1
Quality of advanced telecommunications services (voice/data)	3.2
Costs of advanced telecommunications services (voice/data)	3.0
Water supply capacity	3.9
Water quality	3.8
Water costs	3.4
Sewer treatment capacity	3.6
Sewer systems acceptance of industrial waste	3.4
Sewer costs	3.1
Natural gas service	3.7
Natural gas costs	3.4

The weakest part of the County's utilities and telecommunications system appears to be the quality and costs of telecommunications, in particular cell phone service. But as one survey respondent noted, "We need much better internet/cell service throughout the state - it's not just the rural areas but even some places in Chittenden County have terrible cell service!" Another respondent commented "We do need better internet access to our homes and are excited by the recent initiatives put in place by the state." More information about that state initiative is provided below. It should be noted that future improvements in cellular service must take into account both physical limitations such as terrain that impedes line-of-sight transmission

and the cost-effectiveness of serving small pockets of development scattered throughout the County.

The remainder of this section provides a brief profile of the County's utility and telecommunications infrastructure.

### **Public Water**

Water service in Chittenden County is provided by the Champlain Water District (CWD) and the City of Burlington's DPW Water Division.

CWD serves nearly 68,000 people in Colchester, Essex/Essex Junction, Jericho Village, Milton, Shelburne, South Burlington, Williston and Winooski. It also supplies the Mallets Bay Water Company. CWD's Peter L. Jacob water treatment facility draws water from Lake Champlain at Shelburne Bay and is one of only nine water suppliers in the country to have obtained the USEPA's Excellence in Water Treatment Award from the Partnership for Safe Water. Through 2010, CWD had attained this award for 11 consecutive years. CWD's average daily flow is 10 MGD. A recent installation of a parallel lake water intake provides redundant capacity to the treatment process increasing the available flow to 25 MGD.

The City of Burlington's Water Division also draws raw water from Lake Champlain from an intake point outside Burlington Harbor. The location of the intake point (4,000+ feet offshore) and depth of the intake line (40+ feet) significantly reduce the potential for contamination. As with CWD, the Burlington Water Division has won awards from the Partnership for Safe Water for ten years (through 2010). The City's water treatment plant, located on Penny Lane at the end of Lake Street, has a maximum design capacity of 12.1 MGD. Treatment plant officials consider a 7.5 MGD capacity over an extended timeframe to be a realistic amount. Current use averages 4.5 MGD with a summer peak in the 6 to 6.2 MGD range. Therefore, the system has an average excess capacity of 3 MGD, which is reduced to 1.3 to 1.5 MGD in the summer.

Potable water supply in Chittenden County is adequate to support future economic development in the County with the possible exception of a business with a large water need looking to locate in the City of Burlington or the portion of Colchester served by the Burlington Water Division.

### **Public Sewer**

According to a list of wastewater treatment permits obtained from the State of Vermont, the County is served by several municipal wastewater treatment plants:

- The City of Burlington's Main plant is a 5.3 MGD activated sludge plant
- The City of Burlington's North plant is a 2.0 MGD activated sludge plant
- The City of Burlington's River plant is a 1.2 MGD activated sludge plant
- The Town of Charlotte has a small Septic Tank Effluent Pump collection system
- The Village of Essex Junction and Towns of Essex and Williston have a 3.3 MGD activated sludge plant
- The Town of Milton has a 1.1 MGD sequencing batch reactor plant
- The Town of Shelburne's Crown Road facility is a .44 MGD sequencing batch reactor plant

- The Town of Shelburne's Harbor Road facility is a .66 MGD sequencing batch reactor plant
- The City of South Burlington and Town of Colchester's Airport Parkway facility is a 2.3 MGD activated sludge plant
- The City of South Burlington's Bartlett's Bay facility is a 1.25 extended aeration plant
- The City of Winooski has a 1.5 MGD activated sludge plant

The treatment plants listed above have an aggregate design treatment capacity of 19.05 MGD. No convenient central source of information was found to determine how much of this design capacity is currently being used, or conversely, what excess capacity exists to support future development. GBIC or CCRPC should prepare and maintain a master list of treatment plants with current design and excess capacity information.

Two major industrial operations in the County also have their own wastewater treatment permits:

- IBM in Essex Junction has an 8 MGD sequencing batch reactor plant
- Edlund Company in Burlington has a .0075 MGD chemical precipitation treatment facility

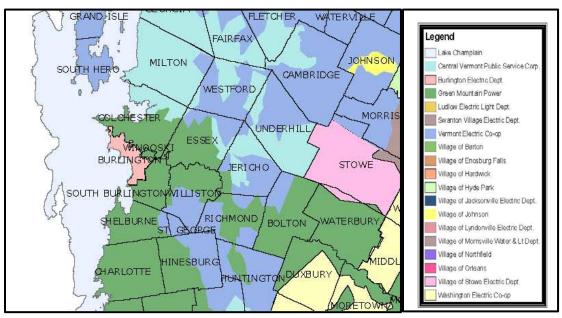
In June 2011 the Burlington City Council approved a wastewater rate increase of 10% from \$4.71 to \$5.18 / 100 cubic feet. Nonetheless, responses to the Employers Survey, which was conducted after that date, indicated satisfaction with wastewater treatment services, costs and acceptance of industrial wastes.

Sewer services currently support the County's economic development efforts. Attention must be paid to available capacity to support areas intended for future economic growth.

### **Electric Power**

Figure 8 on the following page shows the electric utility franchise areas in Chittenden County and the surrounding region. Figure 8 shows that Chittenden County is served by multiple electric providers including Central Vermont Public Service Corporation, Green Mountain Power, the Burlington Electric Department, and the Vermont Electric Co-op. All primary business areas are served with three-phase electric power, which can also be provided to newly developing areas when needed.

At the time research for this Competitive Assessment was conducted, Central Vermont Public Service Corporation was in the process of merging with Gaz Métro, the parent company of Green Mountain Power. This merger, which was approved by the shareholders of Central Vermont Public Service Corporation in September 2011, will result in Green Mountain Power serving about 70 percent of the state's ratepayers.



# Figure 8 – Chittenden County Electric Service Providers

Source: Central Vermont Public Service Website Edited by Garnet Consulting services, Inc.

Central Vermont Public Service (CVPS) states a goal of being the lowest cost electric provider in the region and state, and is aggressively reducing costs, but is also impacted by the small size of its customer base due to the fact that it is serving a very rural state. Table 16 provides a cost comparison for average commercial and industrial rates obtained from the City of Burlington Electric Department's website. Table 16 shows that the electric rates for all four electric companies serving Chittenden County (those in bold and highlighted in yellow) are very competitive within the State of Vermont. As shown in Table 15 above from the Employer Survey, electric costs rated slightly better than Good.

#### Table 16 - 2009 Electric Utility Comparison

Average Commercial & Industrial Rates Source: Burlington Electric Department Website

COMPANY		REV/KWH (Cents)	RANK
BARTON	MUNI	16.08	16
<b>BURLINGTON</b>	<b>MUNI</b>	<mark>12.84</mark>	<mark>7</mark>
CVPS	<b>PRIV</b>	<mark>11.40</mark>	<mark>4</mark>
ENOSBURG	MUNI	14.25	9
<b>GMP</b>	<b>PRIV</b>	<mark>10.48</mark>	<mark>3</mark>
HARDWICK	MUNI	17.54	20
HYDE PARK	MUNI	16.88	17
JACKSONVILLE	MUNI	17.20	19
JOHNSON	MUNI	14.62	12
LUDLOW	MUNI	14.84	14
LYNDONVILLE	MUNI	14.97	15
MORRISVILLE	MUNI	14.44	11
NORTHFIELD	MUNI	12.81	6
ORLEANS	MUNI	14.33	10
READSBORO	MUNI	17.00	18

COMPANY		REV/KWH (Cents)	RANK
STOWE	MUNI	12.93	8
SWANTON	MUNI	10.36	2
<mark>VEC</mark>	<mark>СООР</mark>	<mark>12.72</mark>	<mark>5</mark>
VMPD OMYA	PRIV	8.29	1
WEC	COOP	14.82	13

A second area of concern to businesses regarding electric power is reliability. CVPS reports that its reliability indices "meet or exceed standards" and "stack up against any place." This seems to be borne out by responses in the Employer Survey (see Table 15), which rated electric power reliability as slightly below Very Good.

Another topic of discussion related to electric power in Chittenden County was the possible impact on rates the potential closure of the Vermont Yankee Nuclear Power Plant would have. CVPS officials consider this to be "a non-event" and have done a comparative cost analysis showing that there will be no cost impact for Chittenden County, This is in part because the company has already negotiated contracts with Hydro-Quebec and Public Service of New Hampshire's Seabrook Nuclear Power Plant.

In summary, electric power service, cost and reliability appear to support current and future economic development in Chittenden County.

### **Natural Gas**

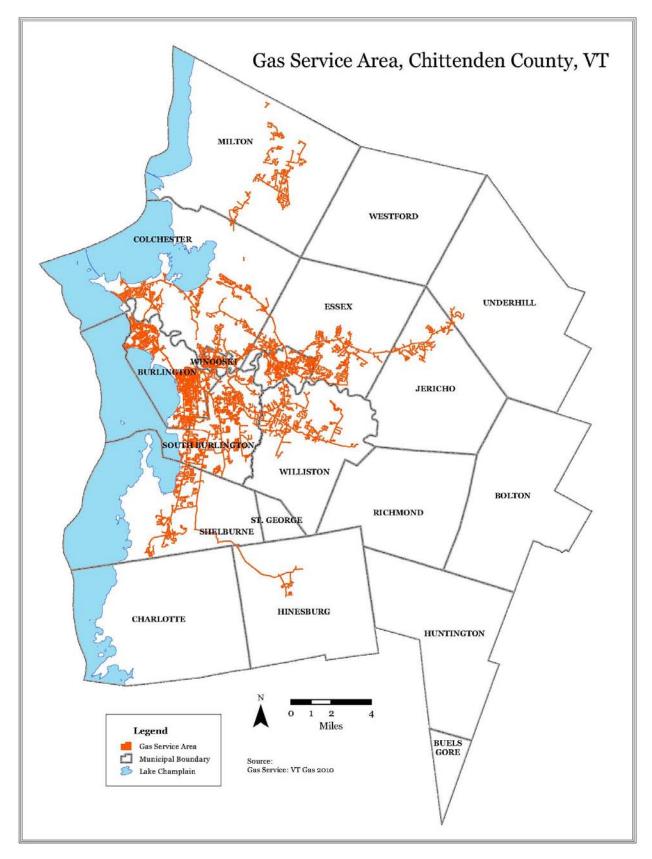
Vermont Gas Systems (VGS) provides natural gas service in Chittenden County including major portions of Burlington, Colchester, Essex, Milton, Shelburne, South Burlington, Williston and Winooski. Figure 9 provides a map showing the areas in which natural gas service is available (as of 2010) and indicates that the vast majority of business areas in the County are served with natural gas.

VGS is owned by Northern New England Energy Corporation, which in turn is owned by Gaz Métro, Quebec's largest natural gas company. Gas is produced in the natural gas fields in Alberta, Canada and transported by the TransCanada Pipeline to Highgate, VT, a short distance north of Chittenden County.

The Employer Survey responses shown in Table 15 above showed a good level of satisfaction with both natural gas service and costs – both between Good and Very Good. VGS works with business customers to reduce energy costs through a variety of demand-side management programs.

Natural gas service and rates currently support the County's economic development efforts and are expected to in the future.





### Telecommunications

As noted above in relation to Table 15 which presents the results of the Employer Survey, the weakest part of the County's utility and telecommunications infrastructure is in the area of telecommunications. This is not just a problem for Chittenden County; rather, as for most largely rural areas, it has been a problem for the entire state.

Vermont has recognized this deficiency and has responded by creating Connect VT, Governor Shumlin's plan to achieve universal availability of broadband and mobile phone service within the state, with a major "telecommunications highway" with six conduits in all Interstates in place by 2013. The long range plan is to provide a "wireless canopy with fiber deep into all communities." A key player in this ongoing initiative is the Vermont Telecommunications Authority (VTA), established in 2007, with the mandate of providing "universal availability of broadband and cellular service throughout the state". VTA is focusing on 47 corridors and approximately 50 "hotspots" with dropped call problems.

Because Chittenden County is the most heavily developed part of the state in terms of both population and business, as well as being the location of the state's flagship University, there will be a particular focus on upgrading telecommunications in the County. The County already has a significant fiberoptic capability (some currently dark) with many businesses already having T-1 capability.

The County is served by multiple telecommunications providers including FairPoint, Comcast, Vermont Telephone Company (VTel), Burlington Telecom, and others. This is a robust network that is making significant investments in telecommunications upgrades.

Burlington Telecom is a topic of concern for the City. The city-owned utility provides television, Internet and phone services to some 4,000 residents. While service is reported to be excellent with the only fiber-to-premises in the region, Burlington Telecom is in financial difficulties. It is reported to have positive cash flow that covers operational costs, but it is unable to cover its debt service and owes \$17 million to the City from an interfund loan that violates the municipally owned utility's 2005 state license. The Chittenden County State's Attorney has accused City officials of "mismanagement, lack of oversight, lack of accountability, lack of communication, ignorance, arrogance and bad judgment" but has declined to prosecute. Nonetheless, this is the kind of publicly available information that can negatively impact a prospect company's perception of the area.

