Housing Prices, Availability, and Affordability in Vermont

Prepared for the Vermont Business Roundtable

by

Arthur Woolf, Ph.D., Northern Economic Consulting, Inc.
October 2000

The complete text of this document is available at www.vtroundtable.org

TABLE OF CONTENTS

Executive Summary

Housing cost, availability, and affordability have become increasingly important issues in Vermont. The unprecedented economic expansion, income growth, and concerns over open space and sprawl have contributed to a concern about housing that has not been seen in Vermont since the housing boom of the 1980s. That concern is manifested in uncertainty over the future availability of housing for middle and low income Vermonters and over the present level of housing inventory for sale in the state.

This study provides a detailed analysis of the housing market in Vermont in 1999 by (1) examining the cost and affordability of housing in the state's fourteen counties and (2) comparing the housing prices in Vermont to prices in other states. The study finds that despite many of the commonly-held perceptions, a large variety of housing at all price ranges exists throughout Vermont's counties. Prices vary widely among the state's fourteen counties, but houses in 1999 sold at price ranges affordable to middle, lower middle, and even lower income Vermonters. Despite this, housing is relatively more expensive in Vermont than in most other states, especially when Vermonters' incomes and ability to pay are factored into the affordability equation.

The study analyzes the owner-occupied housing market in Vermont by studying the nearly 8,000 residential houses sold in Vermont in 1999. It does not investigate the rental market in Vermont because of the lack of good information on rents, the stock of rental units, or the number of units available for rent in any month.

Among the findings of this study are:

- Median housing prices in Vermont vary by county, ranging from a low of $65,000 in Essex County to a high of $145,000 in Grand Isle County.

- The median price — the price at which half the houses sold are more expensive and half are less expensive — is a much better measure of the average house price than is the mean price. The mean is affected by the sale of some very expensive houses, while the median is not. Mean prices are 15 to 20 percent higher than median prices, and in Bennington County the difference is 36 percent. Measuring housing expense or affordability by using mean instead of median prices makes affordability look worse than it actually is.

- Condominiums represent a low cost alternative to traditional owner-occupied housing, but condominiums are an important part of the housing stock only in Chittenden County.

- Housing is affordable throughout the state. In most counties, a median income family purchasing the median priced house would pay between 12 and 15 percent of its income to service the mortgage payments on the house. That is well within the limits that banks will lend to a family for a mortgage, which ranges up to 30 percent of income.

- There is housing available at all price ranges in all counties. Housing prices are not concentrated tightly around the median price.

- Housing was widely available for lower middle income families in 1999. A family earning 75 percent of the county median income could afford to buy half the houses sold in eight of Vermont's counties in 1999 with a five percent down payment and a VHFA backed mortgage. In the remaining five counties, that family could afford to buy more than one third of all the houses sold in 1999. The resulting mortgage would absorb 20 percent of the family's income. An Addison County family could earn 75 percent of the county median income by having one spouse working full time earning $12.50 per hour and the other spouse working half time earning $8.50 per hour.

- Owner-occupied housing also exists for lower income families. A family earning 50 percent of the county median income could afford to purchase 20 percent of the houses sold in eight counties and between 10 and 20 percent in the remaining four counties.

- A detailed examination of town level housing prices in two counties finds that low cost housing is dispersed throughout the towns in Rutland and Chittenden Counties. Low cost housing is not disproportionately concentrated in either the urban core or the rural fringe towns.

- Despite the availability of lower cost housing in Vermont's counties, housing in Vermont as a whole is expensive relative to other states. Vermont's median house price is 19th highest in the nation, while our median household income is 23rd highest in the nation. The result is that our housing affordability is 17th worst in the nation.

- Although a great deal of affordably priced housing exists throughout the state, if Vermont's housing prices more closely mirrored most other states, housing would be even more affordably priced for middle and lower income homebuyers.

- Although the share of Vermont households that own their own homes is higher than the national average, Vermont's homeownership rate fell through the 1990s while the national homeownership rate rose.

- Housing prices and homeownership rates are driven in part by public policies that can make housing more expensive and therefore reduce homeownership rates. Policies that raise housing prices result in a state economy that is less competitive with other states and diminish the ability of the state's residents to realize the goal of owning their own home.

- An increase in the supply of housing will reduce the rate of price increase or reduce the price of housing. Conversely, regulations or policies that limit or restrict housing construction will result in higher prices at all price ranges. Limitations on housing supply raise housing prices across the spectrum because of clear linkages between the market for new and existing housing.

I. Introduction

The goal of owning one's home is central to most families' plans and definition of personal success. In the economic boom of the 1980s, many felt that housing was increasingly unaffordable as housing prices skyrocketed. With the recession of the late 1980s and early 1990s, housing prices stopped rising, and even fell. But in the booming economy of the late 1990s and at the turn of the new century, many Vermonters are again worried that housing is becoming increasingly unaffordable.

Housing is important not just as an expression of family aspirations, but it is also an important part of the state economy. Construction, of which housing is an important part, directly supports about 15,000 jobs in Vermont and indirectly many thousands more. Because buying a house is the single most expensive purchase that most Vermonters will make during their lifetime, the cost of housing also represents a major part of family budgets, especially for younger families.

Because of the central role and cost that housing and shelter play in any family's life, housing also has important impacts on the competitiveness of any region's economy. If housing is expensive compared to other regions of the nation, firms will find it more difficult to keep and especially to recruit personnel. If housing is expensive in an absolute sense, fewer families will be able to afford to own their own homes, or the high amount they pay for their monthly mortgage means there is less available to spend on other goods and services

Unlike most other goods or services that people purchase, housing prices are directly affected by state and local regulatory and land use policies, which can affect the cost of construction and the cost of building lots. These policies, such as Act 250 permitting costs, local planning and zoning regulations, sewer and water policies, property tax rates, and subdivision regulations all affect the cost of new construction and, indirectly, the price of older homes.

The economic prosperity in Vermont, especially over the past five years, has affected the state's housing market. During the past two years, stories about the tight housing market have led to concerns about the impact of high housing prices on Vermonters' ability to own their own homes, on the ability of Vermont firms to recruit personnel from out of state, and on the affordability of housing for middle and lower income families. Articles in the media point to the low vacancy rate for rental apartments in the Burlington area and also to general real estate market conditions, with houses selling within days of being put on the market and the low inventory of houses for sale. In addition, executives of Vermont firms have reported difficulty attracting qualified workers, in part because of high housing prices and tight housing market conditions. Some have pointed to the growth in the number of extended stay hotels in the Chittenden County area as evidence of a lack of housing for workers being transferred into the area.

This study addresses a number of these issues by asking two basic questions. First, the study asks how expensive housing is in Vermont by examining the cost of housing in Vermont's

fourteen counties. It then looks at the affordability issues by comparing the price of housing to incomes in each county. The study finds that housing is surprisingly affordable for middle and lower middle income families and that a wide range of housing exists throughout Vermont.

Second, the study asks how expensive housing is in Vermont by comparing prices in Vermont to prices in other states. It also looks at metropolitan area housing prices by comparing the single metro area in Vermont, the Burlington area, to the other 316 metro areas in the U.S. It also analyzes the cost of housing relative to income using these two geographical comparisons. The study finds that housing in the Burlington metro area, and in Vermont as a whole, is expensive compared to elsewhere in the U.S. and when we compare the price of housing to the incomes people earn.

This finding is important for several reasons. First, it means that Vermonters are paying more for housing than are people living in most other parts of the nation. That means that they have less of their income available to spend on other goods and services in comparison to people living elsewhere. Second, it puts Vermont at a competitive disadvantage compared to other regions and states. Relative to the incomes people earn, and the wages that firms pay, housing is more expensive in Vermont. Firms, therefore, will find it more difficult to recruit workers from outside the region. And firms looking to locate in Vermont may decide that the higher cost of Vermont housing makes it a less attractive place in which to do business.

II. How Housing Markets Work

Housing prices, like the price of other goods and services in a market economy, are determined by the interactions of supply and demand. People's demand for owner occupied housing, the focus of this study, is primarily determined by the price of housing, population growth and household formation rates, and income growth. Today, population growth in Vermont is low, with growth averaging one-half of one percent per year during the 1990s. That is about half the national average population growth rate of 0.9 percent per year. Income growth has been strong as the U.S. and Vermont economies are in the midst of an economic expansion of unprecedented length. However, Vermont's income growth has been slightly lower than the U.S. average income growth during the last half of the 1990s, so we have not experienced any disproportionately high income growth that might put upward pressure on housing demand. Nonetheless, the sustained income growth of the 1990s expansion, which is continuing into the 2000s, does mean that more people can afford to purchase more expensive and higher quality, housing.

On the supply side, the key factors determining housing prices are the availability of housing that is vacated or offered for sale and the cost of new construction. Costs specific to new construction, such as the cost of land, development costs, construction and materials costs, clearly affect the cost of new homes. But they also affect the price of existing homes. When the cost of new construction rises, that will drive up the cost of existing housing, since new and existing housing are close substitutes for one another. If a new 2,000 square foot house on a one acre lot sells for $150,000, then an identical house on the same size lot in the same community that is three years old will sell for slightly less than $150,000, even if the original

cost of the house was $125,000. If, instead, the new house sells for $130,000, then the three year old house will sell for slightly less than $130,000.

New housing costs also affect the amount and price of existing housing through a process known as "filtering" by housing economists.[1] To briefly explain the filtering process, assume that in a community, there are three types of housing: high quality, moderate quality, and lower quality. Developers and builders will tend to build housing that is most profitable for them, which is generally high quality, high-priced housing. That high quality housing is purchased by people who currently live in moderate quality housing and want to move into more expensive housing. This then frees up that moderate quality housing for some other family to move into. That, in turn, means that a family living in the low quality housing can move up into the now-vacated moderate quality housing. Finally, this in turn frees up lower quality and lower cost housing for new homeowners, which means low quality housing, which is low cost housing, is made available. In popular terminology, affordable housing is created. This affordable housing is not created by new construction, but rather by the increased availability of lower quality housing, which is usually the older and cheaper housing in any community.

This brief explanation leads to a number of conclusions. First, there is a correlation between the price of housing and the incomes of people purchasing the housing. As people's incomes rise, they buy higher quality housing. Income, in turn, is correlated with age. People's incomes rise with their age, with income peaking when people are between 40 and 60. So owners of high quality housing tend to be middle-aged and residents of lower quality housing are younger homeowners. Second, as more housing is constructed, even if that housing is in the most expensive price ranges, more housing is made available at lower quality and lower price ranges.[2] That is, if the supply of housing rises, prices will either fall or not rise as fast. Third, the filtering model suggests that most lower priced housing (or affordable housing) is older housing that has filtered down the chain of housing qualities and prices.

An expanding economy with high housing demand need not lead to rapidly growing housing prices if the supply of housing matches the demand and the filtering process is allowed to work. States in the U.S. with high population growth, for example, are not necessarily those with high growth rates in housing prices. So Vermont's low population growth rate and less-than-average income growth do not point to a situation where housing prices should be rising rapidly.

This study examines these issues by looking at housing prices and the distribution of housing prices in Vermont by focusing on each of the 14 counties in the state. It then looks at the affordability of housing in each county by analyzing the cost burden of purchasing a home for households earning the median county income and below-median incomes. After the study examines these issues within Vermont, it turns to an examination of how Vermont's housing prices and affordability compares to that in other states and metropolitan areas within the U.S.

[1] For a detailed discussion, see John F. McDonald, *Fundamentals of Urban Economics*, Prentice-Hall, 1997, pp. 216-221.

[2] More realistically, the pace of new housing construction must at least keep up with the demand for new housing for this process to generate housing at the moderate and low quality levels.

III. Housing Prices and Affordability in Vermont

A. Average Housing Prices

In this section we focus on housing prices and affordability issues within Vermont. Because housing markets are regional in nature, we focus on home prices at the county level. Given the geographic size of Vermont's counties, it is reasonable to use counties as a measure of regions within the state. In general, people's home buying choices encompass many towns since in most parts of the state, people can commute within a county from their home to work. In some cases, there may be even more choices than the towns within a county, as people can choose to live in adjoining counties and commute to work.

Our data source is the property transfer tax records from the Vermont Department of Taxes. Every property transaction in Vermont has to be recorded on a property transfer tax return, so our universe is every house sold in Vermont in 1999. We focus only on single family housing units. These include conventional stand alone houses as well as condominiums and mobile homes on owned land. We exclude from this analysis apartment buildings, multifamily housing units, vacation homes, and mobile homes located in mobile home parks. We also only include what the Vermont Department of Taxes categorizes as a "valid sale," that is, an arm's length transaction where the purchase price represents the true market price for the transaction. It excludes houses that are sold with unusual deed covenants, unusual financing, or transactions between related individuals where the selling price does not reflect the true market price of a house. Thus, our data set does not include housing that is purchased at lower than market prices due to some sort of subsidy or price reduction based on the intervention of one of the many Vermont housing non profit organizations. So our analysis will understate the availability of lower cost housing available to low income families but will accurately measure the private sector prices and quantities of housing at different price levels.

Table 1
County Housing Market Indicators for 1999

County	Total Number of Units Sold	All Units Median Price	All Units Mean Price	Percent Mean Price is Above Median Price	Number of Condo Sales	Condos as Share of Total
Grand Isle	85	$145,000	$167,998	15.9%	0	0.0%
Chittenden	2,458	$125,325	$142,349	13.6%	797	32.4%
Bennington	363	$120,000	$162,833	35.7%	24	6.6%
Addison	398	$119,450	$130,328	9.1%	22	5.5%
Windham	485	$109,500	$126,283	15.3%	26	5.4%
Lamoille	334	$107,500	$130,736	21.6%	24	7.2%
Windsor	742	$106,000	$144,773	36.6%	74	10.0%
Franklin	587	$102,000	$105,426	3.4%	15	2.6%
Washington	714	$97,000	$110,132	13.5%	61	8.5%
Rutland	769	$92,000	$108,225	17.6%	33	4.3%
Orange	304	$90,000	$103,433	14.9%	1	0.3%
Caledonia	347	$77,000	$97,305	26.4%	1	0.3%
Orleans	291	$72,000	$83,754	16.3%	2	0.7%
Essex	53	$65,000	$67,636	4.1%	0	0.0%

Table 1 reports summary statistics on the housing market in each county in Vermont. A number of important points are highlighted by the data in this table. First, housing prices are highest in Grand Isle and Chittenden Counties, followed by Bennington and Addison Counties. All these counties have median prices above $119,000. Windham, Lamoille, Windsor, Franklin, Washington, Rutland, and Orange Counties have median residential prices of between $90,000 and $110,000. The lowest cost housing in the state is in the Northeast Kingdom Counties, with median prices of $77,000 and below.

