

Housing Prices, Availability, and Affordability in Vermont

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by

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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 30 th 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)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Town	Median Price	Total Houses Sold	Total Sales in Town as Share of	30th Percentile Price	Number of Sales at 30 th Percentile Price or Below	Number of Sales Below \$80,000	Sales in Town Below \$80,000: Town as Percent of County
			Total Houses Sold in 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	26	Wisconsin	\$112,000
2	Massachusetts	\$224,500	27	South Carolina	\$110,600
3	California	\$217,000	28	Pennsylvania	\$107,700
4	New Jersey	\$189,500	29	Ohio	\$107,500
5	New York	\$160,800	30	Georgia	\$107,300
6	New Hampshire	\$158,700	31	Idaho	\$102,700
7	Delaware	\$158,600	32	Alabama	\$101,800
8	Washington	\$152,600	33	Tennessee	\$100,700
9	Colorado	\$152,000	34	Nebraska	\$98,300
10	Connecticut	\$147,000	35	Texas	\$97,700
11	Illinois	\$145,500	36	Louisiana	\$97,100
12	Oregon	\$141,700	37	Montana	\$97,100
13	Nevada	\$135,100	38	Indiana	\$96,400
14	Utah	\$130,800	39	North Dakota	\$95,700
15	Rhode Island	\$130,400	40	Kansas	\$94,300
16	Alaska	\$128,500	41	Maine	\$94,300
17	Maryland	\$127,900	42	Iowa	\$93,800
18	Virginia	\$127,400	43	Missouri	\$93,000
19	Vermont	\$126,400	44	South Dakota	\$90,900
20	North Carolina	\$124,300	45	Wyoming	\$90,800
21	Michigan	\$120,900	46	Kentucky	\$89,500
22	Minnesota	\$119,100	47	West Virginia	\$85,200
23	Arizona	\$116,300	48	Arkansas	\$82,800
24	New Mexico	\$113,900	49	Mississippi	\$80,200
25	Florida	\$112,500	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	26	Pennsylvania	\$38,938
2	Maryland	\$50,630	27	New York	\$38,479
3	New Jersey	\$50,234	28	Iowa	\$38,047
4	Connecticut	\$47,997	29	Kansas	\$37,618
5	Colorado	\$46,950	30	Nebraska	\$37,338
6	Minnesota	\$46,802	31	Texas	\$37,320
7	Washington	\$46,788	32	North Carolina	\$37,057
8	Utah	\$45,257	33	Maine	\$36,459
9	New Hampshire	\$44,891	34	Arizona	\$36,337
10	Virginia	\$44,884	35	Wyoming	\$36,039
11	Delaware	\$44,627	36	Idaho	\$36,023
12	Illinois	\$44,459	37	Alabama	\$35,478
13	Massachusetts	\$43,697	38	South Carolina	\$35,376
14	Michigan	\$43,066	39	Kentucky	\$35,226
15	Wisconsin	\$43,055	40	Florida	\$35,081
16	Hawaii	\$42,864	41	Tennessee	\$34,393
17	California	\$42,262	42	South Dakota	\$33,438
18	Nevada	\$40,882	43	Oklahoma	\$33,311
19	Indiana	\$40,635	44	Louisiana	\$33,218
20	Rhode Island	\$40,213	45	North Dakota	\$32,238
21	Missouri	\$40,166	46	New Mexico	\$31,981
22	Oregon	\$39,768	47	Montana	\$31,280
23	Vermont	\$39,419	48	Mississippi	\$30,628
24	Georgia	\$39,003	49	West Virginia	\$28,420
25	Ohio	\$38,970	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%	26	Arkansas	16.7%
2	Massachusetts	29.5%	27	Utah	16.6%
3	California	29.5%	28	Alabama	16.5%
4	New York	24.0%	29	Idaho	16.4%
5	New Jersey	21.7%	30	Virginia	16.3%
6	Oregon	20.5%	31	Michigan	16.1%
7	New Mexico	20.5%	32	Pennsylvania	15.9%
8	Delaware	20.4%	33	Ohio	15.8%
9	New Hampshire	20.3%	34	Georgia	15.8%
10	North Carolina	19.3%	35	South Dakota	15.6%
11	Nevada	19.0%	36	Nebraska	15.1%
12	Illinois	18.8%	37	Mississippi	15.0%
13	Washington	18.7%	38	Texas	15.0%
14	Rhode Island	18.6%	39	Wisconsin	14.9%
15	Colorado	18.6%	40	Maine	14.9%
16	Florida	18.4%	41	Minnesota	14.6%
17	Vermont	18.4%	42	Kentucky	14.6%
18	Arizona	18.4%	43	Maryland	14.5%
19	South Carolina	18.0%	44	Wyoming	14.5%
20	Montana	17.8%	45	Alaska	14.5%
21	Connecticut	17.6%	46	Kansas	14.4%
22	West Virginia	17.2%	47	Iowa	14.2%
23	North Dakota	17.0%	48	Oklahoma	13.8%
24	Tennessee	16.8%	49	Indiana	13.6%
25	Louisiana	16.8%	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 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.

