Final Report

Fort Collins Housing Affordability Index Model

Multifamily Model

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Multifamily Model

Prepared for

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Background

In 1996, the City of Fort Collins (City) retained BBC to create a computerized model that allowed the City to evaluate and test the impacts of certain variables on housing affordability in Fort Collins. Since this model was created, housing costs have continued to increase at a very rapid pace in the City, as well as in surrounding areas and throughout most of the Front Range.

This report and the accompanying Housing Affordability Index (HAI) model serve as an update to the original model. This report refers to the multifamily HAI model, and supplements the single family model report delivered in December 2005. While providing an update, BBC took steps to improve on the capability and usability of the now dated 1996 effort.

The City had three objectives for the HAI project:

1. To quantify how housing affordability has changed in Fort Collins during the past five years (1999 to 2004).

2. To determine what role land costs, impact fees, construction costs, overhead costs and required profits have played in changing housing affordability; and

3. To compare the housing affordability in Fort Collins with that of five peer cities, with focus on their development fee structures.

Methodology

The methodology behind the HAI model involved three tasks:

Task 1. Data collection. In this task, BBC collected all of the variables and data needed to construct the HAI model and analyze housing affordability in Fort Collins and peer cities. Data was collected through a survey instrument and from various secondary sources. Collected data included:

- Household income distributions;
- Interest rates;
- Land costs;
- Costs of construction materials and labor;
- Home sales and rental price data;
- Development fees; and
- Mortgage products and terms.

Task 2. Development of Housing Affordability Model and Index (HAI). In this task, BBC built a prototype computerized model to measure the effect of development variables on housing affordability in Fort Collins.

The model was developed using Microsoft Excel® software. The model begins with an "input" worksheet that allows the user to easily change the development variables that feed the model (e.g., move interest rates on a FHA loan up or down). The model also contains citations of sources for updating the development cost variables to ensure that City staff can easily manipulate these variables individually and collectively to determine their effect(s) on housing affordability. Most construction cost data were obtained using a survey distributed to Front Range developers and residential builders.

The "output" of the model measures the number and percentage of households in the City that can afford to rent a new multifamily unit—given changes in certain variables. The "guts" of the model processes the "input" variables, analyzes development costs for a typical new multifamily unit in Fort Collins and peer cities, and analyzes the affordability of current market rate multifamily units.

The model determines to what extent various variables affect multifamily rents in Fort Collins and peer cities. For example, the model allows the user to see how a 10 percent increase in development fees would reduce the number of households who could afford a new multifamily unit. The model also determines the affordability of current housing market offerings using data obtained from the Colorado Division of Housing.

In essence, the model compares the cost of housing to the incomes of residents in Fort Collins and peer cities. If the affordability index is low in a particular city, several factors can be the cause, but it ultimately signals that there is a mismatch between housing costs and the incomes of area residents.

Task 3. Sensitivity analysis. An analysis was performed to determine the relative sensitivity of multifamily housing affordability on development costs and other variables such as interest rates and the amount of down payment on the construction loan.

Based on this methodology our summary of findings follows.

Summary of Findings

Exhibit 1 compares housing affordability in Fort Collins and five peer cities between 1990 and 2004. Please note that the 1996 study only analyzed housing affordability to renter households, and that the Town of Windsor was not included in the original analysis. The 1996 study defined a "study household" as a household that is a present renter household. This study defines a "study household" as any owner or renter household. This definition has been changed to accommodate for a real-time multifamily housing market affordability comparison. Thus, the updated study provides three HAI results for each municipality: a renter, an owner, and a total HAI.

Fort Collins currently ranks first out of the six cities in overall multifamily rental affordability; however, housing is less affordable now in Fort Collins than in 1999. In 1999, Fort Collins had an overall HAI score of 72.4. In other words, 72.4 percent of Fort Collins residents could afford to rent a new multifamily unit,[1] compared to 65.4 percent in 2004, a decrease of approximately 7 index points. A decrease of 7 index points represents about 2,900 households in Fort Collins that can no longer afford to rent a new multifamily unit.

Exhibit 1.
Housing Affordability Index; 1990-2004

City/Tenure	1990	1995	1999	2004	Change 1999-2004
Fort Collins					
Renters	73.6	78.4	54.7	47.8	-7.0
Owners	-	-	80.1	72.4	-7.7
Total	-	-	72.4	65.4	-7.0
Colorado Springs					
Renters	81.9	86.4	51.6	35.9	-15.8
Owners	-	-	80.5	68.7	-11.8
Total	-	-	69.2	56.8	-12.4
Greeley					
Renters	70.9	76.7	47.3	33.9	-13.4
Owners	-	-	75.6	62.8	-12.8
Total	-	-	66.4	54.3	-12.1
Longmont					
Renters	80.5	84.5	53.7	41.4	-12.3
Owners	-	-	82.4	73.8	-8.6
Total	-	-	72.5	63.1	-9.3
Loveland					
Renters	82.3	86.8	48.4	32.5	-15.9
Owners	-	-	77.9	65.7	-12.1
Total	-	-	68.9	56.3	-12.5
Windsor					
Renters	-	-	51.1	35.8	-15.3
Owners	-	-	83.3	72.6	-10.7
Total	-	-	76.7	65.3	-11.4

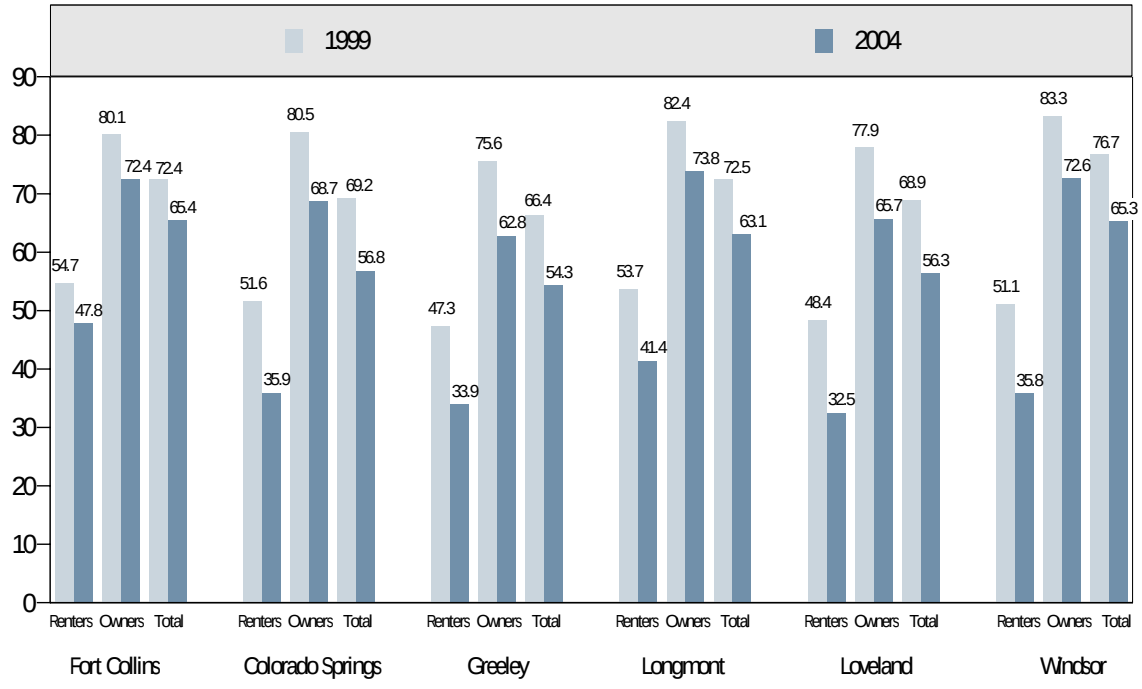
Note: The 1996 study only computed the renter HAI; Windsor was not part of the 1996 study.
Source: BBC Research & Consulting.

[1] For the purposes of this study, a "new multifamily unit" is defined as a 1,000 square foot unit in a 120-unit building.

