Final: Chittenden County, VT Economic Base Analysis

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.

1/25/2012

An ECOS Analysis Report

This document provides an analysis of the current economic base of Chittenden County and the trends that have been shaping the County's economy.

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

Final: Chittenden County, VT Economic Base Analysis

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HIGHLIGHTS

In reviewing the findings presented in this report, it is apparent that Chittenden County enjoys a competitive advantage relative to the balance of the state. Further, the County is an essential part of the Vermont economy as illustrated by:

- Chittenden County contains 25 percent of the State's population
- Median household income is $60,182 versus $51,219 for the State
- The County poverty rate is 10.6 percent compared to 11.5 percent statewide
- Accounted for about 60 percent of State population growth between 2000 and 2010
- Home to 25 percent of the State's private businesses
- Accounted for 45 percent of total manufacturers' shipments in 2007
- Twenty nine percent of retail sales occurred in the County (2007)
- GDP per capita is $50,000 vs. $40,000 for the State
- Provides 32 percent of sales tax revenue in Vermont
- Provides 35 percent of state income tax revenues

Over the past several decades the County's share of population, GDP, jobs and income, among other factors, has increased. While this is certainly good news for the economic development community in the Burlington region, the analysis also points out some areas of concern, described below:

- Employment in the private sector declined between 2000 and 2010. This was offset in part by an increase in public sector employment, but it was not sufficient to offset private sector losses (private sector: -4,386 + public sector: 2,263 = net -2,123).
- The annual rate of population growth in both Chittenden County as well as the State has slowed over the past several years. This may suggest that the advantage the region has enjoyed from its population gains is shrinking. Slow population growth is endemic in the region sometimes described as the "frost belt" or "snow belt."
- The growth in MSA's gross domestic product over the past decade has come entirely from the services sectors. Output from the goods-producing industries, primarily manufacturing, has remained flat in nominal terms and, as a result, goods-producing industries represent a declining share of economic activity. Services include high wage professional services as well as lower wage personal services.
- The number of Chittenden County jobs in high-wage industries has declined by more than 5,000 since the year 2000; much of this has been from cutbacks at IBM. Employment in mid-wage and low-wage industries has increased slightly. The loss of jobs in high wage industries is not unique to this region—it is part of a larger trend that has been seen nationwide.

- The number of unemployed individuals remains at historically high levels. If the region is not growing jobs it seems unlikely that this unemployment problem, particularly for those with lower skills, will improve anytime soon. What becomes of these workers?
- The construction industry is still being constrained by the collapse of the housing market and greatly reduced new residential construction activity. Residential permits issued remain at an all-time low.
- The volume of home sales has declined over the past few years and there is little evidence of any improvement on this front.
- Although growth in total nominal wages has risen off its sharp decline in 2009, they remain below the County's long-term growth rates.
- Growth in traded-sector industries (those industries that sell their products and services outside the region and bring new money back in, thus supporting the local, or non-traded, industries) has been limited primarily to the retail sector. The computer and electronic industry (NAICS 334) remains the most important element of traded sector employment but, following the loss of more than 4,000 jobs over the past decade, the long-term security of these jobs may be in question.
- There has been a decrease in the number of businesses over the past few years. Between 2008 and 2010 more than 100 businesses, on net, closed their doors.

Despite the advantages the region has enjoyed in many areas, there are some disquieting trends that need to be acknowledged. If recent trends continue (for instance, additional cutbacks at IBM), there will be additional loss of jobs in high-wage industries and slow growth in lower-wage industries. Job growth has been elusive over the past decade and this too is likely to continue into the future. The rate of population growth has declined and that is likely to continue into the future. These and other problems are exceedingly difficult to address on a local level, but this does not mean that one should throw up one's arms in despair. Local efforts, coupled with strong pressure on state and federal elected officials, could work to mitigate some of these disadvantages.

While reversing these trends is unlikely, awareness of them can facilitate local planning. It is unlikely that these issues can be successfully addressed locally since many of the policies affecting these changes emanate at the federal level. The larger issue here is the long-term structural change impacting most snow-belt states. Slow growth is a regional problem and will most likely require a regional solution. Local planning is necessary, but not nearly sufficient, given the magnitude of ongoing changes.

INTRODUCTION

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

This Economic Base Analysis is one of three documents that provide the foundation for updating three interrelated economic development strategies:

1. 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.

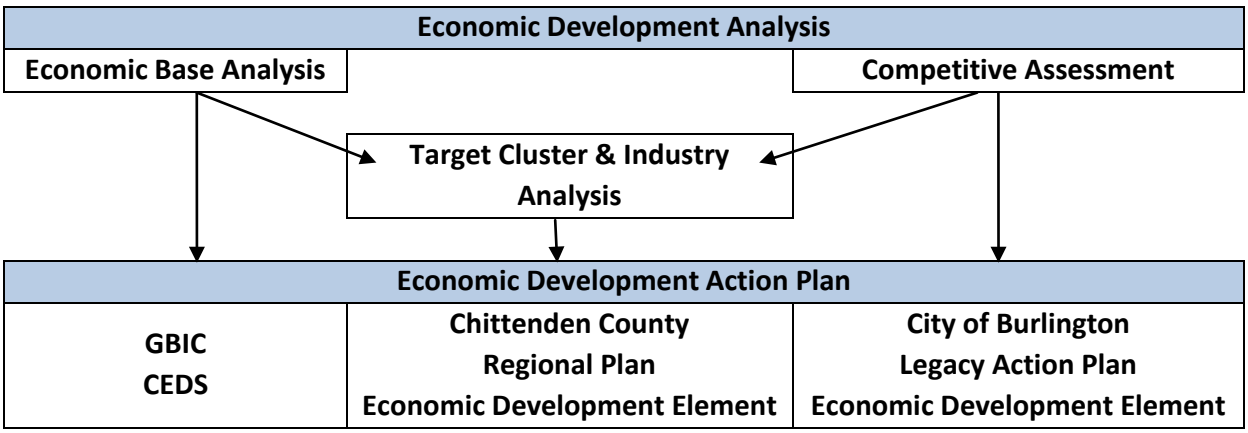
2. Updating of the economic development element of the Chittenden County Regional Planning Commission's Regional Plan.

3. Updating of the economic development element of the City of Burlington's Legacy Action Plan.

The two other foundational research documents of this project are:

- A comprehensive Competitive Assessment that provides an objective evaluation of the competitive strengths and weaknesses of Chittenden County as an economic development product.
- A Strategic Industry Sector Analysis that looks in more detail at how the County's economic base and competitive 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.



This Economic Base Analysis is the product of a contract between the Chittenden County Regional Planning Commission, 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.

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.

MAJOR DATA SOURCES AND METHODOLOGY

Throughout this analysis the primary data sources have been federal and state agencies.

Federal sources include:

- U.S. Department of Commerce
  - Bureau of the Census
  - Bureau of Economic Analysis
- U.S. Department of Labor
  - Bureau of Labor Statistics
- U.S. Federal Reserve
  - Federal Reserve Bank of Boston

State Agencies include:

- Vermont Department of Labor
- Vermont Department of Taxes

The primary analytic approach has been to compare and contrast growth trends between Chittenden County (or other relevant geographic areas for which data is available such as the Burlington-South Burlington Metropolitan Statistical Area (MSA) or the Burlington New England City and Town Area (NECTA) with the State of Vermont, New England and the U.S. Although the primary period of study spanned the years 2000 through 2010, in some cases the span was several decades long in order to provide a broader historical perspective of trends and shifts that would not be evident in a shorter time frame

In many charts reference is made to a moving average (ma). This is a technique employed to smooth out the month-to-month variability in many data series by averaging 3-months, 12-months or any other block of observations. By so doing it allows the reader to more readily discern basic trends without the "noise" inherent in the source data series.

Frequent reference is also made to indices of growth or a growth index. This is a method that allows comparison of widely disparate data sets such as U.S. employment and Chittenden County employment. If one were to use the actual values, the differences would be such as to preclude any meaningful comparisons. By indexing any series on a common starting date one can compare growth over time. For example, an employment index value of 1.40 at year 10 for the County and 1.35 for the U.S. at the same point in time means that employment growth since year one has been 40 percent locally versus 35 percent nationally.

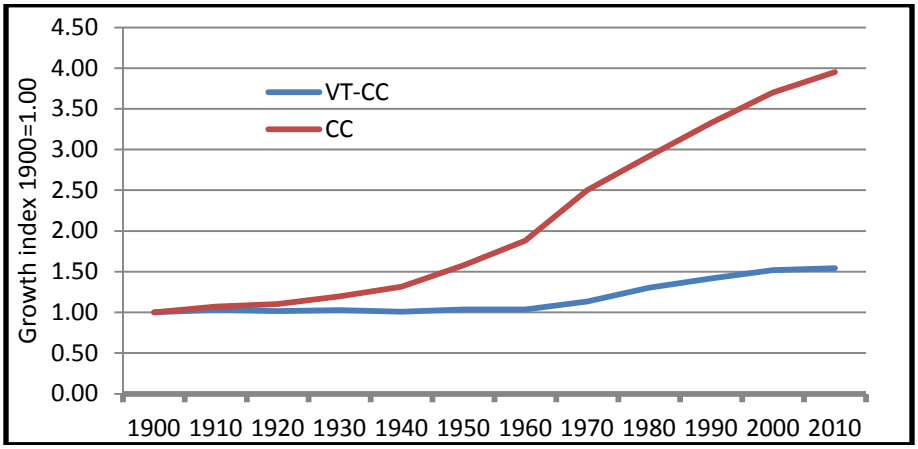
Finally, it should be noted that, without economic growth, state and local tax revenues cannot keep up with the demand for services, meet pension obligations and entitlement goals, and cover other cost elements of area government budgets without decreasing those expenses through budget and service/benefit cuts, or through some form of revenue increases.

1.0 DEMOGRAPHICS

Population

The population growth rate in Chittenden County has outpaced the state for the past 80 years, as shown in Figure 1.1. During this period the County's population has nearly tripled while the balance of the State has grown by about 50 percent. The gap between the two continues to widen steadily. Currently one of every four Vermont citizens lives in Chittenden County.

Figure 1.1 - The population of the County has grown rapidly for the past several decades
Source: U.S. Census



Note: VT-CC in the chart above indicates Vermont less Chittenden County

Shortening the time interval a little one finds, in Figure 1.2, that the population growth rate in the County has exceeded that of Vermont, New England, and the U.S. since 1969. The growth rates in all but the nation have flattened out over the past several years. If current trends continue the County growth rate may be eclipsed by the national growth rate within the next 10 years.

Population continues to grow in both Chittenden County as well as Vermont; however, the annual growth rate in both has been declining for the past 40 years, as shown in Figure 1.3. The year-to-year change between 2009 and 2010 was slightly above 0.0 percent in the State and a little less than 0.5 percent in the County.

As was noted later in this report, job growth has been all but flat for the past few years and, since population growth and job growth are highly correlated, it will likely be a challenge to stimulate job growth in the State and in the County unless population gains accelerate.

Figure 1.2 - Over the past 40 years population growth in the County has surpassed the State, the region and the nation

Source: U.S. Bureau of the Census

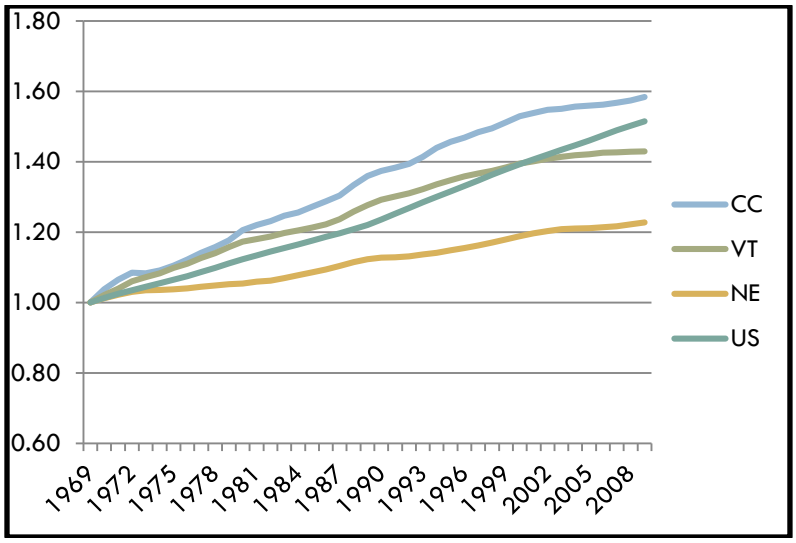
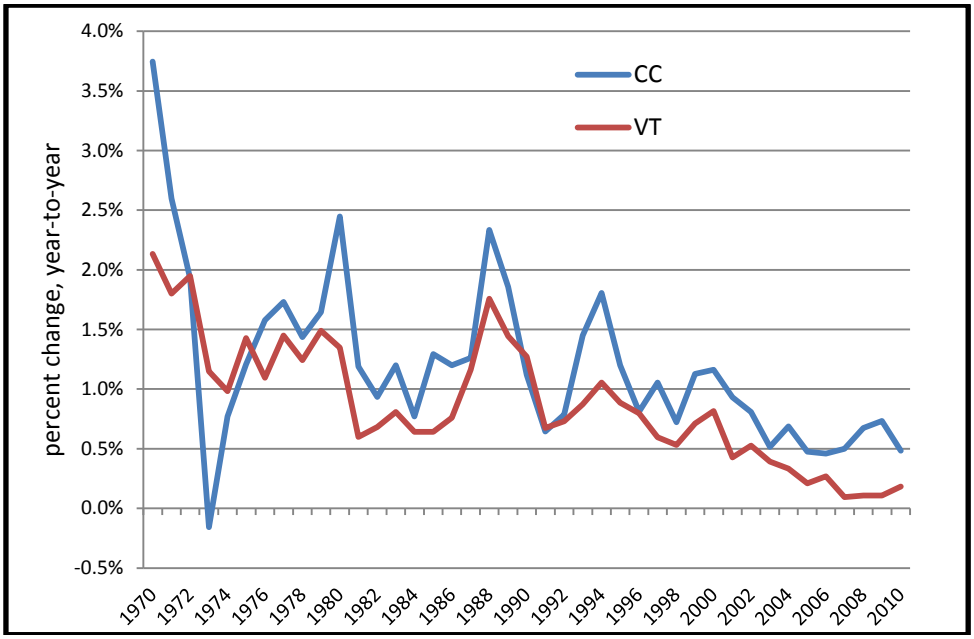


Figure 1.3 - Population growth rates have been steadily declining

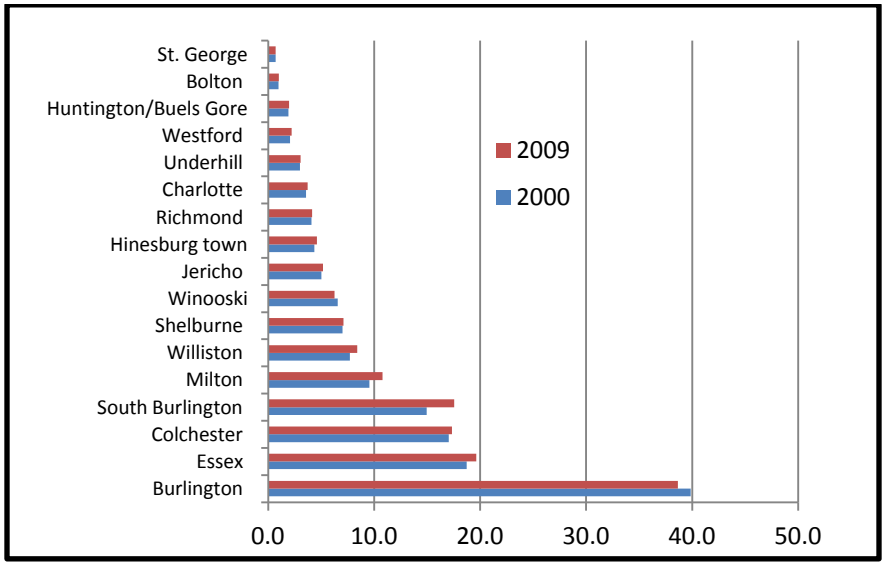
Source: U.S. Bureau of the Census



In 2010 the population of Chittenden County was 156,545. Between 2000 and 2010 the population of the County grew by 9,973, or 6.8 percent, more than double the 2.8 percent growth in the State. The population of Vermont grew by 11,857 in this period – 84 percent of all growth in the State occurred in Chittenden County. Given that New England is the slowest growing region in the country, it follows that Vermont has a similar situation; annual population growth in both New England and Vermont has been well below the U.S. growth rate. There have also been other changes in some demographic areas, notably aging, that will have an impact on future growth and development.