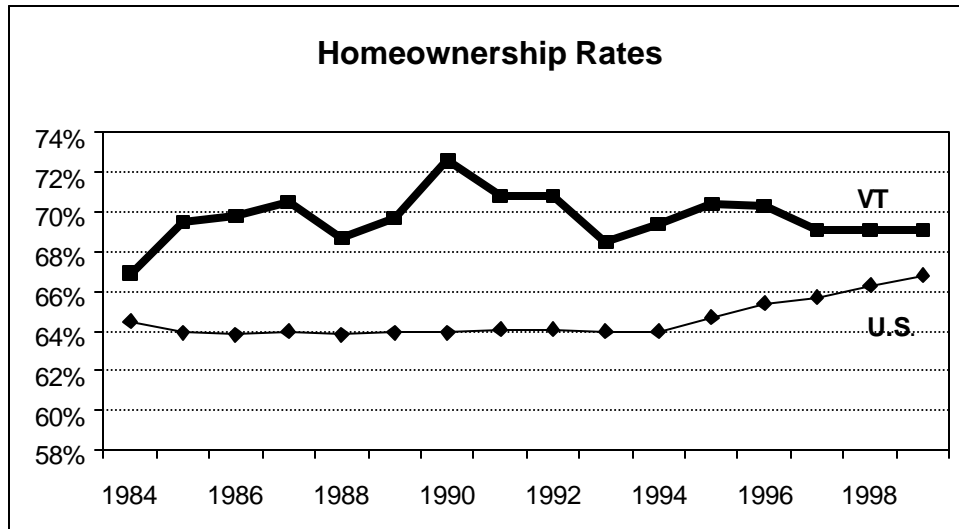


Figure 1 Source: U.S. Census Bureau

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	46 Tacoma, WA	\$145,900
2 San Francisco, CA	\$359,000	47 New Haven-Bridgeport, CT	\$144,700
3 Salinas, CA	\$327,700	48 Colorado Spring, CO	\$144,100
4 Santa Cruz-Watsonville, CA	\$327,400	49 Iowa City, IA	\$143,900
5 Oakland, CA	\$322,100	50 Yolo, CA	\$143,800
6 Honolulu, HI	\$292,200	51 Trenton, NJ	\$141,700
7 Orange County, CA	\$281,400	52 Provo-Orem, UT	\$140,400
8 Ventura, CA	\$255,600	53 Medford-Ashland, OR	\$139,900
9 Santa Barbara-Lompoc, CA	\$254,500	54 Detroit, MI	\$139,700
10 Santa Rosa, CA	\$241,700	55 Myrtle Beach, SC	\$138,400
11 Vallejo-Fairfield-NAPA, CO	\$241,700	56 Minneapolis-St.Paul, MN-WI	\$138,300
12 Boston-Worcester, MA-NH	\$235,300	57 Salt Lake City-Ogden, UT	\$137,700
13 San Diego, CA	\$230,800	58 Charlotte-Gastonia, NC-SC	\$137,100
14 Bergen-Passaic, NJ	\$222,200	59 Madison, WI	\$137,000
15 Barnstable-Yarmouth, MA	\$220,700	60 Fort Lauderdale, FL	\$136,100
16 Newark, NJ	\$209,500	61 Burlington, VT	\$135,700
17 Jersey City, NJ	\$205,500	62 Sarasota-Bradenton, FL	\$135,100
18 San Luis Obispo, CA	\$204,600	63 Miami, FL	\$134,500
19 New York, NY	\$203,300	64 Milwaukee-Waukesha, WI	\$134,400
20 Naples, FL	\$202,700	65 Sacramento, CA	\$133,000
21 Los Angeles-Long Beach, CA	\$200,900	66 Wilmington, NC	\$132,400
22 Dutchess County, NY	\$200,500	67 Charleston SC	\$132,000
23 Middlesex-Somerset, NJ	\$199,000	68 Rochester, MN	\$132,000
24 Seattle-Bellevue, WA	\$198,100	69 West Palm Beach, FL	\$130,800
25 Boulder-Longmont, CO	\$195,500	70 Las Vegas, NV-AZ	\$130,600
26 Newburgh, NY-PA	\$191,200	71 Lancaster, PA	\$130,400
27 Nassau-Suffolk, NY	\$190,800	72 Bellingham, WA	\$130,300
28 Washington, DC-MD-VA-WV	\$175,700	73 Albuquerque, NM	\$130,000
29 New London-Norwich CT	\$173,500	74 Punta Gorda, FL	\$128,900
