Rental Market Study

Market Trends, Occupancy Ordinance, and Short-Term Rentals

CORONA INSIGHTS

City of Fort Collins

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Market forces 10 to 15 years ago conspired against the rental market.

In 2007, the City began actively enforcing the Occupancy Ordinance, which was expected to create new rental demand as larger households disbanded to form a higher number of smaller households. This occurred at a time when the city's rental market was healthy, with a slight surplus of vacant rental units, so the expectation of resulting decreases in vacancy rates was not of major concern.

However, in December of 2007, the Great Recession began, resulting in a major slowdown of new home construction. The population of Fort Collins continued to grow, creating more demand for housing than the construction market could meet.

In addition, several market forces specifically increased demand in the rental market. In addition to the ordinance enforcement and general population growth, the economy likely created new renters due to foreclosures, and the new Condo Defects Law likely stunted the development of condominiums that are a traditional path from renting to home ownership. The result was a steep decline in rental vacancy rates that created a very challenging market for renters in the 2010 to 2012 time frame, as shown on the following page.

We conclude that the ordinance was one of several forces that led to the decrease in vacancy rates during this period, which would have contributed to increasing rental prices.

Executive Summary: Snapshot – 2005 to 2012

2005 to 2007 Era

Rental Vacancy Rate
5.4%

Excess Rental Units
Above Ideal Vacancies
+100 units

1,200 violator households

Intervening Events

The Great Recession

- Slowdown in construction
- Increased rental demand due to foreclosures, lack of supply, financial issues
- "Lost renters" due to lower household formation or other issues

Population Growth

Increased natural rental demand

Ordinance Enforcement

Increased rental demand as households reformed

2010 to 2012 Era

Rental Vacancy Rate
1.2%

Rental Unit Shortage
Below Ideal Vacancies
-1,000 units

550 violator households

3.9 percent per year rental cost increases

Executive Summary: Key Findings

Rental Market Overview, 2010 to 2018

A slow recovery over the past several years

As the recession ended, Fort Collins' rental market was more or less gridlocked, with a very low vacancy rate. In the light of this supply shortage, construction surged. However, the population was still growing and prices were on the rise quickly, creating new challenges. While construction began making headway in moving the market back toward a healthy level, it barely outpaced increased demand. In addition, pent-up demand from the recession was released, bringing new households into the market.

Likely a result of housing affordability and other issues, home ownership rates continued to drop, albeit at a slower rate than they had in the recession. Additionally, a new market phenomenon arrived on the scene to siphon off the rental housing supply. Short-term rentals are a relatively small force, but nonetheless diverted some of the housing supply from long-term rentals to short-term rentals.

In response to this, some households began doubling up for different reasons than we saw in the recession. The result is more households that violate the occupancy ordinance, but they are not so much the college students who used to represent that population. A majority are now non-students, often with children.

The result has been a slow movement toward a healthy rental market, but not yet enough. The market has improved, but remains unbalanced in favor of landlords and against tenants, as shown on the following page.

Executive Summary: Snapshot – 2010 to 2017

2010 to 2012 Era

Rental Vacancy Rate
1.2%

Excess Rental Units
-1,000 units

550 violator households

Intervening Events

Construction Boom
Tripling of home construction rates

Population Growth
Continued population growth

Affordability
Slower road to home ownership, more ordinance violators

Short-Term Rentals
New demands on housing stock (though small compared to other forces)

Ordinance
Compliance continued to increase rental demand and contribute to low vacancy rates (and thus cost increases)