According to the HAI model, new multifamily homes are less affordable across all cities in 2004 than they were in 1999. Loveland saw the biggest dip in overall housing affordability between 1999 and 2004, losing 12.5 percentage points. This figure includes both owner and renter populations. Overall, affordability dropped the least in Fort Collins, about 7 index points.

Exhibit 2 presents the data from the previous exhibit in graphical form. The largest decline in affordability was experienced by the renter population in Loveland (-15.9).

Exhibit 2.
Housing Affordability Index; 1999-2004



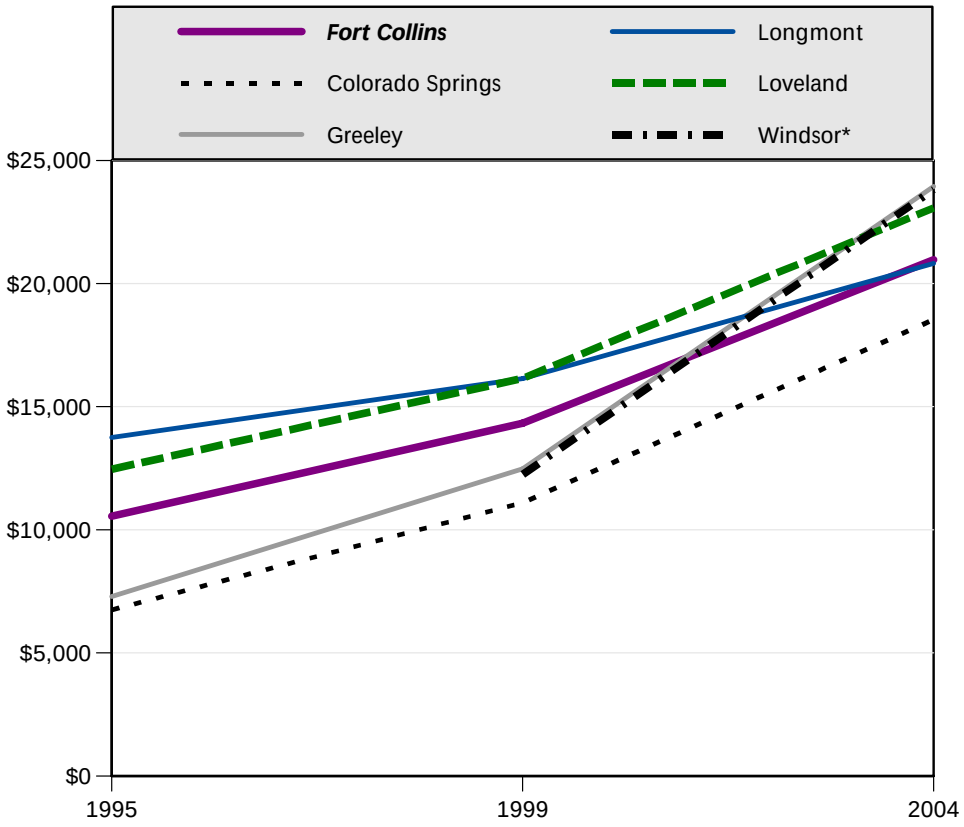
Source: BBC Research & Consulting.

The Fort Collins HAI declined the least of its peers, indicating that household income in Fort Collins has kept pace with rising housing costs better than other municipalities. Renters in Fort Collins have the highest affordability index scores than any other municipality, in both 1999 and 2004.

Rental affordability trends. It is most useful to focus on the renter HAI figures in Exhibits 1 and 2, since present owners are not likely to rent in the future, and household income figures for the renter population are generally lower than the owner population. The renter HAI for Fort Collins shown in Exhibit 1 has declined by 7 index points between 1999 and 2004 to 47.8. Although Fort Collins' renter HAI is the highest of its peers, about 1 in 2 present renter households could not afford to rent a new multifamily unit without being cost burdened.

Municipal building fees. Another factor that may cause a decrease in housing affordability is the municipal fee structure that is imposed on new construction. These fees are borne by both single family and multifamily residential builders. As a city grows it faces pressure to provide a high level of service to an ever-increasing resident base. To mitigate the effects of growth in population and physical size, cities impose development fees to recoup the cost of expanding physical infrastructure and acquiring more water to serve its new residents. Exhibit 4 shows municipal fees for Fort Collins and its peer cities from 1995 to 2004. Fees used for Exhibit 4 include building permit and inspection fees, use tax, impact fees, and raw water requirements.

Exhibit 4.
Municipal Building Fees; 1995-2004



Note: (*) Windsor was not part of the 1995 study.

Source: BBC Research & Consulting, Northern Colorado HBA, City of Longmont, City of Colorado Springs.

Greeley and Windsor have the highest fee requirements due in large part to the raw water requirements that they impose on new building. Total municipal fees in Fort Collins rose from about $14,000 in 1999 to nearly $21,000 in 2004, an increase of 46.4 percent. Greeley and Windsor had the sharpest increases in fees between 1999 and 2004; both municipalities experienced increases of over 90 percent, from about $13,000 in 1999 to approximately $24,000 in 2004. Colorado Springs has consistently had the lowest total fees, but it too experience fee increases, from about $11,000 in 1999 to $18,534 in 2004.

1999 Results

The 1999 HAI analysis focuses on the affordability of housing costs derived from two separate data sources: a hypothetical new multifamily unit derived from builder cost surveys, and 2000 U.S. Census median gross rent.

Survey data. Exhibit 5 below portrays summary HAI model results for each City in 1999 in tabular form. As a reminder, the HAI ratings in Exhibit 1 correspond to the percent of total households that can afford to rent a new multifamily unit.

One important note is that, in this study, cost burden is defined as a household spending over 30 percent or more of annual income on housing costs.

Exhibit 5.
HAI Summary by City, Cost Survey Data, 1999

City	Households	New Multifamily Monthly Rent	Required Annual Income	HAI Rating
Fort Collins	37,426	$803	$32,111	72.4
Colorado Springs	141,672	$751	$30,036	69.2
Greeley	23,955	$735	$29,393	66.4
Longmont	26,725	$776	$31,037	72.5
Loveland	19,728	$794	$31,758	68.9
Windsor	3,597	$784	$31,351	76.7

Note: Monthly rent figures are for a newly constructed 1,200 Sq. Ft. apartment in a 120-unit building.
Source: BBC Research & Consulting.

The data in Exhibit 5 suggest that, in 1999, Windsor was the most affordable of the cities compared to its peers with an HAI rating of 76.7 and Greeley was the least affordable with an HAI rating of 66.4. In other words, 76.7 percent of households (2,759 out of 3,597) could afford to rent the hypothetical new unit in Windsor, compared with only 66.4 percent of households (15,916 out of 23,955) in Greeley.

Windsor had the highest HAI score in 1999, although new multifamily monthly rents were the second-highest of all its peers. This is possible because Windsor had the highest median family income of all its peers ($60,305), according to the 2000 U.S. Census. Greeley had the lowest new multifamily monthly rent in 1999, but the median family income in Greeley was

the lowest of all cities in the study ($45,904), which contributed to its low HAI score. This example shows that two cities may have widely varying HAI scores due an income disparity. The next section evaluates housing affordability based on the median gross rent levels as reported by the 2000 U.S. Census. This analysis is useful to evaluate median family incomes against median gross rent levels in the study cities.

Census data. Exhibit 6 shows summary model HAI results for each city in 1999 using the U.S. Census Bureau's median gross rent figures from the 2000 U.S. Census.

Exhibit 6.
HAI Summary by City, Census Data, 1999

City	Households	Median Gross Rent	Required Annual Income	HAI Rating
Fort Collins	37,426	$742	$29,680	74.8
Colorado Springs	141,672	$704	$28,160	71.6
Greeley	23,955	$572	$22,880	74.4
Longmont	26,725	$801	$32,040	71.3
Loveland	19,728	$676	$27,040	74.7
Windsor	3,597	$637	$25,480	82.0

Source: U.S. Census Bureau and BBC Research & Consulting.