Burlington Telecom is also the subject of a suit by Citibank, which is owed \$33.5 million. The suit seeks repossession of all equipment. The City's position is that "...Citicapital's filing has no impact on Burlington Telecom's provision of services to its business and residential customers" and expects there will be a workout. This is an issue that is likely to hurt the City and County's image more than its telecommunications capabilities since it is unlikely fiberoptic cables will be removed from the ground or related equipment uninstalled.

### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major utility and telecommunications related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its allies.

Issue	Response
Wastewater treatment service areas and capacities	GBIC or CCRPC should prepare and maintain a master list of wastewater treatment plants
	with current design and excess capacity
	information.
Telecommunications services	Continue to support upgrades to the
	telecommunications services in the County,
	particularly those needed by current and future
	businesses

### Other Utility Information

The Vermont Energy Investment Corporation (VEIC), with offices in Burlington, is a mission-driven nonprofit organization founded in 1986 that is dedicated to reducing the economic, social, and environmental costs of energy consumption through cost-effective energy efficiency and renewable technologies. VEIC operates Efficiency Vermont – the nation's first statewide 'energy efficiency utility' as well as other implementation services across the country. The presence of VEIC in Chittenden County is an important element in positioning the County as a leader in sustainability and alternative approaches to energy consumption.

# **Economic Development Programs and Services**

GBIC (the Greater Burlington Industrial Corporation) and the Lake Champlain Regional Chamber of Commerce are the two major organizations providing economic development services in Chittenden County. In addition, some of the County's municipalities have departments or commissions dedicated to economic and community development with the City of Burlington having the largest and most multi-faceted.

GBIC and the Chamber are co-located along with offices of several other affiliates. The broad array of affiliations include (not all of which are co-located):

- Chittenden County Regional Planning Commission/ Metropolitan Planning Organization
- Champlain Initiative
- City of Burlington Community and Economic Development Office
- Micro Business Development Program of the Champlain Valley Office of Economic Opportunity
- United Way of Chittenden County
- Vermont Business Roundtable
- Vermont Captive Insurance Association
- Vermont Center for Emerging Technologies
- Vermont Council on Rural Development
- Vermont Council on World Affairs
- Vermont Economic Development Authority

- Vermont Manufacturing Extension Center
- Vermont Ski Area Association
- Vermont Small Business Development Center
- Vermont Sustainable Jobs Fund
- Vermont Telecom
- Vermont Works for Women
- Vermont Procurement Technical Assistance Center
- Women's Small Business Program

GBIC is a multi-service economic development organization providing assistance in the areas of:

- Economic Incentives Assistance to Municipalities
- Permit Facilitation Services
- Business Retention/Expansion support
- Business Resource Forums
- Regional Promotion & Marketing
- Incentive Program Assistance
- Financing Assistance
- Legislative & Government Advocacy
- Workforce Education & Training Assistance
- Business Development Support
- Business Recruitment Services
- Site Selection Services

Divisions and programs within the Chamber include:

- Vermont Convention Bureau
- Welcome Centers in Williston (I-89) and at the Airport
- Workforce Investment Board / Education and Training
- "Linking Learning to Life" program
- Leadership Champlain
- Government Affairs
- Membership
- Communications and Media Relations

Between these two organizations and their affiliated municipal economic and community development operations, the region is well served for this purpose. GBIC maintains an excellent and comprehensive compilation of economic development providers, programs and services in Vermont that includes not only a narrative description of the agencies and programs, but also a link to their websites.

During interviews for this project some lingering misconceptions were noted about GBIC which some consider to still be primarily interested in land development for old-fashioned industrial recruitment. GBIC's website states:

The primary goal of **GBIC** is the creation and retention of value-added jobs that will strengthen the region's economy and improve the quality of life for area residents. The primary economic market focus of **GBIC** is the region's value-added industry sectors and the region's economy-driving businesses. **GBIC** is dedicated to the

creation and retention of "good jobs in a clean environment" for working Vermonters and their families.

Some in the community either do not understand or believe that the goal shown in the prior paragraph is actually the mission of GBIC today. GBIC must continue efforts to reposition itself and its image in the minds of all Chittenden County residents.

The Employers Survey conducted as part of this project included one question related to economic development programs and services. Responding employers rated these programs and services at less than Good (2.7 on a five point scale where 1=poor and 5=Excellent.

A review of multiple regional and local websites provides this composite list of economic development programs:

- The Vermont Employment Growth Initiative (VEGI) an employment related incentive program
- The Vermont Economic Development Authority (VEDA) an economic development financing agency
- The Vermont Training Program training funds for new and existing businesses in the areas of Manufacturing, IT, Healthcare, Telecommunication, and Environment
- The Workforce Education and Training Fund (WETF) grants that support the improvement
  of occupational skills for Vermonters who are unemployed, underemployed or are at risk of
  unemployment due to changing workforce skill requirements
- The Lake Champlain Workforce Investment Board (LCWIB)
- The City of Burlington's Renewal Community (RC) program a federally-designated area with special business tax incentives to encourage economic development (however, at this time, no incentives are available)

There may be additional assistance and incentive programs available from the individual municipalities in the County, but the list above suggests that, in terms of services provided, Chittenden County offers very little that differentiates it from the rest of Vermont.

Interview sources mentioned additional programs such as the City of Burlington's Downtown TIF District and South End Enterprise District. Other TIF districts in Colchester, Winooski and Milton (and a possible one in South Burlington) were mentioned. However, if other programs such as these are available, there is no centralized source that provides summary information on the range of available programs and convenient links to more detailed information. This lack of information is certainly not helping the County's economic development efforts and may be hurting them.

Continued and increased attention, including new or improved economic development services, must be paid to providing services to existing businesses and entrepreneurs in Chittenden County.

### Major Issues, Opportunities and Potential Responses Identified by the Consultant Team

The table below summarizes the County's major economic development programs and services related issues and opportunities indentified by the consultant team, and suggested responses by GBIC and its allies.

Issue	Response
Inadequate website information	The GBIC website must be upgraded to
	conveniently provide information companies and
	site location consultants typically look for from
	such websites. This would include information
	on:
	<ul> <li>Available commercial real estate</li> </ul>
	<ul> <li>Air freight services</li> </ul>
	<ul> <li>Utility and telecommunication providers,</li> </ul>
	services and relevant specifications
	<ul> <li>Statistical information formatted to meet the</li> </ul>
	Site Selection Standards of the International
	Economic Development Council (IEDC)
	<ul> <li>Available incentive programs</li> </ul>
	A first step would be an independent review by
	a qualified economic development website
	consultant. GBIC should also review the
	websites of the most recent award winners
	recognized by IEDC for superiority in this
	category.
Economic development services	Continued and increased attention, including
	new or improved economic development
	programs and services, must be paid to
	existing businesses and entrepreneurs in
	Chittenden County. Examples of possible
	initiatives include:
	Establish or expand the Young
	Professionals/Young Entrepreneurs
	Association.
	Create a public/private Financing Network
	linking conventional lenders, venture
	capitalists and angels, philanthropic sources and others.
	Establish a fully equipped prototyping center to assist entrepreneurs in developing
	product prototypes at low cost.
	Establish a Center for Business and Economic Development at the University of
	Vermont.
	<ul> <li>Establish an Incubator Without Walls</li> </ul>
	program to stimulate and support business
	start-ups.
	<ul> <li>Create an Entrepreneurs Boot Camp and</li> </ul>
	Business Plan Competition.
	<ul> <li>Continue to expand and improve the</li> </ul>

Issue	Response
	County's "one-stop" organizational network and information resources about County- wide and local economic development assistance and incentive programs. There is an opportunity to create a one-stop Regional Resource Center that co-locates more agencies than currently occupy the same building.
Regional economic development team-building	<ul> <li>GBIC should consider establishing an economic development team-building process to involve all communities and their staff, boards and commissions that impact the development process.</li> <li>Future economic development plans must include a "feedback loop and procedures" to keep constituent communities and residents informed about and engaged in the County's economic development efforts.</li> </ul>
GBIC image	GBIC must continue efforts to reposition itself and its image in the minds of all Chittenden County residents.

# **APPENDICES**

# APPENDIX A: STATISTICAL BACKGROUND DATA CHITTENDEN COUNTY REGIONAL PLANNING COMMISSION

### TABLE OF CONTENTS

- A-1 Demographic characteristics
- A-2 Labor force characteristics
- A-3 Employment by major industry sector (2010)
- A-4 Employment by occupation category (2010)
- A-5 Earnings by major industry category (2010)
- A-6 Median annual earnings by selected benchmark occupation category
- A-7 Post-secondary institutions
- A-8 Area schools—degrees and certificates conferred in 2009-2010
- A-9 Quality-of-life measures
- A-10 Union elections (1990-2011)
- A-11 Major employers

Source: U.S. Census Bureau, Nielson-Claritas Inc.

		Chittenden County, VT	Vermont	United States
Popula	tion (Source: U.S. Bureau of the	• ·	aritas, Inc.)	
1990	0 Census	131,761	562,758	248,709,873
2000	0 Census	146,571	608,827	281,421,906
2010	0 Census	156,545	625,741	308,745,538
2015	5	156,245	622,922	321,675,005
Cha	nge 1990 - 2000	11.2%	8.2%	13.2%
Cha	nge 2000 - 2010	6.8%	2.8%	9.7%
Cha	nge 1990 - 2010	18.8%	11.2%	24.1%
Cha	nge 2010 - 2015	-0.2%	-0.5%	4.2%

#### Percent Minority (Source: U.S. Bureau of the Census, Nielson-Claritas, Inc.)

2000 Census	1.3%	1.1%	18.3%
2010	2.4%	1.8%	23.3%
2015	2.8%	2.0%	25.5%

#### Distribution by Age Group (2000)

(Source: Nielson-Claritas, Inc.)

0-17	34,513	147,523	72,293,812
18-34	40,436	131,153	67,035,178
35-54	46,499	195,721	82,826,479
55-64	11,343	56,920	24,274,684
65-74	7,364	40,683	18,390,986
75 and over	6,416	36,827	16,600,767

#### Percent Distribution by Age Group

2000 Census (Source: Nielson-Claritas, Inc.)

0-17	23.5%	24.2%	25.7%
18-34	27.6%	21.5%	23.8%
35-54	31.7%	32.1%	29.4%
55-64	7.7%	9.3%	8.6%
65-74	5.0%	6.7%	6.5%
75 and over	4.4%	6.0%	5.9%

Source: U.S. Census Bureau, Nielson-Claritas Inc.

Chittenden		
County, VT	Vermont	United States

Distribution by Age Group (2010)

(Source: Nielson-Claritas, Inc.)

0-17	32,479	128,323	74,982,897
18-34	37,459	131,970	71,199,431
35-54	47,044	183,096	86,718,094
55-64	19,298	88,250	35,459,583
65-74	9,983	49,096	21,580,358
75 and over	7,583	41,344	19,098,611

#### Percent Distribution by Age Group (2010)

(Source: Nielson-Claritas, Inc.)

0-17	21.1%	20.6%	24.3%
18-34	24.3%	21.2%	23.0%
35-54	30.6%	29.4%	28.1%
55-64	12.5%	14.2%	11.5%
65-74	6.5%	7.9%	7.0%
75 and over	4.9%	6.6%	6.2%

#### Distribution by Age Group (2015)

(Source: Nielson-Claritas, Inc.)

0-17	31,380	122,366	77,194,606
18-34	37,554	133,592	72,185,566
35-54	43,224	164,113	84,945,383
55-64	22,504	98,419	40,365,571
65-74	13,149	60,329	26,470,019
75 and over	8,434	44,103	20,513,860

Source: U.S. Census Bureau, Nielson-Claritas Inc.

Chittenden		
County, VT	Vermont	ι

United States

Percent Distribution by Age Group (2015)

(Source: Nielson-Claritas, Inc.)

0-17	20.1%	19.6%	24.0%
18-34	24.0%	21.4%	22.4%
35-54	27.7%	26.3%	26.4%
55-64	14.4%	15.8%	12.5%
65-74	8.4%	9.7%	8.2%
75 and over	5.4%	7.1%	6.4%

#### **Projected Change in**

Age Distribution (2010-2015)

(Source: Nielson-Claritas, Inc.)

0-17	-1,099	-5,957	2,211,709
18-34	95	1,622	986,135
35-54	-3,820	-18,983	-1,772,711
55-64	3,206	10,169	4,905,988
65-74	3,166	11,233	4,889,661
75 and over	851	2,759	1,415,249

# Projected Percent Change in

Age Distribution (2010-2015)

(Source: Nielson-Claritas, Inc.)

0-17	-5.0%	-5.2%	3.0%
18-34	-1.5%	0.6%	1.5%
35-54	-9.7%	-10.9%	-2.0%
55-64	14.6%	10.9%	13.9%
65-74	29.4%	22.2%	22.8%
75 and over	9.3%	6.0%	7.5%

#### Median Age (Source: Nielson-Claritas, Inc.)

2000 Census	34.2	37.6	35.3
2010	38.2	41.3	37.0
2015	39.7	42.7	37.8

Source: U.S. Census Bureau, Nielson-Claritas Inc.