Second, there is a significant difference between median and mean prices in most counties in the state. The mean price, commonly known as the average price, is calculated by adding the prices of every house sold in 1999 and dividing by the number of houses sold.

The median price is the house at which half the houses sold in the county are more expensive and half are less expensive. The mean price can be highly skewed by the sale of very expensive houses in the county, so the median is a much better indication of the actual representative housing price faced by buyers. The most dramatic differences between the mean and median price are in Bennington and Windsor Counties, where the mean is more than thirty-six percent higher than the median price. Bennington County had thirteen sales in 1999 of houses that sold for over $500,000 and Windsor had seventeen sales of half million dollar properties. These sales pull up the mean price, but do not affect the median. There are also significant differences between the mean and median price in Caledonia and Lamoille Counties, where the mean price is more than twenty percent higher than the median price. Only in Essex and Franklin Counties is the mean price close to the median price. The median is clearly the better measure of price to use when analyzing housing market indicators.

Other than Grand Isle County, Chittenden County had the highest median housing price in the state.[3] High housing prices in Chittenden County have resulted in a private sector market response. In response to historically high prices and high demand, developers have built condominiums. Condominiums are a low cost housing type that are much more prevalent in Chittenden County than elsewhere in the state. Nearly one third of all the housing sales in Chittenden County in 1999 were condominiums. The next highest percentage was Windsor, with only ten percent of total sales. The median price of a condominium in Chittenden County was $90,000, more than twenty-eight percent below the median price of all units sold in the county. Condominiums are not an important component of the housing market in the other counties of the state. In no other county are they even as high as ten percent of the share of houses sold.

Throughout Vermont, another lower cost housing source is mobile homes that people purchase and place on land they own.[4] Table 2 shows that mobile homes on owned land do not represent

[3] We ignore Grand Isle County because it is a very small county in terms of population and housing sales, but more importantly because its high housing prices are primarily due to the presence of lakefront housing, which means the houses command premium prices.

[4] We ignore mobile homes in mobile home parks. Although they are owner occupied units, they are on leased land. Since land leases are a significant cost of these units, we do not include them in the analysis. Owners of mobile homes on owned land own both the land and the housing unit, which makes them similar to other types of owner occupied housing units.

a very large share of the housing sales in any county. However, mobile home prices are significantly lower than the median price of all houses in each county, ranging from 35 percent to 55 percent of the cost of housing in general.

And when we combine mobile homes and condominiums, as shown in Table 3, we find that these two types of housing represent a large share of the houses sold only in Chittenden County, where nearly one third of the transactions involved condominiums or mobile homes on owned land. In Addison, Lamoille, Washington, and Windsor Counties about one in ten housing sales involved a condo or mobile home on owned land. Therefore, the widespread prevalence of a different type of owned housing than conventional stand alone single family units is confined to Chittenden County, where high housing prices have led to a large number of condominium sales. In other counties, neither condominiums nor mobile home sales are a large share of total housing sales.

Table 2
Mobile Homes on Owned Land

County	Number of Sales	Median Price	Mobile Home Sales as Share of Total Housing Sales	Median Mobile Home Price as Share of Median Price of All Housing
Addison	15	$60,000	3.8%	50.2%
Bennington	2	$47,500	0.6%	39.6%
Caledonia	21	$35,500	6.1%	46.1%
Chittenden	12	$70,000	0.5%	55.9%
Essex	4	$29,450	7.5%	45.3%
Franklin	17	$40,000	2.9%	39.2%
Grand Isle	2	$35,750	2.4%	24.7%
Lamoille	10	$40,500	3.0%	37.7%
Orange	24	$32,250	7.9%	35.8%
Orleans	15	$31,975	5.2%	44.4%
Rutland	16	$40,000	2.1%	43.5%
Washington	18	$45,250	2.5%	46.6%
Windham	11	$55,000	2.3%	50.2%
Windsor	20	$48,500	2.7%	45.8%

Table 3
Sales of Condominiums and Mobile Home on Owned Land

County	Mobile Homes + Condos	Mobile Homes + Condos as Share of Total Sales
Addison	37	9.3%
Bennington	26	7.2%
Caledonia	22	6.3%
Chittenden	809	32.9%
Essex	4	7.5%
Franklin	32	5.5%
Grand Isle	2	2.4%
Lamoille	34	10.2%
Orange	25	8.2%
Orleans	17	5.8%
Rutland	49	6.4%
Washington	79	11.1%
Windham	37	7.6%
Windsor	94	12.7%

B. Housing Affordability

Housing can only be said to be expensive relative to something. Since housing is the most expensive item most households will purchase, we measure the cost of housing against the ability of people to pay for their mortgage by focusing on income. In this section we compare the cost of servicing a mortgage on the median priced house to the income available in each county. Columns 2 and 3 of Table 4 show the median family income in each county and also the median priced house from Table 1.[5]

The fourth column shows the monthly mortgage payment on the median priced house, assuming a buyer who finances the loan with a 30 year, 20 percent down, variable rate mortgage. The monthly mortgage ranges from a low of $311 in Essex County to a high of nearly $700 in Grand Isle County and $600 in Chittenden County.

[5] Median family income is from the Vermont Tax Department. A family is defined as any tax filer with filing status married filing jointly or head of household. We calculate 1999 median income by using 1998 income data and increasing it by the 1997-1998 income growth rate.

Table 4
Housing Affordability by County 1999

County	1999 Median Price House	1999 Median Family Income	Monthly Mortgage	Mortgage as Percent of Income
Grand Isle	$145,000	$48,859	$694	17.0%
Bennington	$120,000	$42,436	$574	16.2%
Addison	$119,450	$44,786	$572	15.3%
Windham	$109,500	$41,126	$524	15.3%
Lamoille	$107,500	$41,022	$515	15.1%
Franklin	$102,000	$41,924	$488	14.0%
Orleans	$ 72,000	$31,210	$345	13.2%
Orange	$ 90,000	$40,200	$431	12.9%
Rutland	$ 92,000	$40,998	$440	12.9%
Caledonia	$ 77,000	$34,472	$369	12.8%
Chittenden	$125,325	$56,366	$600	12.8%
Windsor	$106,000	$47,378	$507	12.8%
Washington	$ 97,000	$45,979	$464	12.1%
Essex	$ 65,000	$31,992	$311	11.7%

The final column shows the mortgage payment as a share of income in each county. In no county of the state would a median income homebuyer spend more than twenty percent of income for the median priced house, and in most counties the share of income is between twelve and fifteen percent.

C. The Availability of Lower Priced Housing

The analysis of mean and median home prices and the number of sales of different types of housing provides information on price, but does not give an indication of the number of housing units available at different prices in the county housing market.[6] Much of the public concern about high housing prices is over the availability of housing at the lower price ranges. Many lower income families are not able to afford the median priced house in the county, so the number of houses available at different price ranges below the median will be important to lower income families who have fewer choices than middle income families. That is, if the median priced house in a county is $85,000, that means that half the houses sold in the county cost $85,000 or less. But it is important to know if most of those houses selling below the median price cost more than $75,000, or if there were significant number of houses available at lower prices, say in the $60,000 to $70,000 price range. A low income family might be able to afford a $65,000 house, but not qualify for a mortgage on a median priced house.

[6] The dataset used in this study excludes housing sold at a below market price because of some sort of subsidy or deed restriction such as those imposed when sales are of "perpetually affordable" units financed in whole or part by housing non profits or government agencies. The data included in this study are only arm's length, market transactions.

We do not have any high quality information on the income distribution within counties, that is, the number of families with incomes at any given percentage of the county median income, so we cannot easily match housing prices to incomes for lower income families. However we can get a sense of the availability of owner occupied housing for lower income households by examining the distribution of housing sales in each county, which we do know a lot about. Table 5 reports a number of ways to examine the availability of lower cost housing in each county in the state.

Table 5
Lower Priced Housing Sales by County

County	Median Price All Sales	30th Percentile Price	Number of Sales Below 30th Percentile	Number of Sales Below $80,000	Percent of All Sales Below $80,000
Addison	$119,450	$ 90,000	119	82	21%
Bennington	$120,000	$ 90,000	109	69	19%
Caledonia	$ 77,000	$ 62,200	104	184	53%
Chittenden	$125,325	$102,315	737	344	14%
Essex	$ 65,000	$ 47,600	16	36	68%
Franklin	$102,000	$ 82,500	176	162	28%
Grand Isle	$145,000	$ 94,300	26	17	20%
Lamoille	$107,500	$ 87,550	100	69	21%
Orange	$ 90,000	$ 74,500	91	107	35%
Orleans	$ 72,000	$ 53,600	87	177	61%
Rutland	$ 92,000	$ 75,000	231	276	36%
Washington	$ 97,000	$ 77,950	214	235	33%
Windham	$109,500	$ 85,000	146	124	26%
Windsor	$106,000	$ 79,900	223	223	30%

Column 2 shows the median price of all houses sold in 1999, which was reported in Table 1. Column 3 begins to address the issue of the availability of housing at lower price levels by showing the price level in each county at which thirty percent of the houses sold in 1999. In Addison County, for example, the median priced home sold for $119,450 and thirty percent of the houses sold for $90,000 or less. In Caledonia County, thirty percent of the houses sold last year for $62,200 or less. The fourth column shows how many houses that represents. In Addison County, thirty percent of the houses means 119 houses sold for $90,000 or less. The price level at which the lowest price 30 percent of the houses sold ranged from a low of $47,600 in Essex County to a high of $102,315 in Chittenden County. In most counties thirty percent of the houses sold for less than $90,000.

Another way to look at the availability of lower cost housing is to pick a specific price and analyze how many houses sold for less than that price. The last two columns of Table 5 do that, showing how many houses sold for under $80,000 in each county and

what percent of all the houses sold were priced at less than $80,000. In most counties, that number ranges between twenty percent of the houses to one-third of the houses. The exceptions are the Northeast Kingdom Counties of Essex, Caledonia, and Orleans, where more than half of the houses sold cost less than $80,000. On the other extreme is Chittenden County, where only fourteen percent of the houses sold for under $80,000.

To put that $80,000 price in perspective, at mortgage rates prevailing in 1999, a 30 year, variable rate mortgage with a twenty percent down payment would cost a buyer $383 per month in mortgage principal and interest costs. A twenty percent down payment of $16,000 is difficult for many families, especially for a moderate or lower income family. During 1999, the Vermont Housing Finance Agency (VHFA) was providing mortgages that required only a five percent down payment, or $4,000 on an $80,000 house. The monthly mortgage payment on an $80,000 house with one of these VHFA backed mortgages would have been $465 per month in 1999.

Although we do not have specific data on how many families earn different income levels at the county level in Vermont, we can estimate lower income families' choices. We do this by constructing two different hypothetical low income families and examine whether they would be completely priced out of the housing market in their counties. We focus on a lower middle income family earning 75 percent of median family income in each county and on a low income family earning 50 percent of median income.

Table 6
House Price Affordable to a Family Earning 75% of Median Family Income and Spending 20% of Income on Mortgage

County	Median Income	75% of Median Income	House Price Affordable to Family Earning 75% of Median Income	This House as Percent of Median Priced House
Addison	$44,786	$33,589	$98,421	82%
Bennington	$42,436	$31,827	$93,158	78%
Caledonia	$34,472	$25,854	$75,789	98%
Chittenden	$56,366	$42,275	$124,211	99%
Essex	$31,992	$23,994	$70,526	109%
Franklin	$41,924	$31,443	$92,632	91%
Grand Isle	$48,859	$36,644	$107,368	74%
Lamoille	$41,022	$30,767	$90,526	84%
Orange	$40,200	$30,150	$88,421	98%
Orleans	$31,210	$23,407	$68,421	95%
Rutland	$40,998	$30,748	$90,526	98%
Washington	$45,979	$34,484	$101,053	104%
Windham	$41,126	$30,845	$90,526	83%
Windsor	$47,378	$35,533	$104,211	98%

Table 6 shows, in column 3, how much a family earning 75 percent of median family income would earn in each county. Suppose this family was willing to spend 20 percent of its income to service the mortgage on a house and it financed the house with a VHFA five percent down payment, variable rate mortgage.[7] Column 4 shows the maximum priced house that family could afford to buy in each county. More importantly, the last column shows how expensive that house was in 1999 compared to the median priced house in the county.

In Addison County, for example, a family earning 75 percent of median family income in 1999 earned $33,589. This would be a lower middle income family. If the family was willing to spend 20 percent of its income on the mortgage and obtained a VHFA five percent down payment mortgage, it could afford to buy a $98,421 house. The median priced house in Addison County in 1999 cost $119,450. So the family could afford to buy a house that was worth 82 percent of the median priced house. Essentially, the family had a choice of close to one half of the houses sold in Addison County in 1999.

What kind of wages would be necessary for a family to earn $33,589? If the family had only one wage earner, that person would have had to have earned $16.80 per hour.[8] If the family had two wage earners, each working full time, each would have to earn $8.40 per hour. For many families, one spouse has child care duties so that person may find it very difficult to work full time. But a spouse with children in school can work part time. A family earning $33,589 with one spouse working full time at $12.50 per hour ($25,000 per year) and the other working 20 hours per week at $8.50 per hour ($8,500 per year) would earn $33,500.

In most counties, that lower middle income family could well afford to buy the median priced house in the county. The least affordable county for lower income Vermonters is Grand Isle, and as was noted earlier, housing prices there are inflated by the large number of expensive lakefront homes. But even in Grand Isle County, the lower middle income family could afford to purchase a house that was three quarters of the cost of a median priced house. In Chittenden County, this lower middle income family would be able to afford a median priced house in the county. That means that half the houses sold last year were affordable for that family, even by this conservative measure of affordability (paying 20 percent of income for a mortgage).

What about much lower income families that are trying to purchase their own houses? Table 7 looks at a low income family earning half the median family income, shown in

[7] VHFA guidelines allow a family to spend up to 25% of its income on the mortgage for a house or 30% including property taxes and insurance. So the analysis presented in Table 12 is conservative, since VHFA would allow the family to purchase a more expensive house.
[8] This assumes a standard 2,000 hour work year.