The data in Exhibit 6 suggest that, in 1999, Windsor was the most affordable of the cities with an HAI rating of 82.0 and Longmont was the least affordable with an HAI rating of 71.3. In other words, 82.0 percent of households (2,950 out of 3,597) could afford the median gross rent in Windsor, compared with 71.3 percent of households (19,064 out of 26,725) in Longmont. In Fort Collins, about 75 percent of households could afford the median gross rent in 1999. Although this is the majority of households, the data suggest that 1 in 4 households could not afford the median gross rent without being cost-burdened.

2004 Results

The 2004 HAI analysis focuses on the affordability of housing costs derived from two separate data sources: a hypothetical new multifamily unit derived from builder cost surveys, and current median monthly market rent levels, obtained from the Colorado Division of Housing's Multifamily Housing Vacancy and Rental Survey.

Survey data. Exhibit 7 below portrays summary HAI model results for each City in 2004 in tabular form. As a reminder, the HAI ratings in Exhibit 7 correspond to the percent of total households that can afford to rent a new multifamily unit.

Exhibit 7.
HAI Summary by City, Cost Survey Data, 2004

City	Households	New Multifamily Monthly Rent	Required Annual Income	HAI Rating
Fort Collins	41,243	$1,067	$42,663	65.4
Colorado Springs	153,556	$1,108	$44,331	56.8
Greeley	27,974	$1,107	$44,290	54.3
Longmont	28,534	$1,090	$43,586	63.1
Loveland	22,248	$1,148	$45,926	56.3
Windsor	4,237	$1,125	$45,017	65.3

Note: Monthly rent figures are for a newly constructed 1,200 Sq. Ft. apartment in a 120-unit building.
Source: BBC Research & Consulting.

The data in Exhibit 7 suggest that, in 2004, Fort Collins was the most affordable city with an HAI rating of 65.4 and Greeley was the least affordable with an HAI rating of 54.3. In other words, 65.4 percent of total households (26,983 out of 41,243) could afford to rent the hypothetical new multifamily unit in Fort Collins, compared to only 54.3 percent of total households (15,190 out of 27,974) in Greeley.

Comparing monthly rental rates in the 2004 cost survey scenario reveals that they are relatively similar across all municipalities. Variations in affordability may be due to inequalities in income. Therefore, it may be helpful to view the HAI index as a measure of income parity with respect to monthly rental rates, not just a measure of the cost of housing. For instance, in Exhibit 7 above, Fort Collins, Windsor and Longmont have higher HAI index scores than the remaining three municipalities. Fort Collins, Windsor and Longmont also have higher median household income figures than the remaining municipalities. Rental rates are similar across municipalities, but what gives a municipality a high HAI index rating is the ability of its citizens to afford regional market rents.

When comparing survey data to market data, one should note that monthly market rents vary more. This is due to external market forces that do not affect the cost components of rental home building. A discussion of housing affordability based on data obtained from current market offerings follows.

Market data. Exhibit 8 on the following page shows summary model HAI results for each city in 2004 using data from the Colorado Division of Housing. These data include rents for the entire rental housing stock in Fort Collins, not just new rental units, as in the cost survey data. Therefore, monthly market rents obtained from the Division of Housing are lower than new multifamily monthly rents obtained from cost survey data. The data in Exhibit 8 suggest that, in 2004, Windsor was the most affordable of the cities with an HAI rating of 80.8 and Loveland was the least affordable with an HAI rating of 69.9.

Exhibit 8.
HAI Summary by City, Market Data, 2004-2005

City	Households	Median Monthly Gross Rent *	Required Annual Income	HAI Rating
Fort Collins	41,243	$745	$29,820	77.0
Colorado Springs	153,556	$758	$30,316	72.9
Greeley	27,974	$720	$28,796	71.5
Longmont	28,534	$908	$36,310	70.6
Loveland	22,248	$851	$34,057	69.9
Windsor	4,237	$720	$28,796	80.8

Note: * Gross rent figures were derived from CDOH contract rent figures by adding an average monthly utility expense of $75.

Source: Colorado Division of Housing; BBC Research & Consulting.

In other words, 80.8 percent of households (3,422 out of 4,237) could afford the median rent in Windsor, compared with 69.9 percent of households (15,549 out of 22,248) in Loveland. In Fort Collins, about 80 percent of households could afford the current median monthly market rent. Although this is the majority of households, the data suggest that 1 in 5 households could not afford the median gross rent without being cost-burdened.

Why does market data differ from cost survey data? Cost survey data was derived from BBC's residential cost survey that was distributed to multifamily residential builders. The hypothetical monthly rental rate reflects the average costs experienced by builders, and are useful to determine the role a municipality's fee structure plays in the overall cost of building a new house. Market data comes from survey data compiled by the Colorado Division of Housing in the fourth quarter 2004 and first quarter 2005. Supply and demand, perceived scarcity, and other external forces affect the median rent of a multifamily unit on the market in 2005. Cost survey data is used to analyze the endogenous cost components that drive housing costs. Market data is used to analyze the exogenous forces on housing markets that may drive housing costs up or down.

Housing Affordability Index: Model Overview

The housing affordability index model is an updateable Excel workbook that contains five worksheets.

Income data. The income data worksheet contains income distributions by percentage of area median family income for 1999 and 2004 for Fort Collins and the five peer cities. BBC designed this worksheet to be easily updated by the user. Data from HUD was used to obtain separate income distributions for owner and renter households. Renter and owner households were separated into groups based on standard HUD classifications. Housing affordability is then determined by comparing the family income distributions on this worksheet to housing costs derived on the average building cost worksheet.

Average building costs. This worksheet is used to compile and average residential building costs obtained from completed builder surveys and construction cost-estimating manuals. The following costs are averaged:

- Carrying costs
- Site and lot development
- Construction labor
- Construction materials
- Builder overhead
- Builder profit

These costs are averaged to isolate the effects of impact fees on housing affordability. There is no evidence so far that these costs vary significantly across the Front Range and therefore they are held constant.

Cost input. The cost input worksheet combines the average building costs with the following city-specific building costs to derive the total housing cost for each city.

- Building fees—contains building permit, plan check, inspection, and administrative fees.
- Impact fees—contains impact and plant investment fees.
- Use tax—this is an excise tax on building materials, collected in the municipality where construction occurs.

The average 20-year mortgage interest rate for 1999 and 2004 and the amount of down payment is reported on the cost input worksheet and can be updated by the user along with all cost data. This worksheet also allows the user to change the model to analyze affordability based on current market prices for multifamily units, and historical U.S. Census data.

Model calculations. This worksheet takes the cost and income data from above and calculates the housing affordability index by calculating the total annual household income necessary to be non cost-burdened. We assume a 20-year mortgage with a 6.28 percent interest rate and a 20 percent down payment and an additional 15 percent annual cost for property management and related fees, taxes, and hazard insurance paid by the developer. We also incorporate a developer return-on-investment which is equal to the amount of interest paid on the mortgage. We calculate the percentage of current renters, owners, and the total population that can afford to rent a new multifamily unit.

Model output. The model output worksheet reports the number of renter and owner households that can afford to rent the new multifamily unit without cost burden and housing affordability percentages for the renter, owner, and total population for Fort Collins and the five peer cities. The user can view all results on this worksheet.

Quick summary. The quick summary worksheet allows users to determine the impact of changes in all housing cost variables on overall housing affordability. Users can raise the interest rate, for example, and see how many households become cost-burdened as a result. The same analysis can be performed for impact fees, land acquisition, and use tax.

This worksheet has additional capability to evaluate the effects of any fee. For example, if developer fees increase, the costs may be passed on to the renter. In this case, the effects on affordability can be modeled by entering the new fees in the fee category titled "additional building costs/fees."

Sensitivity Analysis

A sensitivity analysis was performed to determine the relative magnitude of the effect of changes in housing cost variables on affordability. Exhibit 9 documents this process.