Looking at the distribution of population by Chittenden County's communities, as shown in Figure 1.4 on the following page, one notes that Burlington is by far the largest community, almost double the population of Essex, the second largest town. In 2000 the four largest communities accounted for 90.5 percent of County population and that share had increased to 93.2 percent in 2009.

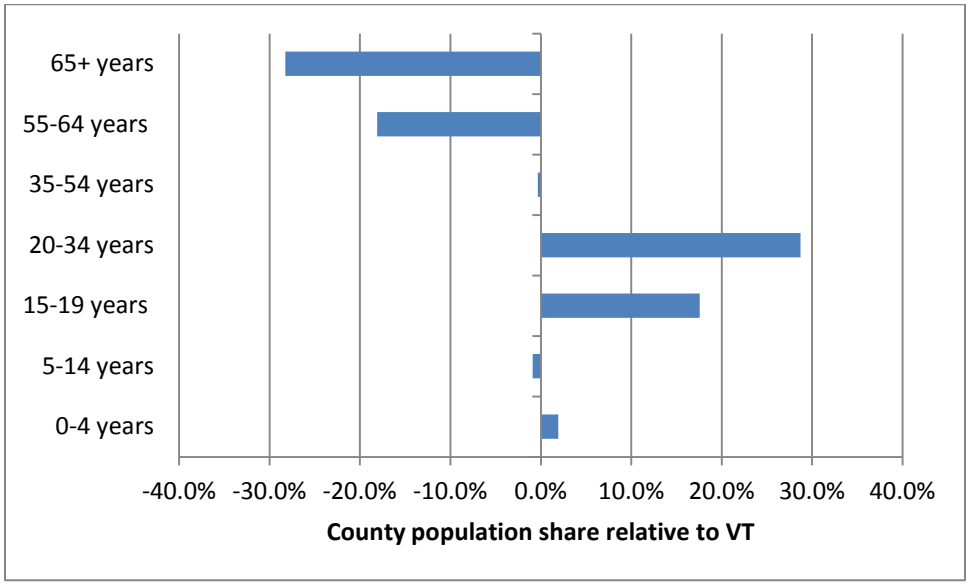
Figure 1.4 - Distribution of County population by town
Source: U.S. Census



Aging

When comparing Chittenden County to Vermont on population age distribution, one is immediately struck with the differences in the older age brackets (55+ years) and the younger age brackets (15-34 years). In Figure 1.5 these differences are shown graphically and the advantage goes to the County with a much higher proportion of younger population and a smaller share of older people. When companies are considering starting up, expanding or relocating, one of the key variables in the decision-making progress is the availability and skills of people in the training pipeline or in the early stages of their careers. The County has a clear advantage in this area.

Figure 1.5 - County population age distribution relative to Vermont, 2010
Source: Vermont Department of Labor



In addition to knowing the most recent data on the aging of the population, it is equally enlightening to look at change over time, as shown in the next two figures.

Figure 1.6 compares the differences between the County and the State in terms of percent change in population by five-year age groups. The patterns are similar for the most part; however, a closer scrutiny shows that in every group 50 years and older Chittenden County has grown faster than the State. On an age-group by age-group basis these changes do not appear to be all that great but, when aggregating the totals for all persons 50 years and older versus those 49 years and younger, the differences become a little more pronounced, as shown in Figure 1.7. Here one finds that the County had higher growth in the 50+ group and slower growth in the 49 years and younger group.

Figure 1.6 - Population growth by five-year age cohorts
Source: VT Department of Health

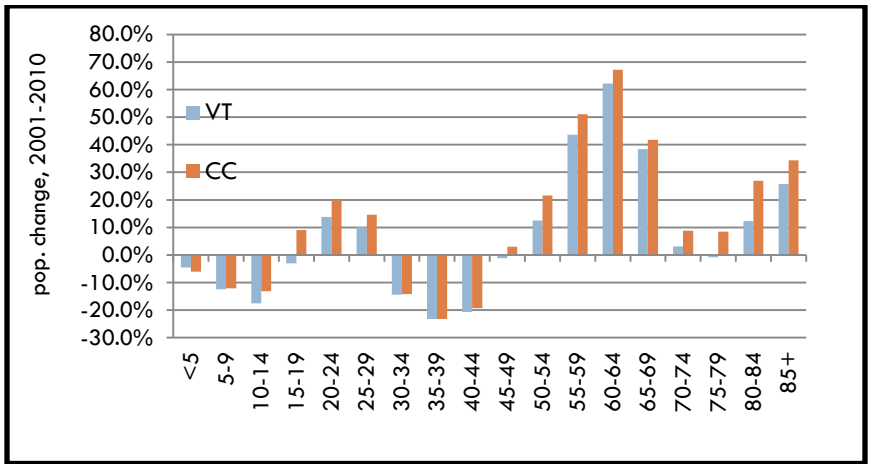
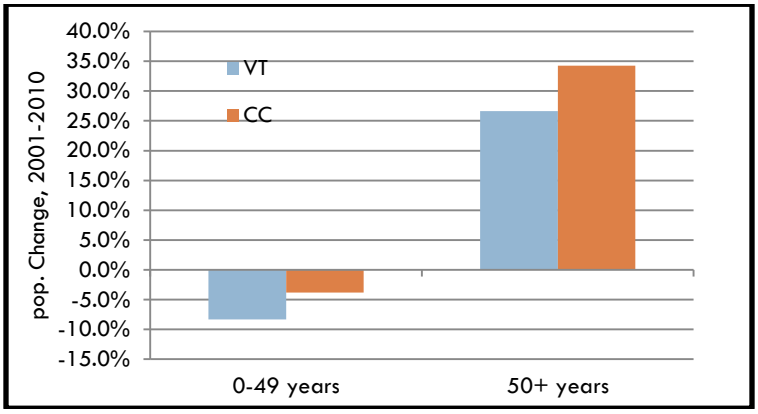


Figure 1.7 - Over the past decade the 50 years and older group has increased
Source: VT Department of Health



Educational Attainment

Locations compete for economic development sustainability primarily on the basis of an educated and well trained workforce, making the educational levels of residents a critical factor for analysis. Data on the educational attainment of the adult population are presented in Table 1.1 which shows that Chittenden County has about two-thirds as many high school drop-outs relative to the State, and a higher relative number of college graduates at the two-year, four-year and graduate levels. The County benefits from the number of higher education institutions in the area with most faculty having a doctorate or professional degree.

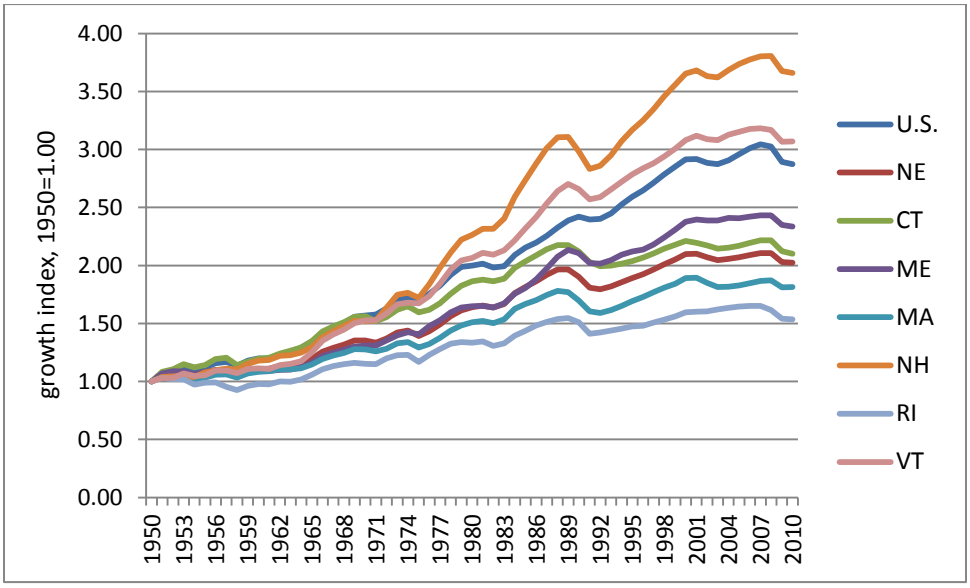
Table 1.1 - Educational attainment of the adult population favors the County compared to Vermont
Source: American Community Survey, 2009 estimates

	CC	VT	CC/VT
Population 25 years and over	96,049	421,096	22.8%
Less than 9th grade	2.40%	3.50%	68.6%
9th to 12th grade, no diploma	4.30%	6.30%	68.3%
High school graduate (includes GED)	22.70%	32.30%	70.3%
Some college, no degree	16.30%	16.50%	98.8%
Associate's degree	10.10%	8.40%	120.2%
Bachelor's degree	27.70%	20.10%	137.8%
Graduate or professional degree	16.40%	12.80%	128.1%

2.0 EMPLOYMENT

As shown in Figure 2.1, Vermont has had the second fastest employment growth among New England states over the past six decades. Each line represents the annual employment growth index for each jurisdiction. This is set at 1950 = 1.00 and depicts the cumulative percentage growth over time – Vermont is up more than 30 percent during this period, second only to New Hampshire and slightly above the national growth rate. However, New England has had the slowest employment growth of all the regions in the nation over the past several decades, and it will likely own this distinction for the foreseeable future.

Figure 2.1 - Vermont's long-term job growth has been quite competitive
Source: U.S. Bureau of Labor Statistics

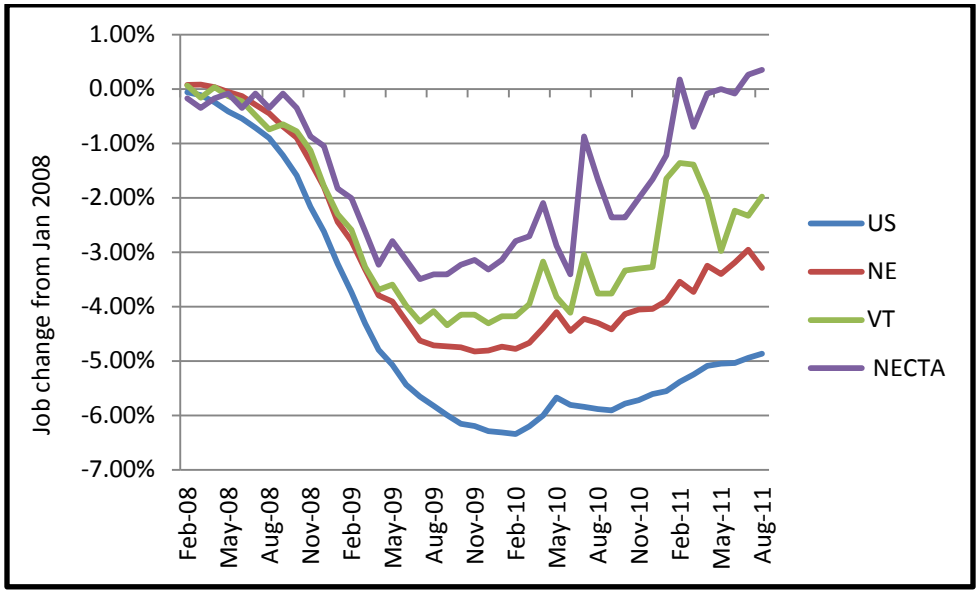


Chittenden County & Environs

Total non-farm employment in Chittenden County decreased from 95,354 to 93,231 between 2000 and 2010 – a loss of 2,123 jobs, or -2.2 percent. In order to better understand which industries are growing and which are shrinking, this section of the report looks at employment change at both the sector (2-digit North American Industry Classification System – NAICS) and the industry (3-digit NAICS) levels.

Since February 2008 (see Figure 2.2), one finds an interesting pattern of differences among the U.S., state, New England and NECTA areas. The U.S. had the largest relative loss and has been the slowest to recover and still has quite a ways to go. New England fared better than the nation in both terms of job loss as well as strength of recovery. Vermont has done better than both the region and the country while the Burlington NECTA has done the best of all and for the past two months (at the time this analysis was prepared) has been in positive territory, meaning that employment is now higher than it was in January 2008, the peak of the national jobs recession.

Figure 2.2 - Employment in the Burlington NECTA is back in positive territory
Source: Boston Federal Reserve



Business Sectors

Table 2.1 on the following page contains employment data for each business or industry sector, excluding government, as reported by the Vermont Department of Labor (VDOL) for the years 2000 and 2010. Overall, Chittenden County has lost 4,386 private sector jobs, or -5.6 percent, during this interval. [It should be noted that industries 55 (management of companies and enterprises) and 56 (administrative and waste services) were not included in the 2010 total as reported by the VDOL.] Employment change ranged from plus 3,028 (health care) to minus 6,015 (manufacturing). On a relative basis, health care was the fastest growing sector at 27.4 percent, while agriculture posted the largest loss at -44.9 percent. There were 11 sectors with negative job growth totaling -9,941 while six sectors added 5,055 jobs for a net change of -4,386.