Table 7
House Price Affordable to a Family Earning 50% of Median Family Income and Spending 20% of Income on Mortgage

County	Income Level at 50% of County Median	House Price Affordable to Family Earning 50% of Median Income	This House Price as Percent of Median County House Price	Number of Houses Sold at This Price or Lower	Percent of Houses Sold at This Price of Lower
Addison	$22,393	$78,947	66%	80	20%
Bennington	$21,218	$74,737	62%	51	14%
Caledonia	$17,236	$60,526	79%	62	18%
Chittenden	$28,183	$98,947	79%	418	17%
Essex	$15,996	$56,316	87%	13	25%
Franklin	$20,962	$73,684	72%	70	12%
Grand Isle	$24,429	$85,789	59%	6	7%
Lamoille	$20,511	$72,105	67%	27	8%
Orange	$20,100	$70,526	78%	55	18%
Orleans	$15,605	$54,737	76%	58	20%
Rutland	$20,499	$72,105	78%	115	15%
Washington	$22,990	$81,053	84%	136	19%
Windham	$20,563	$72,632	66%	49	10%
Windsor	$23,689	$83,158	78%	163	22%

Column 2. That level of income ranges from $15,605 in Orleans County to $28,183 in Chittenden County. We again assume the family is willing to spend 20 percent of its income on a mortgage and obtains a five percent down payment, VHFA mortgage. Column 3 shows how much house that would buy in each county. The fourth column shows how expensive that house is compared to the median priced house in the county. Not surprisingly, these low income families could only afford a house well below the median in most counties. In most counties, that means a house priced at between half and two thirds of the cost of a median priced house. The sixth column shows how many houses were affordable to that family in 1999 and the final column shows what percent of the houses sold in the county were at or below that price level.

In Franklin County, a family earning 50 percent of median family income would have earned $20,962 in 1999. If that family put a five percent down payment on a house and spent 20 percent of its income on a VHFA backed mortgage, it could afford a house that cost $61,053. That represents a house priced at 60 percent of the median priced house in Franklin County. In 1999 70 houses were sold at that price or less in Franklin County. Houses that cost $61,053 or less represented 12 percent of all the houses sold in Franklin County in 1999.

A family earning 50 percent of median income in Franklin County could earn $20,962 by having one wage earner earning $10.50 per hour working full time. Or if one wage

earner in a family worked full time at $7.00 per hour and the second worked 20 hours per week at $7.00 per hour, that would also enable the family to earn $21,000 per year.

What this analysis shows is that in most counties, even these low income families could afford to purchase between ten and twenty percent of the houses sold county-wide in 1999. Low income families certainly do not have the same choices that higher income families have, but if they can save enough to put a five percent down payment on a house, there are houses affordable for them.

This assumes that the family can do two things. One is to get enough money together to have a five percent down payment. This means having savings of $3,000 to $4,000, which may be very difficult for a family in this financial condition. The second is that the family has a good credit history and can qualify for a mortgage. These may be high hurdles for families at this income level, but it does suggest that policies to help low income families save and to maintain good credit histories may be just as important in promoting home ownership as are programs to subsidize housing prices for low income families.

D. Within County Analysis

We have shown that there is a wide range of houses existing at different price levels in each county of the state. If the lower cost housing is concentrated in just a few towns, low and moderate income families' choices will be constrained. They may be unable to find lower cost housing throughout the towns in their county and may have to live some distance from their jobs. On the other hand, if low priced housing is found throughout the county, then there may not be a mismatch between the location of employment and the location of low cost housing. This section turns to a discussion of how houses at different price ranges are distributed among the towns in a county, especially focusing on how many houses are available at lower price ranges in individual towns within a county. Rather than focusing on every town in each county, this study focuses on the two most populous counties in the state, Chittenden and Rutland Counties.

Table 8 shows sales and price data for Chittenden County towns in 1999 and Table 9 shows the identical data for Rutland County towns. The second column shows the median selling price of a house in each town in the two counties and the third shows the total number of houses sold in 1999. Column 4 shows the distribution of housing sales among the towns in the county. In Chittenden County, for example, 1.0 percent of all the houses sold in the county were in Bolton and 21.7 percent were in Burlington.

Table 8
Towns in Chittenden County: Housing Price and Sales

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Town	**Median Price**	**Total Houses Sold**	**Total Sales in Town as Share of Total Houses Sold in County**	**30th Percentile Price**	**Number of Sales at 30th Percentile Price or Below**	**Number of Sales Below $80,000**	**Sales in Town Below $80,000: Town as Percent of County**
Bolton	$89,500	24	1.0%	$84,800	7	3	0.8%
Burlington	$123,000	534	21.7%	$98,000	160	95	25.7%
Charlotte	$226,300	56	2.3%	$150,800	17	0	0.0%
Colchester	$122,000	253	10.3%	$102,200	76	27	7.3%
Essex	$127,000	357	14.5%	$97,400	107	56	15.2%
Hinesburg	$110,000	61	2.5%	$83,900	18	18	4.9%
Huntington	$125,000	27	1.1%	$106,500	8	3	0.8%
Jericho	$142,000	73	3.0%	$122,700	22	2	0.5%
Milton	$120,000	156	6.3%	$108,000	47	16	4.3%
Richmond	$135,000	47	1.9%	$122,000	14	4	1.1%
St George	$125,000	11	0.4%	$111,200	3	1	0.3%
Shelburne	$163,300	124	5.0%	$127,500	37	8	2.2%
So Burlington	$117,400	396	16.1%	$86,100	19	98	26.6%
Underhill	$140,000	41	1.7%	$122,600	12	1	0.3%
Westford	$118,000	40	1.6%	$96,200	12	8	2.2%
Williston	$143,200	158	6.4%	$118,700	47	7	1.9%
Winooski	$110,000	100	4.1%	$86,400	30	22	6.0%
Chittenden County	$125,300	2,458	100%	$102,300	737	369	100%

Table 9
Towns in Rutland County: Housing Price and Sales

(1) Town	(2) Median Price	(3) Total Houses Sold	(4) Total Sales in Town as Share of Total Houses Sold in County	(5) 30th Percentile Price	(6) Number of Sales at 30th Percentile Price or Below	(7) Number of Sales Below $80,000	(8) Sales in Town Below $80,000: Town as Percent of County
Benson	$78,500	14	1.8%	$63,000	4	7	2.5%
Brandon	$84,500	56	7.3%	$69,100	17	27	9.5%
Castleton	$97,800	44	5.7%	$78,000	13	14	4.9%
Chittenden	$188,700	13	1.7%	$111,800	4	1	0.4%
Clarendon	$112,000	32	4.2%	$75,000	10	11	3.9%
Danby	$117,000	11	1.4%	$100,800	3	2	0.7%
Fair Haven	$68,000	22	2.9%	$59,900	7	13	4.6%
Hubbardton	$119,800	6	0.8%	$110,100	2	1	0.4%
Ira	$85,300	8	1.0%	$76,500	2	3	1.1%
Mendon	$159,000	18	2.3%	$144,500	5	1	0.4%
Middletown Springs	$99,500	12	1.6%	$68,800	4	5	1.8%
Mount Holly	$105,000	22	2.9%	$78,600	7	7	2.5%
Pawlet	$88,000	11	1.4%	$58,900	3	5	1.8%
Pittsfield	$115,000	3	0.4%	$71,000	1	1	0.4%
Pittsford	$118,300	48	6.3%	$88,400	14	12	4.2%
Poultney	$98,300	40	5.2%	$75,000	12	16	5.6%
Proctor	$78,800	24	3.1%	$61,800	7	13	4.6%
Rutland City	$87,000	231	30.2%	$75,000	69	94	33.1%
Rutland Town	$125,500	46	6.0%	$106,900	14	6	2.1%
Sherburne	$168,100	18	2.3%	$148,200	5	2	0.7%
Shrewsbury	$177,600	8	1.0%	$103,600	2	1	0.4%
Tinmouth	$110,000	8	1.0%	$88,200	2	2	0.7%
Wallingford	$105,500	24	3.1%	$75,300	7	9	3.2%
Wells	$75,100	20	2.6%	$57,900	6	13	4.6%
West Rutland	$75,000	27	3.5%	$56,200	8	18	6.3%
Rutland County	$92,000	766	100%	$75,000	230	284	

The fifth column shows the price level at which 30 percent of the houses sold. Thus, in Burlington, 30 percent of the houses sold in 1999 cost less than $98,000, a slightly lower price than the Chittenden County average price shown in the last row of the table. In Brandon, in Rutland County, thirty percent of the houses sold cost under $69,100. Column six shows how many houses that represents. In Brandon, 17 houses sold for under $69,100.

Column seven shows the number of sales of houses that cost less than $80,000 in each town of the two counties. To put that in perspective, column eight shows the distribution

of houses costing less than $80,000 with the county. Thus, Rutland City had 94 sales of houses that cost less than $80,000 in 1999 and that represented 33.1 percent of all the houses in Rutland County that sold for less than $80,000. One should not conclude from this that Rutland City had a disproportionate share of these lower priced houses. It did not. Rutland City has 30.1 percent of all the housing units in the county. And Rutland City had 30.1 percent of all the housing sales in Rutland County 1999. Therefore, Rutland City did not have a disproportionate share of low cost housing sales. Its share of lower priced housing is very similar to its share of all the housing stock and is similar to its share of total housing sales in 1999. That is true for most towns in both Chittenden and Rutland Counties. The distribution of low priced houses among towns in each county is very similar to the distribution of all housing in the county.

We can determine whether a few towns in each county have a disproportionate share of low cost housing by analyzing two correlations. The first is the correlation between the housing sales and the number of housing units in each town. The second is the correlation between the sales of low cost housing and the number of housing units.

Table 10
Chittenden County Correlations

	All Housing Sales	Houses Under $80,000
Number of Housing Units	.94	.85

Table 11
Rutland County Correlations

	All Housing Sales	Houses Under $80,000
Number of Housing Units	.99	.97

Tables 10 and 11 show, first, that the housing sales in 1999 are representative of where the housing units are located in both Chittenden and Rutland Counties, with correlation coefficients of .94 for Chittenden and .99 for Rutland County. If a large number of housing sales were in towns with relatively few housing units, the correlation coefficients would be much smaller. This high level of correlation gives us confidence that housing sales in 1999 reflect the underlying distribution of housing units throughout both counties.

The second correlation coefficient in each table shows that the distribution of housing sales at prices less than $80,000 is also highly correlated with the distribution of the housing stock in towns in both counties. This is especially true of Rutland County, with a correlation coefficient of .97, but also in Chittenden County where the correlation between low cost housing and the presence of housing units in general is a very respectable .85. These correlations show that low priced housing exists throughout the

towns in each of the two counties and it is not disproportionately concentrated in the urban center of each county nor in rural fringe towns. That does not mean that a house that costs $100,000 in all towns is alike. A $100,000 house in a town closer to county employment centers, a town with better schools, or a town with more town services will be smaller and have less amenities than a similar priced house on a same sized lot located in a town with lower quality schools or farther from the county employment center.

IV. Interstate Comparisons

Section I of this study looked at housing prices and affordability issues within Vermont. This section examines, using a different set of data, how expensive Vermont's housing is compared to other states. The information in this section is not directly comparable to the county level information discussed in Part I. Part I information came from Vermont state sources on income and housing prices. Part II information comes from a national data set that differs somewhat from the Vermont county information.

A. House Prices

In order to answer the question of whether Vermont's housing prices are high or low we first address the issue by comparing Vermont's median home price to that of the other forty-nine states.[9] The table below shows that Vermont's median house price in 1999 was $126,400, with eighteen states having higher median prices and thirty-one with lower prices.[10] Four states (Hawaii, Massachusetts, California, and New Jersey) have very expensive housing by this measure, with a median price over $190,000. After that tier, five more have prices over $150,000. Vermont is one of about ten states with a median price in the $120,000 to $140,000 range. Seventeen states, mostly in the South and Midwest, have median prices under $100,000, significantly below Vermont's. So although there are a number of states with housing prices above Vermont's, there are more with housing prices far below Vermont's.

[9] The median house price is the house exactly in the middle of all the houses sold; half of the houses sold cost more than that house and half cost less.
[10] Source: RFA/Dismal Sciences. Underlying data are from U.S. Bureau of the Census.

Table 12
Median House Price by State 1999

1	Hawaii	$273,400
2	Massachusetts	$224,500
3	California	$217,000
4	New Jersey	$189,500
5	New York	$160,800
6	New Hampshire	$158,700
7	Delaware	$158,600
8	Washington	$152,600
9	Colorado	$152,000
10	Connecticut	$147,000
11	Illinois	$145,500
12	Oregon	$141,700
13	Nevada	$135,100
14	Utah	$130,800
15	Rhode Island	$130,400
16	Alaska	$128,500
17	Maryland	$127,900
18	Virginia	$127,400
19	**Vermont**	**$126,400**
20	North Carolina	$124,300
21	Michigan	$120,900
22	Minnesota	$119,100
23	Arizona	$116,300
24	New Mexico	$113,900
25	Florida	$112,500
26	Wisconsin	$112,000
27	South Carolina	$110,600
28	Pennsylvania	$107,700
29	Ohio	$107,500
30	Georgia	$107,300
31	Idaho	$102,700
32	Alabama	$101,800
33	Tennessee	$100,700
34	Nebraska	$98,300
35	Texas	$97,700
36	Louisiana	$97,100
37	Montana	$97,100
38	Indiana	$96,400
39	North Dakota	$95,700
40	Kansas	$94,300
41	Maine	$94,300
42	Iowa	$93,800
43	Missouri	$93,000
44	South Dakota	$90,900
45	Wyoming	$90,800
46	Kentucky	$89,500
47	West Virginia	$85,200
48	Arkansas	$82,800
49	Mississippi	$80,200
50	Oklahoma	$79,800

B. Income Levels

House prices in one area can only be said to be high or low relative to other geographic areas or relative to the ability of people in that area to afford to buy an average priced house. We can examine income levels in each state and then look at affordability by comparing median house prices to median income levels in each state. Table 13 reports the median household income for 1999 for each state in the nation.[11]

[11] Data are from the U.S. Census Bureau. A household is defined by the Census Bureau as more than 1 person living in the same housing unit. A family is a household, but not all households are families. The U.S. Census Bureau's most recent household income estimates for states is for 1997-99.