2015 to 2017 Era

Rental Vacancy Rate
2.4%

Excess Rental Units
-800 units

1,200 violator households

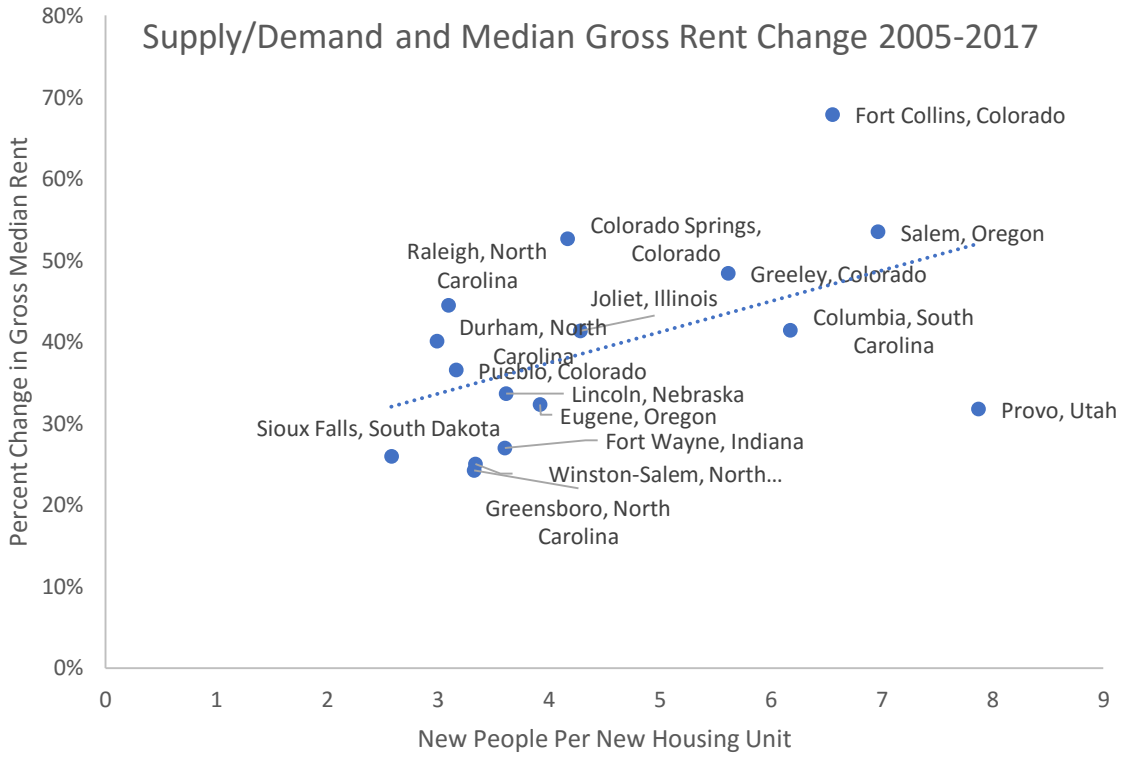
4.2 percent per year rental cost increases

Executive Summary: Key Findings

Rental Market Trends

The population has grown faster than the housing supply

A comparison of population growth to housing supply growth shows that Fort Collins is an outlier compared to a number of similar communities around the United States. Fort Collins' population has grown faster than the change in housing supply, with nearly 7 new people joining the population for each new housing unit being built. This is primarily due to the shortfall of new supply in the 2005 to 2010 time period, which is still affecting the market today.

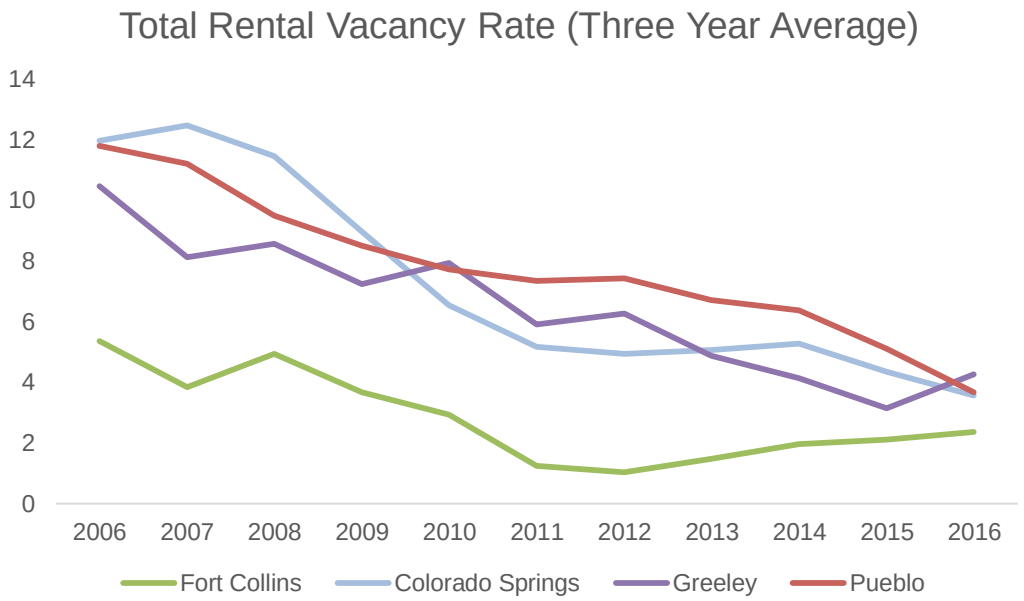


Executive Summary: Key Findings

Rental Market Trends

Fort Collins has lower vacancy rates than other comparable markets in Colorado*

While other standalone Colorado metro areas faced many of the same market forces as Fort Collins, they were generally starting at a higher vacancy rate, so the declines in vacancy rates moved them from an unhealthy (high) vacancy rate to a generally healthy vacancy rate. In contrast, these forces pushed Fort Collins from a generally healthy vacancy rate to an unhealthy (low) vacancy rate. The Fort Collins market has been slowly moving back to a healthy level since 2011, but is still a challenging market for renters.