Table 2.1 – Private sector job change by industry in Chittenden County: 2000-2010
Source: Vermont Department of Labor

NAICS	Industry	2000	2010	Change	Percent
11	Agriculture, forestry, fishing and hunting	176	97	-79	-44.9%
21	Mining	36	39	3	8.3%
22	Utilities	291	254	-37	-12.7%
23	Construction	5,305	4,205	-1,100	-20.7%
31-33	Manufacturing	16,759	10,744	-6,015	-35.9%
42	Wholesale trade	3,048	3,127	79	2.6%
44-45	Retail trade	12,139	12,536	397	3.3%
48-49	Transportation and warehousing	2,488	2,072	-416	-16.7%
51	Information	2,651	2,129	-522	-19.7%
52	Finance and insurance	3,546	3,126	-420	-11.8%
53	Real estate and rental and leasing	1,211	1,109	-102	-8.4%
54	Professional and technical services	6,014	6,734	720	12.0%
55	Management of companies and enterprises	(c)	318	n/a	n/a
56	Administrative and waste services	(s)	3,210	n/a	n/a
61	Educational services	2,296	2,052	-244	-10.6%
62	Health care and social assistance	11,031	14,059	3,028	27.4%
71	Arts, entertainment, and recreation	1,490	1,476	-14	-0.9%
72	Accommodation and food services	6,851	7,679	828	12.1%
81	Other services, except public administration	3,150	2,658	-492	-15.6%
	TOTAL	**78,482**	**74,096**	**-4,386**	**-5.6%**

Note: (c) indicates that the data is confidential; (s) indicates the data was suppressed to protect confidential information

From a wage perspective not all jobs are equal. It is instructive to look at sectorial job change by wage level, as shown in Table 2.2 on the following page. In this table sectors have been sorted into quartiles based on their annual average wage relative to the average for all private (i.e., non-government) industries, which in 2000 was $34,354. In the case of the accommodations and food services sector, for instance, one notes that the annual average wage in 2000 was $13,293, or 38.7 percent of the average for all sectors.

Table 2.2 - County Industry sectors by wage quartiles
Source: Vermont of Department of Labor

	Emp. 2000	Wage 2000	Percentile	Emp. 2010
Top Quartile				
Mining	36	$43,642	127.0%	39
Professional and technical services	6,014	$47,297	137.7%	6,734
Finance and insurance	3,546	$49,930	145.3%	3,126
Manufacturing	16,759	$50,344	146.5%	10,744
Utilities	291	$64,941	189.0%	254
Middle Quartiles				
Health care and social assistance	11,031	$33,181	96.6%	14,059
Transportation and warehousing	2,488	$35,621	103.7%	2,072
Construction	5,305	$37,118	108.0%	4,205
Information	2,651	$40,102	116.7%	2,129
Wholesale trade	3,048	$41,975	122.2%	3,127
Bottom Quartile				
Accommodation and food services	6,851	$13,293	38.7%	7,679
Agriculture, forestry, fishing and hunting	176	$16,421	47.8%	97
Arts, entertainment, and recreation	1,490	$17,749	51.7%	1,476
Retail trade	12,139	$20,696	60.2%	12,536
Educational services	2,296	$24,141	70.3%	2,052
Real estate and rental and leasing	1,211	$24,521	71.4%	1,109
Other services, except public administration	3,150	$24,557	71.5%	2,658

The key findings from Table 2.2 are summarized in Table 2.3 that shows employment data by each of the three wage groups—bottom quartile, middle two quartiles and highest wage quartile industries. Of interest here is the fact that the highest wage quartile shed 5,749 jobs for a 21.6 percent decline (due largely to cutbacks at IBM). The other wage groups posted modest employment gains during this period.

Table 2.3 - Employment change by wage quartile
Source: Vermont of Department of Labor Data Analyzed by Jeff Blodgett

	2000	2010	# Change	% Change
Top quartile	26,646	20,897	-5,749	-21.6%
Middle quartiles	24,523	25,592	1,069	4.4%
Bottom quartile	27,313	27,607	294	1.1%
Total	**78,482**	**74,096**	**-4,386**	

Industry Subsectors

Of the 64 detailed (3-digit NAICS) County subsectors for which data for both 2000 and 2010 were published by the Vermont Department of Labor, 21 industries experienced employment gains totaling 4,682. The other 43 industries had employment losses of -10,482. Thus, for every job that was added during this period two were lost, obviously an unfavorable ratio. Table 2.4 presents employment data for Chittenden County for 2000 and 2010 (red font and parentheses denote author's estimates). Due to data suppression the employment totals for 3-digit and 2-digit do not match exactly.

Table 2.4 - Employment change by industry - Chittenden County (NAICS sort order)
Source: Vermont Dept. of Labor

NAICS	Industry	2000	2010	# Change	% Change
111	Crop production	75	47	-28	-37.3%
112	Animal production	91	37	-54	-59.3%
212	Mining, except oil and gas	36	39	3	8.3%
221	Utilities	291	254	-37	-12.7%
236	Construction of buildings	1,132	990	-142	-12.5%
237	Heavy and civil engineering construction	623	516	-107	-17.2%
238	Specialty trade contractors	3,550	2,699	-851	-24.0%
311	Food manufacturing	786	704	-82	-10.4%
312	Beverage and tobacco product manufacturing	(c)	109		n/a
321	Wood product manufacturing	155	(140)	(-15)	-9.7%
322	Printing and related support activities	849	585	-264	-31.1%
325	Chemical manufacturing	468	324	-144	-30.8%
326	Plastics and rubber products manufacturing	61	48	-13	-21.3%
327	Nonmetallic mineral product manufacturing	225	146	-79	-35.1%
331	Primary metal manufacturing	355	151	-204	-57.5%
332	Fabricated metal product manufacturing	1,385	1,088	-297	-21.4%
333	Machinery manufacturing	1,126	762	-364	-32.3%
334	Computer and electronic product manufacturing	(9,500	5,200)	(-4,300)	-45.3%
335	Electrical equipment and appliance mfg.	556	274	-282	-50.7%
336	Transportation equipment manufacturing	154	133	-21	-13.6%
337	Furniture and related product manufacturing	(s)	129		n/a
339	Miscellaneous manufacturing	752	857	105	14.0%
423	Merchant wholesalers, durable goods	1,850	1,641	-209	-11.3%
424	Merchant wholesalers, nondurable goods	1,174	1,276	102	8.7%
425	Electronic markets and agents/brokers	24	209	185	770.8%
441	Motor vehicle and parts dealers	1,444	1,320	-124	-8.6%
442	Furniture and home furnishings stores	426	479	53	12.4%
443	Electronics and appliance stores	331	371	40	12.1%
444	Building material and garden supply stores	953	927	-26	-2.7%

NAICS	Industry	2000	2010	# Change	% Change
445	Food and beverage stores	2,636	2,772	136	5.2%
446	Health and personal care stores	612	611	-1	-0.2%
447	Gasoline stations	737	794	57	7.7%
448	Clothing and clothing accessories stores	1,383	1,469	86	6.2%
451	Sporting goods, hobby, book and music stores	809	863	54	6.7%
452	General merchandise stores	1,272	1,120	-152	-11.9%
453	Miscellaneous store retailers	997	1,005	8	0.8%
454	Nonstore retailers	538	804	266	49.4%
481	Air transportation	155	102	-53	-34.2%
484	Truck transportation	618	601	-17	-2.8%
485	Transit and ground passenger transportation	379	304	-75	-19.8%
488	Support activities for transportation	165	278	113	68.5%
492	Couriers and messengers	696	571	-125	-18.0%
493	Warehousing and storage	353	131	-222	-62.9%
511	Publishing industries, except Internet	780	608	-172	-22.1%
512	Motion picture and sound recording industries	183	170	-13	-7.1%
515	Broadcasting, except Internet	488	410	-78	-16.0%
517	Telecommunications	978	766	-212	-21.7%
518	ISPs, search portals, and data processing	184	153	-31	-16.8%
519	Other information services	(c)	21		n/a
522	Credit intermediation and related activities	1,937	1,641	-296	-15.3%
523	Securities, commodity contracts, investments	449	475	26	5.8%
524	Insurance carriers and related activities	1,126	981	-145	-12.9%
525	Funds, trusts, and other financial vehicles	34	29	-5	-14.7%
531	Real estate	600	733	133	22.2%
541	Professional and technical services	6,014	6,734	720	12.0%
551	Management of companies and enterprises	(c)	318		n/a
561	Administrative and support services	3,203	2,880	-323	-10.1%
562	Waste management and remediation services	(s)	329		n/a
611	Educational services	2,296	2,052	-244	-10.6%
621	Ambulatory health care services	5,165	6,119	954	18.5%
624	Social assistance	1,372	1,983	611	44.5%
711	Performing arts and spectator sports	(s)	285		n/a
712	Museums, parks, zoos, and historical sites	(c)	180		n/a
713	Amusements, gambling, and recreation	993	1,011	18	1.8%
721	Accommodation	1,390	1,342	-48	-3.5%
722	Food services and drinking places	5,461	6,337	876	16.0%
811	Repair and maintenance	1,067	739	-328	-30.7%
812	Personal and laundry services	828	756	-72	-8.7%

NAICS	Industry	2000	2010	# Change	% Change
813	Membership associations and organizations	862	998	136	15.8%
814	Private households	392	165	-227	-57.9%

Note: (c) indicates that the data is confidential; (s) indicates the data was suppressed to protect confidential information

Table 2.5 ranks the County's industry subsectors by employment change – largest to smallest (red font and parentheses denote author's estimates). Of the five industries with the greatest growth, only one, professional and technical services, is a high wage industry. The other four are all low- to mid-wage industries.

Table 2.5 - Industries ranked by job growth—Chittenden County
Source: Vermont Dept. of Labor

NAICS	Industry	2000	2010	# Change	% Change
621	Ambulatory health care services	5,165	6,119	954	18.5%
722	Food services and drinking places	5,461	6,337	876	16.0%
541	Professional and technical services	6,014	6,734	720	12.0%
624	Social assistance	1,372	1,983	611	44.5%
454	Nonstore retailers	538	804	266	49.4%
425	Electronic markets and agents/brokers	24	209	185	770.8%
445	Food and beverage stores	2,636	2,772	136	5.2%
813	Membership associations and organizations	862	998	136	15.8%
531	Real estate	600	733	133	22.2%
488	Support activities for transportation	165	278	113	68.5%
339	Miscellaneous manufacturing	752	857	105	14.0%
424	Merchant wholesalers, nondurable goods	1,174	1,276	102	8.7%
448	Clothing and clothing accessories stores	1,383	1,469	86	6.2%
447	Gasoline stations	737	794	57	7.7%
451	Sporting goods, hobby, book and music stores	809	863	54	6.7%
442	Furniture and home furnishings stores	426	479	53	12.4%
443	Electronics and appliance stores	331	371	40	12.1%
523	Securities, commodity contracts, investments	449	475	26	5.8%
713	Amusements, gambling, and recreation	993	1,011	18	1.8%
453	Miscellaneous store retailers	997	1,005	8	0.8%
212	Mining, except oil and gas	36	39	3	8.3%
446	Health and personal care stores	612	611	-1	-0.2%
525	Funds, trusts, and other financial vehicles	34	29	-5	-14.7%
326	Plastics and rubber products manufacturing	61	48	-13	-21.3%
512	Motion picture and sound recording industries	183	170	-13	-7.1%
321	Wood product manufacturing	155	(140)	(-15)	-9.7%
484	Truck transportation	618	601	-17	-2.8%
336	Transportation equipment manufacturing	154	133	-21	-13.6%

NAICS	Industry	2000	2010	# Change	% Change
444	Building material and garden supply stores	953	927	-26	-2.7%
111	Crop production	75	47	-28	-37.3%
518	ISPs, search portals, and data processing	184	153	-31	-16.8%
221	Utilities	291	254	-37	-12.7%
721	Accommodation	1,390	1,342	-48	-3.5%
481	Air transportation	155	102	-53	-34.2%
112	Animal production	91	37	-54	-59.3%
812	Personal and laundry services	828	756	-72	-8.7%
485	Transit and ground passenger transportation	379	304	-75	-19.8%
515	Broadcasting, except Internet	488	410	-78	-16.0%
327	Nonmetallic mineral product manufacturing	225	146	-79	-35.1%
311	Food manufacturing	786	704	-82	-10.4%
237	Heavy and civil engineering construction	623	516	-107	-17.2%
441	Motor vehicle and parts dealers	1,444	1,320	-124	-8.6%
492	Couriers and messengers	696	571	-125	-18.0%
236	Construction of buildings	1,132	990	-142	-12.5%
325	Chemical manufacturing	468	324	-144	-30.8%
524	Insurance carriers and related activities	1,126	981	-145	-12.9%
452	General merchandise stores	1,272	1,120	-152	-11.9%
511	Publishing industries, except Internet	780	608	-172	-22.1%
331	Primary metal manufacturing	355	151	-204	-57.5%
423	Merchant wholesalers, durable goods	1,850	1,641	-209	-11.3%
517	Telecommunications	978	766	-212	-21.7%
493	Warehousing and storage	353	131	-222	-62.9%
814	Private households	392	165	-227	-57.9%
611	Educational services	2,296	2,052	-244	-10.6%
322	Printing and related support activities	849	585	-264	-31.1%
335	Electrical equipment and appliance mfg.	556	274	-282	-50.7%
522	Credit intermediation and related activities	1,937	1,641	-296	-15.3%
332	Fabricated metal product manufacturing	1,385	1,088	-297	-21.4%
561	Administrative and support services	3,203	2,880	-323	-10.1%
811	Repair and maintenance	1,067	739	-328	-30.7%
333	Machinery manufacturing	1,126	762	-364	-32.3%
238	Specialty trade contractors	3,550	2,699	-851	-24.0%
334	Computer and electronic product manufacturing	(9,500)	(5,200)	(-4,300)	-45.3%
312	Beverage and tobacco product manufacturing	(c)	109		n/a
337	Furniture and related product manufacturing	(s)	129		n/a
519	Other information services	(c)	21		n/a
551	Management of companies and enterprises	(c)	318		n/a

NAICS	Industry	2000	2010	# Change	% Change
562	Waste management and remediation services	(s)	329		n/a
711	Performing arts and spectator sports	(s)	285		n/a
712	Museums, parks, zoos, and historical sites	(c)	180		n/a

Note: (c) indicates that the data is confidential; (s) indicates the data was suppressed to protect confidential information

Economic Base

The strength of any regional economy is a function of the size and vitality of its economic base, or traded sectors – that is, those industries whose products and services are sold outside the region resulting in a net inflow of income. This new income is often spent locally and supports the non-traded sectors. An important exception to this is the tourism industry which draws new money into the region as visitors come and spend money locally; in certain respects, the tourism industry functions like a traded sector even though the services are provided within the local area.

In order to identify economic base industries, analysts typically calculate specialization ratios or location quotients (LQ). This procedure involves calculating a given industry's share of total local employment and comparing that to that same industry's share of national employment. By dividing the local industry share by the national industry share, one calculates the location quotient. If this quotient is less than 1.00 it means that the regional economy has a relatively smaller share of the industry than does the nation. Conversely, if the ratio is greater than 1.00 it means that the region has a higher concentration of that industry than the nation. For purposes of this report the threshold ratio has been set at 1.10 to identify those industry sectors that serve as "driver" industries within the regional economy. Tables 2.6, 2.7 and 2.8 on the next two pages contain data on the 19 industries whose LQs met or exceeded the 1.10 mark. These data are sorted by NAICS (North American Industry Classification System) code.

These findings are somewhat unusual in that nearly one-half of the economic base industries in Chittenden County are in retail, not a sector one typically thinks of as being part of any region's economic base, although in this case the region is fairly small and is the business and commercial hub of Vermont. Surrounded, as it is, by more rural, less developed areas, the County serves as a shopping, dining and entertainment center for a much wider area resulting in a net inflow of dollars. That is, people living outside the County have much less retail choice than what is available in the County, and consequently do a great deal of their shopping in Chittenden County.