Table 13
Median State Household Income 1999

1	Alaska	$51,046
2	Maryland	$50,630
3	New Jersey	$50,234
4	Connecticut	$47,997
5	Colorado	$46,950
6	Minnesota	$46,802
7	Washington	$46,788
8	Utah	$45,257
9	New Hampshire	$44,891
10	Virginia	$44,884
11	Delaware	$44,627
12	Illinois	$44,459
13	Massachusetts	$43,697
14	Michigan	$43,066
15	Wisconsin	$43,055
16	Hawaii	$42,864
17	California	$42,262
18	Nevada	$40,882
19	Indiana	$40,635
20	Rhode Island	$40,213
21	Missouri	$40,166
22	Oregon	$39,768
23	**Vermont**	**$39,419**
24	Georgia	$39,003
25	Ohio	$38,970
26	Pennsylvania	$38,938
27	New York	$38,479
28	Iowa	$38,047
29	Kansas	$37,618
30	Nebraska	$37,338
31	Texas	$37,320
32	North Carolina	$37,057
33	Maine	$36,459
34	Arizona	$36,337
35	Wyoming	$36,039
36	Idaho	$36,023
37	Alabama	$35,478
38	South Carolina	$35,376
39	Kentucky	$35,226
40	Florida	$35,081
41	Tennessee	$34,393
42	South Dakota	$33,438
43	Oklahoma	$33,311
44	Louisiana	$33,218
45	North Dakota	$32,238
46	New Mexico	$31,981
47	Montana	$31,280
48	Mississippi	$30,628
49	West Virginia	$28,420
50	Arkansas	$28,398

Table 13 shows that Vermont is a slightly below average state when it comes to median household income. Our $39,419 median income level ranks us just above the middle, at 23rd, and our level of income is just under the U.S. average of $39,657.

C. Housing Affordability

Combining the median household income with the median home price information allows us to calculate a measure of how expensive Vermont housing is compared to other states. Table 14 shows that by this measure Vermont does have expensive housing. Table 14 calculates a housing cost measure by calculating the annual mortgage payments on a median priced house as a share of annual household income. [12] A Vermont household earning the state median income and purchasing a house at the statewide median price

[12] We assume a 30 year adjustable rate mortgage with a 20 percent down payment. Interest rates on this type of mortgage averaged 5.98 percent in 1999. We use 1999 median house price and 1997-99 median income. The actual housing cost burden in each state will be lower since the 1999 actual median income will be greater than the 1997-1999 average used here.

would pay 18.4 percent of its income for the home mortgage. Only sixteen states have housing costs higher than in Vermont.

Table 14
Annual Mortgage Cost as Share of Household Income

1	Hawaii	36.6%
2	Massachusetts	29.5%
3	California	29.5%
4	New York	24.0%
5	New Jersey	21.7%
6	Oregon	20.5%
7	New Mexico	20.5%
8	Delaware	20.4%
9	New Hampshire	20.3%
10	North Carolina	19.3%
11	Nevada	19.0%
12	Illinois	18.8%
13	Washington	18.7%
14	Rhode Island	18.6%
15	Colorado	18.6%
16	Florida	18.4%
17	**Vermont**	**18.4%**
18	Arizona	18.4%
19	South Carolina	18.0%
20	Montana	17.8%
21	Connecticut	17.6%
22	West Virginia	17.2%
23	North Dakota	17.0%
24	Tennessee	16.8%
25	Louisiana	16.8%
26	Arkansas	16.7%
27	Utah	16.6%
28	Alabama	16.5%
29	Idaho	16.4%
30	Virginia	16.3%
31	Michigan	16.1%
32	Pennsylvania	15.9%
33	Ohio	15.8%
34	Georgia	15.8%
35	South Dakota	15.6%
36	Nebraska	15.1%
37	Mississippi	15.0%
38	Texas	15.0%
39	Wisconsin	14.9%
40	Maine	14.9%
41	Minnesota	14.6%
42	Kentucky	14.6%
43	Maryland	14.5%
44	Wyoming	14.5%
45	Alaska	14.5%
46	Kansas	14.4%
47	Iowa	14.2%
48	Oklahoma	13.8%
49	Indiana	13.6%
50	Missouri	13.3%

The state by state comparisons presented above are not strictly comparable to the within state analysis in Part I of this report for two reasons. First, the housing price numbers used in Tables 12 and 14 are based on a national estimate which includes all types of housing units sold. The Vermont county analysis was based only on valid sales of residential housing units. Second, the income estimates used for the Vermont county analysis are median family incomes while the income estimates used for the 50 state analysis is median household income. Since median family incomes are higher than median household incomes, the Vermont county housing affordability estimates will be a lower share of income than the 50 state affordability measures which use household income.

The analysis of Vermont's relative housing costs compared to the other 49 states tells us that housing affordability in Vermont, in the aggregate, is worse than in most other states. A family earning median income in most other states who move to Vermont and earn the median family

income in Vermont will find that they have a higher cost of housing than they did in the state from which they moved.

D. Recent Trends

More recently, housing prices in Vermont appear to have risen considerably. The U.S. Office of Federal Housing Enterprise Oversight (OFHEO) reports that between the second quarter of 1999 and the second quarter of 2000, Vermont's housing price rose by 8.3 percent, the ninth fastest growth rate in the nation and well above the 6.8 percent national average rate of increase. Between the fourth quarter of 1999 and the first quarter of 2000, prices rose by 5.0 percent, the fastest rate of increase in the nation. Growth moderated in the second quarter of 2000, with Vermont's rate of price appreciation well under the national average.[13]

A rapid rate of housing price appreciation is also reported by the National Association of Realtors©. The NAR reports that the median price of an existing home sold in Vermont in the first quarter of 2000 was $177,400, sixth highest in the nation. According to the NAR, prices rose at a 14.4 percent rate over the twelve months ending in the first quarter of 2000, the third fastest pace of increase in the nation.[14] If these trends continue throughout 2000, Vermont will rise in the rankings and housing will become increasingly expensive relative to income.

V. Metro Area Comparison

The discussion above on statewide housing prices looks at housing in an aggregated view. But housing markets are regional in nature. The price of a house in Colchester has little bearing on the price of a house in Rockingham. Similarly, prices in New York City are irrelevant to someone living in Buffalo or Plattsburgh. We can examine the relative cost of housing in different parts of Vermont to the nation in a more detailed manner by comparing housing prices in Vermont's metropolitan area to metropolitan areas within other states.

The only metro area in Vermont is the Burlington metro area, which is comprised of most of Chittenden County and parts of Franklin and Grand Isle County. The Burlington metro area contains 191,000 residents, about one third of Vermont's population.

Table 15 shows that the Burlington metro area has a median housing price of $135,700, which is in the bottom half of the New England region's prices. Appendix Table 1 expands the universe of metro areas and shows the median price of an existing home in each of the 316 metro areas of the United States in 1999.[15] These metro areas contain 214 million residents, eighty percent of the United States population.

---

[13] Source: Office of Federal Housing Enterprise Oversight.

[14] Source: Economy.com Underlying data are from the U.S. Census Bureau, Bureau of Economic Analysis, and National Association of Realtors©.

[15] Source: Economy.com. Underlying data are from the National Association of Realtors© and the U.S. Commerce Department.

Table 15
New England Metro Area 1999 Median Housing Prices

1	Boston-Worcester, MA-NH	$235,300
2	Barnstable-Yarmouth, MA	$220,700
3	New London-Norwich CT	$173,500
4	Portland, ME	$165,000
5	Pittsfield, MA	$158,400
6	Hartford, CT	$149,500
7	New Haven-Bridgeport, CT	$144,700
8	**Burlington, VT**	**$135,700**
9	Providence-Warwick, RI	$128,500
10	Lewiston-Auburn, ME	$117,100
11	Springfield, MA	$114,100
12	Bangor, ME	$93,200

Appendix Table 1 shows that the highest home prices in the nation are found in several metro areas of California and in Honolulu, with prices approaching $300,000 in Honolulu and nearly $400,000 in San Jose, CA (Silicon Valley). The lowest median prices are found in several smaller Pennsylvania metro areas. The median priced home in the greater Burlington area sold for $135,700, which was the 61st most expensive metro area in the nation. Although Burlington's median housing price is in not among the most expensive in New England, relative to national levels the Burlington area does have high housing prices. Most of the metro areas with higher housing prices are much larger than the Burlington metro area. So for its size, and compared to other metro areas in the U.S., the Burlington area does have expensive housing.

In the earlier discussion, we compared housing prices to income available at the state level in order to examine the issue of housing affordability. When we look at the affordability of housing in a metro area we must also consider the income available to residents with which to purchase a house.

The U.S. Commerce Department provides per capita income estimates for each of the metro areas in the U.S. Per capita income is simply the total income earned from all sources divided by the total population. It does not necessarily measure the income available to an average family or household. But it does provide a useful way of comparing incomes across metro areas of the U.S.[16] Per capita income is simply the total income earned from all sources divided by the total population.

Table 16 shows the per capita income of the twelve metropolitan areas in New England, including the Burlington metro area. The Burlington area's per capita income of $27,787 is in the bottom third of metro areas in the New England region.

[16] Per capita income for metro areas is estimated with a lag by the U.S. Commerce Department. As of the date of writing of this report, the 1998 per capita income was the most current available. The Commerce Department does not publish median household income for metro areas, which we used for the state level analysis. We use per capita income in its place.

Table 16
1998 Per Capita Income for New England Metro Areas

1	New Haven-Bridgprt-Stamfrd-Danbry-Wtrbry, CT	$42,346
2	Boston-Worcester-Lawrence-Lowell-Brocktn, MA-NH	$34,127
3	Hartford, CT	$33,647
4	Barnstable-Yarmouth, MA	$32,612
5	Portland, ME	$29,960
6	New London-Norwich, CT	$29,933
7	Providence-Warwick-Pawtucket, RI	$28,007
8	Pittsfield, MA	$27,731
9	**Burlington, VT**	**$26,787**
10	Springfield, MA	$26,131
11	Lewiston-Auburn, ME	$22,671
12	Bangor, ME	$21,743

Appendix Table 2 shows the per capita income in 1998 for each of the 318 metropolitan areas in the U.S. Per capita income in U.S. metropolitan areas ranged from a high of over $40,000 in San Francisco, CA; Naples, FL; New Haven, CT; San Jose, CA; and West Palm Beach, FL, to a low of under $17,000 in cities in Texas and New Mexico. The Burlington metro area per capita income in 1999 was $26,787, which ranked it 99th in the nation and slightly below the U.S. average of $27,203.

The affordability of housing is based on the two factors discussed above: the price of a house and the income available to service the mortgage on the house. In Table 17 we construct a measure of the relative affordability of housing in the region's metro areas by dividing the price of a house by the per capita income in each metro area. The result is an index measure of relative costs of housing compared to incomes earned in the metro area. Those areas with high index values are metro areas where housing is expensive relative to income. Burlington's housing affordability, by this measure, is in the middle of the New England metro areas.

Table 17
Index of Housing New England Metro Area Housing Affordability

1	Boston-Worcester-Lawrence-Lowell-Brocktn, MA-NH	6.89
2	Barnstable-Yarmouth, MA (NECMA)	6.77
3	New London-Norwich, CT	5.80
4	Pittsfield, MA	5.71
5	Portland, ME	5.51
6	Lewiston-Auburn, ME	5.17
7	**Burlington, VT**	**5.07**
8	Providence-Warwick-Pawtucket, RI	4.59
9	Hartford, CT	4.44
10	Springfield, MA	4.37
11	Bangor, ME	4.29
12	New Haven-Bridgprt-Stamfrd-Danbry-Wtrbry, CT	3.42

Appendix Table 3 shows how the Burlington metro area fares in comparison to all the metro areas in the nation. The most expensive housing, relative to income, is in many metro areas of California and in Honolulu. In these areas, a median priced existing home costs more than 10 times per capita income. The most affordable housing is found in several western Pennsylvania metro areas, where housing costs are less than three times per capita income. The Burlington metro area ranks 80th highest in the nation by this affordability measure, which puts it the top quarter of metro areas; that is to say, Burlington is among the top 25 percent least affordable metro areas in the nation.

VI. How Expensive is Housing in Vermont?

What can we conclude from this analysis? The Burlington metro area does have expensive housing prices, with a ranking among the top 20 percent of all the 316 metro areas in the nation. The per capita income in the Burlington metro area also high, in the top thirty percent of all metro areas in the nation. But because the housing price ranking is higher than the income ranking, the Burlington metro area has a relatively high housing cost index. Three out of four metro areas in the U.S. have a housing cost index lower (that is, more affordable) than that found in the Burlington metro area.

Similarly, we found that Vermont as a state had high housing prices relative to income. Only 16 states had a higher housing cost burden, which puts Vermont in the top third of states (that is, least affordable housing) by this measure.

Both methods of comparing Vermont's housing cost with the housing costs in other areas find that Vermont's housing costs, both in an absolute and relative sense, are high. For a Vermont family, that means that it is relatively more difficult to purchase a home than it is elsewhere in the nation.

For businesses, since Vermont has higher housing costs and worse affordability ratios than other states and metro areas, the state is a less appealing place in which to live and to do business. Firms have to overcome this by paying their workers higher wages in order to compensate them for these higher costs. Or, at the margin, businesses will choose to locate and expand businesses elsewhere where housing costs are less. Housing costs are not the sole determinant of business location decisions or of wage and salary levels, but if we take that one aspect of competitiveness in isolation, high housing costs do not benefit the local economy.

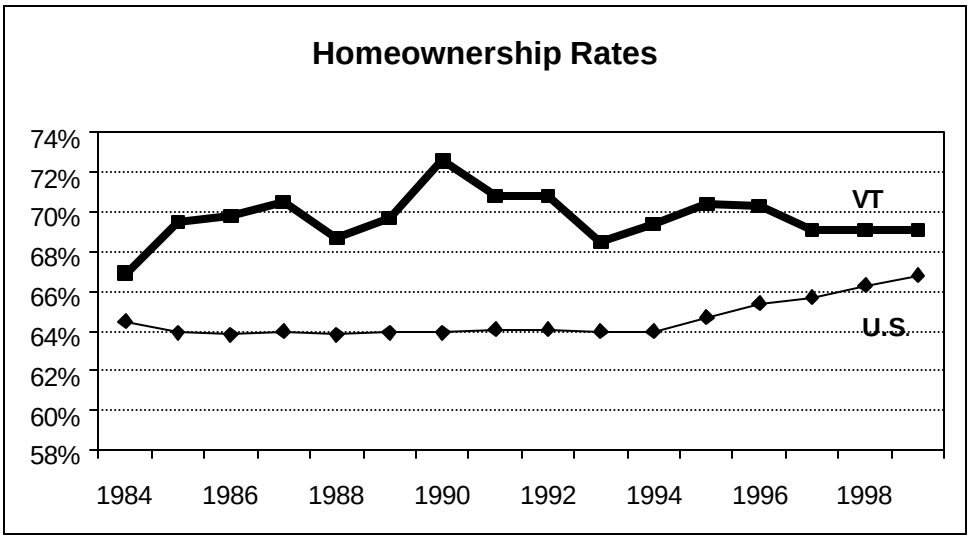

Figure 1 Source: U.S. Census Bureau

This conclusion is borne out by other data, shown in Figure 1 above. The U.S. Census Bureau estimates that, as of 1999, 69.1 percent of Vermont households own their own homes. This is higher than the national average rate of 66.8 percent of households. But Vermont ranks only 32nd among the 50 states in homeownership. At the start of the decade, Vermont ranked 3rd highest in the nation, with 72.6 percent of households owning their own homes. Over the course of the decade of the 1990s, the homeownership rate in Vermont has dropped, as the figure shows. By contrast, the national homeownership rate in 1990 was 63.9 percent and it has since increased. While the Vermont rate has fallen by more than three percentage points, the national rate has risen by three percentage points. One contributing factor to the divergent trends of Vermont and the nation is that Vermont's housing affordability ratio is in the bottom half of the nation and the nation's metro areas.