30 Chicago, IL	\$171,000	75 Riverside-San Bernadino CA	\$128,800
31 Santa Fe, NM	\$170,900	76 Austin-San Marcos, TX	\$128,700
32 Denver, CO	\$170,100	77 Eugene-Springfield, OR	\$128,700
33 Ann Arbor, MI	\$167,100	78 Providence-Warwick, RI	\$128,500
34 Raleigh-Durham-Chapel Hill, NC	\$165,600	79 Athens, GA	\$128,200
35 Portland, ME	\$165,000	80 Richmond-Petersburg, VA	\$128,000
36 Monmouth-Ocean, NJ	\$162,900	81 Baltimore, MD	\$127,100
37 Chico-Paradise, CA	\$160,100	82 Birmingham, AL	\$127,000
38 Redding, CA	\$160,100	83 Bremerton, WA	\$126,800
39 Pittsfield, MA	\$158,400	84 Kenosha, WI	\$126,800
40 Anchorage, AK	\$153,400	85 Phoenix-Mesa, AZ	\$126,300
41 Reno, NV	\$150,700	86 Allentown-Bethlehem-Easton, PA	\$126,100
42 Hartford, CT	\$149,500	87 Hamilton-Middletown, OH	\$125,500
43 Fort Collins-Loveland, CO	\$149,100	88 Greensboro-Winston Salem, NC	\$125,000
44 Fort Pierce-Port St. Lucie, FL	\$148,100	89 Columbus, OH	\$124,600
45 Charlottesville, VA	\$146,700	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	302 Waterloo-Cedar Falls, IA	\$74,600
288 Gadsden, AL	\$78,400	303 Danville, VA	\$72,800
289 El Paso, TX	\$78,000	304 Elmira, NY	\$72,000
290 Sherman-Denison, TX	\$77,800	305 St. Joseph, MO	\$70,700
291 Texarkana, TX-AR	\$77,700	306 Ocala, FL	\$70,000
292 Sioux City, IA-NE	\$77,400	307 Cumberland, MD-WV	\$69,500
293 Williamsport, PA	\$77,400	308 Terre Haute, IN	\$68,600
294 Wichita Falls, TX	\$77,300	309 Joplin, MO	\$67,600
295 Pine Bluff, AR	\$77,100	310 Enid, OK	\$65,900
296 Beaumont-Port Arthur, TX	\$76,700	311 Jamestown, NY	\$64,200
297 Erie, PA	\$76,100	312 Brownsville-Harlingen, TX	\$64,100
298 Abilene, TX	\$76,000	313 McAllen-Edinburg TX	\$59,900
299 Duluth-Superior, MN-WI	\$75,900	314 Sharon, PA	\$59,100
300 Muncie, IN	\$75,900	315 Altoona, PA	\$57,900
301 Youngstown-Warren, OH	\$75,400	316 Johnstown, PA	\$57,900