Chittenden		
County, VT	Vermont	United States

#### Median Household Income

(Sources: Census, Nielson-Claritas, Inc.)

2000 Census	\$48,131	\$41,148	\$42,729
2010 Census	\$61,363	\$52,289	\$52,795
2015 Nielson-Claritas	\$66,161	\$56,976	\$57,135
Change '10 - '15	7.8%	9.0%	8.2%

#### Household Income Distribution (2010)

(Source: Nielson-Claritas, Inc.)

Households	60,474	252,584	116,136,617
Less than \$35,000	15,488	80,966	38,134,806
Between \$35,000 and \$75,000	21,700	95,540	40,080,873
Greater than \$75,000	23,286	76,078	37,920,938

#### Percent Household Income Distribution (2010)

(Source: Nielson-Claritas, Inc.)

Households	60,474	252,584	116,136,617
Less than \$35,000	25.6%	32.1%	32.8%
Between \$35,000 and \$75,000	35.9%	37.8%	34.5%
Greater than \$75,000	38.5%	30.1%	32.7%

Source: U.S. Census Bureau, Nielson-Claritas Inc.

ducational Attainment Levels 2010 <i>(Source: Nielson-Claritas, Inc.)</i>	Chittenden County, VT	Vermont	United States
No High School Diploma	7,137	41,107	31,167,852
High School Diploma Only	24,684	141,824	59,184,106
1 to 3 Years College	17,598	71,573	42,257,481
Associate Degree	9,388	37,231	15,247,439
Bachelors Degree	27,159	87,045	35,553,709
Graduate Degree	16,078	54,066	20,637,582
12 to 15 years of education	51,670	250,628	116,689,026
16 or more years of education	43,237	141,111	56,191,291

#### **Percent Educational Attainment Levels**

2010 (Source: Nielson-Claritas, Inc.)

No High School Diploma	7.0%	9.5%	15.3%
High School Diploma Only	24.2%	32.8%	29.0%
1 to 3 Years College	17.2%	16.5%	20.7%
Associate Degree	9.2%	8.6%	7.5%
Bachelors Degree	26.6%	20.1%	17.4%
Graduate Degree	15.8%	12.5%	10.1%
12 to 15 years of education	50.6%	57.9%	57.2%
16 or more years of education	42.4%	32.6%	27.5%

# **EXHIBIT A-2: LABOR FORCE CHARACTERISTICS**

Source: U.S. Bureau of Labor Statistics, Nielson-Claritas Inc. (Seasonally Adjusted)

#### Chittenden County, VT

T Vermont United States

#### **Civilian Labor Force (Average Annual)**

(Source: U.S. Bureau of Labor Statistics)

2000	85,239	335,798	142,583,000
2010	91,059	360,765	153,889,000
July, 2011	93,606	359,800	153,228,000
% Change 2000 - 2010	6.8%	7.4%	7.9%

#### Employment (Average Annual)

(Source: U.S. Bureau of Labor Statistics)

2000	83,366	326,742	136,900,001
2010	86,467	338,295	139,064,000
July, 2011	89,116	339,305	139,296,000

#### **Unemployment (Average Annual)**

(Source: U.S. Bureau of Labor Statistics)

2000	1,873	9,056	5,692,000
2010	4,592	22,470	14,825,000
July, 2011	4,490	20,495	13,931,000

#### **Unemployment Rate (Average Annual)**

(Source: U.S. Bureau of Labor Statistics)

2000	2.2%	2.7%	4.0%
2010	5.0%	6.2%	9.6%
July, 2011	4.8%	5.7%	9.1%

#### Labor Participation (Source: Nielson-Claritas, Inc.)

Total (2010) 73.0% 69.8% 65.4%			, ,		
	Total (201			69.8%	65.4%

# EXHIBIT A-3: EMPLOYMENT BY MAJOR INDUSTRY SECTOR (2010) \*

Source: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW)

	Chittenden		
NAICS	County, VT	Vermont	United States
Total	93,253	293,088	127,157,743
Private Sector	77,649	240,265	106,201,233
11 Forestry, fishing, hunting, and agriculture support	97	2,492	1,146,962
21 Mining	39	595	651,631
22 Utilities	254	1,801	551,287
23 Construction	4,207	13,548	5,489,499
31 Manufacturing	10,744	30,803	11,487,496
42 Wholesale trade	3,128	9,518	5,466,463
44 Retail trade	12,556	37,939	14,481,324
48 Transportation & warehousing	2,074	6,467	3,943,659
51 Information	2,128	5,349	2,703,886
52 Finance and insurance	3,127	8,934	5,486,241
53 Real estate & rental & leasing	1,110	2,948	1,915,571
54 Professional, scientific & technical services	6,725	13,532	7,457,913
55 Management of companies & enterprises	318	933	1,854,778
56 Admin, support, waste mgt, remediation services	3,214	8,732	7,399,320
61 Educational services	2,052	9,263	2,460,150
62 Health care and social assistance	14,060	46,493	16,196,009
71 Arts, entertainment & recreation	1,476	3,809	1,903,739
72 Accommodation & food services	7,679	28,559	11,103,075
81 Other services (except public administration)	2,661	8,549	4,349,563
Unclassified	-	-	152,667
Government Sector	15,604	52,824	20,956,510

\* Includes private for-profit businesses with one or more employees; federal, state and local agencies; nonprofit agencies with at least four employees; farms employing ten or more workers; private homes employing domestics. Excludes the self employed, most farms, some non-profits, elected officials, officers and family members of sole proporietorships or partnerships, and student workers in a work-study or academic program.

# EXHIBIT A-3: EMPLOYMENT BY MAJOR INDUSTRY SECTOR (2010) \*

Source: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW)

NAICS		Chittenden County, VT	Vermont	United States
NAICS	Total	100%	100%	100%
Private		83.3%	82.0%	83.5%
	Forestry, fishing, hunting, and agriculture support	0.1%	0.9%	0.9%
21	Mining	0.0%	0.2%	0.5%
22	Utilities	0.3%	0.6%	0.4%
23	Construction	4.5%	4.6%	4.3%
31	Manufacturing	11.5%	10.5%	9.0%
42	Wholesale trade	3.4%	3.2%	4.3%
44	Retail trade	13.5%	12.9%	11.4%
48	Transportation & warehousing	2.2%	2.2%	3.1%
51	Information	2.3%	1.8%	2.1%
52	Finance & insurance	3.4%	3.0%	4.3%
53	Real estate & rental & leasing	1.2%	1.0%	1.5%
54	Professional, scientific & technical services	7.2%	4.6%	5.9%
55	Management of companies & enterprises	0.3%	0.3%	1.5%
56	Admin, support, waste mgt, remediation services	3.4%	3.0%	5.8%
61	Educational services	2.2%	3.2%	1.9%
62	Health care and social assistance	15.1%	15.9%	12.7%
71	Arts, entertainment & recreation	1.6%	1.3%	1.5%
72	Accommodation & food services	8.2%	9.7%	8.7%
81	Other services (except public administration)	2.9%	2.9%	3.4%
Govern	ment Sector	16.7%	18.0%	16.5%

\* Includes private for-profit businesses with one or more employees; federal, state and local agencies; nonprofit agencies with at least four employees; farms employing ten or more workers; private homes employing domestics. Excludes the self employed, most farms, some non-profits, elected officials, officers and family members of sole proporietorships or partnerships, and student workers in a work-study or academic program.

# **EXHIBIT A-4: EMPLOYMENT BY OCCUPATION CATEGORY (2010)**

Source: Nielson-Claritas, Inc.

	Chittenden County, VT	Vermont	United States
Actual Employment			
Architecture/Engineering	2,361	6,315	2,835,737
Arts/Design/Entert/Sports/Media	2,024	7,539	2,728,179
Building/Grounds Cleaning/Maint	3,813	14,881	5,636,844
Business and Financial Operations	4,036	13,200	6,395,567
Community/Social Services	1,779	7,424	2,337,123
Computer and Mathematical	3,113	6,952	3,438,688
Construction/Extraction	3,571	22,316	8,833,560
Education/Training/Library	6,572	26,300	8,451,241
Farming/Fishing/Forestry	357	4,015	1,007,703
Food Preparation/Serving Related	5,495	18,353	7,840,983
Healthcare Practitioner/Technician	4,867	17,914	7,445,369
Healthcare Support	1,465	6,928	3,304,996
Installation/Maintenance/Repair	2,284	11,264	5,023,137
Legal	737	3,190	1,651,016
Life/Physical/Social Science	883	2,890	1,354,972
Management incl Farmers/Farm Mgrs	10,695	37,035	14,037,627
Office/Administrative Support	10,951	42,969	20,760,906
Personal Care/Service	2,942	11,747	4,835,210
Production	3,850	21,808	9,485,894
Protective Service	1,491	5,445	3,147,387
Sales/Related	11,180	36,100	16,557,258
Transportation/Material Moving	3,179	14,640	8,954,114

# **EXHIBIT A-4: EMPLOYMENT BY OCCUPATION CATEGORY (2010)**

Source: Nielson-Claritas, Inc.

	Chittenden County, VT	Vermont	United States
ercentage of Labor Force			
Architecture/Engineering	2.7%	1.9%	1.9%
Arts/Design/Entert/Sports/Media	2.3%	2.2%	1.9%
Building/Grounds Cleaning/Maint	4.4%	4.4%	3.9%
Business and Financial Operations	4.6%	3.9%	4.4%
Community/Social Services	2.0%	2.2%	1.6%
Computer and Mathematical	3.6%	2.0%	2.4%
Construction/Extraction	4.1%	6.6%	6.0%
Education/Training/Library	7.5%	7.8%	5.8%
Farming/Fishing/Forestry	0.4%	1.2%	0.7%
Food Preparation/Serving Related	6.3%	5.4%	5.4%
Healthcare Practitioner/Technician	5.6%	5.3%	5.1%
Healthcare Support	1.7%	2.0%	2.3%
Installation/Maintenance/Repair	2.6%	3.3%	3.4%
Legal	0.8%	0.9%	1.1%
Life/Physical/Social Science	1.0%	0.9%	0.9%
Management incl Farmers/Farm Mgrs	12.2%	10.9%	9.6%
Office/Administrative Support	12.5%	12.7%	14.2%
Personal Care/Service	3.4%	3.5%	3.3%
Production	4.4%	6.4%	6.5%
Protective Service	1.7%	1.6%	2.2%
Sales/Related	12.8%	10.6%	11.3%
Transportation/Material Moving	3.6%	4.3%	6.1%

# **EXHIBIT A-5: AVERAGE EARNINGS BY MAJOR INDUSTRY SECTOR (2010)** Source: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW)

		Chittenden		United
NAICS		County, VT	Vermont	States
	Total	\$48,213	\$39,425	\$46,751
Private	Sector	\$45,565	\$38,625	\$46,455
11	Forestry, fishing, hunting, and agriculture support	\$24,495	\$27,235	\$26,636
21	Mining	\$51,328	\$55,653	\$90,628
22	Utilities	\$83,853	\$92,215	\$86,791
23	Construction	\$49,328	\$42,764	\$49,597
31	Manufacturing	\$67,228	\$52,998	\$57,526
42	Wholesale trade	\$58,968	\$52,514	\$63,629
44	Retail trade	\$26,665	\$25,941	\$26,652
48	Transportation & warehousing	\$37,946	\$35,984	\$44,197
51	Information	\$50,490	\$45,218	\$74,395
52	Finance and insurance	\$74,167	\$62,115	\$84,518
53	Real estate & rental & leasing	\$38,178	\$33,330	\$43,786
54	Professional, scientific & technical services	\$57,338	\$63,987	\$77,318
55	Management of companies & enterprises	\$69,863	\$79,084	\$98,286
56	Admin, support, waste mgt, remediation services	\$28,303	\$28,639	\$33,276
61	Educational services	\$37,532	\$38,909	\$42,801
62	Health care and social assistance	\$49,251	\$38,789	\$43,725
71	Arts, entertainment & recreation	\$20,100	\$21,293	\$32,280
72	Accommodation & food services	\$17,971	\$17,758	\$17,177
81	Other services (except public administration)	\$29,159	\$28,320	\$29,370
	Unclassified	-	-	\$50,543
Governr	nent Sector	\$49,439	\$43,063	\$48,202

# **EXHIBIT A-6: MEDIAN ANNUAL EARNINGS BY SELECTED BENCHMARK OCCUPATION CATEGORY**

Source: Salary.com

Occupation Description	Burlington, VT
Accounting Clerk	\$31,860
Administrative Assistant	\$36,250
Assembler	\$25,127
CAD Drafter	\$41,592
Civil Engineer	\$56,306
Computer Programmer	\$54,387
Customer Service Representative	\$30,537
Electronics Technician	\$39,516
Engineering Technician	\$41,038
Machinist - Journey	\$51,336
Nurse, Licensed Practical	\$41,409
Nursing, Certified Assistant	\$28,461
PC Support Specialist	\$40,843
Secretary, Executive	\$33,358
Systems Analyst	\$54,506
Tool & Die Maker	\$43,318