The industry with the highest LQ (6.68) and the greatest number of jobs (5,200) as well as the greatest job loss (-4,300) is computer and electronic products (NAICS 334). This industry is dominated by IBM and, although the employment data for this industry is suppressed by the VT Department of Labor for confidentiality reasons, employment estimates were developed using a variety of other sources (red font denotes estimated values).

The following three Tables present Chittenden County's LQs sorted by NAICS code (Table 2.6), Location Quotient (Table 2.7) and Employment Change (Table 2.8) (red font and parentheses denote author's estimates).

Table 2.6 - Chittenden County's economic base industries (NAICS sort order)

NAICS	Industry	2000	2010	Change	LQ
236	Construction of buildings	1,132	990	-142	1.14
238	Specialty trade contractors	3,550	2,699	-851	1.10
332	Fabricated metal products	1,385	1,088	-297	1.20
334	Computer and electronic products	(9,500)	(5,200)	(-4,300)	6.68
339	Miscellaneous manufacturing	752	857	105	2.14
441	Motor vehicle and parts dealers	1,444	1,320	-124	1.15
442	Furniture and home furnishings	426	479	53	1.55
444	Building material and garden stores	953	927	-26	1.16
445	Food and beverage stores	2,636	2,772	136	1.39
447	Gasoline stations	737	794	57	1.38
448	Clothing and accessories stores	1,383	1,469	86	1.51
451	Sporting goods, hobby, book, etc.	809	863	54	2.03
453	Miscellaneous store retailers	997	1,005	8	1.87
454	Nonstore retailers	538	804	266	2.73
492	Couriers and messengers	696	571	-125	1.54
511	Publishing industries, except Internet	780	608	-172	1.13
515	Broadcasting, except Internet	488	410	-78	1.97
517	Telecommunications	978	766	-212	1.20
621	Ambulatory health care services	5,165	6,119	954	1.45
	Total	**34,504**	**29,881**	**-4,623**	

Table 2.7 - Chittenden County economic base industries (LQ sort order)

NAICS	Industry	2000	2010	Change	LQ
334	Computer and electronic products	(9,500)	(5,200)	(-4,300)	6.68
454	Nonstore retailers	538	804	266	2.73
339	Miscellaneous manufacturing	752	857	105	2.14
451	Sporting goods, hobby, book, etc.	809	863	54	2.03
515	Broadcasting, except Internet	488	410	-78	1.97
453	Miscellaneous store retailers	997	1,005	8	1.87
442	Furniture and home furnishings	426	479	53	1.55
492	Couriers and messengers	696	571	-125	1.54
448	Clothing and accessories stores	1,383	1,469	86	1.51
621	Ambulatory health care services	5,165	6,119	954	1.45
445	Food and beverage stores	2,636	2,772	136	1.39

447	Gasoline stations	737	794	57	1.38
517	Telecommunications	978	766	-212	1.20
332	Fabricated metal products	1,385	1,088	-297	1.20
444	Building material and garden stores	953	927	-26	1.16
441	Motor vehicle and parts dealers	1,444	1,320	-124	1.15
236	Construction of buildings	1,132	990	-142	1.14
511	Publishing industries, except Internet	780	608	-172	1.13
238	Specialty trade contractors	3,550	2,699	-851	1.10
	Total	**34,504**	**29,881**	**-4,623**	

Table 2.8 - Economic base industries (employment change sort order)

NAICS	Industry	2000	2010	Change	LQ
334	Computer and electronic products	(9,500)	(5,200)	(-4,300)	6.68
238	Specialty trade contractors	3,550	2,699	-851	1.10
332	Fabricated metal products	1,385	1,088	-297	1.20
517	Telecommunications	978	766	-212	1.20
511	Publishing industries, except Internet	780	608	-172	1.13
236	Construction of buildings	1,132	990	-142	1.14
492	Couriers and messengers	696	571	-125	1.54
441	Motor vehicle and parts dealers	1,444	1,320	-124	1.15
515	Broadcasting, except Internet	488	410	-78	1.97
444	Building material and garden stores	953	927	-26	1.16
453	Miscellaneous store retailers	997	1,005	8	1.87
442	Furniture and home furnishings	426	479	53	1.55
451	Sporting goods, hobby, book, etc.	809	863	54	2.03
447	Gasoline stations	737	794	57	1.38
448	Clothing and accessories stores	1,383	1,469	86	1.51
339	Miscellaneous manufacturing	752	857	105	2.14
445	Food and beverage stores	2,636	2,772	136	1.39
454	Nonstore retailers	538	804	266	2.73
621	Ambulatory health care services	5,165	6,119	954	1.45
	Total	**34,504**	**29,881**	**-4,623**	

3.0 BUSINESS PROFILE

The net number of businesses in Chittenden County increased from 5,427 in 2000 to 5,651 in 2010, as shown in Table 3.1. However, examining these data on an annual basis reveals that the total number of business peaked at 5,752 in 2008, the worst year of the great recession. Between 2008 and 2010 the County lost 101 businesses, or -1.8 percent.

Table 3.1 - Number of registered worksites by sector in Chittenden County
Source: Vermont Department of Labor

NAICS	Sector	2000	2008	2010	'10-'00	Percent	'10-'08	Percent
31-33	Manufacturing	245	213	204	-41	-16.7%	-9	-4.2%
81	Other services	635	512	497	-138	-21.7%	-15	-2.9%
72	Accom. & food services	363	382	407	44	12.1%	25	6.5%
71	Arts, entertainment	95	106	105	10	10.5%	-1	-0.9%
62	Health & social service	465	500	498	33	7.1%	-2	-0.4%
61	Educ. Services	74	90	101	27	36.5%	11	12.2%
56	Admin. & waste	250	318	336	86	34.4%	18	5.7%
55	Mgmt. of companies	9	12	21	12	133.3%	9	75.0%
54	Prof. & technical	730	916	914	184	25.2%	-2	-0.2%
53	Real estate	202	225	203	1	0.5%	-22	-9.8%
52	Finance & insurance	282	328	316	34	12.1%	-12	-3.7%
51	Information	136	152	145	9	6.6%	-7	-4.6%
48-49	Transp. & warehousing	119	125	120	1	0.8%	-5	-4.0%
44-45	Retail trade	884	833	792	-92	-10.4%	-41	-4.9%
42	Wholesale trade	325	370	383	58	17.8%	13	3.5%
23	Construction	583	632	580	-3	-0.5%	-52	-8.2%
22	Utilities	7	9	3	-4	-57.1%	-6	-66.7%
21	Mining	3	6	7	4	133.3%	1	16.7%
11	Agriculture	20	23	19	-1	-5.0%	-4	-17.4%
	Total	**5,427**	**5,752**	**5,651**	**224**	**4.1%**	**-101**	**-1.8%**

Figure 3.1 on the next page illustrates these changes clearly. Following six years of steady growth, the impact of the “great recession” has had a pronounced negative effect on the number of businesses in the County. It is too early to say if this downward trend has stabilized; however, data for 2011:Q1 on the Vermont Department of Labor website shows a slight uptick in the business count for Chittenden County.

Figure 3.1 - Since peaking in 2008 the County's business count has dropped by 101
Source: Vermont Department of Labor

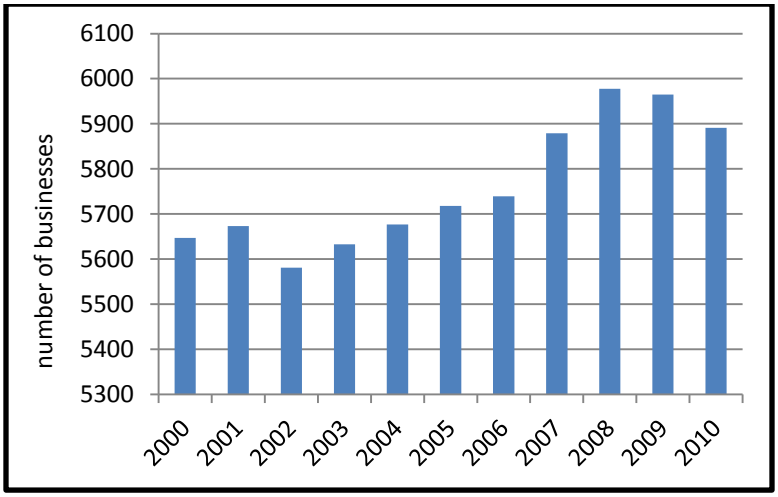


Table 3.2 presents the top and bottom three industries based on the change in the number of businesses between 2000 and 2010. The growth in professional and technical establishments reflects the more than 700 jobs added between 2000 and 2010 (as shown in Table 2.1). The decline in retail establishments coupled with the increase in employment noted earlier reflects the growth of 'big box' retail--fewer businesses employing more people.

Table 3.2 - Top and bottom three County industries based on change in number of businesses
Source: Vermont Department of Labor Analyzed by Jeff Blodgett

NAICS	Sector	2000	2008	2010	'10-'00
Top 3					
54	Prof. & technical	730	916	914	184
56	Admin. & waste	250	318	336	86
42	Wholesale trade	325	370	383	58
Bottom 3					
31-33	Manufacturing	245	213	204	-41
44-45	Retail trade	884	833	792	-92
81	Other services	635	512	497	-138

Table 3.3 on the following page provides a breakdown of the types of business establishments by count, percentage of total and cumulative percentage of establishments. Table 3.3 shows that the top five sectors by number of establishments are in professional and technical services, retail trade, construction, health care and social assistance, and other services except public administration.

Table 3.3 – Chittenden County businesses by number and percentage of total establishments

Source: Vermont Department of Labor Analyzed by Jeff Blodgett

NAICS	Sector	Estabs.	% total	cumulative %
54	Professional and technical services	914	16.2%	16.2%
44-45	Retail trade	792	14.0%	30.2%
23	Construction	580	10.3%	40.5%
62	Health care and social assistance	498	8.8%	49.3%
81	Other services, except public administration	497	8.8%	58.1%
72	Accommodation and food services	407	7.2%	65.3%
42	Wholesale trade	383	6.8%	72.0%
56	Administrative and waste services	336	5.9%	78.0%
52	Finance and insurance	316	5.6%	83.6%
31-33	Manufacturing	204	3.6%	87.2%
53	Real estate and rental and leasing	203	3.6%	90.8%
51	Information	145	2.6%	93.3%
48-49	Transportation and warehousing	120	2.1%	95.5%
71	Arts, entertainment, and recreation	105	1.9%	97.3%
61	Educational services	101	1.8%	99.1%
55	Management of companies and enterprises	21	0.4%	99.5%
11	Agriculture, forestry, fishing and hunting	19	0.3%	99.8%
21	Mining	7	0.1%	99.9%
22	Utilities	3	0.1%	100.0%

Table 3.4 on the following page analyzes Chittenden County's economic base by average number of employees per establishment, with utilities, manufacturing firms, health care and social assistance businesses, educational services, and accommodations and food services ranking as the top five..

Table 3.4 – Chittenden County businesses average number of employees per establishment

Source: Vermont Department of Labor Analyzed by Jeff Blodgett

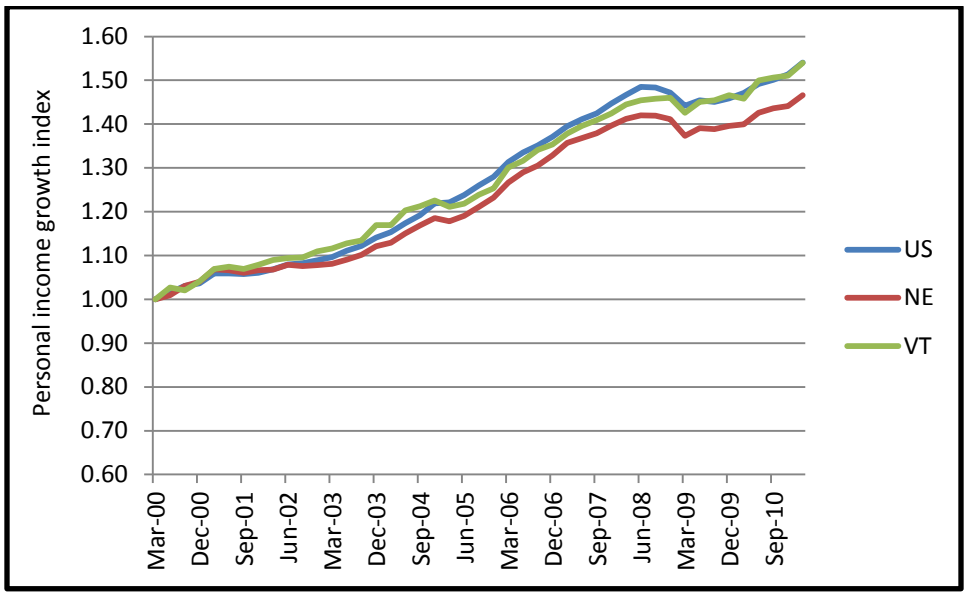
NAICS	Sector	Employees/ Establishment
22	Utilities	84.7
31-33	Manufacturing	52.7
62	Health care and social assistance	28.2
61	Educational services	20.3
72	Accommodation and food services	18.9
48-49	Transportation and warehousing	17.3
44-45	Retail trade	15.8
55	Management of companies and enterprises	15.1
51	Information	14.7
71	Arts, entertainment, and recreation	14.1
52	Finance and insurance	9.9
56	Administrative and waste services	9.6
42	Wholesale trade	8.2
54	Professional and technical services	7.4
23	Construction	7.3
21	Mining	5.6
53	Real estate and rental and leasing	5.5
81	Other services, except public administration	5.3
11	Agriculture, forestry, fishing and hunting	5.1

4.0 PERSONAL INCOME

Personal income includes income received by individuals from all sources including: wages and salary; self-employment (proprietors); capital gains, dividends, interest and rent; and transfer income. The sources and changes of income for any region can reveal important aspects of the local economy including sustainability. For example, a region that is highly dependent on transfer income (e.g., social security payments, student grants, food stamps, etc) faces different challenges than a region that is more reliant on wages and salaries and proprietors' income.

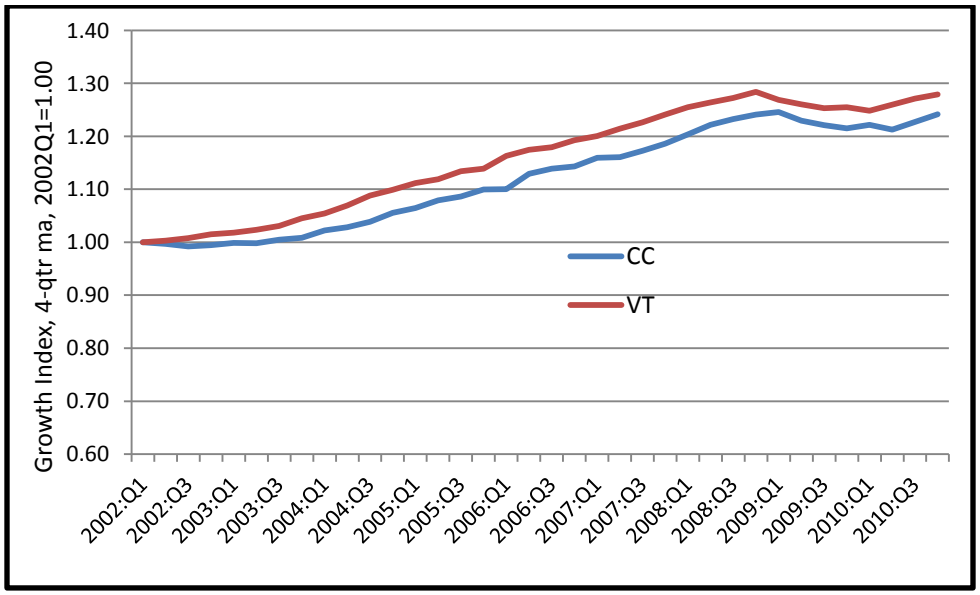
Over the past ten years income growth in Vermont has tracked closely with the national growth rate, as shown in Figure 4.1. In nominal terms personal income in Vermont has increased more than 50 percent during the period 2000 to 2010. The gap between New England and Vermont has widened over the past few years as personal income growth in New England has lagged the nation.