*Yearly data were not available for the fourth standalone metro area of Grand Junction

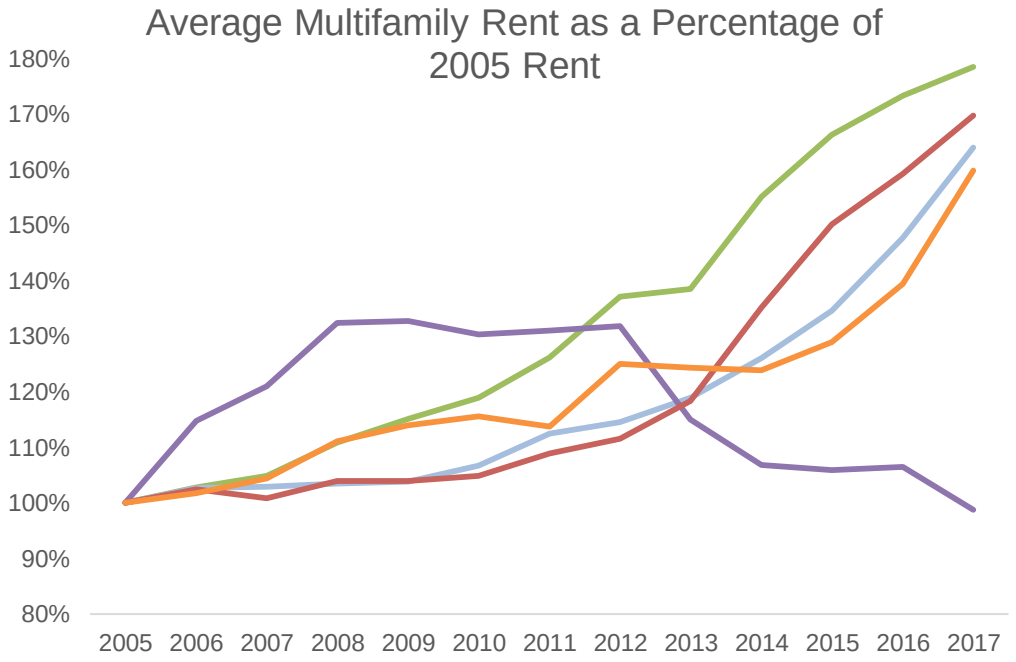
Executive Summary: Key Findings

Rental Market Trends

Fort Collins' rental costs have increased faster than other comparable markets in Colorado*

In the face of low vacancy rates, market competition will push prices higher. While this has driven prices upward in other Colorado markets as well (with the exception of Grand Junction), the impact has been largest for Fort Collins.

(The graph at right is a rental cost index that controls for base differences in rent. It measures each metro area at a 2005 value of 100.) Rents in Fort Collins are 78 percent higher in 2017 than they were in 2005.



Executive Summary: Key Findings

Rental Market Dynamics

Rental households are getting larger, and owner occupancy is declining

Era	Rental Households	Rental Population	Average Renter Household Size	Proportion of Households Who Are Renters
2005-2007	23,130	48,790	2.11	43.1%
2010-2012	26,044	59,530	2.29	45.6%
2015-2017	28,871	68,815	2.38	46.4%

Over the past ten years, the size of rental households has increased notably from an average of 2.11 people per household to 2.38 people. This is a notable increase in size, and means that nearly 8,000 additional people are living in rental units solely due to this increase. The result is that rental properties are more densely occupied now than they have been in the past.

Also of interest is the continuing increase of rental households among the population. Comparing the current rate to ten years ago, we can conclude that approximately 950 households are renting now, and in past years would have owned their homes. This places more demand on the rental market.