# EXHIBIT A-7: POST-SECONDARY INSTITUTIONS

Source: U.S. Department of Education, National Center for Education Statistics (IPEDS)

Less-than-Four-Year Institutions	Location	Total Fall Enrollment (2010)	Total Graduates (2009-2010)
Burlington Technical Center	Burlington	7	13
Vermont Technical College - Williston Campus	Williston	N/A	N/A

		Total Fall	
		Enrollment	<b>Total Graduates</b>
More-than-Four-Year Institutions	Location	(2010)	(2009-2010)
University of Vermont	Burlington	13,554	2,955
Champlain College	Burlington	3,061	681
St. Michael's College	Colchester	2,457	620
Burlington College	Burlington	186	51

Source: U.S. Department of Education

	Description		Associate's				
	Description	Certificate	degree	degree	degree	degree	Total
BURLINGTON	General Studies		1				1
COLLEGE	Humanities / Humanistic Studies			16			16
	Latin American Studies						
	Liberal Arts and Sciences / Liberal Studies			14			14
	Medical Transcription	28					28
	Psychology, General			6			6
	Psychology, Other			12			12
CHAMPLAIN	Accounting		18	24			42
COLLEGE	Business Administration and Management, Other		79	71			150
	Business Marketing and Marketing Management		2				2
	Business, General						
	Computer and Information Sciences, Other		18				18
	Computer Programming		3				3
	Design and Visual Communications		38	3			41
	Elementary Teacher Education			32			32
	General Studies			94			94
	Information Sciences and Systems		28	24			52
	Law Enforcement / Police Science		9				9
	Liberal Arts and Sciences / Liberal Studies		32				32
	Medical Radiologic Technology/Technician		17				17
	Respiratory Therapy Technician		5				5
	Social Work		6				6
	Sport and Fitness Administration / Management		3				3
	Travel-Tourism Management		4				4
SAINT MICHAELS	Accounting			19			19
COLLEGE	American Studies/Civilization			9			9
0011101	Art, General			17			17
	Biochemistry			1			1
	Biology, General			32			32
	Business Administration and Management, General			92	45		137
	Chemistry, General			2			2
	Clinical Psychology			2	12		12
	Computer Science			7	12		7
	Drama / Theater Arts, General			4			4
	Economics, General			4			4
	,			/	45		45
	Education, General				45		40

Source: U.S. Department of Education

			Associate's	Bachelor's	Master's	Doctor's	Grand
	Description	Certificate	degree	degree	degree	degree	Total
SAINT MICHAELS	Elementary Teacher Education			37			37
COLLEGE,	Engineering, General			6	-		6
continued	English Language and Literature, General			48			48
	French Language and Literature			4			4
	Journalism			33			33
	Mathematics			10			10
	Music, General			6			6
	Philosophy			5			5
	Physics, General			2			2
	Political Science and Government, General			34			34
	Psychology, General			62			62
	Religion / Religious Studies			6			6
	Sociology			25			25
	Spanish Language and Literature			16			16
	Teaching English as a Second Language / Foreign Language				54		54
	Theology / Theological Studies				5		5
UNIVERSITY OF	Agricultural Business and Management, Other			43			43
VERMONT AND	Agricultural Economics				4		4
STATE AGRICULTURAL				33			33
COLLEGE	Art History, Criticism and Conservation			7			7
	Art Teacher Education			11			11
	Asian Studies			1			1
	Biochemistry			2		2	4
	Bioengineering and Biomedical Engineering				3		3
	Biology, General			70	1		71
	Botany, General			3	5	1	9
	Business Administration and Management, General			166	21		187
	Canadian Studies						
	Cell and Molecular Biology, Other					4	4
	Chemistry, General			9		2	11
	Civil Engineering, General			28	3	1	32
	Communication Disorders, General			15	13		28
	Computer Science			21	5		26
	Consumer Economics and Science						
	Counselor Education / Counseling and Guidance Services				11		11
	Curriculum and Instruction				53		53

A-15 WADLEY-DONOVAN GROWTHTECH

Source: U.S. Department of Education

			Associate's	Bachelor's	Master's	Doctor's	Grand
	Description	Certificate	degree	degree	degree	degree	Total
UNIVERSITY OF	Dental Hygienist		16				16
VERMONT AND	Drama / Theater Arts, General			8			8
STATE AGRICULTURAL	East Asian Studies			1			1
COLLEGE,	Economics, General			22			22
continued	Education Administration and Supervision, General				9	8	17
	Education, General			1	7		8
	Electrical, Electronics and Communication Engineering			17	10		27
	Elementary Teacher Education			50			50
	Engineering Physics						
	English Language and Literature, General			140	10		150
	English Teacher Education			5			5
	European Studies			3			3
	Fine / Studio Arts			70			70
	Foreign Languages Teacher Education						
	Forestry, General			10	5		15
	French Language and Literature			4			4
	General Studies			4			4
	Geography			20	1		21
	Geology			7	3		10
	German Language and Literature			4	2		6
	Greek Language and Literature (Ancient/Medieval)						
	Higher Education Administration				16		16
	Historic Preservation, Conservation and Architectural History				9		9
	Horticulture Services Operations and Management, General			3			3
	Individual and Family Development Studies, General			13			13
	Information Sciences and Systems			7			7
	Latin American Studies						
	Latin Language and Literature (Ancient/Medieval)			2			2
	Materials Science						
	Mathematical Statistics			4	2		6
	Mathematics			19	6		25
	Mathematics Teacher Education			4			4
	Mechanical Engineering			29	5		34
	Medical Radiologic Technology/Technician			5			5
	Medical Technology			16			16
	Medicine (MD)					94	94

Source: U.S. Department of Education

			Associate's	Bachelor's	Master's	Doctor's	Grand
	Description	Certificate	degree	degree	degree	degree	Total
UNIVERSITY OF	Music - General Performance						
VERMONT AND	Music Teacher Education			4			4
STATE AGRICULTURAL	Music, General			8			8
COLLEGE,	Natural Resources Conservation, General			10			10
continued	Natural Resources Management and Policy			24	9	6	39
	Nuclear Medical Technology/Technician						
	Nursing (R NTraining)			38			38
	Nursing Science (Post-R N)				10		10
	Nursing, Family Practice (Post-R N)						
	Philosophy			21			21
	Physical Education Teaching and Coaching			13			13
	Physical Sciences, General						
	Physical Therapy			6	-		14
	Physics, General			2	3		5
	Political Science and Government, General			126			126
	Psychology, General			157	2	8	167
	Public Administration				8		8
	Reading Teacher Education				4		4
	Religion / Religious Studies			11			11
	Russian and Slavic Area Studies						
	Russian Language and Literature			3			3
	Science Teacher Education, General			2			2
	Secondary Teacher Education						
	Social Science Teacher Education			3			3
	Social Work			25	22		47
	Sociology			58			58
	Spanish Language and Literature			9			9
	Special Education, General				9		9
	Wildlife and Wildlands Management			18	7		25
	Women's Studies			8			8
	Zoology, General			2			2

## **EXHIBIT A-9: QUALITY OF LIFE MEASURES**

Source: Nielson-Claritas Inc., 2008 City and County Extra Data Book, National Association of Home Builders

	Chittenden County, VT	Vermont	United States
Commuting (2010)	<b>,</b> ,		
(Source: Nielson-Claritas, Inc.)			
% of Workforce With Under 15-minute commute			
or work at home	38.0%	44.1%	32.8%
% of Workforce with 15 to 29-minute commute	44.0%	34.7%	36.1%
% of Workforce with 30 to 59-minute commute	20.8%	23.3%	27.2%
% of Workforce with 60-minute or more commute	2.4%	4.8%	8.1%
Housing			

(Source: Nielson-Claritas, Inc.)

•	. ,			
	Median Home Value 2010	\$242,374	\$187,763	\$170,676

#### Crime (2009)

(Source: FBI Crime Statistics)

Property Crimes per 100,000 People	ND	2,401.4	3,036.1
Violent Crimes per 100,000 People	ND	131.4	429.4

ND: Data not available

# EXHIBIT A-10: UNION ELECTIONS (1990- JUNE 2011) Source: National Labor Relations Board

		SIC			Type of	Number Eligible	Votes For	Votes Against	Union	
Employer	Location	Code	Unit	Union Name	Election	Votes	Union	Union	won/lost	Date
				International Association of Machinists and Aerospace						
Preci - Manufacturing, Inc.	Winooski	3540	Industrial	Workers, AFL-CIO	Certification	40	16	21	LOST	Jan-91
Burlington Free Press	Burlington	2710	Departmental	Local Independent Union	Decertification	173	0	90	LOST	Dec-91
Yellow Checker Taxi Corp.	Burlington	4120	Prof/Tech	Teamsters	Certification	15	12	2	WON	Nov-92
Yellow Checker Taxi Corp.	Burlington	4120	Prof/Tech	Teamsters	Certification	15	12	2	WON	Nov-92
Baker Commodities, Inc.	Williston	2070	Truck Drivers	Local Independent Union	Certification	8	0	4	LOST	Jan-93
Baker Commodities, Inc.	Williston	2070	Truck Drivers	Local Independent Union	Certification	8	0	4	LOST	Jan-93
Interstate Brands Corporation	Williston	5080	Truck Drivers	Teamsters	Certification	8	4	4	LOST	Oct-94
Baker Commodities, Inc.	Williston	5080	Truck Drivers	Local Independent Union	Certification	8	0	4	LOST	Oct-94
American Red Cross Blood Services	Sandwich	8060	Prof/Tech	Service Employees International Union, AFL-CIO	Certification	7	7	0	WON	Oct-95
Circuit City Stores, Inc.	Smithfield	5080	Truck Drivers	Teamsters	Certification	8	3	5	LOST	Jan-96
Laidlaw Transit	Lawrence	5180	Truck Drivers	Teamsters	Certification	15	12	0	WON	May-97
Interstate Brands Corporation	Central Falls	9220	Not Classified	unknown	Certification	48	37	9	WON	Aug-97
Fergadis Trading Company, Inc.	Burlington	390	Truck Drivers	Teamsters	Certification	74	23	49	LOST	Jan-98
				International Association of Machinists and Aerospace						
Heritage Flight Services	South Burlington	7359	Indus	Workers, AFL-CIO	Certification	19	7	4	WON	Sep-00
				United Association of Journeymen and Apprentices of						
				the Plumbing and Pipe Fitting Industry of the United						
Cedar Ridge Sprinkler	Essex Junction	5087	Craft	States and Canada, AFL-CIO	Certification	4	3	1	WON	Apr-01
Baker Commodities Inc. Corenco Div.	Williston	2077	Dept	International Brotherhood of Teamsters, AFL-CIO	Certification	5	3	1	WON	Oct-01
Crane Logistics, Inc.	Williston	7353	Dept		Certification	31	9	15	LOST	May-02
				International Union, Security, Police, and Fire						
Loomis Fargo & Co.	Williston	4789	Dept	Professionals of America	Certification	13	11	2	WON	Aug-04
Air Gas East, Inc.	Williston	5084	Dept	International Brotherhood of Teamsters, AFL-CIO	Certification	3	3	0	WON	Oct-04
Committee on Temporary Shelter (Cots)	Burlington	561	Cler	United Electrical, Radio and Machine Workers of Ameri	Certification	37	17	20	LOST	Apr-07
Fletcher Allen Health Care	Burlington	622	Health	Federation of Nurses and Health Professionals	Certification	294	160	87	WON	Jun-09
Baker Commodities, Inc.	Williston	311	Craft	International Brotherhood of Teamsters (IBT)	Decertification	5	2	3	LOST	Aug-09