Exhibit 9.
Example Sensitivity Analysis, City of Fort Collins

Impact	Effect on Fort Collins HAI	Households Affected
Increase in Interest Rate by 1 percent	↓ 3.5	1,453
Increase in Impact Fees by $1000*	↓ 0.3	115

Note: * Changes in any construction costs, land prices, or building fees will have a similar magnitude of impact.
Source: BBC Research & Consulting.

Housing affordability is more sensitive to interest rate fluctuations when compared to impact fees. A 1 percent rise in the interest rate causes the Fort Collins HAI to drop by 3.5 percentage points. In other words, a 1 percent increase in the interest rate sends 1,453 households into a cost burden situation. In comparison, an impact fee increase of $1,000 has a smaller relative impact, lowering the Fort Collins HAI by 0.3 percentage points, or 115

households.[2] These impact assessments are unique to each municipality, since they have different income distributions. For instance, a 1 percent increase in interest rates can have a different effect in Greeley, than in Fort Collins.

Summary and Conclusions

The HAI for all study cities declined between 1999 and 2004. There are several factors that have affected affordability, some of them are under municipal control and others are not. The following factors affected housing affordability during the study period:

- Net decrease of interest rates over the four-year period—positive
- Increasing median family and household income—positive
- Increasing hard construction costs—negative
- Increasing cost of water rights—negative
- Increasing building, impact, and development fees—negative
- Housing market appreciation—negative

The net effect of the aforementioned factor on affordability is negative. Housing affordability has decreased across the Front Range, indicating a widening gap between area incomes and regional home values.

The appendices that follow this report contain information on data sources, screen shots of the HAI model and our builder cost survey instrument.

[2] Fluctuations in impact fees will have the same effect as fluctuations in all construction and development costs, e.g. land prices, hard construction costs, permit and inspection fees, etc.

APPENDIX A.
Housing Affordability Index Model

Income Data

This Page Contains Income Distribution Data

Any Yellow Cell Can Be Changed By The User.

Fort Collins 2004

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	2,973	7.2%
31 - 50%	2,044	5.0%
51 - 80%	1,841	4.5%
81 - 95%	1,263	3.1%
96 - 100%	320	0.8%
101 - 120%	1,279	3.1%
120%+	1,916	4.6%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	2,271	5.5%
31 - 50%	2,917	7.1%
51 - 80%	5,192	12.6%
81 - 95%	2,660	6.4%
96 - 100%	883	2.1%
101 - 120%	3,523	8.5%
120%+	12,160	29.5%

Totals

	Households	Percentage
Renters	11,638	28.2%
Owners	29,605	71.8%
Total	41,243	100.0%

Fort Collins MFI

30%	$19,018
50%	$31,697
80%	$50,714
95%	$60,223
100%	$63,393
120%	$76,072

Colorado Springs 2004

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	12,442	8.1%
31 - 50%	11,790	7.7%
51 - 80%	13,425	8.7%
81 - 95%	5,283	3.4%
96 - 100%	925	0.6%
101 - 120%	3,700	2.4%
120%+	8,246	5.4%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	6,629	4.3%
31 - 50%	8,798	5.7%
51 - 80%	17,606	11.5%
81 - 95%	9,145	6.0%
96 - 100%	2,652	1.7%
101 - 120%	10,608	6.9%
120%+	42,307	27.6%

Totals

	Households	Percentage
Renters	55,811	36.3%
Owners	97,745	63.7%
Total	153,556	100.0%

Colorado Springs MFI

30%	$17,534
50%	$29,224
80%	$46,758
95%	$55,525
100%	$58,447
120%	$70,136

Greeley 2004

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	2,214	7.9%
31 - 50%	1,461	5.2%
51 - 80%	1,420	5.1%
81 - 95%	761	2.7%
96 - 100%	254	0.9%
101 - 120%	700	2.5%
120%+	1,431	5.1%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	1,519	5.4%
31 - 50%	1,767	6.3%
51 - 80%	3,253	11.6%
81 - 95%	1,725	6.2%
96 - 100%	575	2.1%
101 - 120%	1,996	7.1%
120%+	8,899	31.8%

Totals

	Households	Percentage
Renters	8,240	29.5%
Owners	19,734	70.5%
Total	27,974	100.0%

Greeley MFI

30%	$15,283
50%	$25,471
80%	$40,754
95%	$48,395
100%	$50,942
120%	$61,130

Longmont 2004

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	2,217	7.8%
31 - 50%	1,861	6.5%
51 - 80%	2,310	8.1%
81 - 95%	767	2.7%
96 - 100%	184	0.6%
101 - 120%	738	2.6%
120%+	1,311	4.6%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	1,266	4.4%
31 - 50%	1,732	6.1%
51 - 80%	3,271	11.5%
81 - 95%	1,734	6.1%
96 - 100%	588	2.1%
101 - 120%	2,351	8.2%
120%+	8,205	28.8%

Totals

	Households	Percentage
Renters	9,388	32.9%
Owners	19,146	67.1%
Total	28,534	100.0%

Longmont MFI

30%	$19,090
50%	$31,817
80%	$50,907
95%	$60,452
100%	$63,634
120%	$76,361

Loveland 2004

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	1,483	6.7%
31 - 50%	1,335	6.0%
51 - 80%	1,525	6.9%
81 - 95%	558	2.5%
96 - 100%	107	0.5%
101 - 120%	424	1.9%
120%+	856	3.8%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	1,165	5.2%
31 - 50%	1,534	6.9%
51 - 80%	2,960	13.3%
81 - 95%	1,472	6.6%
96 - 100%	500	2.2%
101 - 120%	1,990	8.9%
120%+	6,339	28.5%

Totals

	Households	Percentage
Renters	6,288	28.3%
Owners	15,960	71.7%
Total	22,248	100.0%

Loveland MFI

30%	$17,644
50%	$29,406
80%	$47,050
95%	$55,871
100%	$58,812
120%	$70,574

Windsor 2004

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	249	5.9%
31 - 50%	148	3.5%
51 - 80%	211	5.0%
81 - 95%	63	1.5%
96 - 100%	17	0.4%
101 - 120%	69	1.6%
120%+	83	2.0%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	237	5.6%
31 - 50%	292	6.9%
51 - 80%	595	14.1%
81 - 95%	358	8.5%
96 - 100%	123	2.9%
101 - 120%	490	11.6%
120%+	1,302	30.7%

Totals

	Households	Percentage
Renters	840	19.8%
Owners	3,397	80.2%
Total	4,237	100.0%

Windsor MFI

30%	$19,220
50%	$32,034
80%	$51,254
95%	$60,864
100%	$64,067
120%	$76,880

Fort Collins 1999

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	2,880	7.7%
31 - 50%	1,980	5.3%
51 - 80%	1,784	4.8%
81 - 95%	1,224	3.3%
96 - 100%	310	0.8%
101 - 120%	1,239	3.3%
120%+	1,857	5.0%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	2,006	5.4%
31 - 50%	2,577	6.9%
51 - 80%	4,586	12.3%
81 - 95%	2,349	6.3%
96 - 100%	780	2.1%
101 - 120%	3,112	8.3%
120%+	10,742	28.7%

Totals

	Households	Percentage
Renters	11,274	30.1%
Owners	26,152	69.9%
Total	37,426	100.0%

Fort Collins MFI

30%	$17,800
50%	$29,666
80%	$47,466
95%	$56,365
100%	$59,332
120%	$71,198

Colorado Springs 1999

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	12,394	8.7%
31 - 50%	11,744	8.3%
51 - 80%	13,373	9.4%
81 - 95%	5,263	3.7%
96 - 100%	921	0.7%
101 - 120%	3,686	2.6%
120%+	8,215	5.8%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	5,838	4.1%
31 - 50%	7,747	5.5%
51 - 80%	15,504	10.9%
81 - 95%	8,053	5.7%
96 - 100%	2,335	1.6%
101 - 120%	9,342	6.6%
120%+	37,256	26.3%