Houses at a variety of price ranges exist throughout the state. And a choice of housing is probably more widely available and affordable than most people think, given media reports of escalating prices and low housing inventory. Why, then, is there a perception of a lack of housing supply in Vermont? What follows are some possible answers to that question.

1. This study deals with the housing market in 1999. It is possible that the housing market in 2000 is different than it was in 1999. This study has shown that preliminary information suggests that housing price appreciation in Vermont has accelerated in the first half of 2000. If this is true, housing affordability this year has worsened from last year. Real estate agents report that the inventory of houses for sale in the summer of 2000 is significantly below the inventory level of one year ago. This provides additional support for a housing market in 2000 that is different than in 1999. Unfortunately, adequate data to test whether this is true will not be available for some time.

2. People's expectations of what kind of house they will get for a given amount of money is more than they can actually buy. First time homebuyers especially may expect to live in a house similar to the house they grew up living in. They do not realize that their parents' house was probably the culmination of their parents' housing experience and their parents

started in a small house then moved up to bigger houses with more amenities as their income grew.

Table 18
Selected Characteristics of New Housing: 1975 and 1998

	1975	1998
Central Air	46%	83%
2.5 Baths or More	20%	52%
4 Bedrooms or More	21%	33%
1 Fireplace or More	52%	61%
No Garage or Carport	24%	13%
2 Car Garage or More	53%	79%
1200 Square Feet or less	25%	8%
2400 Square Feet or more	11%	31%
Average Square Feet	1,645	2,190
Median Square Feet	1,535	2,000

Source: U.S. Census Bureau

This amenities issue is well illustrated by comparing the amenities of new houses today with new houses of twenty-five years ago. Table 18 shows that the average new house in 1998 had far more amenities than the average new house had a generation ago. Today, a new house is 30 percent larger, is far more likely to have a two car garage, and more likely to have more bedrooms and bathrooms than a new house in the mid-1970s.

If a person entering the housing market expects to live in a house similar to his parents' house, and the parents likely had a newer house, then the expectation of the new homebuyer is for a house like his parents had. That family is likely to be disappointed. Instead of living in a house just like his parents, the new home buyer is more likely to be able to afford a house more similar to a new house of a generation ago. That may generate frustration and a sense that the house that the potential buyer would like to live in is "unaffordable" to them.

3. Real estate agents and developers are more closely attuned to the housing market than are most people. Their analysis of the state's housing market is more sensitive to factors that do affect and could affect housing construction and price. If they see that the pipeline of new housing construction, plans for new development, and permits for new developments are running short of the demand for new housing, they correctly anticipate a shortage of new housing and a consequent run up of the price of new and existing housing in their region.

VII. Conclusions

The popular perception of Vermont's housing market is of sky-high housing prices where many families are frozen out of the market by low incomes and high prices. This is misleading for a number of reasons. First, this perception may be driven by the focus on only a small subset of

housing prices, especially newly constructed houses. New houses are always the most expensive segment of the housing market since developers can usually earn the highest profit by constructing the most expensive housing on a given piece of land.

Second, looking at the total housing market and focusing on average (or mean) prices also gives a misleading picture of the housing market. Table 1 has shown that the mean housing price is well above the median price, which is a better indicator of the level of the typical price facing the buying public.

Third, there is a wide variation in the price of housing in all counties in the state. Housing that is affordable to moderate income and lower middle income Vermonters does exist, especially when low cost VHFA financing is considered. Even low income Vermont families earning half the county median income have a surprisingly large number of choices—up to one in five houses sold in 1999 were affordable to them. Some of these lower cost housing units are mobile homes on owned land, and others are condominiums, especially important in the higher-priced Chittenden County market. But conventional types of houses at low price ranges are also available.

This does not fully answer the question of whether housing in Vermont is expensive. For that, we need to compare Vermont's housing prices and affordability levels to those in other states and regions. When we do this, we find that housing in Vermont is more expensive than in many other states. If Vermont's housing prices were closer to national levels, all the county house prices would also be lower and more housing would be available at lower price ranges as well. That is, housing would be more affordable for everyone.

How can Vermont address this problem? Basic economic theory tells us that if there is more of a product offered on the market, price will fall. This is also true of housing. If more housing is produced for a given level of demand, that will put downward pressure on housing prices of all types, not just new housing. This suggests that issues that affect the cost of housing should be examined to see which are contributing to the overall upward pressure on housing prices in Vermont. Some of these, such as the level of interest rates, is beyond the control of state policy. Others, such as the availability of rental housing (a close substitute for owner occupied housing discussed in this study), is more amenable to public policy actions. If more rental housing is available, there will be less upward pressure on housing prices.

In addition, housing prices are affected by factors including the level of property taxes, the physical costs of building housing such as lumber and materials, labor costs, costs of land, site improvements, zoning requirements, density of housing, and permitting costs, among others.

The filtering model of housing shows that affordable housing is created not just by building new affordable housing, but by older housing filtering down the housing chain. Policies that increase the price of new housing construction or any other of the factors noted above will ultimately raise the price of the existing housing stock, not just new houses, and at all price ranges.

This analysis has also shown that where housing is most expensive in the state, in Chittenden County, the market solution to this high housing price has been to construct lower cost, higher density housing in the form of condominiums. When this type of housing sells, it is the lower cost housing. Condominium construction should be promoted in the county as a solution to its high housing prices. Since more condominiums than detached single family houses can be constructed on a given piece of land, they represent a higher density type of housing, and therefore a lower cost portion of the housing market. If more condominiums are built, that will put downward pressure on all housing prices in the county.

The picture this study has painted of the Vermont housing market is one of a market characterized by a pattern of housing sales across the price spectrum throughout the counties of Vermont. Housing is available to Vermonters across the income distribution, although lower income Vermont families clearly have fewer choices than do families with higher incomes. Although the study finds that housing exists at different prices, it is still higher than in most other areas of the nation. To that extent, housing is less affordable in Vermont than in many areas of the nation. That hurts homeownership and hurts the competitiveness of the Vermont economy.

Appendix Table 1

Median Existing Home Prices in 1999 by MSA

1	San Jose, CA	$397,100
2	San Francisco, CA	$359,000
3	Salinas, CA	$327,700
4	Santa Cruz-Watsonville, CA	$327,400
5	Oakland, CA	$322,100
6	Honolulu, HI	$292,200
7	Orange County, CA	$281,400
8	Ventura, CA	$255,600
9	Santa Barbara-Lomopoc, CA	$254,500
10	Santa Rosa, CA	$241,700
11	Vallejo-Fairfield-NAPA, CO	$241,700
12	Boston-Worcester, MA-NH	$235,300
13	San Diego, CA	$230,800
14	Bergen-Passaic, NJ	$222,200
15	Barnstable-Yarmouth, MA	$220,700
16	Newark, NJ	$209,500
17	Jersey City, NJ	$205,500
18	San Luis Obispo, CA	$204,600
19	New York, NY	$203,300
20	Naples, FL	$202,700
21	Los Angeles-Long Beach, CA	$200,900
22	Dutchess County, NY	$200,500
23	Middlesex-Somerset, NJ	$199,000
24	Seattle-Bellevue, WA	$198,100
25	Boulder-Longmont, CO	$195,500
26	Newburgh, NY-PA	$191,200
27	Nassau-Suffolk, NY	$190,800
28	Washington, DC-MD-VA-WV	$175,700
29	New London-Norwich CT	$173,500
30	Chicago, IL	$171,000
31	Santa Fe, NM	$170,900
32	Denver, CO	$170,100
33	Ann Arbor, MI	$167,100
34	Raleigh-Durham-Chapel Hill, NC	$165,600
35	Portland, ME	$165,000
36	Monmouth-Ocean, NJ	$162,900
37	Chico-Paradise, CA	$160,100
38	Redding, CA	$160,100
39	Pittsfield, MA	$158,400
40	Anchorage, AK	$153,400
41	Reno, NV	$150,700
42	Hartford, CT	$149,500
43	Fort Collins-Loveland, CO	$149,100
44	Fort Pierce-Port St. Lucie, FL	$148,100
45	Charlottesville, VA	$146,700
46	Tacoma, WA	$145,900
47	New Haven-Bridgeport, CT	$144,700
48	Colorado Spring, CO	$144,100
49	Iowa City, IA	$143,900
50	Yolo, CA	$143,800
51	Trenton, NJ	$141,700
52	Provo-Orem, UT	$140,400
53	Medford-Ashland, OR	$139,900
54	Detroit, MI	$139,700
55	Myrtle Beach, SC	$138,400
56	Minneapolis-St.Paul, MN-WI	$138,300
57	Salt Lake City-Ogden, UT	$137,700
58	Charlotte-Gastonia, NC-SC	$137,100
59	Madison, WI	$137,000
60	Fort Lauderdale, FL	$136,100
61	**Burlington, VT**	**$135,700**
62	Sarasota-Bradenton, FL	$135,100
63	Miami, FL	$134,500
64	Milwaukee-Waukesha, WI	$134,400
65	Sacramento, CA	$133,000
66	Wilmington, NC	$132,400
67	Charleston SC	$132,000
68	Rochester, MN	$132,000
69	West Palm Beach, FL	$130,800
70	Las Vegas, NV-AZ	$130,600
71	Lancaster, PA	$130,400
72	Bellingham, WA	$130,300
73	Albuquerque, NM	$130,000
74	Punta Gorda, FL	$128,900
75	Riverside-San Bernadino CA	$128,800
76	Austin-San Marcos, TX	$128,700
77	Eugene-Springfield, OR	$128,700
78	Providence-Warwick, RI	$128,500
79	Athens, GA	$128,200
80	Richmond-Petersburg, VA	$128,000
81	Baltimore, MD	$127,100
82	Birmingham, AL	$127,000
83	Bremerton, WA	$126,800
84	Kenosha, WI	$126,800
85	Phoenix-Mesa, AZ	$126,300
86	Allentown-Bethlehem-Easton, PA	$126,100
87	Hamilton-Middletown, OH	$125,500
88	Greensboro-Winston Salem, NC	$125,000
89	Columbus, OH	$124,600
90	Cleveland-Lorain, OH	$124,000

91 Philadelphia, PA-NJ	$123,900	140 Lexington, KY	$111,400
92 Boise City, ID	$123,700	141 Richland-Kennewick, WA	$111,400
93 Atlanta, GA	$123,300	142 Bryan-College Station, TX	$111,200
94 Dallas, TX	$122,400	143 Memphis, TN-AR-MS	$110,900
95 Olympia, WA	$121,900	144 Bismarck, ND	$110,600
96 Hagerstown, MD	$121,800	145 Indianapolis, IN	$110,600
97 Wilmington-Newark, DE-MD	$121,800	146 Kalamazoo-Battle Creek, MI	$110,500
98 Greeley, CO	$121,400	147 Glens Falls, NY	$110,300
99 Lawrence, KS	$121,000	148 Reading, PA	$110,100
100 Greenville, NC	$120,900	149 Cheyenne, WY	$110,000
101 Cincinnati, OH-KY-IN	$120,600	150 Des Moines, IA	$109,700
102 Kansas City, MO	$120,400	151 Portland-Vancouver, OR-WA	$109,500
103 Bakersfield, CA	$120,300	152 Louisville, KY-IN	$109,400
104 Fresno, CA	$120,300	153 Omaha, NE-IA	$108,700
105 Merced, CA	$120,300	154 Columbia, SC	$108,400
106 Stockton-Lodi, CA	$120,300	155 Green Bay, WI	$108,400
107 Visalia-Tulare CA	$120,300	156 Salem, OR	$108,300
108 Roanoke, VA	$119,800	157 Knoxville, TN	$108,100
109 Bloomington, IN	$119,500	158 New Orleans, LA	$108,100
110 Racine, WI	$119,500	159 Billings, MT	$107,500
111 Dover, DE	$118,100	160 Goldsboro, NC	$107,400
112 Fort Walton Beach, FL	$117,900	161 Lafayette, IN	$107,000
113 Tallahassee, FL	$117,700	162 Gary, IN	$106,700
114 Modesto, CA	$117,600	163 Wausau, WI	$106,700
115 Fayetteville, NC	$117,500	164 Gainesville, FL	$106,600
116 Lewiston-Auburn, ME	$117,100	165 Spokane, WA	$106,600
117 Tucson, AZ	$117,100	166 Grand Rapids-Muskegon, MI	$106,500
118 Nashville, TN	$116,500	167 Lake Charles, LA	$106,500
119 Asheville, NC	$116,300	168 Albany, GA	$106,400
120 Huntsville, AL	$116,100	169 Charleston, WV	$106,000
121 Sheboygan, WI	$115,700	170 Janesville-Beloit, WI	$105,900
122 Savannah, GA	$115,500	171 Albany-Schenectady-Troy, NY	$105,800
123 Atlantic-Cape May, NJ	$115,400	172 Hickory-Morganton, NC	$105,300
124 Flagstaff, AZ-UT	$115,100	173 State College, PA	$105,300
125 Jacksonville, NC	$115,100	174 Cedar Rapids, IA	$105,100
126 Harrisburg-Lebanon, PA	$115,000	175 Orlando, FL	$105,100
127 Bloomington-Normal, IL	$114,800	176 Benton Harbor, MI	$105,000
128 Springfield, MA	$114,100	177 Decatur, AL	$104,900
129 Tuscaloosa, AL	$114,000	178 Houston, TX	$104,800
130 Norfolk-Virginia, VA-NC	$113,900	179 Lansing, MI	$104,800
131 York, PA	$113,900	180 Rocky Mount, NC	$104,800
132 Greenville-Spartanburg, SC	$113,400	181 Binghamton, NY	$104,400
133 Missoula, MT	$113,300	182 Sumter, SC	$104,200
134 Rapid City, SD	$113,000	183 Akron, OH	$104,100
135 Grand Junction, CO	$112,800	184 Dayton-Springfield, OH	$103,800
136 St. Cloud, MN	$111,900	185 Baton Rouge, LA	$103,300
137 Elkhart-Goshen, IN	$111,700	186 Canton-Massillon, OH	$103,300
138 Columbia, MO	$111,600	187 Brazoria, TX	$103,200
139 La Crosse, WI-MN	$111,500	188 Columbus, GA-AL	$102,900