# EXHIBIT A-11: MAJOR EMPLOYERS Source: InfoUSA

Company	Location	Product Description		Employees
Fletcher Allen Health Care	Burlington	general medical & surgical hospitals	62211	5,027
IBM	Essex Junction	semiconductor component development and manufacturing	33411	5,000
University of Vermont	Burlington	higher education	61131	3,288
Adecco	South Burlington	staffing agency	56132	938
HowardCenter	Burlington	other individual & family svcs	62419	803
Ben & Jerry's Homemade, Inc	South Burlington	ice cream, frozen yogurt and sorbet	72221	735
GE Healthcare	Burlington	surgical & medical instrument manufacturing	33911	700
Napoli Group (McDonald's Restaurants)	Essex Junction	fast-food franchises	72211	680
FairPoint Communications	South Burlington	communications services	51791	650
TD Bank (Banknorth Vermont)	Burlington	banking services	52211	550
Dealer.com	Burlington	web solution provider for automotive companies.	51821	504
Chittenden Bank	Burlington	banking services	52211	500
General Dynamics Armament Systems	Burlington	space vehicle propulsion units & parts mfg	33641	440
VNA of Chittenden & Grand Isle Counties	Colchester	home health care services	62161	425
Saint Michael's College	Colchester	higher education	61131	410
SD Ireland Concrete Construction Corp	South Burlington	excavation/site preparation contractors	23891	400
Burton Snowboards	Burlington	sporting goods stores	45111	350
Sodexo	Burlington	institutional food service	45439	350
Vermont Pure Holdings, Ltd	Williston	bottled water	44529	350
Westaff	Burlington	temporary employment agency	56132	340
Vermont Student Assistance Corporation	Winooski	education planning and financing assistance/information	62419	333
Spherion	South Burlington	employment placement agency	56131	315
Champlain College	Burlington	higher education	61131	309
Comcast Communications	South Burlington	communications services	51791	300
Husky Injection Molding Systems	Milton	all other plastics prod manufacturing	32619	300
Associates In Rural Development Inc	Burlington	consulting, engineering, and technical services	54191	275
Lane Press, Inc	Burlington	periodical publishers	51112	267
United Parcel Service	Williston	local & long distance parcel delivery service	49221	267
Gardener's Supply Co	Burlington	environmentally-friendly gardening equipment and supplies.	45411	262
Merchants Bank	South Burlington	banking services	52211	260
Vermont Teddy Bear Co	Shelburne	gift delivery service, teddy bears; pjs, flowers, and food	54161	250
BioTek Instruments	Winooski	analytical laboratory instrument manufacturing	33451	225
Heritage Automotive Group	Burlington	new car dealers	44111	225
Burlington Free Press, The (Gannett)	Burlington	newspaper publishers	51111	200
Green Mountain Power Corp	Colchester	electric power distribution	22112	194
Twincraft, Inc	Winooski	private label bar soap	32561	175
Vermont Energy Investment Corporation	Burlington	energy conservation consulting	54169	165
Citizens Bank	Burlington	banking services	52211	162
Velan Valve Corporation	Williston	manufacture of cast and forged-steel valves	42384	162
Fab-Tech Inc	Colchester	plumbing & hvac contractor	23822	160

# EXHIBIT A-11: MAJOR EMPLOYERS Source: InfoUSA

Company	Location	Product Description		Employees
New England Air Systems Inc	Williston	plumbing, heating, and air-conditioning contractor	23822	160
New England Federal Credit Union	Williston	banking services	52211	160
Champlain Cable Corp	Colchester	fiber optic cable manufacturing	33592	150
Engelberth Construction Inc	Colchester	general contractors/residential, nonresidential, industrial building construction	23611	150
Revision Eyewear	Essex Junction	high-performance eyewear	44613	150
Downs, Rachlin, Martin PLLC	Burlington	legal services	54111	143
Dynapower Corp	South Burlington	electric equipment-manufacturers	33599	140
Pizzagalli Construction Company	South Burlington	general contractors	23611	140
University Wholesalers (Nokian Tyres)	Colchester	wholesale tire distributor	42313	140
Blodgett Oven Co	Burlington	mfr. commercial ovens	33522	139
Burlington Electric Department	Burlington	electric utility	22111	130
Burlington Foodservice Company	Colchester	whol general groceries whol drugs/sundries	42441	130
Vermont Mechanical, Inc	Williston	sheet metal fabrication, service, installation, duct cleaning and design/build	23821	130
Edlund Co, Inc	Burlington	develop & manufacture industrial food service equipment	33329	125
Land Air Express of New England LTD	Williston	other specialized trucking long-distance	48423	125
SymQuest Group, Inc	South Burlington	business technology design, installation, and support	42369	124
Hazelett Strip-Casting Corp	Colchester	design, manufacture, installation, service twin-belt continuous casting machines	33331	120
Lake Champlain Chocolates	Burlington	gourmet chocolate	44529	120
Vermont Gas Systems Inc	Burlington	natural gas distribution	22121	117
Efficiency Vermont	Burlington	energy management systems & products	23822	115
Vermont Heating & Ventilating	Winooski	plumbing & hvac contractors	23822	115
Vertek Corp	Colchester	business process outsourcing, consulting, and managed service solutions	44312	115
Rhino Foods, Inc	Burlington	ice cream & frozen dessert manufacturing	31152	112
Harbour Industries Inc	Shelburne	fiber optic cable manufacturing	33592	110
Koffee Kup Bakery, Inc	Burlington	mfg bread/related products whol groceries	42449	110
Lake Champlain Transportation Co	Burlington	ferry operation	48321	110
NRG Systems Inc.	Hinesburg	wind measurement and turbine control equipment	33451	110
Sheraton-Burlington Hotel & Conference Ctr	South Burlington	hotels & motels except casino hotels	72111	110
DEW Construction Corp	Williston	contractor - electrical & residential construction	23611	108
AIDC (American Internat'l Distribution Corp)	Williston	fulfillment services and solutions	54161	100
ARD, Inc (Tetra Tech Company)	Burlington	consulting, engineering, and technical services	54191	100
Automaster	Shelburne	automobile dealers-new car	44111	100
Bowl New England, Inc	Colchester	bowling/recreation center	71395	100
Bruegger's Enterprises, Inc	Burlington	retail bakery	72231	100
George Weston Bakeries Inc	Williston	retail bakery	31181	100
Hilton Burlington	Burlington	hospitality	72111	100
KeyBank NA Vermont District	Burlington	banking services	52211	100
Lang, Mclaughry, Spera, Real Estate	South Burlington	real estate buyers & brokers/residential property managers	53131	100
Manpower Inc	South Burlington	employment contractors-temporary help	56132	100
Offset House, Inc (Catamount Color)	Essex Junction	printing, display advertising, direct-mail services	54185	100

# EXHIBIT A-11: MAJOR EMPLOYERS Source: InfoUSA

Company	Location	Product Description	NAICS	Employees
Omega Electric Construction Co, Inc	Williston	electrical contractor	23821	100
Triosyn Corp. (Safelife)	Williston	medical laboratory	62151	100
Vermont Rail System (Vermont Railway, Inc.)	Burlington	freight and passenger train service	48211	100

## APPENDIX B: EMPLOYER SURVEY SUMMARY CHITTENDEN COUNTY, VERMONT

#### **TABLE OF CONTENTS**

- B-1 Survey summary
- B-2 Primary product or service
- B-3 Why is your operation located in Chittenden County?
- B-4 Schools recruited
- B-5 Current training needs not available locally
- B-6 Labor availability/demand summary
- B-7 Additional comments
- B-8 Responding employers

WADLEY-DONOVAN GROWTHTECH

SURVEY SUMMARY	Responses		
Responding employers	75		
Please describe your primary product or service:	75	See Exhibit B-	2
	Responses	Average	Median
How long has your company had operations in Chittenden			
County?	75	34 years	25 years
Why is your operation located in Chittenden County?	68	See Exhibit B-	3

EMPLOYMENT PROFILE	Responses	Average	Median	Total
Current number of full-time employees	71	89	40	6,313
Current number of temporary employees	38	8	4	299
% of company's labor force represented by one or more unions	7	49.7%	50.0%	
# of workers at your facility that are employed by an outside				
contractor	12	14	5	172

	Responses	Percent
What is your anticipated full-time employment growth in the next		
12 months?	72	100%
Layoffs	3	4.2%
None	13	18.1%
Less than 2% increase	13	18.1%
Between 3-5%	16	22.2%
Over 5%	27	37.5%

BASIC SKILLS OF JOB APPLICANTS	(5=Excellent/1=Poor)			
Please rate the basic skill levels you see among your non-		Average	Median	
managerial and non-professional job applicants.	Responses	Rating	Rating	
Written communication	69	3.3	3	
Reading comprehension	68	3.5	4	
Math	68	3.3	3	
Thinking and judgment/problem solving	68	3.6	4	
Verbal communication/comprehension	69	3.6	4	
Team and cooperative skills	69	3.8	4	

Distribution of ratings:					
1	2	3	4	5	
2.9%	15.9%	40.6%	27.5%	13.0%	
0.0%	13.2%	35.3%	38.2%	13.2%	
2.9%	19.1%	32.4%	32.4%	13.2%	
0.0%	11.8%	36.8%	32.4%	19.1%	
0.0%	10.1%	37.7%	33.3%	18.8%	
0.0%	4.3%	36.2%	36.2%	23.2%	

	(5=Critical/1=	No importance)					
	Average	Median					
Responses	Rating	Rating		Distrib	ution of	ratings:	
71	4.3	4	1.4%	2.8%	9.9%	39.4%	46.5%
	(5=Frequer	ntly/1=Never)		Distrib	ution of	ratings:	
	Average	Median					
	Rating	Rating	1	2	3	4	5
72	2.6	3	22.2%	23.6%	30.6%	15.3%	8.3%
	(5=Excelle	ent/1=Poor)					
58	2.5	2	20.7%	32.8%	27.6%	15.5%	3.4%
58	2.4	2	20.7%	36.2%	27.6%	13.8%	1.7%
		,,,		Distrib	ution of	ratings:	
Posponsos	-				2		F
			27.5%		-		<b>5</b> 7.5%
							9.1%
00	2.0	Ŭ	00.07	0.070	57.070	0.070	5.170
37	4.5	5	0.0%	0.0%	21.6%	2.7%	75.7%
28	3.8	3	0.0%	0.0%	57.1%	3.6%	39.3%
38	3.0	3	2.6%	0.0%	94.7%	0.0%	2.6%
35							
	71 <b>Responses</b> 72 58 58 58 <b>Responses</b> 40 33 37 28 38	Average Rating           71         4.3           (5=Frequer           Average           Responses         Rating           72         2.6           (5=Excelle           58         2.5           58         2.4           (5=Excelle           6         (5=Excelle           58         2.4           (5=Excelle           33         2.5           33         2.5           37         4.5           28         3.8           38         3.0	ResponsesRatingRating714.34 $(5=Frequently/1=Never)$ AverageMedianResponsesRatingRating722.63722.63 $(5=Excellent/1=Poor)$ 582.5582.42582.42582.42582.43 $(5=Excellent/1=Poor)$ $(5=Excellent/1=Poor)$ $40$ 2.63332.53374.55283.83383.03	Average         Median           Responses         Rating         Rating           71         4.3         4 $(5=Frequently/1=Never)$ 1.4%           Responses         Rating         Rating           72         2.6         3           72         2.6         3 $(5=Excellent/1=Poor)$ 20.7%           58         2.4         2 $(5=Excellent/1=Poor)$ 20.7%           58         2.4         2 $(5=Excellent/1=Poor)$ 20.7%           58         2.4         2 $(5=Excellent/1=Poor)$ 1 $(20.7\%)$ 20.7%           33         2.5         3 $33$ 2.5         3 $33$ 2.5         3 $37$ 4.5         5 $38$ 3.0         3	Average Rating         Median Rating $Responses$ $Rating$ $Distribution Distribution           71 4.3 4 1.4\% 2.8\% (5=Frequently/1=Never) Distribution         1.4\% 2.8\%           Responses         Rating         Rating         1.4\% 2.8\% Responses         Rating         Rating         1 2 72 2.6 3 22.2\% 23.6\% (5=Excellent/1=Poor) 20.7\% 32.8\% 20.7\% 32.8\% 58 2.4 2 20.7\% 36.2\% (5=Excellent/1=Poor) Distribution 1 2 (5=Excellent/1=Poor) Distribution 1 2 (5=Excellent/1=Foor) Distribution 1 2 (5=3 3.3 2.5 3 3.3\% 0.0\% (5=2xcellent/1=Foor) Distribution 1 2 27.5\% 0.0\% 33 2.5 3 3 0.0\% $	Average Responses         Average Rating         Median Rating           71 $4.3$ 4           (5=Frequently/1=Never) $1.4\%$ $2.8\%$ $9.9\%$ (5=Frequently/1=Never)         Distribution of $1.4\%$ $2.8\%$ $9.9\%$ Responses         Rating         Rating $1.4\%$ $2.8\%$ $9.9\%$ Total Responses         Rating         Rating $1$ $2$ $3$ $(5=Excellent/1=Poor)$ $20.7\%$ $32.8\%$ $27.6\%$ $30.6\%$ $(5=Excellent/1=Poor)$ $20.7\%$ $36.2\%$ $27.6\%$ $(5=Excellent/1=Poor)$ $20.7\%$ $36.2\%$ $27.6\%$ $(5=Excellent/1=Poor)$ $20.7\%$ $36.2\%$ $27.6\%$ $(5=Excellent/1=Poor)$ $20.7\%$ $36.2\%$ $27.6\%$ $(333$ $2.5$ $3$ $33.3\%$ $0.0\%$ $65.0\%$ $37$ $4.5$ $5$ $0.0\%$ $0.0\%$ $57.1\%$ $28$ $3.8$ $3$ $0.0\%$ $57.1\%$ $2.6\%$ $0.0\%$ $94.$	Average ResponsesMedian RatingDistribution of ratings:714.34 $(5=Frequently/1=Never)$ $1.4\%$ $2.8\%$ $9.9\%$ $39.4\%$ ResponsesAverage RatingMedian Rating $1$ $2$ $3$ $4$ $72$ $2.6$ $3$ $1$ $2$ $3$ $4$ $72$ $2.6$ $3$ $2.2\%$ $30.6\%$ $15.3\%$ $(5=Excellent/1=Poor)$ $20.7\%$ $32.8\%$ $27.6\%$ $15.5\%$ $58$ $2.4$ $2$ $20.7\%$ $36.2\%$ $27.6\%$ $15.5\%$ $58$ $2.4$ $2$ $20.7\%$ $36.2\%$ $27.6\%$ $15.5\%$ $58$ $2.4$ $2$ $20.7\%$ $36.2\%$ $27.6\%$ $13.8\%$ UsersponsesResponsesRating RatingRating $1$ $2$ $3$ $4$ $40$ $2.6$ $3$ $3.3\%$ $0.0\%$ $57.6\%$ $0.0\%$ $37$ $4.5$ $5$ $0.0\%$ $0.0\%$ $57.1\%$ $3.6\%$ $28$ $3.8$ $3.0$ $3$ $2.6\%$ $0.0\%$ $94.7\%$ $0.0\%$