Totals

	Households	Percentage
Renters	55,596	39.2%
Owners	86,076	60.8%
Total	141,672	100.0%

Colorado Springs MFI

30%	$16,043
50%	$26,739
80%	$42,782
95%	$50,804
100%	$53,478
120%	$64,174

Greeley 1999

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	2,092	8.7%
31 - 50%	1,380	5.8%
51 - 80%	1,341	5.6%
81 - 95%	719	3.0%
96 - 100%	240	1.0%
101 - 120%	661	2.8%
120%+	1,352	5.6%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	1,245	5.2%
31 - 50%	1,448	6.0%
51 - 80%	2,665	11.1%
81 - 95%	1,413	5.9%
96 - 100%	471	2.0%
101 - 120%	1,636	6.8%
120%+	7,292	30.4%

Totals

	Households	Percentage
Renters	7,785	32.5%
Owners	16,170	67.5%
Total	23,955	100.0%

Greeley MFI

30%	$13,771
50%	$22,952
80%	$36,723
95%	$43,609
100%	$45,904
120%	$55,085

Longmont 1999

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	2,179	8.2%
31 - 50%	1,829	6.8%
51 - 80%	2,271	8.5%
81 - 95%	754	2.8%
96 - 100%	181	0.7%
101 - 120%	725	2.7%
120%+	1,289	4.8%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	1,157	4.3%
31 - 50%	1,582	5.9%
51 - 80%	2,989	11.2%
81 - 95%	1,584	5.9%
96 - 100%	537	2.0%
101 - 120%	2,148	8.0%
120%+	7,497	28.1%

Totals

	Households	Percentage
Renters	9,229	34.5%
Owners	17,496	65.5%
Total	26,725	100.0%

Longmont MFI

30%	$17,411
50%	$29,019
80%	$46,430
95%	$55,135
100%	$58,037
120%	$69,644

Loveland 1999

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	1,417	7.2%
31 - 50%	1,277	6.5%
51 - 80%	1,458	7.4%
81 - 95%	533	2.7%
96 - 100%	102	0.5%
101 - 120%	406	2.1%
120%+	819	4.1%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	1,001	5.1%
31 - 50%	1,319	6.7%
51 - 80%	2,544	12.9%
81 - 95%	1,265	6.4%
96 - 100%	429	2.2%
101 - 120%	1,710	8.7%
120%+	5,448	27.6%

Totals

	Households	Percentage
Renters	6,011	30.5%
Owners	13,717	69.5%
Total	19,728	100.0%

Loveland MFI

30%	$16,301
50%	$27,169
80%	$43,470
95%	$51,620
100%	$54,337
120%	$65,204

Windsor 1999

Renter Households at Percentage of MFI

	Households	Percentage
0 - 30%	217	6.0%
31 - 50%	129	3.6%
51 - 80%	184	5.1%
81 - 95%	55	1.5%
96 - 100%	15	0.4%
101 - 120%	60	1.7%
120%+	72	2.0%

Owner Households at Percentage of MFI

	Households	Percentage
0 - 30%	200	5.6%
31 - 50%	246	6.8%
51 - 80%	502	14.0%
81 - 95%	302	8.4%
96 - 100%	104	2.9%
101 - 120%	413	11.5%
120%+	1,098	30.5%

Totals

	Households	Percentage
Renters	732	20.4%
Owners	2,865	79.6%
Total	3,597	100.0%

Windsor MFI

30%	$18,092
50%	$30,153
80%	$48,244
95%	$57,290
100%	$60,305
120%	$72,366

Average Building Costs

	Location -9%				Enter Survey Below to Row Z					
	RS Means	FC M1	FC M2	FC M3	FC M4	FC M5	FC M6	FC M7		
Land Acquisition (1)	8,718	2,589	16,000	5,389	7,035			21,739		
Carrying Costs	5,449	6,438	10,000	20,792	16,736					
Building Fees	1,090	989	2,000	8,889	7,287	1,263	1,090	404		
Site & Lot Development	9,808	31,631	18,000	2,583	20,698			6,483		
Use Tax	1,090	989	2,000	NA	546	3,172	2,515	1,652		
Impact Fees	11,988	10,884	22,000	NA	2,543	29,621	29,306	21,036		
Labor per Unit	22,886	24,532	42,000	29,916	23,664			45,387		
Materials per Unit	31,604	26,577	58,000	38,075	27,780			55,473		
Builder Overhead	10,898	21,369	20,000	4,773	2,064			5,053		
Builder Profit	5,449	7,500	10,000	2,000	1,977			10,036		
Total	***$108,981***	***$133,499***	***$200,000***	***$112,417***	***$110,329***	***$34,056***	***$32,911***	***$167,264***	***$0***	***$0***

Average Costs	
Land Acquisition (1)	10,245
Carrying Costs	11,883
Site & Lot Development	14,867
Labor per Unit	31,398
Materials per Unit	39,585
Builder Overhead	10,693
Builder Profit	6,160
Total	***$114,586***

Cost Input

This Page Contains Cost and Other Variables Which Drive Housing Prices.
Any Yellow Cell Can Be Changed By The User.

Use Market Data?

Fort Collins Costs/Fees

	2004	1999	1995	Yearly Growth
Land Acquisition (1)	$10,245	$10,065	$9,923	0.00355
Building Fees	$816	$488	$324	0.108129
Use Tax	$1,520	$2,307		
Wet Utilities	$5,867			
Dry Impact Fees	$6,227	$7,448	$5,054	0.101805
Total	***$24,675***	***$20,309***	***$15,301***	

Colorado Springs Costs/Fees

	2004	1999	1995	Yearly Growth
Land Acquisition (1)	$10,245	$6,322	$4,297	0.101366
Building Fees	$746	$535		
Use Tax	$2,368	$1,851	$1,474	
Wet Utilities	$5,873			
Dry Impact Fees	$961	$4,470	$3,182	0.088629
Total	***$20,193***	***$13,178***	***$8,954***	

Greeley Costs/Fees

	2004	1999	1995	Yearly Growth
Land Acquisition (1)	$10,245	$7,051	$5,229	0.077601
Building Fees	$298	$263	$237	0.025794
Use Tax	$1,384	$2,101		
Wet Utilities	$9,403			
Dry Impact Fees	$3,749	$3,572	$1,259	0.297825
Total	***$25,079***	***$12,986***	***$6,725***	

Longmont Costs/Fees

	2004	1999	1995	Yearly Growth
Land Acquisition (1)	$10,245	$9,925	$9,677	0.006361
Building Fees	$731	$374	$219	0.143382
Use Tax	$1,400	$2,125		
Wet Utilities	$1,764			
Dry Impact Fees	$5,959	$4,652	$3,100	0.106735
Total	***$20,099***	***$17,076***	***$12,996***	

Loveland Costs/Fees

	2004	1999	1995	Yearly Growth
Land Acquisition (1)	$10,245	$8,142	$6,775	0.047019
Building Fees	$752	$452	$300	0.107264
Use Tax	$1,520	$2,307		
Wet Utilities	$4,921			
Dry Impact Fees	$9,802	$8,202	$5,137	0.124107
Total	***$27,239***	***$19,103***	***$12,213***	

Windsor Costs/Fees

	2004	1999	1995	Yearly Growth
Land Acquisition (1)	$10,245	$8,142	$6,775	0.047023
Building Fees	$391	$1,049	$395	
Use Tax	$1,028	$1,822		
Wet Utilities	$12,590			
Dry Impact Fees	$4,568	$8,905	$5,269	0.140174
Total	***$28,822***	***$19,917***	***$12,439***	