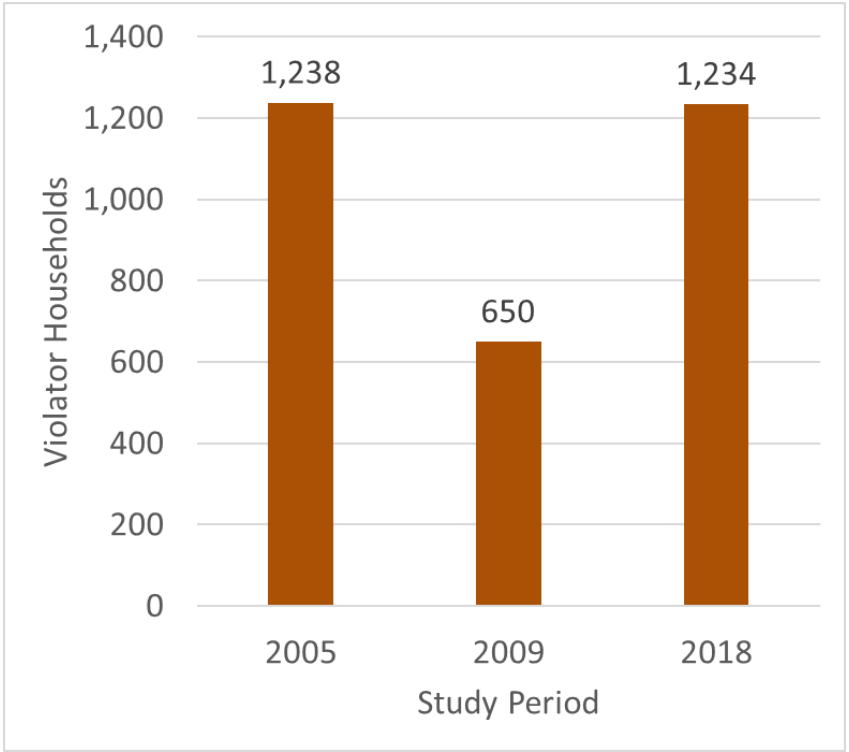
Executive Summary: Key Findings

Occupancy Ordinance Compliance

The number of households not in compliance with the Occupancy Ordinance has increased

Three studies have been conducted over the past 15 years to estimate the number of households that are violating the occupancy ordinance. Prior to active enforcement of the ordinance, the number was estimated at slightly more than 1,200. The figure declined by nearly 50 percent after enforcement began, but has since risen back to roughly the original number.*

However, as described on the following pages, the types of households that are in violation have evolved since 2005.



* - Note that due to population growth, the proportion of violator households relative to the population is somewhat lower.

Executive Summary: Key Findings

Profile of Occupancy Ordinance Violators

College students are no longer the most common type of violator

In the initial 2005 study, it was estimated that 71 percent of ordinance violators were college students. In the 2018 study, the proportion has shifted dramatically. Only 47 percent of violators are now estimated to be college students, with 53 percent estimated to be non-students.

This is a notable change because it implies that affordability may be an issue among non-student populations that is leading to larger households.

45%	Undergraduate Students
2%	Graduate Students
42%	Adult non-students
10 %	Pre-K to 12th grade students*

*These are minor school-age children of other segments.

Executive Summary: Key Findings

Profile of Occupancy Ordinance Violators

Violator households are mobile, generally unrelated, and live in houses

Violator households tend to either form quickly or be mobile, as nearly half moved into their home within the past year. This mobility may increase the likelihood of conflict if they are new to a neighborhood.

Of particular note is the age profile. While 40 percent are 18-21 year old adults, 47 percent are older, and 13 percent are children. This influx of adults with children represents a change in the profile over time.

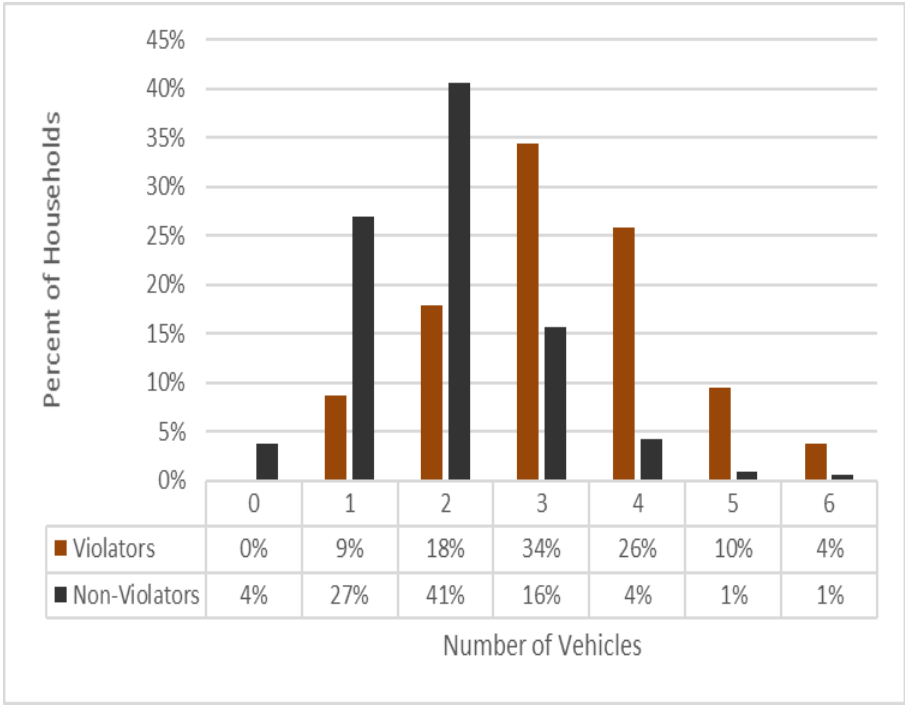
47%	have moved into their home in the past 12 months
40%	are age 18 to 21
73%	live in single-family homes or duplexes
25%	of households have children
13%	are children
61%	have no related people (all roommates)