		(5=Excelle	ent/1=Poor)
PRODUCTIVITY AND WORK ETHIC OF COMPANY EMPLOYEES	Responses	Average Rating	Median Rating
Work ethic	71	3.9	4
Productivity	71	4.0	4
Productivity compared to company's other sites	43	3.7	4
Willingness to work overtime	70	3.8	4
Punctuality	70	3.7	4
Overall employer/employee relations	65	4.0	4

Distribution of ratings:					
1	2	3	4	5	
0.0%	9.9%	14.1%	50.7%	25.4%	
0.0%	5.6%	14.1%	57.7%	22.5%	
2.3%	2.3%	37.2%	34.9%	23.3%	
1.4%	2.9%	25.7%	52.9%	17.1%	
2.9%	5.7%	25.7%	48.6%	17.1%	
0.0%	4.6%	20.0%	47.7%	27.7%	

APPENDIX B

#### TURNOVER AND ABSENTEEISM

		3=10%-14%, 4=over 15%)		
		Average Median		
	Responses	Rating	Rating	
Average annual turnover rate	71	1.6	1	
Average daily absenteeism rate	70	1.2	1	
Annual percent retiring (2011-2012)	70	1.2	1	

Distribution of ratings:					
1	2	3	4		
56.3%	33.8%	4.2%	5.6%		
81.4%	17.1%	1.4%	0.0%		
87.1%	10.0%	2.9%	0.0%		

RETIRING RESIDENTS WITHIN THE WORKFORCE	Responses	Average %	Median %
Approximately what percent of your employees are eligible for retirement or will become eligible for retirement over the next five			
years?	51	7.5	5.0
	Responses	Yes	No
Does your company or organization have a strategy to replace these			
employees lost to retirement, and/or have knowledge-transfer, or			
phased/delayed-retirement strategies?	69	34.0	35.0

Yes	No
49.3%	50.7%

(1=0-5%, 2=6%-9%,

#### **RECRUITING METHODS**

Please indicate the TOP THREE recruiting methods your company	
finds to be most effective:	Responses
Walk-ins/unsolicited résumés	11
Referrals	34
Employment agencies, recruiters	17
"Temp to perm"	12
"Word of Mouth"	24
State employment office	6
Newspaper advertising	31
Colleges/universities	22
Tech schools	8
Internet/company website	43
Radio/TV advertising	1
Job fairs	2
Other (please specify)	
Internal professional recruiters	1
online advertising	1
online recruiting sites (i.e., careerbuilder, dice, etc.)	1
we knew them as customers or vendors	1
web advertising	1

#### SEPTEMBER 2011

#### **RECRUITING METHODS**, *continued*

	Responses	
Please list any high schools, technical schools, colleges, or		
universities where you recruit.	38	See Exhibit B-4

#### TRAINING AND EDUCATIONAL RESOURCES

	Responses	Percent
Do you currently use – or have you used – co-op, apprenticeships,		
internships, or similar programs?	72	100%
Yes, currently	32	44.4%
Yes, in the past	16	22.2%
No	24	33.3%

	(5=Very high/1=No value)			
	Responses	Average M ponses Rating R		
If yes, please rate the value to your company of the program				
used	47	3.9	4	

Distribution of ratings:						
1	2 3 4 5					
0.0%	2.1%	27.7%	44.7%	25.5%		

	(5=Continuously/1=Never)			
Frequency of work with each of the following for training programs,		Average	Median	
apprenticeships, co-op, or other programs:	Responses	Rating	Rating	
Area high schools	47	1.7	1	
Burlington College	47	1.1	1	
Burlington Technical Center	47	1.4	1	
Champlain College	50	2.3	2	
Community College of Vermont	47	1.3	1	
Essex Technical Center	47	1.5	1	
St. Michael's College	48	1.9	1	
University of Vermont	49	2.7	3	
Vermont Technical College	47	2.2	2	
Private vendors	42	1.5	1	

Distribution of ratings:						
1	2	3	4	5		
57.4%	25.5%	12.8%	2.1%	2.1%		
91.5%	6.4%	2.1%	0.0%	0.0%		
76.6%	10.6%	6.4%	6.4%	0.0%		
42.0%	14.0%	26.0%	8.0%	10.0%		
80.9%	12.8%	6.4%	0.0%	0.0%		
72.3%	12.8%	8.5%	2.1%	4.3%		
52.1%	20.8%	16.7%	8.3%	2.1%		
20.4%	24.5%	28.6%	20.4%	6.1%		
40.4%	19.1%	25.5%	12.8%	2.1%		
73.8%	7.1%	14.3%	0.0%	4.8%		

#### TRAINING AND EDUCATIONAL RESOURCES, continued

		(5=Excellent/				
Opinion of the quality of the following educational programs and		Average	Median			
graduates:	Responses	Rating	Rating			
Area high schools	46	3.2	3			
Burlington College	45	2.3	3			
Burlington Technical Center	46	2.9	3			
Champlain College	46	3.8	4			
Community College of Vermont	43	2.9	3			
Essex Technical Center	44	3.3	3			
St. Michael's College	45	3.6	4			
University of Vermont	48	3.6	4			
Vermont Technical College	45	3.6	4			
Vermont HiTech, Inc.	44	3.4	3			
Private vendors	36	3.2	3			

	Distribu	ution of	ratings:		
1	2	3	4	5	N/A
2.2%	4.3%	32.6%	23.9%	0.0%	37.0%
6.7%	4.4%	13.3%	0.0%	0.0%	75.6%
2.2%	4.3%	19.6%	4.3%	0.0%	69.6%
2.2%	2.2%	26.1%	26.1%	23.9%	19.6%
2.3%	4.7%	23.3%	4.7%	0.0%	65.1%
2.3%	2.3%	18.2%	15.9%	2.3%	59.1%
2.2%	0.0%	28.9%	26.7%	8.9%	33.3%
2.1%	4.2%	27.1%	52.1%	8.3%	6.3%
2.2%	4.4%	20.0%	33.3%	6.7%	33.3%
0.0%	2.3%	11.4%	0.0%	4.5%	81.8%
0.0%	2.8%	11.1%	0.0%	2.8%	83.3%

#### IMPROVEMENTS NEEDED AMONG LOCAL TRAINING AND EDUCATIONAL PROGRAMS

	Responses	YES	NO		Yes	No
Do you have current training needs that are unavailable locally?	69	21	48		30.4%	69.6%
If yes, please describe the training need	19	See Exhibit B-	5	_		

COMPANY-OFFERED BENEFITS	"Whole"		"Partial"	
(64 companies responded)	Responses	%	Responses	%
Subsidized daycare program	1	1.6%	4	6.3%
On-site daycare program	1	1.6%	1	1.6%
Life insurance	35	54.7%	12	18.8%
Health insurance	43	67.2%	22	34.4%
Dental care	36	56.3%	15	23.4%
Vision care	27	42.2%	15	23.4%
Wellness Program	25	39.1%	9	14.1%
Employee Assistance Program (EAP)	25	39.1%	6	9.4%
Health savings account (HSA)	29	45.3%	5	7.8%
Long-term disability	41	64.1%	6	9.4%
Short-term disability	33	51.6%	8	12.5%
Accidental Death/Dismemberment	32	50.0%	6	9.4%
125 (cafeteria) plan	25	39.1%	4	6.3%
Tuition reimbursement	27	42.2%	12	18.8%
Retirement Plan	44	68.8%	10	15.6%

#### LOCAL BUSINESS CLIMATE

		(5=Excellent/1=	=No Experience)
Please select the number that best describes your experience for		Average	Median
conducting business in Chittenden County.	Responses	Rating	Rating
Workers' compensation costs	67	2.6	3
Fairness of workers' compensation enforcement	66	2.3	2
Unemployment insurance costs	66	2.6	3
Fairness of unemployment insurance enforcement	65	2.7	3
State training programs	66	2.4	3
Health care costs	66	2.3	2
Overall cost of doing business	67	2.5	2
State taxes	68	2.4	2
Local property taxes	68	2.3	2
Local construction-related permitting	67	2.4	2
State construction-related permitting	68	2.3	2
State government regulations	66	2.5	2

Distribution of ratings:						
1	2	3	4	5		
-	_	-	-	-		
11.9%	31.3%	46.3%	10.4%	0.0%		
24.2%	30.3%	34.8%	9.1%	1.5%		
6.1%	31.8%	56.1%	6.1%	0.0%		
13.8%	21.5%	50.8%	12.3%	1.5%		
37.9%	3.0%	43.9%	10.6%	4.5%		
3.0%	60.6%	34.8%	1.5%	0.0%		
1.5%	53.7%	37.3%	7.5%	0.0%		
8.8%	50.0%	36.8%	2.9%	1.5%		
13.2%	45.6%	38.2%	1.5%	1.5%		
19.4%	32.8%	37.3%	9.0%	1.5%		
25.0%	32.4%	33.8%	7.4%	1.5%		
9.1%	42.4%	43.9%	3.0%	1.5%		

#### LOCAL BUSINESS INFRASTRUCTURE, SERVICES, & ASSISTANCE PROGRAMS

		(5=Excelle	ent/1=Poor)
Please select the number that best describes your experience for		Average	Median
conducting business in Chittenden County.	Responses	Rating	Rating
Rail freight service	65	2.4	3
Rail freight costs	65	2.2	3
Intermodal rail center	64	2.0	2
Trucking service	65	3.4	3
Trucking costs	65	2.8	3
Airfreight service	66	3.4	3
Airfreight costs	66	2.8	3
Overnight mail and package delivery services	68	3.7	4
Overnight mail and package delivery costs	68	3.2	3
Electric power reliability	66	3.7	4
Electric power costs	65	3.1	3
Quality of advanced telecommunications services (voice/data)	67	3.2	3
Costs of advanced telecommunications services (voice/data)	66	3.0	3
Water supply capacity	66	3.9	4
Water quality	67	3.8	4
Water costs	66	3.4	3
Sewer treatment capacity	63	3.6	4
Sewer systems acceptance of industrial waste	64	3.4	3
Sewer costs	64	3.1	3
Natural gas service	65	3.7	4
Natural gas costs	65	3.4	3
Solid waste disposal services	62	3.5	3
Solid waste disposal costs	63	3.2	3
Available sites for business construction	65	2.9	3
Costs of sites for business construction	66	2.4	3
Available buildings for business occupancy	66	3.1	3
Costs of buildings for business occupancy	64	2.7	3
Costs of construction	65	2.6	3
Availability of financing for construction or business operations	66	3.1	3
Availability of business assistance and incentives	65	2.7	3

1	2	3	4	5	N/A
3.1%	3.1%	6.2%	1.5%	0.0%	86.2%
4.6%	1.5%	7.7%	0.0%	0.0%	86.2%
3.1%	1.6%	3.1%	0.0%	0.0%	92.2%
1.5%	4.6%	29.2%	23.1%	6.2%	35.4%
6.2%	16.9%	27.7%	12.3%	1.5%	35.4%
3.0%	3.0%	27.3%	13.6%	7.6%	45.5%
7.6%	9.1%	31.8%	4.5%	3.0%	43.9%
2.9%	5.9%	33.8%	27.9%	22.1%	7.4%
7.4%	14.7%	38.2%	20.6%	13.2%	5.9%
0.0%	7.6%	27.3%	42.4%	18.2%	4.5%
4.6%	16.9%	44.6%	24.6%	4.6%	4.6%
10.4%	14.9%	32.8%	23.9%	14.9%	3.0%
9.1%	15.2%	42.4%	22.7%	7.6%	3.0%
0.0%	3.0%	25.8%	31.8%	25.8%	13.6%
1.5%	4.5%	29.9%	32.8%	23.9%	7.5%
3.0%	10.6%	33.3%	28.8%	10.6%	13.6%
1.6%	3.2%	33.3%	25.4%	14.3%	22.2%
1.6%	4.7%	28.1%	17.2%	6.3%	42.2%
3.1%	9.4%	46.9%	20.3%	3.1%	17.2%
0.0%	1.5%	32.3%	29.2%	13.8%	23.1%
3.1%	7.7%	32.3%	26.2%	7.7%	23.1%
0.0%	8.1%	37.1%	29.0%	11.3%	14.5%
3.2%	11.1%	39.7%	25.4%	4.8%	15.9%
6.2%	6.2%	27.7%	9.2%	1.5%	49.2%
10.6%	13.6%	22.7%	4.5%	0.0%	48.5%
6.1%	10.6%	34.8%	15.2%	9.1%	24.2%
10.9%	14.1%	37.5%	12.5%	0.0%	25.0%
9.2%	18.5%	32.3%	7.7%	0.0%	32.3%
7.6%	9.1%	27.3%	18.2%	6.1%	31.8%
12.3%	20.0%	29.2%	15.4%	1.5%	21.5%