Figure 4.1 – Nominal personal income growth in VT has been competitive
Source: U.S. Bureau of Economic Analysis



Until 2008:Q4 and 2009:Q1 personal income growth in both the County and the State had been proceeding fairly consistently, as shown in Figure 4.2. With the financial crisis and recession during this period, both regions experienced a downturn in income growth. However, over the past few quarters personal income growth has rebounded to the point where both the County and the State are at their earlier peak.

Figure 4.2 - Personal income growth in the county has been somewhat less than in VT
Source: U.S. Bureau of Economic Analysis



Personal income can be broken down into four major components: dividends, interest and rent; transfer income; wage and salary income; and proprietors' income. The data in Table 4.1 shows the changes in each component's share of total personal income at two points in time for the nation, the State and the Burlington-South Burlington MSA. The pattern of change across these three jurisdictions is similar. Transfer income contributed a higher percentage of total income in 2010 than in 2000.

Each of the three regions experienced an uptick in transfer payments of about six percentage points during this interval. Although each of the four components had positive growth during this period, the strongest growth occurred in the transfer payments category and, as a result, its share of personal income increased. The MSA has a larger proportion of wage and salary income than either the state or the nation and that difference has held up during this period.

The differences between these three regions are most pronounced in the wage and salary category, with not quite a ten percentage point difference between the MSA and the State and a seven point difference between the MSA and the nation. All things considered, it is probably better to earn one's keep through wage and salary employment as opposed to transfer income.

It should be noted that while personal income has increased in each of the categories, the most robust growth occurred in transfer income, hence its larger share of total personal income. Wage and salary income contributes to government revenues while transfer income consumes government revenues---clearly, not a sustainable model.

Table 4.1 Change In personal income components: 2000-2010
Source: U.S. Bureau of Economic Analysis

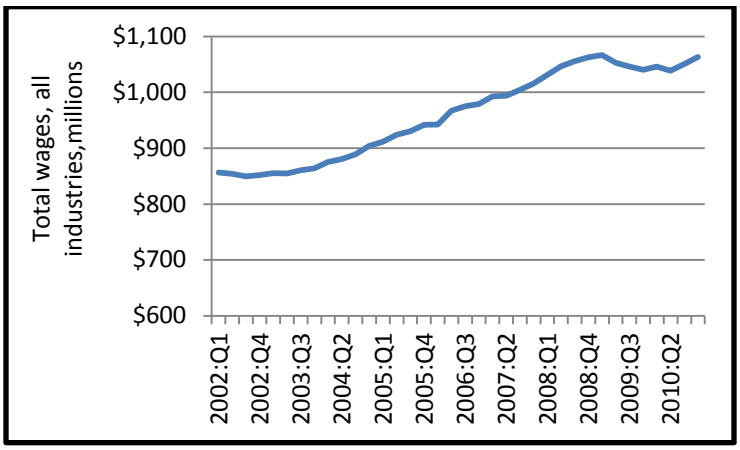
	Income Source	2000	2010	pp diff.
U.S.	Dividends, interest, and rent	18.4%	16.8%	-1.7%
VT	Dividends, interest, and rent	20.0%	17.8%	-2.2%
B-SB MSA	Dividends, interest, and rent	17.6%	16.7%	-0.9%
U.S.	Transfer Income	12.7%	18.5%	5.8%
VT	Transfer Income	14.1%	20.9%	6.7%
B-SB MSA	Transfer income	10.7%	16.3%	5.6%
U.S.	Wage and salary	56.4%	51.8%	-4.6%
VT	Wage and salary	51.7%	48.2%	-3.5%
B-SB MSA	Wage and salary	62.4%	58.7%	-3.6%
U.S.	Proprietors' income	9.6%	8.4%	-1.2%
VT	Proprietors' income	10.6%	7.8%	-2.7%
B-SB MSA	Proprietors' income	10.1%	7.0%	-3.1%

Wage and Salary Income

Turning now to wage and salary income in Chittenden County over the past several years, one notes in Figure 4.3 that following the loss of income associated with the most recent

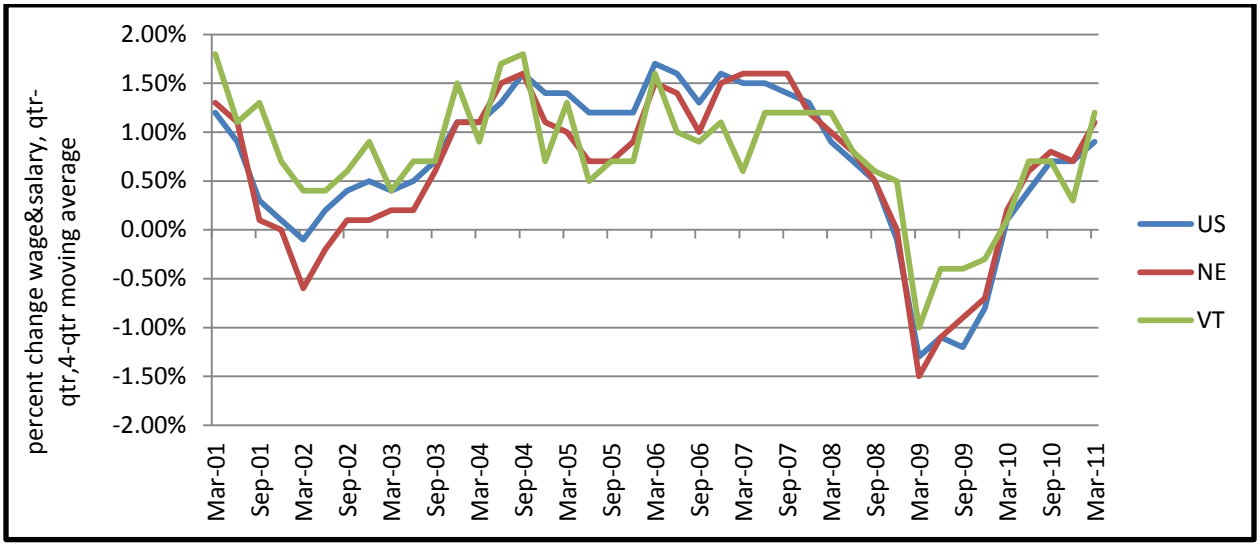
recession, growth has picked up but total wages paid in the County are still somewhat below the recent peak.

Figure 4.3 - Wage growth has turned positive in the County over the past few quarters
Source: U.S. Bureau of Labor Statistics



The impact of the "Great Recession" on wages is illustrated in Figure 4.4 on the following page where the change in a four-quarter moving average is charted. During both the recessions that ended in 2001 and 2009, the State of Vermont fared better than New England and the U.S. In the 2001 downturn salary growth in the state declined but not as sharply nor as deeply compared to the region and the nation and, although wage and salary income declined, it never went negative as did the other two areas.

Figure 4.4 - Quarter-to-quarter change in wage and salary growth
Source: U.S. Bureau of Economic Analysis



The impact of the 2007-2009 recession on wages is quite dramatic with a precipitous decline over two quarters followed by fairly steady recovery since the low point in 2009:Q1. It should be noted that although wage growth slid into negative territory in Vermont, the drop was one-third less than in New England. Vermont's recovery started earlier than both New England and the U.S.

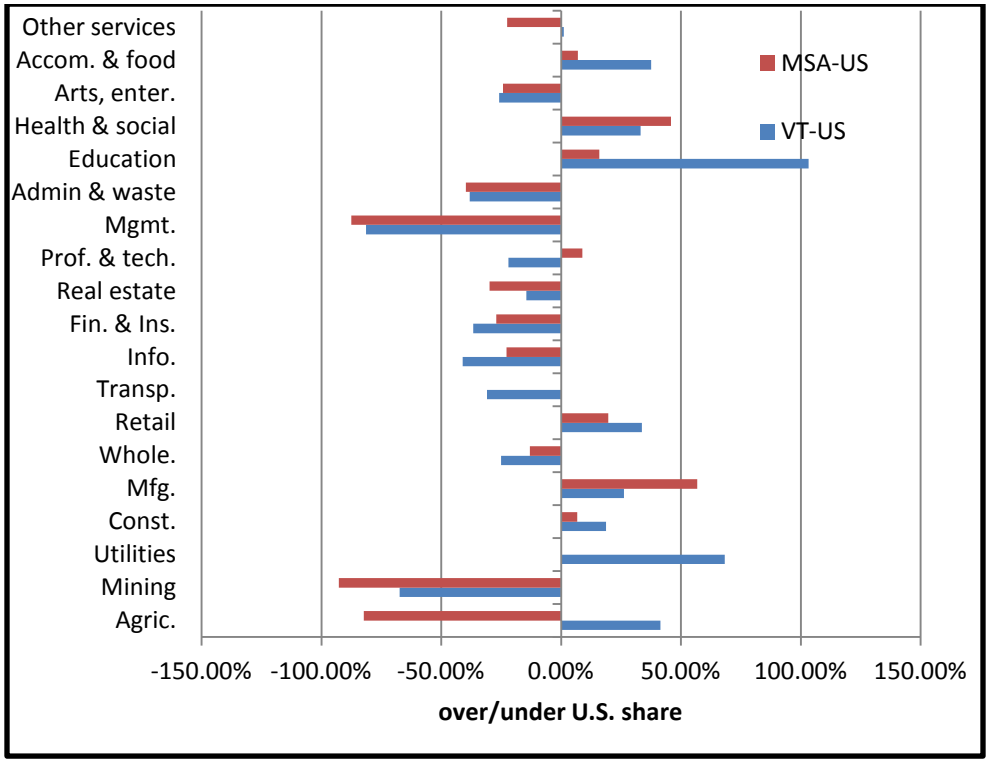
As a result of lost manufacturing jobs, the share of total wages accounted for by this sector has declined noticeably, as shown in Table 4.2. In 2001 manufacturing businesses accounted for more than 25 percent of all wages paid in the county. By 2009 manufacturing's share of total private sector wages had fallen to 16.7 percent, a decline of 8.6 percentage points – the greatest loss among all sectors in the County. Construction slipped a little as well, due primarily to the bursting of the housing bubble.

Table 4.2 - Shifts in industry share of total wages (000) in Chittenden County
Source: U.S. Bureau of Economic Analysis

Selected Industries	2001	Share	2009	Share	PP Shift
Manufacturing	$1,090,025	25.3%	$915,485	16.7%	-8.6%
Government	$657,782	15.3%	$1,055,534	19.3%	4.0%
Health care & social assist.	$468,710	10.9%	$856,963	15.7%	4.8%
Professional, scientific & tech.	$359,846	8.4%	$513,474	9.4%	1.0%
Retail trade	$322,178	7.5%	$406,827	7.4%	0.0%
Construction	$257,299	6.0%	$270,195	4.9%	-1.0%
Finance and insurance	$234,208	5.4%	$297,277	5.4%	0.0%
Wholesale trade	$182,651	4.2%	$242,093	4.4%	0.2%
Total		**83.0%**		**83.3%**	

The data in Figure 4.5 depicts the extent to which selected industry wages as a share of total wages in the County and the State are higher or lower than the national industry share. For example, the share of wages originating from the education sector is more than twice as high in Vermont as it is in the nation. Although the education share of total wages in the County is higher compared to the U.S., it is nowhere near as high as the state ratio. The importance of this sector in the state economy is higher than any other sector.

Figure 4.5 - Wage concentration in the MSA relative to the U.S.
Source: U.S. Bureau of Economic Analysis



Overall Chittenden County is in good shape on most measures of income growth relative to both Vermont and the U.S. The presence of health care and educational institutions provides a measure of job and income security during these hard times. Because it is the shopping hub for a multi-county region, there is a slightly higher dependence on retail sector wages. Unfortunately, the average wage in retail is quite low and many positions do not include benefits, although they do provide entry level jobs for many people.

Table 4.3 Comparison of regions based on various wealth measures
Source: U.S. Bureaus of the Census and Economic Analysis (various years)

	CC	VT	US
Per capita money income	$30,685	$27,036	$27,041
Median household income	$60,182	$51,219	$50,221
Poverty rate	10.6%	11.5%	14.3%
Homeownership rate	67.3%	71.8%	66.9%
Median value of housing	$246,000	$200,600	$185,400

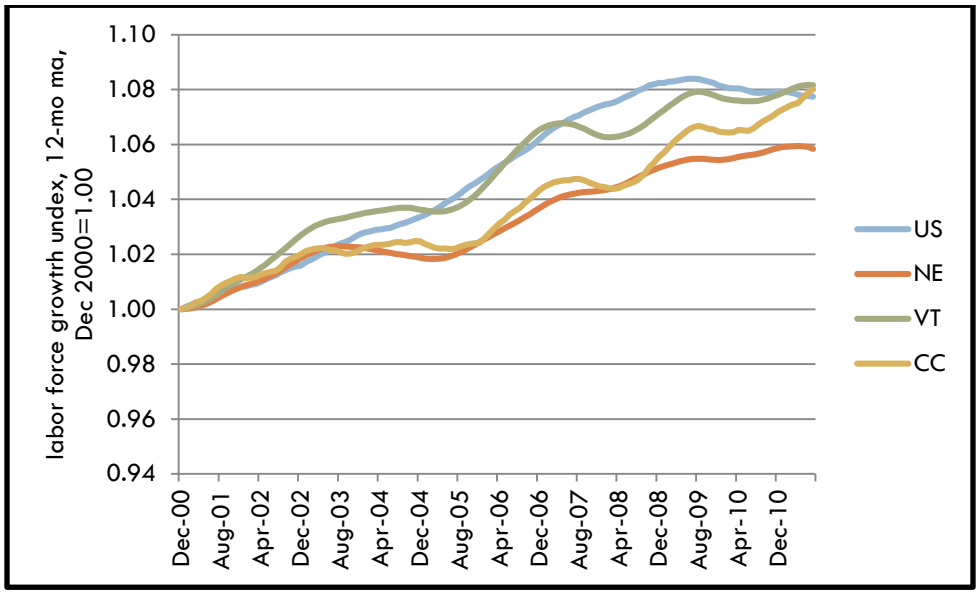
5.0 LABOR FORCE

The data and analysis in this section reference the people who reside in Chittenden County, regardless of where they may work. In Section 2.0 on Employment, the focus is on jobs located in Chittenden County, regardless of where the job holders may live. The labor force includes all persons 16 years of age and older who are employed or are available for employment, except armed services personnel.