189 Great Falls, MT	$102,800	238 Tulsa, OK	$92,700
190 Monroe, LA	$102,800	239 Kokomo, IN	$92,500
191 Panama City, FL	$102,800	240 Pueblo, CO	$92,300
192 Fayetteville-Springdale, AR	$102,600	241 Florence, AL	$92,000
193 Augusta-Aiken, GA-SC	$102,500	242 Fort Wayne, IN	$91,600
194 Houma, LA	$102,500	243 Owensboro, KY	$91,500
195 Alexandria, LA	$102,400	244 Victoria, TX	$91,300
196 Lakeland-Winter Haven, FL	$101,800	245 Wichita, KS	$91,300
197 St. Louis, MO-IL	$101,800	246 Mansfield, OH	$91,100
198 Flint, MI	$101,700	247 Lubbock, TX	$91,000
199 Lincoln, NE	$100,700	248 Utica-Rome, NY	$91,000
200 Florence, SC	$100,500	249 San Antonio, TX	$90,800
201 Fort Worth-Arlington, TX	$100,500	250 Yuma, AZ	$90,800
202 Dubuque, IA	$100,300	251 Little Rock, AR	$90,700
203 Macon, GA	$100,200	252 Melbourne-Titusville, FL	$90,400
204 Tyler, TX	$100,000	253 Champaign-Urbana, IL	$89,900
205 Las Cruces, NM	$99,900	254 Pittsburgh, PA	$89,800
206 Galveston-Texas City, TX	$99,700	255 Hattiesburg, MS	$89,400
207 Lafayette, LA	$99,700	256 Jonesboro, AR	$89,400
208 Sioux Falls, SD	$99,700	257 Huntington-Ashland, WV-KY-OH	$89,100
209 Grand Forks, ND	$99,300	258 Odessa-Midland, TX	$88,000
210 Evansville-Henderson, IN-KY	$99,200	259 Rochester, NY	$87,500
211 Lima, OH	$99,100	260 Biloxi-Gulfport MS	$86,400
212 Chattanooga, TN	$98,900	261 South Bend, IN	$86,400
213 Montgomery, AL	$98,700	262 Springfield, IL	$86,300
214 Pensacola, FL	$98,700	263 Yuba City, CA	$86,100
215 Eau Claire, WI	$98,500	264 Peoria-Pekin, IL	$85,500
216 Toledo, OH	$98,500	265 Springfield, MO	$85,400
217 Clarksville-Hopkinsville TN-KY	$98,100	266 Daytona Beach, FL	$85,200
218 Johnson City-Kingsport TN-VA	$97,800	267 Scranton-Wilkes-Barre, PA	$85,100
219 Jackson, TN	$96,900	268 Corpus Christi, TX	$84,900
220 Vineland-Millville, NJ	$96,700	269 Longview-Marshall, TX	$84,700
221 Parkersburg-Marietta, WV-OH	$95,900	270 Pocatello, ID	$84,200
222 Killeen-Temple, TX	$95,700	271 Wheeling, WV-OH	$84,200
223 Lynchburg, VA	$95,700	272 Waco, TX	$84,000
224 Jackson, MI	$95,200	273 Oklahoma City, OK	$83,800
225 Kankakee, IL	$95,100	274 Casper, WY	$83,700
226 Jacksonville, FL	$95,000	275 Shreveport-Bossier City, LA	$83,200
227 Jackson, MS	$94,900	276 Laredo, TX	$83,100
228 Anniston, AL	$94,700	277 San Angelo, TX	$82,800
229 Fort Myers-Cape Coral, FL	$94,600	278 Saginaw-Bay City, MI	$82,700
230 Dothan, AL	$94,500	279 Yakima, WA	$82,700
231 Tampa-St. Petersburg, FL	$94,300	280 Davenport-Moline, IA-IL	$82,200
232 Rockford, IL	$94,200	281 Syracuse, NY	$81,800
233 Lawton, OK	$93,600	282 Amarillo, TX	$81,400
234 Fargo-Moorhead, ND-MN	$93,500	283 Buffalo-Niagara Falls, NY	$81,300
235 Bangor, ME	$93,200	284 Fort Smith, AR-OK	$80,800
236 Mobile, AL	$93,100	285 Steubenville-Weirton, OH-WV	$80,400
237 Appleton-Oshkosh, WI	$92,800	286 Topeka, KS	$80,100

287	Decatur, IL	$79,000	
288	Gadsden, AL	$78,400	
289	El Paso, TX	$78,000	
290	Sherman-Denison, TX	$77,800	
291	Texarkana, TX-AR	$77,700	
292	Sioux City, IA-NE	$77,400	
293	Williamsport, PA	$77,400	
294	Wichita Falls, TX	$77,300	
295	Pine Bluff, AR	$77,100	
296	Beaumont-Port Arthur, TX	$76,700	
297	Erie, PA	$76,100	
298	Abilene, TX	$76,000	
299	Duluth-Superior, MN-WI	$75,900	
300	Muncie, IN	$75,900	
301	Youngstown-Warren, OH	$75,400	
302	Waterloo-Cedar Falls, IA	$74,600	
303	Danville, VA	$72,800	
304	Elmira, NY	$72,000	
305	St. Joseph, MO	$70,700	
306	Ocala, FL	$70,000	
307	Cumberland, MD-WV	$69,500	
308	Terre Haute, IN	$68,600	
309	Joplin, MO	$67,600	
310	Enid, OK	$65,900	
311	Jamestown, NY	$64,200	
312	Brownsville-Harlingen, TX	$64,100	
313	McAllen-Edinburg TX	$59,900	
314	Sharon, PA	$59,100	
315	Altoona, PA	$57,900	
316	Johnstown, PA	$57,900	

Appendix Table 2
Metro Area Per Capita Income 1998

1	San Francisco, CA	$45,199
2	Naples, FL	$42,813
3	New Haven-Bridgprt-Stamfrd, CT	$42,346
4	San Jose, CA	$40,828
5	West Palm Beach-Boca Raton, FL	$40,044
6	Bergen-Passaic, NJ	$39,750
7	Middlesex-Somerset-Hunterdon, NJ	$38,414
8	Trenton, NJ	$37,551
9	Nassau-Suffolk, NY	$37,381
10	Newark, NJ	$37,136
11	Seattle-Bellevue-Everett, WA	$36,854
12	New York, NY	$36,316
13	Boulder-Longmont, CO	$36,071
14	Washington, DC-MD-VA-WV	$36,043
15	Sarasota-Bradenton, FL	$34,178
16	Boston-Worcester,MA-NH	$34,127
17	Denver, CO	$34,092
18	Oakland, CA	$33,667
19	Hartford, CT	$33,647
20	Minneapolis-St. Paul, MN-WI	$33,561
21	Chicago, IL	$33,181
22	Reno, NV	$33,040
23	Anchorage, AK	$32,659
24	Barnstable-Yarmouth, MA	$32,612
25	Orange County, CA	$32,541
26	Dallas, TX	$32,406
27	Wilmington-Newark, DE-MD	$31,885
28	Monmouth-Ocean, NJ	$31,682
29	Ann Arbor, MI	$31,616
30	Santa Cruz-Watsonville, CA	$31,302
31	Philadelphia, PA-NJ	$31,295
32	Santa Rosa, CA	$30,911
33	Rochester, MN	$30,880
34	Houston, TX	$30,801
35	Atlanta, GA	$30,788
36	Atlantic-Cape May, NJ	$30,735
37	Milwaukee-Waukesha, WI	$30,582
38	Raleigh-Durham-Chapel Hill, NC	$30,394
39	Madison, WI	$30,214
40	Detroit, MI	$30,118
41	Portland, ME	$29,960
42	New London-Norwich, CT	$29,933
43	Dutchess County, NY	$29,812
44	Cedar Rapids, IA	$29,656
45	Baltimore, MD	$29,548
46	Des Moines, IA	$29,527
47	Portland-Vancouver, OR-WA	$29,430
48	Santa Fe, NM	$29,375
49	Nashville, TN	$29,344
50	Omaha, NE-IA	$29,307
51	Cleveland-Lorain-Elyria, OH	$29,239
52	Sioux Falls, SD	$29,131
53	St. Louis, MO-IL	$29,089
54	Austin-San Marcos, TX	$29,087
55	Indianapolis, IN	$29,022
56	Charlotte-Gastonia, NC-SC	$28,784
57	Fort Pierce-Port St. Lucie, FL	$28,732
58	Ventura, CA	$28,711
59	Santa Barbara-Santa Maria, CA	$28,698
60	Honolulu, HI	$28,670
61	Richmond-Petersburg, VA	$28,635
62	Fort Lauderdale, FL	$28,546
63	Charlottesville, VA	$28,513
64	Cincinnati, OH-KY-IN	$28,507
65	Kansas City, MO-KS	$28,473
66	Columbus, OH	$28,454
67	Casper, WY	$28,217
68	Salinas, CA	$28,185
69	Pittsburgh, PA	$28,149
70	Green Bay, WI	$28,114
71	Providence-Warwick-Pawtucket, RI	$28,007
72	Iowa City, IA	$27,785
73	Las Vegas, NV-AZ	$27,780
74	Harrisburg-Lebanon-Carlisle, PA	$27,767
75	Louisville, KY-IN	$27,749
76	Pittsfield, MA	$27,731
77	Racine, WI	$27,712
78	San Diego, CA	$27,657
79	Fort Myers-Cape Coral, FL	$27,640
80	Roanoke, VA	$27,624
81	Fort Collins-Loveland, CO	$27,607
82	Allentown-Bethlehem-Easton, PA	$27,599
83	Memphis, TN-AR-MS	$27,511
84	Reading, PA	$27,511
85	Lincoln, NE	$27,487
86	Albany-Schenectady-Troy, NY	$27,433
87	Rochester, NY	$27,390
88	Corvallis, OR	$27,307
89	Greensboro-Winston-Salem, NC	$27,283
90	Bloomington-Normal, IL	$27,260

91	Jacksonville, FL	$27,244	
92	Sacramento, CA	$27,232	
93	Tampa-St. Petersburg, FL	$27,224	
94	Springfield, IL	$27,215	
95	Jersey City, NJ	$26,970	
96	Akron, OH	$26,934	
97	Lexington, KY	$26,912	
98	Fort Worth-Arlington, TX	$26,790	
99	**Burlington, VT**	**$26,787**	
100	Los Angeles-Long Beach, CA	$26,773	
101	Grand Rapids-Muskegon, MI	$26,694	
102	Phoenix-Mesa, AZ	$26,686	
103	Peoria-Pekin, IL	$26,679	
104	Appleton-Oshkosh-Neenah, WI	$26,659	
105	Fort Wayne, IN	$26,659	
106	Birmingham, AL	$26,582	
107	Tulsa, OK	$26,533	
108	Boise City, ID	$26,461	
109	Kokomo, IN	$26,423	
110	Dayton-Springfield, OH	$26,422	
111	Lancaster, PA	$26,303	
112	Colorado Springs, CO	$26,270	
113	Wichita, KS	$26,211	
114	Sheboygan, WI	$26,149	
115	Springfield, MA	$26,131	
116	Little Rock-North Little Rock, AR	$26,105	
117	Evansville-Henderson, IN-KY	$26,079	
118	Toledo, OH	$26,077	
119	Davenport-Moline, IA-IL	$26,003	
120	Columbia, SC	$25,995	
121	Rockford, IL	$25,938	
122	Vallejo-Fairfield-Napa, CA	$25,874	
123	Kenosha, WI	$25,833	
124	Yolo, CA	$25,791	
125	South Bend, IN	$25,782	
126	Charleston, WV	$25,745	
127	Decatur, IL	$25,674	
128	Buffalo-Niagara Falls, NY	$25,654	
129	Cheyenne, WY	$25,613	
130	Columbia, MO	$25,606	
131	York, PA	$25,596	
132	Orlando, FL	$25,555	
133	Elkhart-Goshen, IN	$25,527	
134	Topeka, KS	$25,508	
135	Gary, IN	$25,451	
136	Hamilton-Middletown, OH	$25,372	
137	Asheville, NC	$25,347	
138	Huntsville, AL	$25,305	
139	New Orleans, LA	$25,225	
140	Tyler, TX	$25,190	
141	Savannah, GA	$25,135	
142	Fargo-Moorhead, ND-MN	$25,073	
143	Saginaw-Bay City-Midland, MI	$25,010	
144	Tallahassee, FL	$24,978	
145	Olympia, WA	$24,895	
146	Albuquerque, NM	$24,842	
147	San Luis Obispo-Atascadero, CA	$24,807	
148	Wausau, WI	$24,781	
149	La Crosse, WI-MN	$24,742	
150	Kalamazoo-Battle Creek, MI	$24,726	
151	Odessa-Midland, TX	$24,718	
152	Salt Lake City-Ogden, UT	$24,698	
153	Duluth-Superior, MN-WI	$24,676	
154	Gainesville, FL	$24,656	
155	Fort Walton Beach, FL	$24,655	
156	Knoxville, TN	$24,640	
157	Chattanooga, TN-GA	$24,622	
158	Newburgh, NY-PA	$24,595	
159	Canton-Massillon, OH	$24,590	
160	Jackson, MS	$24,542	
161	Tacoma, WA	$24,500	
162	Dubuque, IA	$24,499	
163	Waterloo-Cedar Falls, IA	$24,484	
164	Billings, MT	$24,425	
165	Baton Rouge, LA	$24,403	
166	Janesville-Beloit, WI	$24,356	
167	Galveston-Texas City, TX	$24,303	
168	Wilmington, NC	$24,272	
169	Benton Harbor, MI	$24,235	
170	Lansing-East Lansing, MI	$24,226	
171	Syracuse, NY	$24,219	
172	Sioux City, IA-NE	$24,173	
173	Eugene-Springfield, OR	$24,151	
174	Victoria, TX	$24,131	
175	Fayetteville, NC	$24,104	
176	Montgomery, AL	$24,084	
177	Flint, MI	$23,947	
178	Miami, FL	$23,919	
179	Bismarck, ND	$23,885	
180	Rapid City, SD	$23,858	
181	San Antonio, TX	$23,800	
182	Binghamton, NY	$23,775	
183	Norfolk-Virginia Beach,VA-NC	$23,771	
184	Scranton-Wilkes-Barre-Hazleton, PA	$23,764	
185	Melbourne-Titusville-Palm Bay, FL	$23,758	
186	Champaign-Urbana, IL	$23,753	
187	Punta Gorda, FL	$23,752	
188	Greenville-Spartanburg, SC	$23,729	