QUALITY OF LIFE		(5=Excelle	ent/1=Poor)
		Average	Median
	Responses	Rating	Rating
Quality of public education (K-12)	67	3.9	4
Availability of affordable homes	67	2.3	2
Availability of childcare services	62	2.6	3
Healthcare services	67	3.5	4
Safety from crime	68	4.1	4
Traffic/road congestion	67	3.6	4
Recreational opportunities	68	4.5	5
Cultural opportunities	68	4.0	4

Distribution of ratings:						
1	2	3	4	5		
0.0%	4.5%	23.9%	46.3%	25.4%		
25.4%	32.8%	31.3%	9.0%	1.5%		
12.9%	33.9%	38.7%	12.9%	1.6%		
0.0%	19.4%	26.9%	41.8%	11.9%		
1.5%	0.0%	14.7%	50.0%	33.8%		
6.0%	7.5%	26.9%	38.8%	20.9%		
0.0%	0.0%	10.3%	25.0%	64.7%		
2.9%	1.5%	19.1%	44.1%	32.4%		

#### LABOR AVAILABILITY AND DEMAND SUMMARY

See Exhibit B-6

	(5=Very High/1=None)		
	Average Median		
	Responses	Rating	Rating
What impact have labor shortages had on your ability to do			
business?	64	2.6	3

Distribution of ratings:						
1	2	3	4	5		
17.2%	29.7%	32.8%	15.6%	4.7%		

Please approximate the sales volume lost due to these shortages:	Responses	Average	Median
% (percentage of volume lost)	16	9.3%	10%
\$ (dollar-value of lost sales)	11	\$ 1,588,636	\$ 1,000,000

TELECOMMUTING	Responses	Yes	No
Do you allow your employees to telecommute?	63	35	28

COMMENTS	Responses	]
If you have any additional comments or detailed information, please		
add them here or attach a separate sheet.	17	See Exhibit B-7

#### **RESPONDING EMPLOYERS**

 Responses
 See Exhibit B-8

 76
 76

Yes	No
55.6%	44.4%

#### Primary product or service:

Accounting, tax and consulting services
Accounting/Auditng, Tax ,Adivsory Services
Artisan breads wholesaled to stores and restaurants, & a sit down cafe
Bar Soap Manufacturer
civil/environmental engineering consultation
Clinical information to support management of chronic disease
Consulting engineering services
Consumer Financial Services
Department of Defense
Design & manufacture of custom AC and DC power supplies & custom transformers
Digital Marketing Platforms
Direct Marketing company, with 2 retail stores selling gardening/life style products
Durable medical device manufacturing
Educational Experience
Electric Utility
Electronic Engineerig Design and Development
Environmentally safer cleaning and paper products
Equipment to provide data for wind resource assement and turbine controls
Fabricated products and services for high tech and life science industries
ferry boat
Financial
Flexographic Printing
Food diagnostics
Food Manufacturing/Mail Order
General Contractor
health care software and services
highed education
higher education
household and office solid hardwood furniture
Injection Mold Rubber equipment for military CBRN protection
Insurance Products
internet software company
IT services
Law firm
legal services
Life Science Instrumentation & Software

#### Primary product or service:

manufacture high performance wire and cable
manufacture monoclonal antibodies
Manufacturer of Commercial Kitchen Equipment
Manufacturer of premium chocolate products
Manufacturer of Wire and Cable
manufacturing commercial ovens
Manufacturing of aerospace components
Manufacturing of injection molding equipment
Medical device R&D
Medical Software
Military Protective Equipment
Municipal wholesale water supplier
Packaged coffee
Performance Monitoring Software for PV Systems
Photographic accessories
Printing
private air charter, aircraft maintenance, FBO services
Private law firm
Professional services - Telecommunications industry
Provide small form factor computers for industrial and embedded uses. Primary working with companies,
Government and education clients. Also have an e-commerce site that sells small form factor computers on
line.
Pumps
Remodeling & Renovation General Contractor
Renewable energy project development
Repair & Overhaul Aircraft Engine Components
Research Reagents and Contract Services in the field of hematology/blood coagulation
Sales of consumer products
Sales Outsourcing And Lead Generation Services
Semiconductor manufacturing and associated technical and business operations
Semiconductor wafer probing and inspection equipment manufacturer
Software and Hardware for Neuroscience Researchers
software and services for physicians
software development
Software development
steel fabricator & truck frame fabrication

#### Primary product or service:

Utility
Venting Systems for chimneys
Vertical Market Software developer
Web site development & internet marketing
Web/catalog sales of natural toys and crafts

#### Why is your operation located in Chittenden County?

Access to large population center ease of access to airport/highway for shipp	oing
goods we like burlington	
Airport proximity and hub for skilled resources	
Airport, talent, hotels & restaurants	
Always has been	
As a global company, no reason why it needs to be in Chittenden County	
Availability of personnel, ease of travel, trucking and receiving.	
Availability of work and convenience for work force	
Because I like to ski and this county has more economic opportunity then a	any
other in Vermont.	
because the owner is in Vermont	
Began as cafe, needed population density	
Burlington is really the hub of VT. There are numerous small / family owned a	and
local businesses here that are our target clients.	
Business originated	
Central location for our current employees and to attract new talent from the	
greater Burlington area.	
Central location to workforce	
Central to businesses that our are clients, access to other professionals such	ו as
attorneys, banks etc.	
Central to clients. Most employees reside in Chittenden County	
Close to home and infrastructure support	
Convenience	
Convenient location	
Convenient office space. Easier to attract employees.	
Conveninece	
customer base	
Decision by Mayor and City Council.	
Desired location of founder	
downtown Burl, Grand Isle, and Charlotte	
Due to being located near Burlington International Airport.	
economic center of vt	
Employee base, proximity to airport and Montreal, Local transportation	
Excellent balance of lifestyle and commerce	
Formerly the IBM CU	
Founder lives here.	

Why is your operation located in Chittenden C	County?
---	---------

Founder lives in the County.
Founders live in Chittenden Co
Had the space we needed
Historical home of the GE Armament Systems
hub of commerce in vt
I live here
I live here. Access to university.
It is close to the courts and where our clients are.
It was founded here originally.
it's where we've always been; where we are established and known to be
Lakefront/Waterfront
Legacy - owners orginally located in area
legacy facility
Location
Location - proximity to QC - air rout to Wasington DC
Location is central to many of our employees. Many of them walk, bike or bus to
work which is adventageous to the environment for many reasons.
Location/desire to improve the Intervale
My partner and I live in Shelburne and Essex respectively. We live here and this is
Vermont's most densely populated county
Need for county water supply
Originally it was dependent upon being in close proximity to the University of
Vermont and now is ingrained to the area largely due to the employee pool.
Originally, proximity to Montreal. Currently, a personal decision by the owner to
reside here (no business reason to be in Vermont.)
Our Founders
Our services are national and international. We could be located anywhere.
Chittenden county is within a 1/2 hours drive from our home, rent is affordable,
there are skilled, potential employees and everything we need is accessible.
Owner chose this location for quality of life.
porximity to Burlington for life-style
Proximity to clients and other service providers
Quality of life
Started with a speculation building in 1953, grew around available land and an
employee base.
System developed at UVM; founders located here

#### Why is your operation located in Chittenden County?

The owners of the company have strong ties to this area.
This is where the founder lived when the business was created.
This is where we started now have 3 locations (Leeds MA and El Paso TX)
Vermont's largest city
we are a Canadian company that opened an office in the US to faciliate expanding
the US market
we grew up here
We have been here for 85 years and the location is convenient for employees.
where founders live

#### Institutions recruited:

As reported by employers
All Burlington Area and Vt TEchnical. Vt Tech is very good for the type of
individuals we need
All in area
Burlington High School tech program
Champlain College
Champlain College, St. Mike's, UVM, Middlebury, VT Tech
Champlain College, UVM, St. Michael's
Champlain, Middlebury, St Mike's. Sorry, Frank, but UVM is mostly useless and
charges for their college job fair! All others are free.
Champlain, UVM, St. Mikes, Clarkson
Dartmouth UVM
Essex HS, Burlington HS
Essex Tech Center Vermont Tech College UVM
Essex Technology Center South Burlington High School Champlain College
University of Vermont
Johnson State College
Norwich
St. Michael's; Champlain College; New England and northeastern law schools
(depending on the position).
University of Vermont Saint Micheal's College
UVM
UVM
UVM Norwich U
UVM and others
UVM Engineering
UVM, St. Michael's
UVM, Champlain College, St. Michael's College
UVM, Champlain, St. Mike's
uvm, norwich, vtc
UVM, St. Michael's, Champlain Community College, Clarkson, UMass, Long
Beach State, UCLA
UVM, St. Mike's, RIT, Champlain College
UVM, Vermont Tech College
UVM, VTC, Champlain College, CVU
Vermonmt Tech

#### Frequency of mention:

University of Vermont	22
Champlain College	15
Vermont Technical College	14
St. Michael's College	12
Clarkson	4

#### Institutions recruited:

As reported by employers
Vermont Technical College
Vermont Technical College, RPI, Clarkson University, most Northeast colleges with engineering programs
Vermont Technical College; Champlain College; University of VT
VTC
VTC
VTC, Champlain College, UVM
VTC, UVM, Clarkson, RPI
We are working with St. Michael's College and Champlain College for two
internships.

#### Current training needs that are not available locally:

Advanced color management
Aviation-specific training opportunities are not offered locally.
Chemistry, science skills, project management, business fluency
CNC Machine tool maintenance and troubleshooting
CNC operators
CNC programing, Finishing, Sheet Metal, Machinist
Digital advertising/media analytics/google analytics
Engineering, Research and Development, Marketing
FDA compliance
Instrumentation training, software training, measurement application training
Machining on large CNC equipment
Oracle Training Programs and other specialty design software
PHP computer programmers
Real Time Firmware Engineering
Skilled NC Punch Press Operators - NC Pressbraker Operator
Specialized development tools used in developing the applications
Specialized legal training
Underwater work
We would like more Sales training for our sales team, currently there is really onl
one local consultant that we like a lot. Other choices would be great too.

	Av	Availability			Demand						
		RATING: Experience									
		Recruiting Quality									
		Applicants		Currently needed			led	Needed in 1 year			
	ú	5=Ple 1=Una		í				<i>(</i> 0			
	se			se:		ε		se:		E	c
Occupation	Responses	Average	Median	Responses	TOTAL NEEDED	Maximum	Minimum	Responses	TOTAL NEEDED	Maximum	Minimum
Office and Administrative Support											
Bookkeeping, accounting and auditing clerks	38	3.3	3.0	13	27	5	1	23	35	5	1
Executive secretaries and administrative assistants	34	3.4	3.0	11	27	10	1	19	33	10	1
Customer service representatives	37	3.6	4.0	18	105	50	1	18	103	50	1
Office clerks	22	3.3	3.5	2	6	5	1	2	2	1	1
Shipping and receiving and traffic clerks	28	3.3	3.0	10	68	50	1	12	65	50	1
Professional/Technical											
Accountants/auditors	24	3.0	3.0	9	17	4	1	12	20	5	1
Engineering technicians	23	2.7	3.0	15	78	30	1	16	71	30	1
Engineers, software	23	2.4	2.0	15	51	10	1	16	63	13	1
Engineers, other	25	2.5	2.0	14	83	30	1	17	78	40	1
Production/Technical											
Assemblers and fabricators	19	3.1	3.0	8	64	45	1	10	25	6	1
General unskilled labor	20	3.1	3.0	9	169	100	1	11	235	100	1
Computer-controlled-machine-tool programmers	8	2.4	2.0	3	6	2	2	3	3	1	1
Computer-controlled-machine-tool operators	9	2.3	2.0	4	20	12	1	4	7	3	1
Machine operators, no set-up	10	2.8	3.0	2	8	5	3	4	26	20	1
Machine setters, operators, and tenders	11	2.4	2.0	3	5	3	1	3	14	10	1
Machinists	9	2.3	2.0	3	28	20	3	4	20	15	1
Skilled machine trades, general	11	2.4	2.0	1	2	2	2	3	6	2	2
Technicians, general	13	2.7	3.0	6	31	20	2	6	17	6	1
Installation, Maintenance, and Repair											
Electricians	10	2.9	3.0	1	3	3	3	1	3	3	3
Industrial machinery mechanics	6	2.7	3.0	1	1	1	1	1	6	6	6
Maintenance workers, machinery	8	2.5	2.5	3	19	15	1	3	17	15	1
Maintenance and repair workers, general	8	3.0	3.0	3	8	5	1	2	7	5	2
Welders/cutters	9	3.2	3.0	1	1	1	1	1	2	2	2