Appendix Table 2
Metro Area Per Capita Income 1998

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

91 Jacksonville, FL	\$27,244	140 Tyler, TX	\$25,190
92 Sacramento, CA	\$27,232	141 Savannah, GA	\$25,135
93 Tampa-St. Petersburg, FL	\$27,224	142 Fargo-Moorhead, ND-MN	\$25,073
94 Springfield, IL	\$27,215	143 Saginaw-Bay City-Midland, MI	\$25,010
95 Jersey City, NJ	\$26,970	144 Tallahassee, FL	\$24,978
96 Akron, OH	\$26,934	145 Olympia, WA	\$24,895
97 Lexington, KY	\$26,912	146 Albuquerque, NM	\$24,842
98 Fort Worth-Arlington, TX	\$26,790	147 San Luis Obispo-Atascadero, CA	\$24,807
99 Burlington, VT	\$26,787	148 Wausau, WI	\$24,781
100 Los Angeles-Long Beach, CA	\$26,773	149 La Crosse, WI-MN	\$24,742
101 Grand Rapids-Muskegon, MI	\$26,694	150 Kalamazoo-Battle Creek, MI	\$24,726
102 Phoenix-Mesa, AZ	\$26,686	151 Odessa-Midland, TX	\$24,718
103 Peoria-Pekin, IL	\$26,679	152 Salt Lake City-Ogden, UT	\$24,698
104 Appleton-Oshkosh-Neenah, WI	\$26,659	153 Duluth-Superior, MN-WI	\$24,676
105 Fort Wayne, IN	\$26,659	154 Gainesville, FL	\$24,656
106 Birmingham, AL	\$26,582	155 Fort Walton Beach, FL	\$24,655
107 Tulsa, OK	\$26,533	156 Knoxville, TN	\$24,640
108 Boise City, ID	\$26,461	157 Chattanooga, TN-GA	\$24,622
109 Kokomo, IN	\$26,423	158 Newburgh, NY-PA	\$24,595
110 Dayton-Springfield, OH	\$26,422	159 Canton-Massillon, OH	\$24,590
111 Lancaster, PA	\$26,303	160 Jackson, MS	\$24,542
112 Colorado Springs, CO	\$26,270	161 Tacoma, WA	\$24,500
113 Wichita, KS	\$26,211	162 Dubuque, IA	\$24,499
114 Sheboygan, WI	\$26,149	163 Waterloo-Cedar Falls, IA	\$24,484
115 Springfield, MA	\$26,131	164 Billings, MT	\$24,425
116 Little Rock-North Little Rock, AR	\$26,105	165 Baton Rouge, LA	\$24,403
117 Evansville-Henderson, IN-KY	\$26,079	166 Janesville-Beloit, WI	\$24,356
118 Toledo, OH	\$26,077	167 Galveston-Texas City, TX	\$24,303
119 Davenport-Moline, IA-IL	\$26,003	168 Wilmington, NC	\$24,272
120 Columbia, SC	\$25,995	169 Benton Harbor, MI	\$24,235
121 Rockford, IL	\$25,938	170 Lansing-East Lansing, MI	\$24,226