189 Jackson, TN	$23,725	238 Parkersburg-Marietta, WV-OH	$22,304
190 Great Falls, MT	$23,721	239 Utica-Rome, NY	$22,302
191 Hickory-Morganton-Lenoir, NC	$23,720	240 Lynchburg, VA	$22,268
192 Erie, PA	$23,622	241 Altoona, PA	$22,216
193 Muncie, IN	$23,545	242 Dover, DE	$22,178
194 Amarillo, TX	$23,495	243 Panama City, FL	$22,163
195 Lubbock, TX	$23,451	244 San Angelo, TX	$22,140
196 Spokane, WA	$23,450	245 Lake Charles, LA	$22,139
197 Eau Claire, WI	$23,431	246 Longview-Marshall, TX	$22,131
198 Springfield, MO	$23,399	247 Owensboro, KY	$22,126
199 Oklahoma City, OK	$23,337	248 Florence, SC	$22,114
200 Lafayette, IN	$23,312	249 Glens Falls, NY	$22,109
201 Hagerstown, MD	$23,282	250 Jacksonville, NC	$22,109
202 State College, PA	$23,272	251 Tuscaloosa, AL	$22,063
203 Missoula, MT	$23,234	252 Alexandria, LA	$22,062
204 Medford-Ashland, OR	$23,214	253 Redding, CA	$21,986
205 Athens, GA	$23,160	254 Rocky Mount, NC	$21,979
206 Youngstown-Warren, OH	$23,089	255 Daytona Beach, FL	$21,869
207 Myrtle Beach, SC	$23,088	256 Biloxi-Gulfport-Pascagoula, MS	$21,828
208 Salem, OR	$23,072	257 Waco, TX	$21,826
209 Macon, GA	$23,067	258 Greeley, CO	$21,803
210 Abilene, TX	$23,012	259 Williamsport, PA	$21,791
211 Bremerton, WA	$22,957	260 Dothan, AL	$21,790
212 Grand Forks, ND-MN	$22,921	261 Mansfield, OH	$21,784
213 Fayetteville-Springdale-Rogers, AR	$22,895	262 Bangor, ME	$21,743
214 Shreveport-Bossier City, LA	$22,858	263 Pensacola, FL	$21,719
215 Wichita Falls, TX	$22,851	264 Joplin, MO	$21,691
216 Beaumont-Port Arthur, TX	$22,848	265 Albany, GA	$21,619
217 Brazoria, TX	$22,844	266 Ocala, FL	$21,533
218 Richland-Kennewick-Pasco, WA	$22,829	267 Charleston-North Charleston, SC	$21,529
219 Lima, OH	$22,818	268 Lafayette, LA	$21,487
220 Greenville, NC	$22,772	269 Pueblo, CO	$21,379
221 Decatur, AL	$22,767	270 Wheeling, WV-OH	$21,348
222 Vineland-Millville-Bridgeton, NJ	$22,756	271 Corpus Christi, TX	$21,326
223 Bellingham, WA	$22,732	272 Riverside-San Bernardino, CA	$21,300
224 Tucson, AZ	$22,723	273 Fort Smith, AR-OK	$21,257
225 Enid, OK	$22,720	274 Lawton, OK	$21,257
226 Lewiston-Auburn, ME	$22,671	275 Sharon, PA	$21,231
227 Augusta-Aiken, GA-SC	$22,665	276 Monroe, LA	$21,230
228 Bloomington, IN	$22,636	277 Johnson City-Kingsport, TN-VA	$21,201
229 Lakeland-Winter Haven, FL	$22,609	278 Killeen-Temple, TX	$21,178
230 Kankakee, IL	$22,596	279 Terre Haute, IN	$21,154
231 Jackson, MI	$22,576	280 Modesto, CA	$21,136
232 St. Cloud, MN	$22,539	281 Mobile, AL	$21,062
233 Elmira, NY	$22,524	282 Florence, AL	$21,054
234 Grand Junction, CO	$22,491	283 Houma, LA	$20,861
235 Columbus, GA-AL	$22,435	284 Chico-Paradise, CA	$20,838
236 St. Joseph, MO	$22,434	285 Stockton-Lodi, CA	$20,813
237 Sherman-Denison, TX	$22,417	286 Jonesboro, AR	$20,771

287 Johnstown, PA	$20,729
288 Yakima, WA	$20,718
289 Lawrence, KS	$20,645
290 Texarkana, TX-Texarkana AR	$20,640
291 Clarksville-Hopkinsville, TN-KY	$20,456
292 Jamestown, NY	$20,387
293 Gadsden, AL	$20,328
294 Anniston, AL	$20,315
295 Steubenville-Weirton, OH-WV	$20,224
296 Bryan-College Station, TX	$20,121
297 Flagstaff, AZ-UT	$20,050
298 Fresno, CA	$19,947
299 Huntington-Ashland, WV-KY-OH	$19,804
300 Cumberland, MD-WV	$19,776
301 Pocatello, ID	$19,759
302 Danville, VA	$19,738
303 Goldsboro, NC	$19,710
304 Bakersfield, CA	$19,643
305 Yuba City, CA	$19,532
306 Pine Bluff, AR	$19,357
307 Hattiesburg, MS	$19,130
308 Visalia-Tulare-Porterville, CA	$18,893
309 Auburn-Opelika, AL	$18,831
310 Yuma, AZ	$18,277
311 Provo-Orem, UT	$17,956
312 Merced, CA	$17,732
313 Sumter, SC	$17,294
314 Las Cruces, NM	$16,599
315 El Paso, TX	$16,359
316 Laredo, TX	$13,870
317 Brownsville-Harlingen, TX	$13,766
318 McAllen-Edinburg-Mission, TX	$12,759

Appendix Table 3
Index of Relative Affordability of Housing in MSAs

1	Salinas, CA	11.63
2	Santa Cruz-Watsonville, CA	10.46
3	Honolulu, HI	10.19
4	San Jose, CA	9.73
5	Oakland, CA	9.57
6	Vallejo-Fairfield-Napa, CA	9.34
7	Ventura, CA	8.90
8	Santa Barbara-Santa Maria, CA	8.87
9	Orange County, CA	8.65
10	San Diego, CA	8.35
11	San Luis Obispo-Atascadero, CA	8.25
12	San Francisco, CA	7.94
13	Santa Rosa, CA	7.82
14	Provo-Orem, UT	7.82
15	Newburgh, NY-PA	7.77
16	Chico-Paradise, CA	7.68
17	Jersey City, NJ	7.62
18	Los Angeles-Long Beach, CA	7.50
19	Redding, CA	7.28
20	Boston-Worcester-Lawrence, MA-NH	6.89
21	Merced, CA	6.78
22	Barnstable-Yarmouth, MA (NECMA)	6.77
23	Dutchess County, NY	6.73
24	Visalia-Tulare-Porterville, CA	6.37
25	Charleston-North Charleston, SC	6.13
26	Bakersfield, CA	6.12
27	Riverside-San Bernardino, CA	6.05
28	Fresno, CA	6.03
29	Medford-Ashland, OR	6.03
30	Sumter, SC	6.03
31	Las Cruces, NM	6.02
32	Myrtle Beach, SC	5.99
33	Laredo, TX	5.99
34	Tacoma, WA	5.96
35	Lawrence, KS	5.86
36	Santa Fe, NM	5.82
37	New London-Norwich, CT	5.80
38	Stockton-Lodi, CA	5.78
39	Flagstaff, AZ-UT	5.74
40	Bellingham, WA	5.73
41	Pittsfield, MA	5.71
42	Newark, NJ	5.64
43	Miami, FL	5.62
44	New York, NY	5.60
45	Bergen-Passaic, NJ	5.59
46	Yolo, CA	5.58
47	Salt Lake City-Ogden, UT	5.58
48	Greeley, CO	5.57
49	Modesto, CA	5.56
50	Athens, GA	5.54
51	Bryan-College Station, TX	5.53
52	Bremerton, WA	5.52
53	Portland, ME	5.51
54	Colorado Springs, CO	5.49
55	Wilmington, NC	5.45
56	Goldsboro, NC	5.45
57	Raleigh-Durham-Chapel Hill, NC	5.45
58	Punta Gorda, FL	5.43
59	Boulder-Longmont, CO	5.42
60	Fort Collins-Loveland, CO	5.40
61	Seattle-Bellevue-Everett, WA	5.38
62	Eugene-Springfield, OR	5.33
63	Dover, DE	5.33
64	Greenville, NC	5.31
65	Ann Arbor, MI	5.29
66	Bloomington, IN	5.28
67	Albuquerque, NM	5.23
68	Hagerstown, MD	5.23
69	Jacksonville, NC	5.21
70	Middlesex-Somerset-Hunterdon, NJ	5.18
71	Iowa City, IA	5.18
72	Tuscaloosa, AL	5.17
73	Lewiston-Auburn, ME	5.17
74	Fort Pierce-Port St. Lucie, FL	5.15
75	Chicago, IL	5.15
76	Tucson, AZ	5.15
77	Charlottesville, VA	5.15
78	Monmouth-Ocean, NJ	5.14
79	Nassau-Suffolk, NY	5.10
80	**Burlington, VT**	**5.07**
81	Grand Junction, CO	5.02
82	Denver, CO	4.99
83	Glens Falls, NY	4.99
84	Lafayette, LA	4.98
85	Yuma, AZ	4.97
86	St. Cloud, MN	4.96
87	Lancaster, PA	4.96
88	Hamilton-Middletown, OH	4.95
89	Albany, GA	4.92
90	Houma, LA	4.91

91	Kenosha, WI	4.91	
92	Olympia, WA	4.90	
93	Sacramento, CA	4.88	
94	Richland-Kennewick-Pasco, WA	4.88	
95	Missoula, MT	4.88	
96	Washington, DC-MD-VA-WV	4.87	
97	Fayetteville, NC	4.87	
98	Monroe, LA	4.84	
99	Lake Charles, LA	4.81	
100	Clarksville-Hopkinsville, TN-KY	4.80	
101	Norfolk-Virginia Beach-, VA-NC	4.79	
102	Fort Walton Beach, FL	4.78	
103	Greenville-Spartanburg-Anderson, SC	4.78	
104	Birmingham, AL	4.78	
105	Rocky Mount, NC	4.77	
106	El Paso, TX	4.77	
107	Fort Lauderdale, FL	4.77	
108	Charlotte-Gastonia-Rock Hill, NC-SC	4.76	
109	Rapid City, SD	4.74	
110	Naples, FL	4.73	
111	Phoenix-Mesa, AZ	4.73	
112	Tallahassee, FL	4.71	
113	Las Vegas, NV-AZ	4.70	
114	Anchorage, AK	4.70	
115	McAllen-Edinburg-Mission, TX	4.69	
116	Salem, OR	4.69	
117	Boise City, ID	4.67	
118	Hattiesburg, MS	4.67	
119	Anniston, AL	4.66	
120	Brownsville-Harlingeny, TX	4.66	
121	Alexandria, LA	4.64	
122	Detroit, MI	4.64	
123	Panama City, FL	4.64	
124	Bismarck, ND	4.63	
125	Johnson City-Kingsporty, TN-VA	4.61	
126	Decatur, AL	4.61	
127	Savannah, GA	4.60	
128	Asheville, NC	4.59	
129	Providence-Warwick-Pawtucket, RI	4.59	
130	Huntsville, AL	4.59	
131	Columbus, GA-AL	4.59	
132	Greensboro-Winston-Salem, NC	4.58	
133	Allentown-Bethlehem-Easton, PA	4.57	
134	Reno, NV	4.56	
135	Spokane, WA	4.55	
136	Florence, SC	4.54	
137	Pensacola, FL	4.54	
138	Madison, WI	4.53	
139	State College, PA	4.52	
140	Augusta-Aiken, GA-SC	4.52	
141	Killeen-Temple, TX	4.52	
142	Brazoria, TX	4.52	
143	La Crosse, WI-MN	4.51	
144	Lakeland-Winter Haven, FL	4.50	
145	Huntington-Ashland, WV-KY-OH	4.50	
146	Fayetteville-Springdale-Rogers, AR	4.48	
147	Richmond-Petersburg, VA	4.47	
148	Kalamazoo-Battle Creek, MI	4.47	
149	York, PA	4.45	
150	Hartford, CT	4.44	
151	Hickory-Morganton-Lenoir, NC	4.44	
152	Austin-San Marcos, TX	4.42	
153	Sheboygan, WI	4.42	
154	Mobile, AL	4.42	
155	Yuba City, CA	4.41	
156	Lawton, OK	4.40	
157	Billings, MT	4.40	
158	Milwaukee-Waukesha, WI	4.39	
159	Binghamton, NY	4.39	
160	Knoxville, TN	4.39	
161	Columbus, OH	4.38	
162	Elkhart-Goshen, IN	4.38	
163	Florence, AL	4.37	
164	Springfield, MA	4.37	
165	Columbia, MO	4.36	
166	Janesville-Beloit, WI	4.35	
167	Macon, GA	4.34	
168	Lima, OH	4.34	
169	Dothan, AL	4.34	
170	Roanoke, VA	4.34	
171	Great Falls, MT	4.33	
172	Benton Harbor, MI	4.33	
173	Grand Forks, ND-MN	4.33	
174	Lansing-East Lansing, MI	4.33	
175	Gainesville, FL	4.32	
176	Pueblo, CO	4.32	
177	Racine, WI	4.31	
178	Wausau, WI	4.31	
179	Jonesboro, AR	4.30	
180	Baltimore, MD	4.30	
181	Parkersburg-Marietta, WV-OH	4.30	
182	Lynchburg, VA	4.30	
183	Cheyenne, WY	4.29	
184	Bangor, ME	4.29	
185	New Orleans, LA	4.29	
186	Lafayette, IN	4.28	
187	Rochester, MN	4.27	
188	Pocatello, ID	4.26	