	Availability			Demand							
	RATING: Experience Recruiting Quality Applicants			Currently needed			Needed in 1 year				
	5=Plentiful, 1=Unavailable						es				
Occupation	Responses	Average	Median	Responses	TOTAL NEEDED	Maximum	Minimum	Responses	TOTAL NEEDED	Maximum	Minimum
Transportation and Material Moving		-									
Industrial truck & tractor (forklift) operators	7	3.1	3.0	-	-	-	-	-	-	-	-
Packers and packagers, hand	10	3.3	3.0	2	51	50	1	5	77	50	1
Truck drivers, heavy and tractor trailer	6	3.2	3.0	-	-	-	-	1	1	1	1
Computer and Mathematical											
Computer programmers	23	2.5	2.0	12	47	15	1	11	50	20	1
Computer support specialists, technicians	16	3.3	3.0	7	46	20	1	7	51	20	1
Computer systems analysts	15	2.8	3.0	8	18	8	1	6	20	9	1
Database administrators	11	2.9	3.0	3	4	2	1	6	11	3	1
Network and computer systems administrators	19	3.0	3.0	5	10	5	1	8	15	5	1
Web developers/designers	17	3.2	3.0	5	17	5	2	9	32	12	1
Other											
Application Engineers	1	1.0	1.0	1	1	1	1	1	2	2	2
Buyer	1	2.0	2.0	1	1	1	1	-	-	-	-
Digital marketing analyst	1	1.0	1.0	1	3	3	3	1	3	3	3
Digital search engine optimization	1	1.0	1.0	1	3	3	3	1	3	3	3
Director of Marketing	1	2.0	2.0	1	1	1	1	-	-	-	-
Financial Analyst	1	1.0	1.0	-	-	-	-	1	1	1	1
Fund Raising Director	1	3.0	3.0	-	-	-	-	-	-	-	-
Industrial Designer	1	2.0	2.0	1	1	1	1	-	-	-	-
Inside Sales	1	2.0	2.0	1	1	1	1	1	5	5	5
IT Manager	1	1.0	1.0	1	1	1	1	-	-	-	-
Leas Carpenters	1	2.0	2.0	1	2	2	2	-	-	-	-
Mechanical Engineers	1	3.0	3.0	1	1	1	1	1	2	2	2
PhD Scientists with training in protein biochemistry	1	1.0	1.0	1	1	1	1	1	3	3	3
Project Manager	1	4.0	4.0	1	1	1	1	1	2	2	2
Purchasing Assistant_Production Planner	-	-	-	1	1	1	1	-	-	-	-
Sales & Marketing Assistant	-	-	-	1	1	1	1	-	-	-	-
Senior Sales Representatives	1	2.0	2.0	1	1	1	1	1	1	1	1
Software Programmers	1	2.0	2.0	1	1	1	1	1	2	2	2
Supply Chain Management positions	1	3.0	3.0	1	2	2	2	1	5	5	5
Technical Sales Account Manager	1	3.0	3.0	1	2	2	2	1	2	2	2

#### Additional comments:

(These are the question numbers from the PAPER survey.)

Q13: This is highly variable based on the people hired.

Q31: There were many segments of the labor force missing: Sales, purchasing, graphic design, human resources, to name a few...

Q34: Beyond people checking e-mail and occasional remote work, which everyone can do, there is some limited "structured" telecommuting, but that was not a survey choice. I chose "no" because that represents the majority of the workforce.

Burlington is very open and looks for projects and opportunities. State government regulations - it would be helpful to have an "ambassador" conduct "have you heard?" meetings. Let people know what's happening/changing. Local government is better (not as stand-offish as the state). Act 250 was a large hurdle when looking into property in Hinesburg. Couldn't get in touch with people for over 3 weeks - left many messages and still did not receive a phone call when the person came back from vacation.

During our time in business, we have seen a consistent decline in the number of young people interested in learning a trade. We offer good paying jobs with benefits and our work cannot be outsourced to China/Indonesia/etc so this is a very unfortunate development.

I wasn't clear on what you meant in the benefits section of "whole" or "partial" so I marked the benefits that we offer and pay for.

It has been very difficult to attract firmware engineers to the area. In general, the cost of living, and housing as well as the following spouse problem have made it very hard to bring in professionals. Compared to 20 years ago, Vermont does not have the draw that it used to.

Need to figure out how to find those Vermonters who go away for college and/or sometimes stay out of state for work in early years of their career but who eventually want to return to the state to start family's etc. A higher % of the Vermont colleges' students are from out of state and eventually want to return to their state or do not see VT as a viable place to start a career. We need to 1.) change that image- there are great jobs here in VT; 2.) figure out how to stay connected to Vermonters to go away for college/work and want to come home. Second- we need much better internet/cell service throughout the state- it's not just the rural areas but even some places in Chittenden County have terrible cell service!

Our business is located in Chittenden County, Vermont, because we want to live here. We could relocate the company to anywhere in the country but we won't because Vermont provides a unique living experience. We are not looking for tax credits, breaks, or other incentives to keep our company in Vermont. We do need better internet access to our homes and are excited by the recent initiatives put in place by the state. Our public schools place too much emphasis on passing tests as an individual and not enough emphasis on being creative, solving problems, and working in groups. The Burlington Airport is one of our best assets, although it's value has declined as the number of main line flights (i.e. actual jets instead of the commuter planes) has steadily declined; thank God for JetBlue.

Q52 - We have luckily not lost any sales to date but as the shortage of qualified software developers/computer programmers continues it could impact our ability to retain customers since we will not be launching new/innovative features to our performance monitoring software.

Question on Telecommute: some employees do work from home but this is not on a regular basis.

Recent decision by VT dept of labor concerning a workman's comp case is simply incomprehensible, not only to me but to everyone who has heard about it. It caused a tripling of my workman's comp bill for at least the next 3 months, unemployment rate is sky-high, yet the dept continues to pay seasonal workers for their "off-season" vacations and, in one case close to home, paid an employee who lost his appeals and moved to Florida. They were sending him checks in spite of the fact that he purposely caused himself to be fired and moved out of state (their findings, not mine). The state has GOT to stop supporting employees who create their own problems at the expense of employers.

Taxes, as compared to New Hampshire, are less favorable to business. The uncertainty arising from the current Vermont healthcare reform initiatives also presents significant challenges for long-range planning. Healthcare costs could increase significantly, which is a serious concern for our organization, as we have been able to provide employees with good health insurance coverage without requiring any contribution to premium regardless of the level of coverage - individual, two-person, or family. This would no longer be feasible under the taxation structure proposed in Dr. Hsiao's report. Some clients are also putting Vermont projects on hold until the impact of reform on businesses and the quality of Vermont's provider network is better understood.

Telecommuting is allowed on an occasional basis

Telecomuting is only allowed for employees who have had excellent evaluations of their work On Site for 5 years

The questions regarding technicians were somewhat redundant. Not sure what type of technician you are putting in which category.

This survey was too long... I bet a lot of people didn't complete it.

We employ 112 people at our Colchester location. An additional 38 are in 4 US cities. An additional 18 live throughout the US but work entirely out of their homes. Finally, 10 employees reside outside of the US. That gives a total of 178 employees. We'd have more in Vermont, but we just can't seem to find the quality people that we find in other places, people with a work ethic and technical qualification and training.

re: 23 - the quality of the program depends on the student and what effort he/she makes

#### Responding employers:

COMPANY	SIC	NAICS	CITY/TOWN	<b>ZIP CODE</b>
Bia Diagnostics			Burlington	05401
Blodgett Oven Corporation	3556		Burlington	05401
Burlington Electric Department			Burlington	05401
Champlain College			Burlington	
Dealer.com			Burlington	05401
Draker Laboratories, Inc.	541990		Burlington	05401
ECHO Lake Aquarium and Science Center			Burlington	05401
Edlund Company, LLC		332212	Burlington	05401
Encore Redevelopment			Burlington	05401
Gardener's Supply Company			Burlington	05401
Gravel and Shea, PC			Burlington	05401
Green Mountain Antibodies		325412	Burlington	05401
Lake Champlain Chocolates	2066	311300	Burlington	05401
Lake Champlain Ferries			Burlington	05401
Patient Engagement Systems		541512	Burlington	05105
Paul Frank + Collins P.C.			Burlington	05401
People's United Insurance Agency			Burlington	05401
РКС			Burlington	05491
Primmer Piper Eggleston & Cramer PC	9111	541110	Burlington	05401
Seventh Generation			Burlington	05401
Stromatec, Inc.			Burlington	05401
Union Street Media			Burlington	05401
Vermont Federal Credit Union			Burlington	05401
A. M. Peisch & Company, LLP		541211	Colchester	05446
Champlain Cable Corp			Colchester	05446
Green Mountain Power			Colchester	05446
Hayward Tyler Inc			Colchester	05446
KPMG			Colchester	05446
MyWebGrocer, Inc.			Colchester	05446
Saint Michael's College			Colchester	05439
Vermont Information Processing			Colchester	05446
Vertek Corporation	8748	541618	Colchester	05446
Aldrich + Elliott, PC			Essex Junction	05452
Haematologic Technologies, Inc.	2836	325414	Essex Junction	05452
IBM			Essex Junction	05452

#### Responding employers:

COMPANY	SIC	NAICS	CITY/TOWN	ZIP CODE
Revision Military			Essex Junction	05452
Vermont Systems, Inc			Essex Junction	05452
NRG Systems Inc	3829/3823	334519	Hinesburg	05461
AirBoss Defense			Milton	05468
Husky			Milton	05468
Omni Measurement System	3612	339112	Milton	05468
Unified Turbines, Inc.			Milton	05468
Harrington's of Vermont			Richmond	05477
Harbour Industries LLC		335929	Shelburne	05482
Microprocessor Designs In			Shelburne	05482
Pinnacle Sales Accelerators, LLC		541990	Shelburne	05482
American Health Care Software Enterprises, Inc	7371	541511	South Burlington	05403
Champlain Water District			South Burlington	05403
Dynapower Corp		35599	South Burlington	05403
Heritage Aviation			South Burlington	05403
Klinger's Bread Co			South Burlington	05403
Logic Supply, Inc.		334111	South Burlington	05403
LPA DESIGN			South Burlington	05403
Neagley and Chase Construction Co.	1521		South Burlington	05403
PG Adams			South Burlington	05403
Stantec Consulting Services Inc			South Burlington	05403
Breen Systems Management, Inc.	7372		Vergennes	05491
General Dynamics Armament and Technical Products			Williston	05495
Green Mountain Coffee Roasters			Williston/Essex	
Hampton Direct, Inc.	5199		Williston	05495
MBF Bioscience			Williston	05495
NEHP Inc.			Williston	05495
New England Federal CU		522130	Williston	05495
New England Supply Inc			Williston	05495
Nova Natural Toys & Crafts		45411	Williston	05495
Plageman, Gagnon & Daughters, Inc.			Williston	05495
STICORP			Williston	05494
BioTek			Winooski	05404
Creative Labels of Vermont, Inc			Winooski	05404

#### Responding employers:

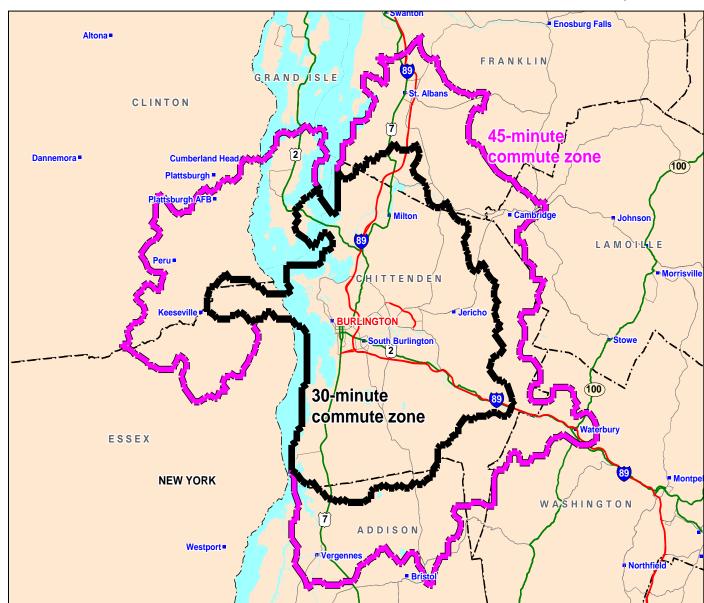
COMPANY	SIC	NAICS	CITY/TOWN	ZIP CODE
LIGHT-WORKS, INC.		323115	Winooski	05404
Physician's Computer Company (PCC)			Winooski	05404
Preci-manufacturing inc			Winooski	05404
SemiProbe Inc		334515	Winooski	05404
Twincraft Soap		325611	Winooski	05404
Vermont Furniture Designs, Inc	2511	337122	winooski	05404

# Appendix C

APPENDIX C

NOVEMBER 2011

WADLEY-DONOVAN GROWTHTECH



APPENDIX C						
30- AND 45-MINUTE COMMUTE ZONES FROM DOWNTOWN BURLINGTON, VT						

APPENDIX C			rate Highway	Speeds	C-1
		Local	Arterial	Freeway	
NOVEMBER 2011	Rural	30	50	65	WADLEY-DONOVAN GROWTHTECH
	Urban	25	35	50	