122 Vallejo-Fairfield-Napa, CA	\$25,874	171 Syracuse, NY	\$24,219
123 Kenosha, WI	\$25,833	172 Sioux City, IA-NE	\$24,173
124 Yolo, CA	\$25,791	173 Eugene-Springfield, OR	\$24,151
125 South Bend, IN	\$25,782	174 Victoria, TX	\$24,131
126 Charleston, WV	\$25,745	175 Fayetteville, NC	\$24,104
127 Decatur, IL	\$25,674	176 Montgomery, AL	\$24,084
128 Buffalo-Niagara Falls, NY	\$25,654	177 Flint, MI	\$23,947
129 Cheyenne, WY	\$25,613	178 Miami, FL	\$23,919
130 Columbia, MO	\$25,606	179 Bismarck, ND	\$23,885
131 York, PA	\$25,596	180 Rapid City, SD	\$23,858
132 Orlando, FL	\$25,555	181 San Antonio, TX	\$23,800
133 Elkhart-Goshen, IN	\$25,527	182 Binghamton, NY	\$23,775
134 Topeka, KS	\$25,508	183 Norfolk-Virginia Beach, VA-NC	\$23,771
135 Gary, IN	\$25,451	184 Scranton-Wilkes-Barre-Hazleton, PA	\$23,764
136 Hamilton-Middletown, OH	\$25,372	185 Melbourne-Titusville-Palm Bay, FL	\$23,758
137 Asheville, NC	\$25,347	186 Champaign-Urbana, IL	\$23,753
138 Huntsville, AL	\$25,305	187 Punta Gorda, FL	\$23,752
139 New Orleans, LA	\$25,225	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	303 Goldsboro, NC	\$19,710
288 Yakima, WA	\$20,718	304 Bakersfield, CA	\$19,643
289 Lawrence, KS	\$20,645	305 Yuba City, CA	\$19,532
290 Texarkana, TX-Texarkana AR	\$20,640	306 Pine Bluff, AR	\$19,357
291 Clarksville-Hopkinsville, TN-KY	\$20,456	307 Hattiesburg, MS	\$19,130
292 Jamestown, NY	\$20,387	308 Visalia-Tulare-Porterville, CA	\$18,893
293 Gadsden, AL	\$20,328	309 Auburn-Opelika, AL	\$18,831
294 Anniston, AL	\$20,315	310 Yuma, AZ	\$18,277
295 Steubenville-Weirton, OH-WV	\$20,224	311 Provo-Orem, UT	\$17,956
296 Bryan-College Station, TX	\$20,121	312 Merced, CA	\$17,732
297 Flagstaff, AZ-UT	\$20,050	313 Sumter, SC	\$17,294
298 Fresno, CA	\$19,947	314 Las Cruces, NM	\$16,599
299 Huntington-Ashland, WV-KY-OH	\$19,804	315 El Paso, TX	\$16,359
300 Cumberland, MD-WV	\$19,776	316 Laredo, TX	\$13,870
301 Pocatello, ID	\$19,759	317 Brownsville-Harlingen, TX	\$13,766
302 Danville, VA	\$19,738	318 McAllen-Edinburg-Mission, TX	\$12,759