189 Vineland-Millville-Bridgeton, NJ	4.25	238 Waco, TX	3.85
190 Flint, MI	4.25	239 Longview-Marshall, TX	3.83
191 Cleveland-Lorain-Elyria, OH	4.24	240 Wilmington-Newark, DE-MD	3.82
192 Baton Rouge, LA	4.23	241 San Antonio, TX	3.82
193 Cincinnati, OH-KY-IN	4.23	242 Indianapolis, IN	3.81
194 Kansas City, MO-KS	4.23	243 Melbourne-Titusville-Palm Bay, FL	3.81
195 Jackson, MI	4.22	244 Evansville-Henderson, IN-KY	3.80
196 Bloomington-Normal, IL	4.21	245 Fort Smith, AR-OK	3.80
197 Kankakee, IL	4.21	246 Champaign-Urbana, IL	3.78
198 Eau Claire, WI	4.20	247 Victoria, TX	3.78
199 Canton-Massillon, OH	4.20	248 Toledo, OH	3.78
200 Gary, IN	4.19	249 Dallas, TX	3.78
201 Mansfield, OH	4.18	250 Trenton, NJ	3.77
202 Columbia, SC	4.17	251 Texarkana, TX-Texarkana AR	3.76
203 Harrisburg-Lebanon-Carlisle, PA	4.14	252 Atlantic-Cape May, NJ	3.75
204 Lexington, KY	4.14	253 Fort Worth-Arlington, TX	3.75
205 Owensboro, KY	4.14	254 San Angelo, TX	3.74
206 Minneapolis-St. Paul, MN-WI	4.12	255 Fargo-Moorhead, ND-MN	3.73
207 Charleston, WV	4.12	256 Portland-Vancouver, OR-WA	3.72
208 Orlando, FL	4.11	257 Des Moines, IA	3.72
209 Galveston-Texas City, TX	4.10	258 Omaha, NE-IA	3.71
210 Montgomery, AL	4.10	259 Danville, VA	3.69
211 Dubuque, IA	4.09	260 Lincoln, NE	3.66
212 Jackson, TN	4.08	261 Springfield, MO	3.65
213 Utica-Rome, NY	4.08	262 Shreveport-Bossier City, LA	3.64
214 Memphis, TN-AR-MS	4.03	263 Rockford, IL	3.63
215 Chattanooga, TN-GA	4.02	264 Oklahoma City, OK	3.59
216 Atlanta, GA	4.00	265 Scranton-Wilkes-Barre-Hazleton, PA	3.58
217 Reading, PA	4.00	266 Odessa-Midland, TX	3.56
218 Yakima, WA	3.99	267 Williamsport, PA	3.55
219 Grand Rapids-Muskegon-Holland, MI	3.99	268 Cedar Rapids, IA	3.54
220 Pine Bluff, AR	3.98	269 Cumberland, MD-WV	3.51
221 Corpus Christi, TX	3.98	270 Kokomo, IN	3.50
222 Steubenville-Weirton, OH-WV	3.98	271 St. Louis, MO-IL	3.50
223 Nashville, TN	3.97	272 Tulsa, OK	3.49
224 Tyler, TX	3.97	273 Jacksonville, FL	3.49
225 Philadelphia, PA-NJ	3.96	274 Wichita, KS	3.48
226 Biloxi-Gulfport-Pascagoula, MS	3.96	275 Appleton-Oshkosh-Neenah, WI	3.48
227 Sarasota-Bradenton, FL	3.95	276 Little Rock-North Little Rock, AR	3.47
228 Wheeling, WV-OH	3.94	277 Sherman-Denison, TX	3.47
229 Louisville, KY-IN	3.94	278 Amarillo, TX	3.46
230 Dayton-Springfield, OH	3.93	279 Tampa-St. Petersburg-Clearwater, FL	3.46
231 Daytona Beach, FL	3.90	280 Fort Wayne, IN	3.44
232 Lubbock, TX	3.88	281 Fort Myers-Cape Coral, FL	3.42
233 Jackson, MS	3.87	282 Sioux Falls, SD	3.42
234 Akron, OH	3.87	283 New Haven-Bridgprt-Stamford, CT	3.42
235 Gadsden, AL	3.86	284 Houston, TX	3.40
236 Albany-Schenectady-Troy, NY	3.86	285 Wichita Falls, TX	3.38
237 Green Bay, WI	3.86	286 Syracuse, NY	3.38

287 Beaumont-Port Arthur, TX	3.36
288 South Bend, IN	3.35
289 Saginaw-Bay City-Midland, MI	3.31
290 Abilene, TX	3.30
291 West Palm Beach-Boca Raton, FL	3.27
292 Youngstown-Warren, OH	3.27
293 Ocala, FL	3.25
294 Terre Haute, IN	3.24
295 Muncie, IN	3.22
296 Erie, PA	3.22
297 Peoria-Pekin, IL	3.20
298 Sioux City, IA-NE	3.20
299 Elmira, NY	3.20
300 Rochester, NY	3.19
301 Pittsburgh, PA	3.19
302 Springfield, IL	3.17
303 Buffalo-Niagara Falls, NY	3.17
304 Davenport-Moline-Rock Island, IA-IL	3.16
305 St. Joseph, MO	3.15
306 Jamestown, NY	3.15
307 Topeka, KS	3.14
308 Joplin, MO	3.12
309 Decatur, IL	3.08
310 Duluth-Superior, MN-WI	3.08
311 Waterloo-Cedar Falls, IA	3.05
312 Casper, WY	2.97
313 Enid, OK	2.90
314 Johnstown, PA	2.79
315 Sharon, PA	2.78
316 Altoona, PA	2.61

VERMONT BUSINESS ROUNDTABLE

Economic Development Task Force
Chairman: Michael D. Flynn, *Gallagher, Flynn & Company, PLC*

Task Force Members:
Scott F. Boardman, *Hickok & Boardman, Inc.*; Richard G. Brandenburg, *The University of Vermont*; Frank Cioffi, *Cynosure, Inc.*; Staige Davis, *Lang Associates*; Otto A. Engelberth, *Engelberth Construction, Inc.*; Gary N. Farrell, *Clarion Hotel & Conference Center*; A. Jay Kenlan, *Reiber, Kenlan, Schwiebert, Hall & Facey*; John S. Kimbell, *Vermont Gas Systems, Inc.*; William H. Meub, *Keyser, Crowley, P.C.*; William R. Milnes, Jr., *Blue Cross and Blue Shield of Vermont, Inc.*; Timothy T. Mueller, *Okemo Mountain, Inc.*; A. Wayne Roberts, *Lake Champlain Regional Chamber of Commerce*; Dale A. Rocheleau, *Downs Rachlin & Martin PLLC*; Mark W. Saba, *Formula Ford, Inc.*; Calvin C. Staudt, Jr., *International Paper*; William H. Truex, *Truex Cullins & Partners Architects*; Mark A. Vogelzang, *Vermont Public Radio*; J. Alvin Wakefield, *Wakefield Talabisco International; Glen A. Wright,* KPMG LLP

Roundtable Officers, Directors, and Members:
Chairman: William H. Schubart, *Resolution, Inc.*; **Vice Chairman:** Maynard F. McLaughlin, *Bread Loaf Corporation*; **President:** Maxine N. Brandenburg, *Vermont Business Roundtable*; **Secretary:** Staige Davis, *Lang Associates*; **Treasurer:** Glen A. Wright, *KPMG LLP*
Directors: John K. Dwight, *Dwight Asset Management Company, Inc.*; Gary N. Farrell, *Clarion Hotel & Conference Center*; Michael D. Flynn, *Gallagher, Flynn & Company, PLC*; A. Jay Kenlan, *Reiber, Kenlan, Schwiebert, Hall & Facey*; Spencer R. Knapp, *Dinse, Knapp & McAndrew, P.C.*; Peter H. Kreisel, *Kreisel, Segear & Co.*; Peter R. Martin, *Mt. Mansfield Television Company, Inc.*; Bernier L. Mayo, *St. Johnsbury Academy*; V. Louise McCarren, *Verizon*; Thomas F. McLaughlin, *RCC Atlantic, Inc. d/b/a Cellular One;* William R. Milnes, Jr., *Blue Cross and Blue Shield of Vermont*; R. John Mitchell, *The Times Argus*; Timothy T. Mueller, *Okemo Mountain, Inc.*; Roger H. Perry, *Champlain College*; Judith A. Ramaley, *The University of Vermont*; Chris A. Robbins, *EHV-Weidmann Industries, Inc.*; Dale A. Rocheleau, *Downs Rachlin & Martin PLLC*; Francis G. Voigt, *New England Culinary Institute*; Timothy R. Volk, *Kelliher Samets Volk*; J. Alvin Wakefield, *Wakefield Talabisco International*; Patrick E. Welch, *National Life Insurance Company*
Members: Harry Arnold, *BF Goodrich Aerospace, Fuel and Utility Systems*; Christopher G. Barbieri, *Vermont Chamber of Commerce*; Ross P. Barkhurst, *Vermont Yankee Nuclear Power Corporation*; Stephen W. Bartlett, *New England Air Systems, Inc.*; Pennie Beach, *Basin Harbor Club*; Frederic H. Bertrand, *Member Emeritus*; Scott F. Boardman, *Hickok & Boardman, Inc.*; William V. Boettcher, *Fletcher Allen Health Care*; Steven J. Bourgeois, *Franklin Lamoille Bank*; William J. Breed, *Johnson & Dix Fuel Corporation*; David N. Brown, *Vermont Heating & Ventilating Company, Inc.*; James M. Carey, *The Burlington Free Press*; Richard M. Chapman, *Vermont Electric Power Company, Inc.*; Frank Cioffi, *Cynosure, Inc.*; Robert G. Clarke, *Vermont State Colleges*; John C. Collins, *Dartmouth-Hitchcock Clinic, DHMC*; Reggie G. Cooper, *Topnotch at Stowe Resort and Spa*; James L. Daily, *Porter Medical Center, Inc.*; Philip R. Daniels, *The Howard Bank, N.A.*; Lawrence Delia, *ABC 22, WVNY*; Thomas M. Dowling, *Ryan Smith & Carbine, Ltd.*; Philip R. Drumheller, *The Lane Press, Inc.*; Christopher L. Dutton, *Green Mountain Power Corporation*; Argie Economou, *Morgan Stanley Dean Witter*; Otto A. Engelberth, *Engelberth Construction, Inc.*; Richard J. Fitzpatrick, *Banknorth Group, Inc.*; James B. Foster, *Foster Real Estate Development and Edlund Properties*; Henry J. Geipel, Jr., *IBM Microelectronics*; Michael L. Gould, *Husky Injection Molding Systems, Inc.*; Luther F. Hackett, *Hackett Valine & MacDonald, Inc.*; Eleanor G. Haskin, *Waitsfield/Champlain Valley Telecom*; James A. Hester, *MVP Health Plan, Vermont Region*; Linda P. Hudson, *General Dynamics Armament Systems*; Thomas W. Huebner, *Rutland Regional Medical Center*; Paul Kaza, *Paul Kaza Associates*; Donald S. Kendall, *Mack Molding Company, Inc.*; James R. Keyes, *First Vermont Bank and Trust Company*; F. Ray Keyser, Jr., *Member Emeritus*; John S. Kimbell, *Vermont Gas Systems, Inc.*; John E. King, *Vermont Public Television*; Candis Chase Leopold, *Montpelier Broadcasting, Inc.*; Richard W. Mallary, *Member Emeritus*; Daria V. Mason, *Central Vermont Medical Center*; John M. McCardell, Jr., *Middlebury College*; Bruce S. McCloy, *Sugarbush Resort*; Stewart H. McConaughy, *Gravel and Shea*; Marilyn R. McConnell, *American International Distribution Corporation (AIDC)*; John F. McLaughlin, *Union Mutual Fire Insurance Co. and New England Guaranty Insurance Company, Inc.*; William H. Meub, *Keyser, Crowley, P.C.*; Martin K. Miller, *Miller Eggleston & Cramer, Ltd.*; T. Kent Mitchell, *House of Troy*; Mark R. Neagley, *Neagley & Chase Construction Co.*; Leslie B. Otten, *American Skiing Company*; Richard T. Palmisano II, *Brattleboro Retreat*; Scott Pierpont, *Mount Snow Resort*; George A. Powch, *Huber + Suhner Americas Corporation*; Will R. Raap, *Gardener's Supply Company*; Elisabeth B. Robert, *Vermont Teddy Bear*; A. Wayne Roberts, *Lake Champlain Regional Chamber of Commerce*; John A. Russell, Jr., *John A. Russell Corporation*; Mark W. Saba, *Formula Ford, Inc.*; Thomas P. Salmon, *Member Emeritus*; John T. Sartore, *Paul, Frank & Collins, Inc.*; Richard W. Schneider, *Norwich University*; Charles P. Smith, *KeyBank National Association*; Robert L. Snowdon, *Adelphia*; Richard W. Stammer, *Cabot Creamery*; Calvin C. Staudt, Jr., *International Paper*; Robert P. Stiller, *Green Mountain Coffee Roasters*; Robert F. Stott, *Verizon Wireless*; Lawrence E. Sudbay, *SymQuest Group, Inc.*; Peter J. Szafir, *Karl Suss America, Inc.*; Richard E. Tarrant, *IDX Systems Corporation*; Dawn Terrill, *Hill Associates, Inc.*; Kevin Tibbits, *Kinney Pike Bell & Conner, Inc.;* Thomas J. Tierney, *Vermont Mutual Insurance Company*; William H. Truex, Jr., *Truex Cullins & Partners Architects*; Rodolphe M. Vallee, *R. L. Vallee, Inc.*; Marc A. vanderHeyden, *Saint Michael's College*; Mark A. Vogelzang, *Vermont Public Radio*; Michael G. Walker, *NewsBank, Inc.*; Dennis B. Webster, *Wiemann-Lamphere Architects, Inc.*; Patrick E. Welch, *National Life Insurance Company*; Stuart W. Weppler, *Copley Health Systems, Inc.*; Allen W. Wilson, *Killington Resort*; Joseph L. Woodin, *Gifford Medical Center, Inc.*; Darrell J. Woulf, *Wyeth Nutritionals, Inc.*; L. Kinvin Wroth, *Vermont Law School*; Harvey M. Yorke, *Southwestern Vermont Health Care*; Robert H. Young, *Central Vermont Public Service Corporation*