Unlike employment figures, which are based on establishment surveys that count the number of jobs on establishment payrolls, labor force figures are based on household surveys and reflect the number of individuals who have jobs or are looking for work. These two series diverge because some individuals in the labor force have more than one job (counted once in the labor force but more than once in payroll employment), are self-employed (counted in the labor force but not in payroll employment), commute across state lines to work (counted in the workplace state's payroll employment but not in the residence state's labor force), or are unemployed (counted in the labor force but not in payroll employment).

Figure 5.1 on the following page shows that Chittenden County had been lagging the Vermont and U.S. in terms of labor force growth in the middle part of the 2000 – 2010 decade, but is now out-performing the U.S. and New England and is equal to Vermont.

Figure 5.1-Vermont and Chittenden County are out-performing New England in labor force growth
Source: Boston Federal Reserve

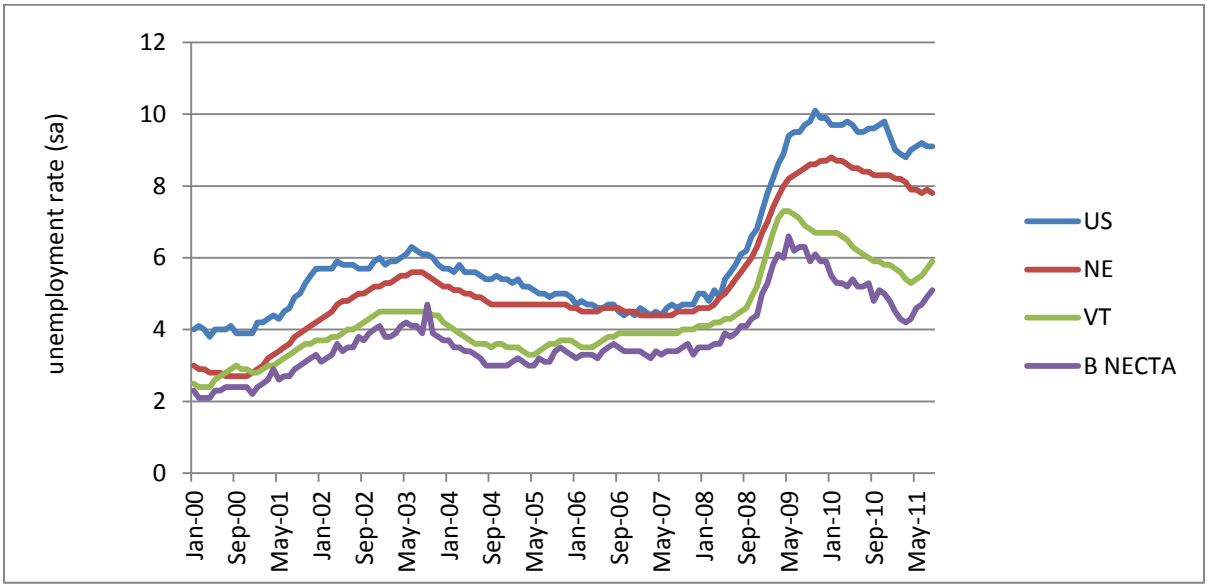


Unemployment

The unemployment rate in the Burlington NECTA, the state, New England and the U.S. tracked closely from 2000 through the middle of 2008, the beginning of the financial crisis at which point all four areas experienced a sharp spike in rates, although the situation in Vermont and the Burlington NECTA was much better than was the case in New England and the U.S (see Figure 5.2). Further, the local rates started improving earlier and at a quicker rate than in either New England or the nation, both of which remain stubbornly above 8.0 percent. One reason the Burlington region fared better than the country may be because the local real estate market was not as susceptible to the national bubble and, hence, it did not have as far to fall and was quicker to rebound (see Section 7 on Housing for more detail).

The unemployment rate has increased slightly over the past few months, both locally and statewide.

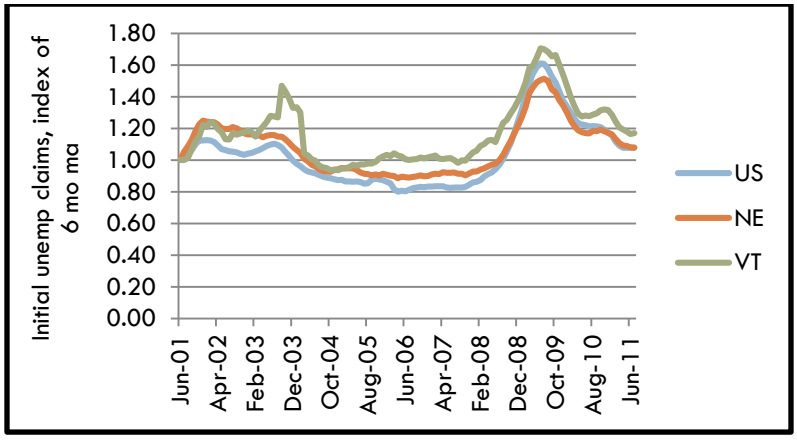
Figure 5.2 - The unemployment rate in the region and VT is much lower than New England or U.S.
Source: Boston Federal Reserve



Data on initial unemployment claims is a widely used measure of job market and general economic conditions. This indicator provides a reasonably accurate indicator of economic health. Initial claims filings influence future economic activity in that if more people lose their jobs each week and are applying for unemployment compensation, this will eventually dampen consumer spirits, slash their spending, and cause business to pare back investments and employment.

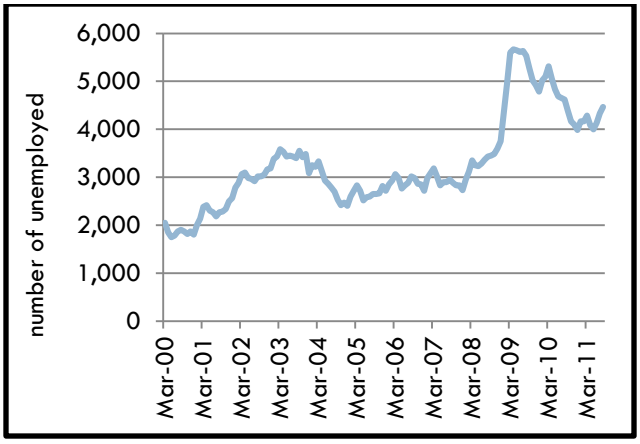
As Figure 5.3 illustrates, this activity spiked sharply at the onset of the 2007-2009 recession and then declined almost as quickly, although currently it remains above trend and Vermont is not doing quite as well as New England and the nation.

5.3 - Initial unemployment claims have fallen sharply since peaking in 2009
Source: Boston Federal Reserve



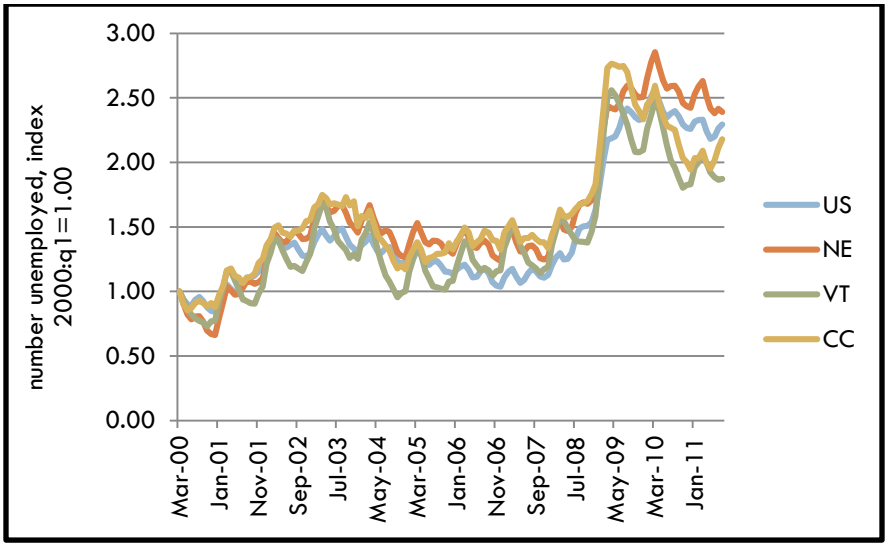
When reviewing the statistics related to the employment situation it is easy to overlook the human dimension behind the dry data. Figure 5.4 on the following page shows the actual count of unemployed people in Chittenden County who may or may not be collecting unemployment benefits. During the worst of the downturn the number of unemployed workers rose to almost 6,000 and has subsequently fallen to about 4,000, still almost one-third higher than before the financial crisis. The social and economic consequences of long-term unemployment are well known and the human service agencies can attest to the increased and ongoing demand for their services.

Figure 5.4 - Despite improvement, the number of unemployed workers in the County remains high
Source: U.S. Bureau of Labor Statistics



The situation with the level of unemployed persons is fairly consistent across all geographies, as shown in Figure 5.5. The number of unemployed workers in all areas remains unacceptably high relative to its historic trend and that will adversely impact workers and families for some time to come.

Figure 5.5 - The number of unemployed remains higher than it has historically across all areas
Source: U.S. Bureau of Labor Statistics

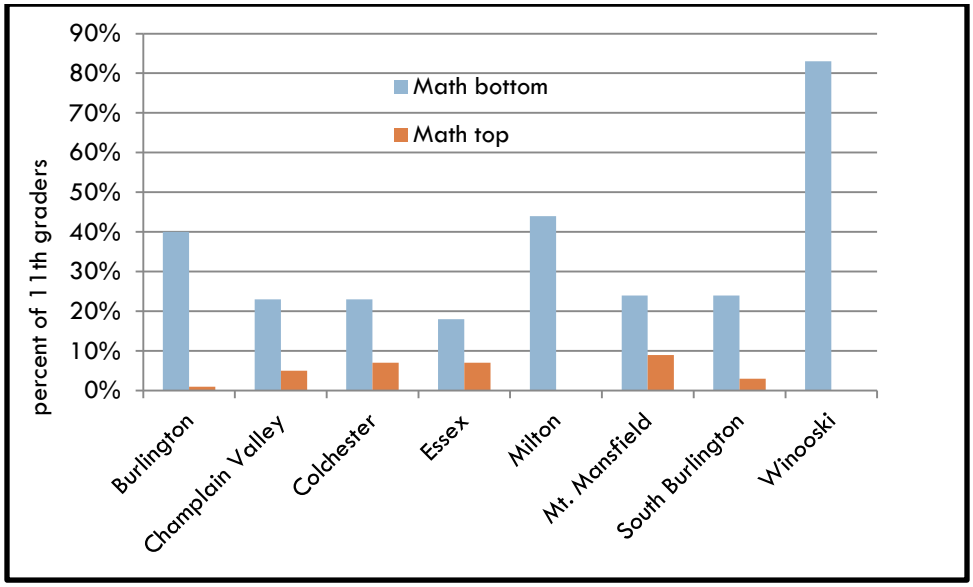


Future Labor Force Quality

Although the regional labor force is currently productive and well-educated, there is reason to be concerned about the quality of the future labor force enrolled in many of the County's school districts. As reported in the *Vermont Economic and Demographic Profiles Series 2011*, a publication of the Vermont Department of Labor, the proportion of high school juniors rated "substantially below proficient" (shown in Figures 5.6 and 5.7 as the "bottom") is many times higher than the proportion of students rated "proficient with distinction" (shown in Figures 5.6 and 5.7 as the "top").

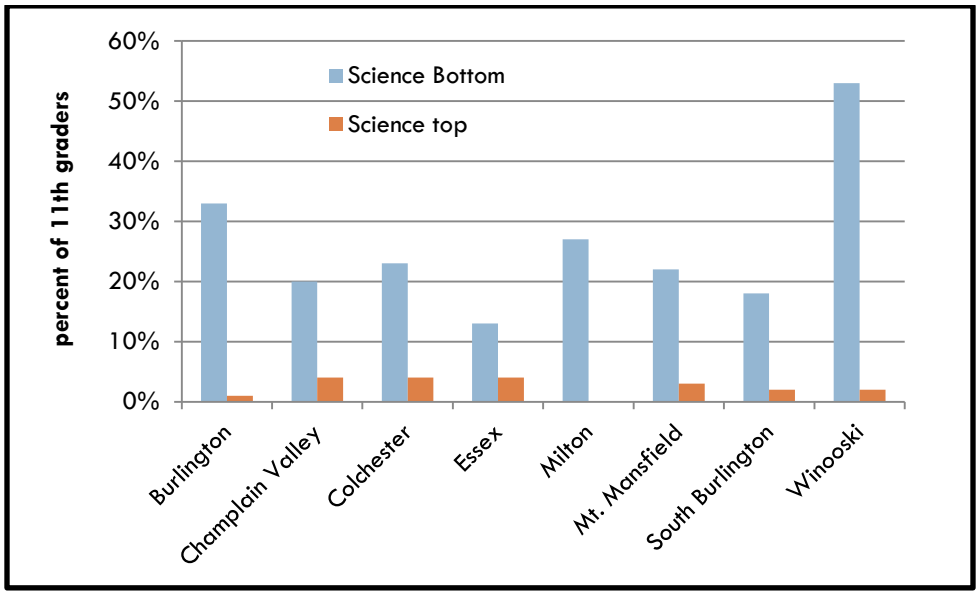
For math scores, Winooski is the lowest scoring high school with 83 percent of test takers falling in the bottom group and zero percent falling in the highest group. Milton also failed to place anyone in the top group for math.

Figure 5.6 - The ratio of high scores to low scores for math is heavily skewed to the bottom
Source: VT Department of Labor



The story is the same with science scores as shown in Figure 5.7 where one finds that Winooski again has the largest proportion of students falling in the bottom group. Essex, the best performing high school based on these data, still had more than three times as many test-takers in the bottom group than in the top group.

Figure 5.7 - The ratio of high scores to low scores for science is heavily skewed to the bottom
Source: VT Department of Labor, *2011 Economic-Demographic*



It is widely held that the current and future economy is, and will be, based on technology and innovation. Technology and innovation, in turn, are highly dependent on science and math skills, which are noticeably deficient among high school juniors in Chittenden County. For many future jobs, mastery of math and science will be an essential skill

6.0 GROSS DOMESTIC PRODUCT (GDP)

Gross Domestic Product is defined as "The total market value of all final goods and services produced in a country [or region] in a given year, equal to total consumer, investment and government spending, plus the value of exports, minus the value of imports.

The gross domestic product (GDP) is the broadest indicator of economic output and growth. It covers the goods and services produced and consumed in private, public, domestic and international sectors of the economy. In the U.S., national GDP estimates are produced quarterly and annually, and revised at least twice. Second quarter national estimates for 2011 GDP were released at the end of July, 2011. States' GDP estimates are produced annually and typically lag the national estimates by a year. The most recent data for states is for calendar year 2010 and were released in June, 2011. GDP estimates for metropolitan statistical areas (MSAs) are produced annually as well and the most recent MSA data is for 2009. In every case GDP estimates are produced by the U.S. Bureau of Economic Analysis, an agency within the U.S. Department of Commerce.

Although there are legitimate criticisms regarding the use of GDP as an overall indicator of economic growth and well-being, it remains a useful metric with which to gauge performance. The reader is cautioned to keep in mind that this is but one of many metrics which speak to economic conditions, and not to rely on just these data.