Appendix Table 3
Index of Relative Affordability of Housing in MSAs

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

91 Kenosha, WI	4.91	140 Augusta-Aiken, GA-SC	4.52
92 Olympia, WA	4.90	141 Killeen-Temple, TX	4.52
93 Sacramento, CA	4.88	142 Brazoria, TX	4.52
94 Richland-Kennewick-Pasco, WA	4.88	143 La Crosse, WI-MN	4.51
95 Missoula, MT	4.88	144 Lakeland-Winter Haven, FL	4.50
96 Washington, DC-MD-VA-WV	4.87	145 Huntington-Ashland, WV-KY-OH	4.50
97 Fayetteville, NC	4.87	146 Fayetteville-Springdale-Rogers, AR	4.48
98 Monroe, LA	4.84	147 Richmond-Petersburg, VA	4.47
99 Lake Charles, LA	4.81	148 Kalamazoo-Battle Creek, MI	4.47
100 Clarksville-Hopkinsville, TN-KY	4.80	149 York, PA	4.45
101 Norfolk-Virginia Beach-, VA-NC	4.79	150 Hartford, CT	4.44
102 Fort Walton Beach, FL	4.78	151 Hickory-Morganton-Lenoir, NC	4.44
103 Greenville-Spartanburg-Anderson, SC	4.78	152 Austin-San Marcos, TX	4.42
104 Birmingham, AL	4.78	153 Sheboygan, WI	4.42
105 Rocky Mount, NC	4.77	154 Mobile, AL	4.42
106 El Paso, TX	4.77	155 Yuba City, CA	4.41
107 Fort Lauderdale, FL	4.77	156 Lawton, OK	4.40
108 Charlotte-Gastonia-Rock Hill, NC-SC	4.76	157 Billings, MT	4.40
109 Rapid City, SD	4.74	158 Milwaukee-Waukesha, WI	4.39
110 Naples, FL	4.73	159 Binghamton, NY	4.39
111 Phoenix-Mesa, AZ	4.73	160 Knoxville, TN	4.39
112 Tallahassee, FL	4.71	161 Columbus, OH	4.38
113 Las Vegas, NV-AZ	4.70	162 Elkhart-Goshen, IN	4.38
114 Anchorage, AK	4.70	163 Florence, AL	4.37
115 McAllen-Edinburg-Mission, TX	4.69	164 Springfield, MA	4.37
116 Salem, OR	4.69	165 Columbia, MO	4.36
117 Boise City, ID	4.67	166 Janesville-Beloit, WI	4.35
118 Hattiesburg, MS	4.67	167 Macon, GA	4.34
119 Anniston, AL	4.66	168 Lima, OH	4.34
120 Brownsville-Harlingen, TX	4.66	169 Dothan, AL	4.34
121 Alexandria, LA	4.64	170 Roanoke, VA	4.34
122 Detroit, MI	4.64	171 Great Falls, MT	4.33
123 Panama City, FL	4.64	172 Benton Harbor, MI	4.33
124 Bismarck, ND	4.63	173 Grand Forks, ND-MN	4.33
125 Johnson City-Kingsport, TN-VA	4.61	174 Lansing-East Lansing, MI	4.33
126 Decatur, AL	4.61	175 Gainesville, FL	4.32
127 Savannah, GA	4.60	176 Pueblo, CO	4.32
128 Asheville, NC	4.59	177 Racine, WI	4.31
129 Providence-Warwick-Pawtucket, RI	4.59	178 Wausau, WI	4.31
130 Huntsville, AL	4.59	179 Jonesboro, AR	4.30
131 Columbus, GA-AL	4.59	180 Baltimore, MD	4.30
132 Greensboro-Winston-Salem, NC	4.58	181 Parkersburg-Marietta, WV-OH	4.30
133 Allentown-Bethlehem-Easton, PA	4.57	182 Lynchburg, VA	4.30
134 Reno, NV	4.56	183 Cheyenne, WY	4.29
135 Spokane, WA	4.55	184 Bangor, ME	4.29
136 Florence, SC	4.54	185 New Orleans, LA	4.29
137 Pensacola, FL	4.54	186 Lafayette, IN	4.28
138 Madison, WI	4.53	187 Rochester, MN	4.27
139 State College, PA	4.52	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	302 Springfield, IL	3.17
288 South Bend, IN	3.35	303 Buffalo-Niagara Falls, NY	3.17
289 Saginaw-Bay City-Midland, MI	3.31	304 Davenport-Moline-Rock Island, IA-IL	3.16
290 Abilene, TX	3.30	305 St. Joseph, MO	3.15
291 West Palm Beach-Boca Raton, FL	3.27	306 Jamestown, NY	3.15
292 Youngstown-Warren, OH	3.27	307 Topeka, KS	3.14
293 Ocala, FL	3.25	308 Joplin, MO	3.12
294 Terre Haute, IN	3.24	309 Decatur, IL	3.08
295 Muncie, IN	3.22	310 Duluth-Superior, MN-WI	3.08
296 Erie, PA	3.22	311 Waterloo-Cedar Falls, IA	3.05
297 Peoria-Pekin, IL	3.20	312 Casper, WY	2.97
298 Sioux City, IA-NE	3.20	313 Enid, OK	2.90
299 Elmira, NY	3.20	314 Johnstown, PA	2.79
300 Rochester, NY	3.19	315 Sharon, PA	2.78
301 Pittsburgh, PA	3.19	316 Altoona, PA	2.61

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