Common Housing Cost Components

	2004	1999	1995	Yearly Growth
Carrying Costs	$11,883	$6,962	$4,539	0.1128607
Site & Lot Development	$14,867	$7,482	$4,320	0.1472013
Labor per Unit	$31,398	$21,589	$16,000	0.0777828
Materials per Unit	$39,585	$25,019	$17,333	0.0960999
Builder Overhead	$10,693	$10,302	$10,000	0.0074724
Builder Profit	$6,160	$5,486	$5,000	0.0234587
Total	***$114,586***	***$76,841***	***$57,192***	0.0802717
Mortgage Interest Rate	6.28%	7.10%		
Down Payment (%)	20.00%	20.00%		

Median Market Rent 2004

Fort Collins	$670
Colorado Springs	$683
Greeley	$645
Longmont	$833
Loveland	$776
Windsor	$645

Source: CO Division of Housing

Median Gross Rent 1999

Fort Collins	$742
Colorado Springs	$704
Greeley	$572
Longmont	$801
Loveland	$676
Windsor	$637

Source 2000 U.S. Census

Assumptions

1995 Cost Components

Impact Fees

Water Tap License	$75
Water Investment Fee	$722
Water Transmission	$2,866
Investment Fees	$625
Street Improvements	$35
Storm Drainage	$579
Transportation	$49
School District	$318
Construction costs	$49,814
Lot Costs	$25,000
Profit & Overhead	$11,300

1999 Use Tax calculated using 2004 percentage on 1999 costs
1995 lot costs holds a constant $11,750 for lot development and the balance to land acquisition

Model Calculations

		Housing Cost	Cost Less Down Payment	Principal & Interest	Property Mgmt and Related Fees (15% of P & I)	Developer ROE	Total monthly expense	Market Rent Input	Monthly income required for non-burden	Annual income required for non-burden
	2004	$ 139,261	$ 111,409	$ 812	$ 122	$146	$ 1,080	$ 670	$ 3,599	$ 43,183
Fort Collins	***1999***	97,150	77,720	604	91	115	809	742	2,697	32,367
	2004	134,779	107,823	837	126	141	1,104	683	3,681	44,167
Colorado Springs	***1999***	90,019	72,015	559	84	107	750	704	2,499	29,991
	2004	139,665	111,732	868	130	146	1,144	645	3,814	45,768
Greeley	***1999***	89,827	71,862	558	84	106	748	572	2,494	29,927
	2004	134,685	107,748	837	126	141	1,103	833	3,678	44,136
Longmont	***1999***	93,917	75,134	584	88	111	782	801	2,607	31,290
	2004	141,825	113,460	881	132	148	1,162	776	3,873	46,476
Loveland	***1999***	95,945	76,756	596	89	114	799	676	2,664	31,965
	2004	143,408	114,726	891	134	150	1,175	645	3,916	46,994
Windsor	***1999***	96,758	77,407	601	90	114	806	637	2,686	32,236

Fort Collins

2004

	Percentage of income class that can afford	Renters with Affordable Options	Total Renter Population	Owners With Affordable Options	Total Owner Population	Total Households	Total Population
0 - 30%	0%	-	2,973	-	2,271	-	5,243
31 - 50%	0%	-	2,044	-	2,917	-	4,961
51 - 80%	40%	729	1,841	2,056	5,192	2,785	7,033
81 - 95%	100%	1,263	1,263	2,660	2,660	3,923	3,923
96 - 100%	100%	320	320	883	883	1,203	1,203
101 - 120%	100%	1,279	1,279	3,523	3,523	4,802	4,802
120%+	100%	1,916	1,916	12,160	12,160	14,077	14,077
Total		***5,509***	***11,638***	***21,282***	***29,605***	***26,790***	***41,243***

HAI	
Renters	***47.3%***
Owners	***71.9%***
Total	***65.0%***

1999

	Percentage of income class that can afford	Renters with Affordable Options	Total Renter Population	Owners With Affordable Options	Total Owner Population	Total Households	Total Population
0 - 30%	0%	-	2,880	-	2,006	-	4,886
31 - 50%	0%	-	1,980	-	2,577	-	4,557
51 - 80%	85%	1,513	1,784	3,890	4,586	5,403	6,370
81 - 95%	100%	1,224	1,224	2,349	2,349	3,573	3,573
96 - 100%	100%	310	310	780	780	1,090	1,090
101 - 120%	100%	1,239	1,239	3,112	3,112	4,351	4,351
120%+	100%	1,857	1,857	10,742	10,742	12,598	12,598
Total		***6,143***	***11,274***	***20,873***	***26,152***	***27,017***	***37,426***

HAI	
Renters	***54.5%***
Owners	***79.8%***
Total	***72.2%***

Model Output

Fort Collins

	Percent of Area Median Family Income	Upper Income Level 1999	2004	1999 Percent of Households with affordable options	Renter Households with affordable options	Total Renter Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households	2004 Percent of Households with affordable options	Renter Households with affordable options	Total Renter Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households
		Home Price Basis	$97,150								Home Price Basis	$139,261					
Fort Collins	0 - 30	$17,800	$19,018	0.0%	0	2,880	0	2,006	0	4,886	0.0%	0	2,973	0	2,271	0	5,243
Fort Collins	31 - 50	$29,666	$31,697	0.0%	0	1,980	0	2,577	0	4,557	0.0%	0	2,044	0	2,917	0	4,961
Fort Collins	51 - 80	$47,466	$50,714	84.8%	1,513	1,784	3,890	4,586	5,403	6,370	39.6%	729	1,841	2,056	5,192	2,785	7,033
Fort Collins	81 - 95	$56,365	$60,223	100.0%	1,224	1,224	2,349	2,349	3,573	3,573	100.0%	1,263	1,263	2,660	2,660	3,923	3,923
Fort Collins	96 - 100	$59,332	$63,393	100.0%	310	310	780	780	1,090	1,090	100.0%	320	320	883	883	1,203	1,203
Fort Collins	101 - 120	$71,198	$76,072	100.0%	1,239	1,239	3,112	3,112	4,351	4,351	100.0%	1,279	1,279	3,523	3,523	4,802	4,802
Fort Collins	120+			100.0%	1,857	1,857	10,742	10,742	12,598	12,598	100.0%	1,916	1,916	12,160	12,160	14,077	14,077
Fort Collins	Total			72.2%	6,143	11,274	20,873	26,152	27,017	37,426	65.0%	5,509	11,638	21,282	29,605	26,790	41,243
						Renter HAI	54.5%						Renter HAI	47.3%			
						Owner HAI	79.8%						Owner HAI	71.9%			
						Total HAI	72.2%						Total HAI	65.0%			

Colorado Springs

	Percent of Area Median Family Income	Upper Income Level 1999	2004	1999 Percent of Households with affordable options	Renter Households with affordable options	Total Renter Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households	2004 Percent of Households with affordable options	Renter Households with affordable options	Total Rental Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households
		Home Price Basis	$90,019								Home Price Basis	$134,779					
Colorado Springs	0 - 30	$16,043	$17,534	0.0%	0	12,394	0	5,838	0	18,232	0.0%	0	12,442	0	6,629	0	19,072
Colorado Springs	31 - 50	$26,739	$29,224	0.0%	0	11,744	0	7,747	0	19,491	0.0%	0	11,790	0	8,798	0	20,587
Colorado Springs	51 - 80	$42,782	$46,758	79.7%	10,662	13,373	12,361	15,504	23,024	28,878	14.8%	1,984	13,425	2,601	17,606	4,585	31,031
Colorado Springs	81 - 95	$50,804	$55,525	100.0%	5,263	5,263	8,053	8,053	13,316	13,316	100.0%	5,283	5,283	9,145	9,145	14,428	14,428
Colorado Springs	96 - 100	$53,478	$58,447	100.0%	921	921	2,335	2,335	3,257	3,257	100.0%	925	925	2,652	2,652	3,577	3,577
Colorado Springs	101 - 120	$64,174	$70,136	100.0%	3,686	3,686	9,342	9,342	13,027	13,027	100.0%	3,700	3,700	10,608	10,608	14,308	14,308
Colorado Springs	120+			100.0%	8,215	8,215	37,256	37,256	45,471	45,471	100.0%	8,246	8,246	42,307	42,307	50,553	50,553
Colorado Springs	Total			69.2%	28,746	55,596	69,348	86,076	98,094	141,672	57.0%	20,138	55,811	67,313	97,745	87,451	153,556
						Renter HAI	51.7%						Renter HAI	36.1%			
						Owner HAI	80.6%						Owner HAI	68.9%			
						Total HAI	69.2%						Total HAI	57.0%			