Relevant GDP data for this project are shown in Table 6.1 which contains data on the state, the Burlington-South Burlington (B-SB) MSA, and the balance of the state after subtracting the B-SB MSA data.

There are a few facts here that warrant a brief mention. First, the MSA accounts for more than 40 percent of Vermont GDP, and this ratio increased slightly between 2001 and 2009, from 41.1 percent to 41.4 percent. Second, GDP growth in the MSA exceeded both that of the state and the balance of the state (VT minus the B-SB MSA). Finally, the B-SB MSA accounted for 42.4 percent of state GDP growth during this period. Clearly, Chittenden County's role in the state economy is huge.

Table 6.1 - Nominal GDP growth: 2001-2009 ($$ millions)
Source: U.S. Bureau of Economic Analysis

	2001	2009	Change	% Change
VT	$18,829	$25,121	$6,292	33.4%
VT minus B-SB	$11,096	$14,721	$3,625	32.7%
B-SB MSA	$7,733	$10,400	$2,667	34.5%
MSA/state	41.1%	41.4%	42.4%	

Because there are significant scale differences between state and sub-state data, economists and other analysts find it useful to control for size differences by calculating GDP on a per capita basis. This allows for more of an "apples-to-apples" comparison.

On a GDP per capita basis, the B-SB MSA has been doing quite well compared to both the state and the nation, as shown in Table 6.2. In 2009 the B-SB MSA GDP per capita ratio was close to $50,000, more than $10,000 higher than the Vermont ratio and $4,000 greater than the U.S. ratio. In part, this may be due to the impact of IBM which exports its high value products worldwide.

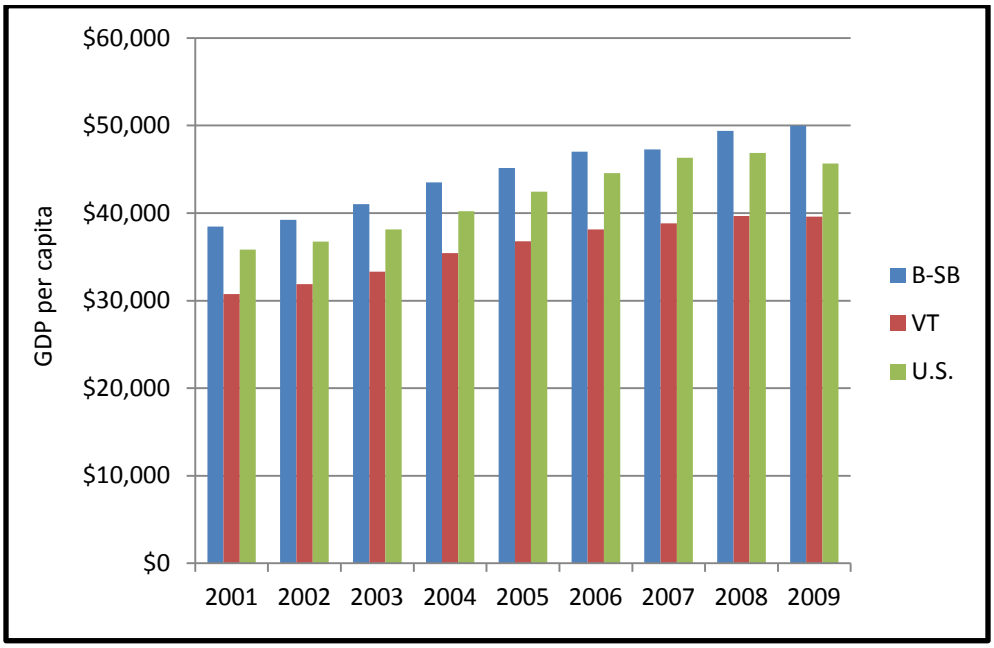
Table 6.2 - GDP per capita: 2001 and 2009
Sources: U.S. Census and BEA

	2001	2009	Change	% Change
B-SB MSA	$38,455	$49,987	$11,532	30.0%
VT	$30,759	$39,605	$8,847	28.8%
U.S.	$35,842	$45,650	$9,808	27.4%
As % VT	125.02%	126.21%		
As % U.S.	107.29%	109.50%		

Between 2001 and 2009 the MSA had stronger growth than both the state and the nation. High ratios typically reflect some combination of skilled workforce and high value-added industries. It was noted in the section on Demographics that the region has a very high level of adults with college education and this plays a key role in understanding the very high GDP per capita values for the region.

As shown in Figure 6.1, the MSA has consistently out-performed both the state and the nation over the past several years in terms of GDP per capita.

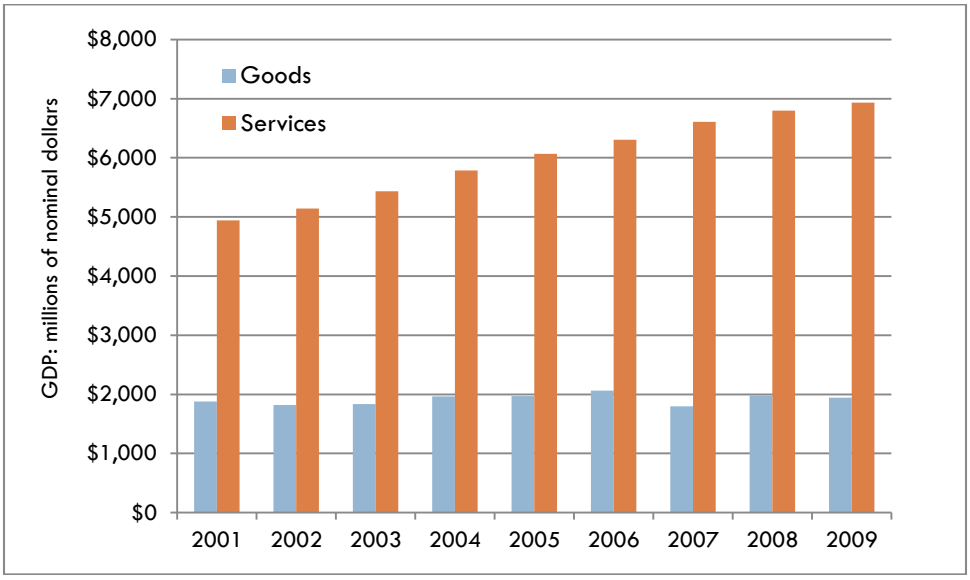
Figure 6.1 - The MSA maintains a strong lead in GDP per capita relative to the state and the nation
Source: U.S. Bureau of Economic Analysis



Between 2001 and 2009 GDP growth in the Burlington-South Burlington MSA has been driven by the service sector, as shown in Figure 6.2. This Figure shows the annual GDP estimates for the goods-producing and services-producing sectors of the regional economy. During the time period shown, growth in the region has been entirely dependent on services which, in nominal terms, have increased by $2 billion, or about 40 percent between 2001 and 2009. The goods producing sectors (e.g., manufacturing, construction, agriculture, etc.) have remained basically unchanged during this period. Since these are nominal values, it follows that inflation-adjusted output has fallen during this interval.

Figure 6.2 - Growth in the B-SB MSA has come entirely from services

Source: U.S. Bureau of Economic Analysis



Examining GDP by industry sector for the State of Vermont, as shown in Table 6.3, provides a somewhat different perspective on the composition of the State economy (note: this level of industry detail is not available for the Burlington-South Burlington MSA). In 2001 manufacturing was the largest segment of the economy but, by 2010, it had shrunk to the point that it was virtually tied with health care services. Real estate, the largest sector in 2010, is a little different from the other sectors in that it includes the rent paid towards housing, and the imputed value of rent paid by home owners.

Table 6.3 - Vermont GDP by Sector
Source: U.S. Bureau of Economic Analysis

Industry	2001	2010	% shift
Manuf.	16.9%	12.9%	-4.0%
Real estate	13.9%	15.1%	1.2%
Retail	9.5%	9.3%	-0.3%
Health care	9.5%	12.7%	3.2%
Finance & ins.	7.1%	7.6%	0.5%
Prof. & technical	6.3%	7.8%	1.5%
Construction	5.8%	4.3%	-1.6%
Wholesale	5.6%	5.5%	-0.1%
Accom. & food	5.4%	5.0%	-0.4%
Information	4.1%	3.3%	-0.8%
Other services	3.2%	2.9%	-0.3%
Utilities	2.5%	3.1%	0.6%
Trans. & ware.	2.4%	2.4%	-0.1%
Education	2.3%	2.7%	0.4%
Admin. & waste	2.2%	2.2%	0.0%
Agriculture	1.9%	1.6%	-0.2%
Arts & entertain.	0.8%	0.9%	0.1%
Mining	0.3%	0.3%	0.0%
Mgmt. of companies	0.2%	0.5%	0.3%

Like many things, the cost of labor has increased over the past several years. In Table 6.4 data on wages and benefits are presented for the Burlington-South Burlington MSA (B-SB), the State of Vermont and the United States. The "Compensation of employees" line displays the total cost of wage and salary along with the cost of supplements, or benefits. Thus, line one in each block is the sum of lines two and three—actual wages plus the cost of benefits. Line three is broken down into two components, pension and insurance costs and the costs of government social insurance. Finally, line six shows the average compensation (wages and benefits) for all full- and part time-jobs for the two points in time.

Growth in each of these line items is fairly similar for the three jurisdictions; of particular interest, however, is the rapid increase in the cost of pension and insurance (shown in bold) – up between 55 and 60 percent. The largest share of this increase is most likely due to the price of health insurance, an item whose cost has risen steadily over the past few decades, far in excess of the rate of inflation. When businesses lament the cost of doing business, health insurance is typically at the top of the list, and these data certainly support that contention.

Table 6.4 – Wage and benefit outlays in the B-SB MSA increased between 2001 and 2009
Source: U.S. Bureau of Economic Analysis

Line	Area	Description	2001	2009	Change
1	B-SB	Compensation of employees, 000s	$4,888,436	$6,363,497	30.2%
2	B-SB	Total wage and salary disbursements	$4,024,579	$5,105,722	26.9%
3	B-SB	Total supplements to wages and salaries	$863,857	$1,257,775	45.6%
4	B-SB	**Employer contributions for pension & insurance**	**$549,370**	**$856,688**	**55.9%**
5	B-SB	Employer contributions for govt. social insurance	$314,487	$401,087	27.5%
6	B-SB	Average compensation per job (dollars)	$40,907	$53,702	31.3%
1	VT	Compensation of employees, 000s	$11,381,035	$14,814,963	30.2%
2	VT	Total wage and salary disbursements	$9,345,147	$11,864,357	27.0%
3	VT	Total supplements to wages and salaries	$2,035,888	$2,950,606	44.9%
4	VT	**Employer contributions for pension & insurance**	**$1,296,553**	**$2,001,722**	**54.4%**
5	VT	Employer contributions for govt. social insurance	$739,335	$948,884	28.3%
6	VT	Average compensation per job (dollars)	$35,965	$47,605	32.4%
1	US	Compensation of employees, 000s	$5,970,354,000	$7,788,815,000	30.5%
2	US	Total wage and salary disbursements	$4,948,357,000	$6,266,732,000	26.6%
3	US	Total supplements to wages and salaries	$1,021,997,000	$1,522,083,000	48.9%
4	US	**Employer contributions for pension & insurance**	**$664,549,000**	**$1,062,315,000**	**59.9%**
5	US	Employer contributions for govt. social insurance	$357,448,000	$459,768,000	28.6%
6	US	Average compensation per job (dollars)	$43,477	$56,962	31.0%

Table 6.5 contains data on GDP arising from all private sector industries and government for the B-SB MSA, the State of Vermont and the U.S (government GDP is based on the size of the annual budget). For each area, data are provided for both 2001 and 2009, and the absolute and relative changes are also displayed. For both the MSA and the State, total GDP growth was less than that of the U.S. While the U.S. growth was 37.2 percent, the MSA and the state were 32.2 percent and 30.8 percent, respectively.

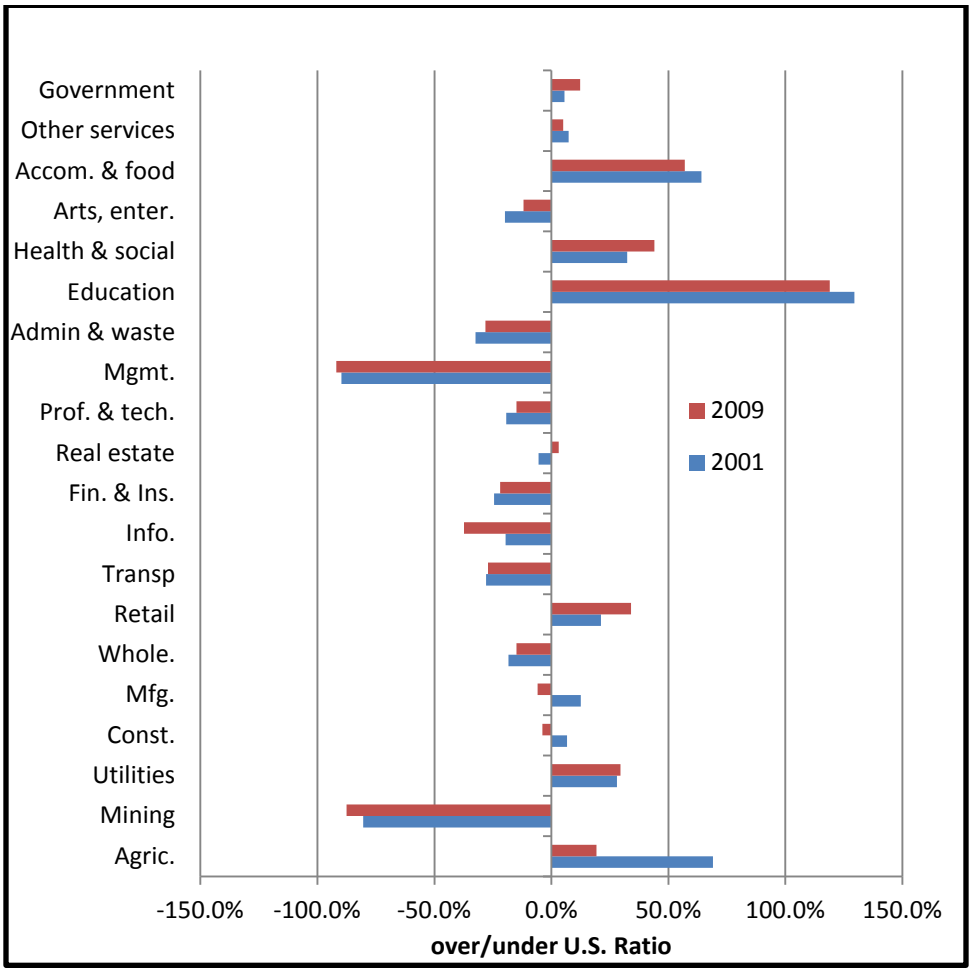
In each jurisdiction the private sector share of total GDP has fallen by as much as 2.4 percentage points in the B-SB MSA and as little as 1.2 percentage points for the nation. In each of the three areas growth in government GDP has likely been driven in large part by increased federal military expenditures, presumably reflecting the cost of Mideast hostilities.