Greeley

	Percent of Area Median Family Income	Upper Income Level 1999	2004	1999 Percent of Rental HH with affordable options	Renter Households with affordable options	Total Renter Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households	2004 Percent of Households with affordable options	Renter Households with affordable options	Total Rental Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households
		Home Price Basis	$89,827								Home Price Basis	$139,665					
Greeley	0 - 30	$13,771	$15,283	0.0%	0	2,092	0	1,245	0	3,336	0.0%	0	2,214	0	1,519	0	3,733
Greeley	31 - 50	$22,952	$25,471	0.0%	0	1,380	0	1,448	0	2,828	0.0%	0	1,461	0	1,767	0	3,228
Greeley	51 - 80	$36,723	$40,754	49.3%	662	1,341	1,315	2,665	1,977	4,007	0.0%	0	1,420	0	3,253	0	4,672
Greeley	81 - 95	$43,609	$48,395	100.0%	719	719	1,413	1,413	2,133	2,133	34.4%	262	761	593	1,725	855	2,486
Greeley	96 - 100	$45,904	$50,942	100.0%	240	240	471	471	711	711	100.0%	254	254	575	575	829	829
Greeley	101 - 120	$55,085	$61,130	100.0%	661	661	1,636	1,636	2,297	2,297	100.0%	700	700	1,996	1,996	2,696	2,696
Greeley	120+			100.0%	1,352	1,352	7,292	7,292	8,644	8,644	100.0%	1,431	1,431	8,899	8,899	10,330	10,330
Greeley	Total			65.8%	3,634	7,785	12,127	16,170	15,761	23,955	52.6%	2,646	8,240	12,063	19,734	14,709	27,974
						Renter HAI	46.7%						Renter HAI	32.1%			
						Owner HAI	75.0%						Owner HAI	61.1%			
						Total HAI	65.8%						Total HAI	52.6%			

Model Output (continued)

Longmont

	Percent of Area Median Family Income	Upper Income Level 1999	2004	1999 Percent of Rental HH with affordable options	Renter Households with affordable options	Total Renter Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households	2004 Percent of Households with affordable options	Renter Households with affordable options	Total Rental Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households
				Home Price Basis	$93,917						Home Price Basis	$134,685					
Longmont	0 - 30	$17,411	$19,090	0.0%	0	2,179	0	1,157	0	2,179	0.0%	0	2,217	0	1,266	0	3,483
Longmont	31 - 50	$29,019	$31,817	0.0%	0	1,829	0	1,582	0	1,829	0.0%	0	1,861	0	1,732	0	3,593
Longmont	51 - 80	$46,430	$50,907	87.0%	1,975	2,271	2,599	2,989	4,574	6,845	35.5%	819	2,310	1,160	3,271	1,980	5,581
Longmont	81 - 95	$55,135	$60,452	100.0%	754	754	1,584	1,584	2,338	3,092	100.0%	767	767	1,734	1,734	2,501	2,501
Longmont	96 - 100	$58,037	$63,634	100.0%	181	181	537	537	718	900	100.0%	184	184	588	588	772	772
Longmont	101 - 120	$69,644	$76,361	100.0%	725	725	2,148	2,148	2,874	3,599	100.0%	738	738	2,351	2,351	3,089	3,089
Longmont	120+			100.0%	1,289	1,289	7,497	7,497	8,786	10,076	100.0%	1,311	1,311	8,205	8,205	9,516	9,516
Longmont	Total			72.2%	4,924	9,229	14,367	17,496	19,291	28,520	62.6%	3,820	9,388	14,037	19,146	17,857	28,534
						Renter HAI	53.4%						Renter HAI	40.7%			
						Owner HAI	82.1%						Owner HAI	73.3%			
						Total HAI	72.2%						Total HAI	62.6%			

Loveland

	Percent of Area Median Family Income	Upper Income Level 1999	2004	1999 Percent of Rental HH with affordable options	Renter Households with affordable options	Total Renter Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households	2004 Percent of Households with affordable options	Renter Households with affordable options	Total Rental Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households
				Home Price Basis	$95,945						Home Price Basis	$141,825					
Loveland	0 - 30	$16,301	$17,644	0.0%	0	1,417	0	1,001	0	2,418	0.0%	0	1,483	0	1,165	0	2,647
Loveland	31 - 50	$27,169	$29,406	0.0%	0	1,277	0	1,319	0	2,595	0.0%	0	1,335	0	1,534	0	2,870
Loveland	51 - 80	$43,470	$47,050	70.6%	1,029	1,458	1,795	2,544	2,824	4,002	3.3%	50	1,525	96	2,960	146	4,485
Loveland	81 - 95	$51,620	$55,871	100.0%	533	533	1,265	1,265	1,798	1,798	100.0%	558	558	1,472	1,472	2,030	2,030
Loveland	96 - 100	$54,337	$58,812	100.0%	102	102	429	429	531	531	100.0%	107	107	500	500	606	606
Loveland	101 - 120	$65,204	$70,574	100.0%	406	406	1,710	1,710	2,116	2,116	100.0%	424	424	1,990	1,990	2,414	2,414
Loveland	120+			100.0%	819	819	5,448	5,448	6,267	6,267	100.0%	856	856	6,339	6,339	7,196	7,196
Loveland	Total			68.6%	2,888	6,011	10,649	13,717	13,537	19,728	55.7%	1,995	6,288	10,397	15,960	12,392	22,248
						Renter HAI	48.0%						Renter HAI	31.7%			
						Owner HAI	77.6%						Owner HAI	65.1%			
						Total HAI	68.6%						Total HAI	55.7%			

Windsor

	Percent of Area Median Family Income	Upper Income Level 1999	2004	1999 Percent of Rental HH with affordable options	Renter Households with affordable options	Total Renter Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households	2004 Percent of Households with affordable options	Renter Households with affordable options	Total Rental Households	Owner Households with affordable options	Total Owner Households	Total Households with affordable options	Total Households
				Home Price Basis	$96,758						Home Price Basis	$143,408					
Windsor	0 - 30	$18,092	$19,220	0.0%	0	217	0	200	0	417	0.0%	0	249	0	237	0	487
Windsor	31 - 50	$30,153	$32,034	0.0%	0	129	0	246	0	375	0.0%	0	148	0	292	0	440
Windsor	51 - 80	$48,244	$51,254	88.5%	163	184	444	502	607	686	22.2%	47	211	132	595	179	806
Windsor	81 - 95	$57,290	$60,864	100.0%	55	55	302	302	357	357	100.0%	63	63	358	358	421	421
Windsor	96 - 100	$60,305	$64,067	100.0%	15	15	104	104	119	119	100.0%	17	17	123	123	140	140
Windsor	101 - 120	$72,366	$76,880	100.0%	60	60	413	413	473	473	100.0%	69	69	490	490	559	559
Windsor	120+			100.0%	72	72	1,098	1,098	1,170	1,170	100.0%	83	83	1,302	1,302	1,385	1,385
Windsor	Total			75.8%	365	732	2,361	2,865	2,726	3,597	63.3%	279	840	2,404	3,397	2,683	4,237
						Renter HAI	49.8%						Renter HAI	33.2%			
						Owner HAI	82.4%						Owner HAI	70.8%			
						Total HAI	75.8%						Total HAI	63.3%			

Quick Summary

Common Cost Components

Mortgage Interest Rate	6.28%
Down Payment (%)	20.00%

Fort Collins Costs/Fees

		2004
Land Acquisition	$	10,245
Building Fees	$	816
Use Tax	$	1,520
Wet Utilities	$	5,867
Dry Impact Fees	$	6,227
Additional Building Costs/Fees	$	-
Total	***$***	***24,675***