Table 6.5 - GDP arising from public and private sectors (millions of dollars)
Source: U.S. Bureau of Economic Analysis

		2001	2009	Change	%
B-SB	All industry total	$7,733	$10,226	$2,493	32.2%
B-SB	Private industries	$6,824	$8,778	$1,954	28.6%
B-SB	Private share	88.2%	85.8%	78.4%	
B-SB	Government	$909	$1,448	$539	59.3%
B-SB	Federal civilian	$207	$349	$142	68.6%
B-SB	Federal military	$35	$73	$38	108.6%
B-SB	State and local	$666	$1,026	$360	54.1%
VT	All industry total	$18,829	$24,625	$5,796	30.8%
VT	Private industries	$16,481	$21,038	$4,557	27.7%
VT	Private share	87.5%	85.4%	78.6%	
VT	Government	$2,348	$3,587	$1,239	52.8%
VT	Federal civilian	$426	$677	$251	58.9%
VT	Federal military	$107	$246	$139	129.9%
VT	State and local	$1,816	$2,663	$847	46.6%
US	All industry total	$10,218,019	$14,014,849	$3,796,830	37.2%
US	Private industries	$9,010,772	$12,196,534	$3,185,762	35.4%
US	Private share	88.2%	87.0%	83.9%	
US	Government	$1,207,247	$1,818,315	$611,068	50.6%
US	Federal civilian	$218,101	$317,473	$99,372	45.6%
US	Federal military	$98,835	$189,869	$91,034	92.1%
US	State and local	$890,311	$1,310,973	$420,662	47.2%

The data in Figure 6.3 show the extent to which the GDP in Vermont is over or under the national ratio. For example, the accommodations and food industry's share of GDP is more than 50 percent higher than is the case nationally, indicative perhaps of the importance of tourism in the state's economy. Those industries with higher concentrations are frequently areas of specialization in which the state is producing more goods or services than can be consumed locally and some of the output is being sold out-of-state or is being consumed by visitors to the state. In either case it represents an influx of new money into the Vermont economy which is necessary in order to keep the local economy growing. These data are not available in comparable detail for the B-SB MSA or for Chittenden County.

Figure 6.3 - Differences in GDP composition: VT and U.S.
Source: U.S. Bureau of Economic Analysis



Summary

On most GDP metrics the B-SB MSA has been quite competitive and, because it accounts for more than 40 percent of Vermont's GDP, it is a linchpin of the state economy. The MSA accounted for more than 42 percent of state GDP growth between 2001 and 2009.

With a GDP per capita ratio of almost $50,000 the MSA is almost 10 percent higher than the U.S. and 26 percent higher than the state. With 30 percent growth in this ratio during this interval the MSA has outperformed both the state and the nation each year during the 2001 to 2009 period.

As with most of the country, GDP growth in the MSA has been driven entirely by service-producing industries. Goods-producing industries, such as manufacturing and agriculture, account for a steadily declining share of GDP in the MSA, the State and the nation. The educational services and food and accommodations industries are areas of significant specialization within the Vermont and regional economy. The share of GDP arising from the public sector has increased somewhat for the MSA, the state and the nation, although the shifts have been larger than with the U.S.

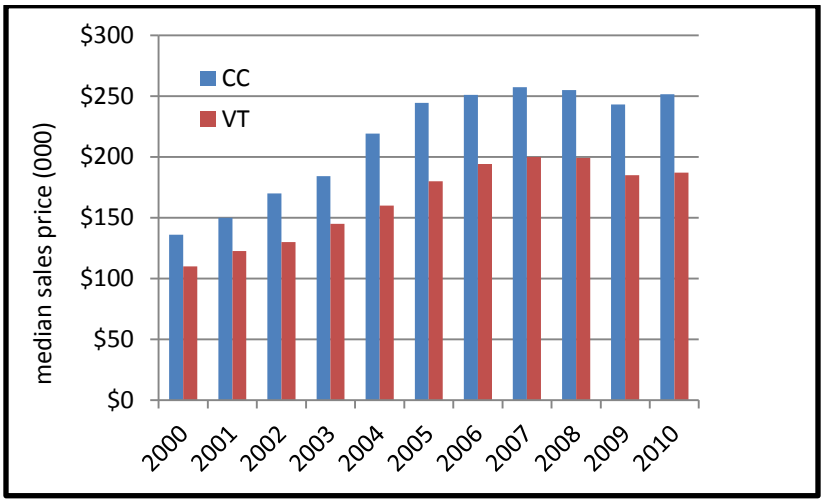
7.0 HOUSING

The availability and affordability of housing in any area has a significant impact on its attractiveness for both employers and employees. The problems of the U.S. housing market over the past few years has further complicated this dynamic – home equities have declined significantly, foreclosure activity is at a historic high, new permit activity is at historic lows, as are the jobs associated with home construction. As if this were not enough, currently millions of households across the nation are underwater – that is, they owe more on their mortgages than their houses are worth. This essentially traps families as they are unable to move to take advantage of employment opportunities elsewhere. Vermont, and particularly Chittenden County, have largely escaped the worst of this debacle. According to the Kaiser Family Foundation, Vermont had the lowest foreclosure rate in the nation in 2010.

Although prices are certainly lower than they were a few years ago and, because nationally the market is awash with much more housing than can be absorbed within the short term, prices will be slow to rebound to their previous highs. Despite the dim prospects for a quick recovery in housing prices, there are some encouraging signs that the rate of decline has abated somewhat in Chittenden County and Vermont.

Recovery in any market begins once the decline stops and, as the data in Figure 7.1 on the following page suggest, the decline in housing prices, such as it was, appears to have halted, with both the County and the State having a slight improvement in sales prices in 2010. Prices in 2010 were only slightly below their 2007 peak (-1.0 precent in the county and -6.9 percent in the state). Prices in Chittenden County were 24 percent higher than the Vermont median in 2000 and were 34 percent higher in 2010. The impact of the housing crisis has been slight in Vermont and negligible in the County.

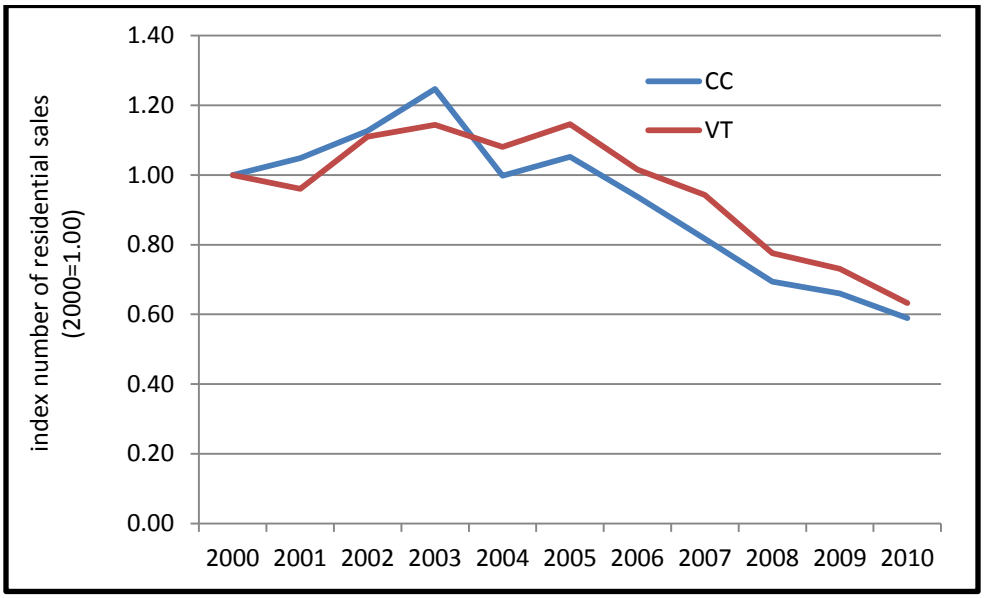
Figure 7.1 - Median home prices in Chittenden County and Vermont
Source: Vermont Department of Taxes



The 2007-2009 recession and sluggish recovery has affected overall activity with regard to sales volume and number of permits. Figure 7.2 shows that the number of sales has

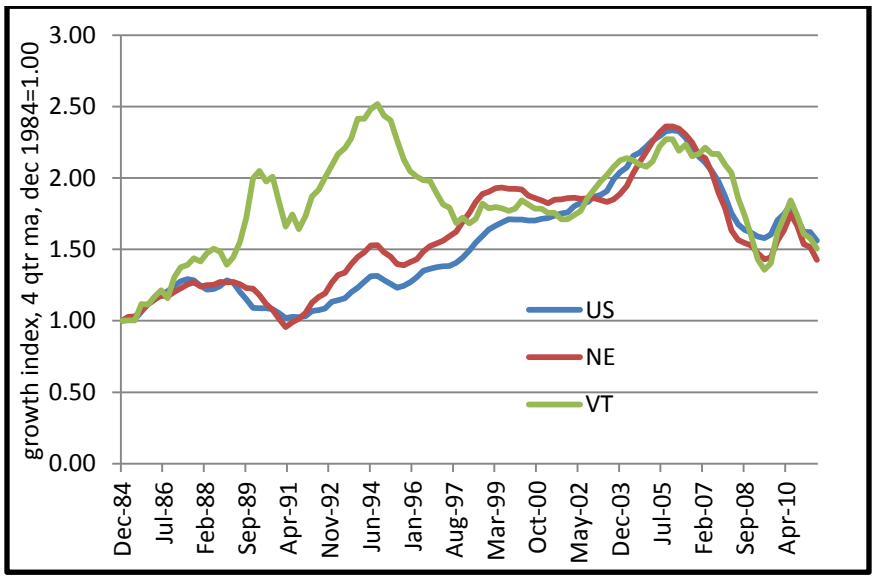
declined significantly since 2000, down about 40 percent for both the State and the County. It is likely that the decline in sales volume is related to more stringent criteria on the part of lenders.

Figure 7.2 - Number of home sales: 2000-2010
Source: Vermont Department of Taxes



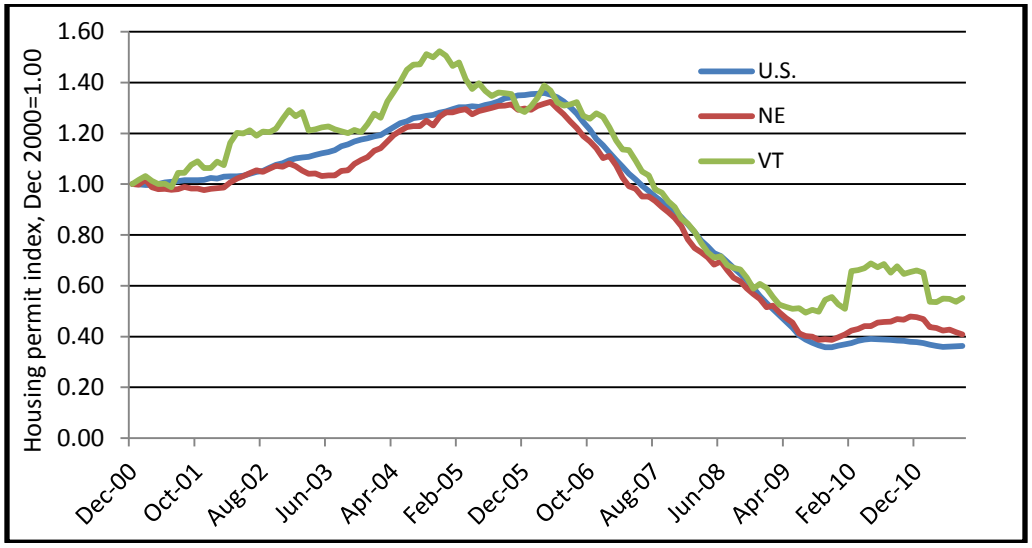
When comparing Vermont's sales volume with those of New England and the U.S. (see Figure 7.3), one finds similar trends across the three areas for about the past 15 years. Although home prices have remained strong in the State, the rate of decline in the number of sales has been at a uniform rate everywhere.

Figure 7.3 - Sales of existing homes
Source: Federal Reserve Bank of Boston



With regard to housing permit activity the trends have been similar across the State, the region and country for the past several years, as shown in Figure 7.4. Vermont, however, pulled out of its slide earlier than New England and the U.S. and, although there is scant evidence of improvement the fact that the decline has abated is welcome news.

Figure 7.4 - Housing permit activity has stabilized in over the past two years
Source: Federal Reserve Bank of Boston



These data are 12-month moving-averages that control for monthly and seasonal fluctuations thus enabling one to assess underlying trends.

In sum, the housing situation in Chittenden County and the State of Vermont is favorable compared to other regions of the country that had much higher price run-ups and more speculative investment. There is a downside to high prices in the County – respondents to an employer survey conducted as part of this project indicated that house prices made it difficult to recruit workers and businesses to the region. On the other hand, the shortage of executive and professional level housing at costs comparable to other parts of the country was also noted as an issue impacting recruiting.

APPENDIX A - A WORD ABOUT GEOGRAPHY

Although the focus of this analysis is Chittenden County, it has been necessary to resort to a few other geographic configurations due to data availability. These regional entities are described below.

Metropolitan Statistical Area (MSA)

These are county or multi-county regions designated by the federal government based on the decennial census. The underlying concept is that MSAs have a certain level of economic interdependence based on the ability of people to live and work in the same region that ties them together. Vermont has a single MSA---the Burlington-South Burlington MSA. This region consists of Chittenden, Franklin and Grand Isle Counties. A great deal of the economic data produced by the U.S. Bureau of Economic Analysis is based on the MSA, or the economic region.

New England City and Town Area (NECTA)

A New England City and Town Area, or NECTA, is a geographic and statistical entity defined by the U.S. Office of Management and Budget, for use in describing aspects of the New England region of the United States. A NECTA is a region associated with a core urban area with a population of at least 10,000, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting and employment. There are two types of NECTAs – Metropolitan and Micropolitan. Although Vermont has four NECTAs, the Burlington-South Burlington NECTA is the only one classified as Metropolitan.

There are a total of 42 communities across the three regions and their affiliations are depicted in the table below.

Town	County	NECTA	MSA/LMA
Alburg			X
Bakersfield			X
Berkshire			X
Bolton	X	X	X
Buels Gore	X	X	X
Burlington	X	X	X
Charlotte	X	X	X
Colchester	X	X	X
Enosburgh			X
Essex	X	X	X
Fairfax		X	X
Fairfield			X
Ferrisburgh		X	X
Fletcher		X	X

Town	County	NECTA	MSA/LMA
Franklin			X
Georgia		X	X
Grand Isle town		X	X
Highgate			X
Hinesburg	X	X	X
Huntington	X	X	X
Isle LaMotte			X
Jericho	X	X	X
Milton	X		X
Monkton		X	
Montgomery			X
North Hero			X
Richford			X
Richmond	X	X	X
Shelburne	X	X	X
Sheldon		X	X
South Burlington	X	X	X
South Hero			X
St. Albans city		X	X
St. Albans town		X	X
St. George	X	X	X
Starksboro		X	
Swanton			X
Underhill	X	X	X
Vergennes		X	
Westford	X	X	X
Williston	X	X	X
Winooski	X	X	X