Colorado Springs Costs/Fees

		2004
Land Acquisition	$	10,245
Building Fees	$	746
Use Tax	$	2,368
Wet Utilities	$	5,873
Dry Impact Fees	$	961
Additional Building Costs/Fees	$	-
Total	***$***	***20,193***

Greeley Costs/Fees

		2004
Land Acquisition	$	10,245
Building Fees	$	298
Use Tax	$	1,384
Wet Utilities	$	9,403
Dry Impact Fees	$	3,749
Additional Building Costs/Fees	$	-
Total	***$***	***25,079***

Longmont Costs/Fees

		2004
Land Acquisition	$	10,245
Building Fees	$	731
Use Tax	$	1,400
Wet Utilities	$	1,764
Dry Impact Fees	$	5,959
Additional Building Costs/Fees	$	-
Total	***$***	***20,099***

Loveland Costs/Fees

		2004
Land Acquisition	$	10,245
Building Fees	$	752
Use Tax	$	1,520
Wet Utilities	$	4,921
Dry Impact Fees	$	9,802
Additional Building Costs/Fees	$	-
Total	***$***	***27,239***

Windsor Costs/Fees

		2004
Land Acquisition	$	10,245
Building Fees	$	391
Use Tax	$	1,028
Wet Utilities	$	12,590
Dry Impact Fees	$	4,568
Additional Building Costs/Fees	$	-
Total	***$***	***28,822***

Baseline 5/24/06		New Cost Scenario			
Households with affordable options	Percentage with affordable options	Households with affordable options	Percentage with affordable options	Change in Households	HAI Change
26,790	65.0%	26,790	65.0%	0	0.0%
87,451	57.0%	87,451	57.0%	0	0.0%
14,709	52.6%	14,709	52.6%	0	0.0%
17,857	62.6%	17,857	62.6%	0	0.0%
12,392	55.7%	12,392	55.7%	0	0.0%
2,683	63.3%	2,683	63.3%	0	0.0%

APPENDIX B.
Data Sources

Data Sources

Exhibit B1 shows all types of data used for the housing affordability index and whether they are fixed or variable across each city. Certain data categories are held fixed across all cities to isolate the effects of impact fees, use tax, building fees, and raw land prices for sensitivity analysis.

Exhibit B1. Data Characteristics

Source:
BBC Research & Consulting.

Data Type	Fixed	Variable
Household Income	✓	
Land Acquisition		✓
Carrying Costs	✓	
Building Fees		✓
Site & Lot Development	✓	
Use Tax		✓
Impact Fees		✓
Labor per Unit	✓	
Materials per Unit	✓	
Builder Overhead	✓	
Builder Profit	✓	

Household income distributions. These data were necessary to get a picture of the buying power of the population of Fort Collins and the five comparable cities. Income distribution data was combined with housing cost data to compute the housing affordability index.

What was done in the 1996 study? Data on income distributions was gathered from HUD's Comprehensive Housing Affordability Strategy (CHAS) database for 1990. For 1995, data was obtained from the Colorado Department of Local Government. The data was grouped according to HUD standards. Median family income was gathered from the 1990 Census.

What was done in the 2005 study? Data for the baseline year (1999) was harvested from the HUD CHAS database. Since the CHAS database has not been updated for 2004, BBC obtained the latest household income data from PCensus, a demographic information software package. Median family income for 1999 was gathered from the 2000 Census.

While we were able to obtain an updated household income distribution for 2004, we were not able to determine the tenure status of households in their respective income brackets. To circumvent this problem, we assumed that, in each income category, the same distribution of owners and renters existed as in 2000. We used the 2000 CHAS data to obtain the appropriate tenure mix in each income bracket.

The City of Fort Collins is the home of Colorado State University, and therefore a large student population. The City has a methodology for filtering out the student population

from household statistics, since they are not truly permanent City residents. BBC followed the City's methodology for removing the student population from household income distributions in this study.

Interest rates. Interest rate data was obtained from the interest rate page of the Mortgage Bankers' Association of America (MBAA) website (www.mbaa.org). The site includes monthly and annual national average 20-yr fixed rate loan information. The interest rate was used to assess the affordability of a construction loan.

What was done in the 1996 study? A 11.25 percent interest rate was used for the multifamily model.

What was done in the 2005 study? The MBAA page has average yearly and monthly interest rate data available for the past 15 years. A 20-year fixed rate loan was used in the HAI model to accurately reflect the most widely used financing options. The average interest rate in 2004 was 6.28 percent; it was used as the baseline rate of the model.

Development fee data. These data are necessary to calculate the costs associated with residential construction.

What was done in the 1996 study? The Fort Collins Current Planning Department provided these data to BBC. The data included development fee figures for Fort Collins and all peer cities.

What was done in the 2005 study? The City of Fort Collins and the HBA has provided 2004 figures for Larimer and Weld Counties. Longmont (Boulder County) fee data was obtained from the Department of Community Development, City of Longmont. Fee data for Colorado Springs was collected from the Pikes Peak Regional building department and Colorado Springs Utilities. Data for fees in 1999 was obtained by comparing 1995 information to the current data, and calculating growth rates (if any) over time.

Raw land costs. This is an important cost component of the overall consumer housing cost.

What was done in the 1996 study? The Fort Collins Current Planning Department provided these data to BBC. The data included raw land costs for Fort Collins and all peer cities.

What was done in the 2005 study? Raw land costs from the City of Fort Collins were obtained from the BAE Land Bank Feasibility study. Additional raw land costs for Fort Collins and all Larimer, Weld and Boulder County municipalities were obtained from www.coloproperty.com, a Front Range Multiple Listing Service website. Raw land values for Colorado Springs were obtained from the Pikes Peak MLS system. Average values per acre were determined, and then converted to average raw land cost per multifamily unit, assuming 120 units on 10 acres.

Costs of construction and labor. This is another important cost component of the overall consumer housing cost.

What was done in the 1996 study? The Fort Collins Current Planning Department provided this information for Fort Collins and all peer cities.

What was done in for the 2005 study? This information was obtained through BBC's residential cost survey. Completed cost surveys were averaged to isolate the effects of development fees on housing affordability. At the time of this printing, we have obtained 8 data points for the model. The data points include builder surveys and nationally respected builder cost books from the National Association of Home Builders, and RS Means. Incorporating additional surveys will increase the model's predictive power. The model has been built to allow for the constant addition of new builder surveys.

Market rent data. These data allow BBC to assess the adequacy of the current stock of affordable rental housing in Fort Collins. Current rental rates and historical market rents are used in the HAI model to determine the affordability of actual rental units on the market.

What was done in the 1996 study? The original study did not contain this type of data. The 1996 study did not attempt to make the connection between rental housing affordability and affordable rental housing availability.

What was done in the 2005 study? Current median contract rents were obtained trough the Colorado Division of Housing's Multifamily Housing Vacancy and Rental Survey and adjusted upward to gross rent by including an average $75 monthly utility expense. Data from the 2000 US Census was also used to obtain 1999 gross rents.

APPENDIX C.
Builder Cost Survey Instrument

Exhibit 1.
Entry-Level Apartment Cost Analysis

Source:
BBC Research & Consulting, Arizona Housing Commission and Nebraska Affordable Housing Commission

Types of Costs	Cost Amount	Cost %	Suggested %
Land Acquisition	$8,466	6.44 %	%
Carrying Costs	$234	.18 %	%
Building Fees	$312	.24 %	%
Professional Services	$3,359	2.55%	%
Construction Use Tax	$1,097	.83 %	%
Impact Fees	$15,031	11.43 %	%
Construction Labor for Unit	$38,733	29.45 %	%
Construction Material for Unit	$47,341	35.99 %	%
Builder Overhead	$9,962	7.37 %	%
Builder Profit	$7,264	5.52 %	%
Total:	$131,530	100 %	100%