Executive Summary: Key Findings

Profile of Occupancy Ordinance Violators

Violator households tend to have numerous vehicles

When residents were surveyed about the prevalence of eight different neighborhood issues, the most commonly seen issue was inappropriate parking of vehicles. Violator households are vulnerable to this issue because they tend to have numerous vehicles.



	0	1	2	3	4	5	6
Violators	0%	9%	18%	34%	26%	10%	4%
Non-Violators	4%	27%	41%	16%	4%	1%	1%

* - Note that due to population growth, the proportion of violator households relative to the population is somewhat lower.

Executive Summary: Key Findings

Perceptions of Occupancy Ordinance

Support outweighs opposition, though many are neutral

The ordinance is well known, with 89 percent of residents being aware of it. Many are neutral towards it, but more residents support the ordinance (42 percent) than oppose it (24 percent). The biggest split is that homes with a college student are more likely to oppose the ordinance than support it, while homes without a student have the opposite stance.

		Region			Dwelling Type		Tenure		College Student in Home		Aware of Occupancy Ordinance	
	Total	West of campus	East of campus	Remainder of city	Single family	Multi-family	Owner	Renter	Yes	No	Yes	No
Base												
Unweighted	**1328**	**355**	**498**	**475**	**1044**	**284**	**1049**	**271**	**202**	**1064**	**1167**	**123**
Opinion of Occupancy Ordinance												
Support	**42%**	38%	44%	43%	45%	37%	53%	30%	19%	47%	43%	28%
Neutral	**31%**	34%	26%	31%	29%	34%	25%	38%	31%	31%	29%	40%
Oppose	**24%**	26%	25%	23%	22%	27%	19%	29%	44%	19%	24%	27%
No opinion	**3%**	3%	4%	3%	4%	3%	3%	4%	7%	2%	3%	5%

* - Note that due to population growth, the proportion of violator households relative to the population is somewhat lower.

Executive Summary: Key Findings

Perceptions of Occupancy Ordinance

Most residents don't see the ordinance impacting their neighborhood and are split on enforcement

Nearly 4 in 5 residents don't believe that the ordinance has an impact on their neighborhood. Among those who do see an impact, it's more positive than negative. The one exception is that residents in homes that contain college students are more likely to see a negative impact than a positive impact (17 percent negative versus 11 percent positive).

Residents generally prefer the current level of enforcement over more/less strict enforcement. Again, the exception is residents in homes with college students, who strongly prefer less strict enforcement (8 percent more strict, 34 percent less strict.

78% don't believe that ordinance has an impact on their neighborhood.

- 15% see a positive impact
- 8% see a negative impact

38% like the current level of enforcement

- 17% want more strict enforcement
- 18% want less strict enforcement
- 28% have no opinion

Executive Summary: Key Findings

The Short-Term Rental Market

Short-Term Rentals (STRs) are a growing market

STRs have consistently grown in number over the past three years. The figures below represent the number of listed units each month for the time period for which data were available at the time of this report.

Revenues for proprietors have risen from an estimated $500,000 citywide in 2014 (annualized estimate) to roughly $9.6 million citywide in 2018 (annualized estimate).

	Month											
Year	1	2	3	4	5	6	7	8	9	10	11	12
2014										86	88	100
2015	109	99	103	117	140	148	176	176	185	192	213	241
2016	256	266	277	282	329	343	364	376	414	434	445	465
2017	477	473	501	491	533	524	549	541	525	527	541	562
2018	556	528	524	514								

Executive Summary: Key Findings

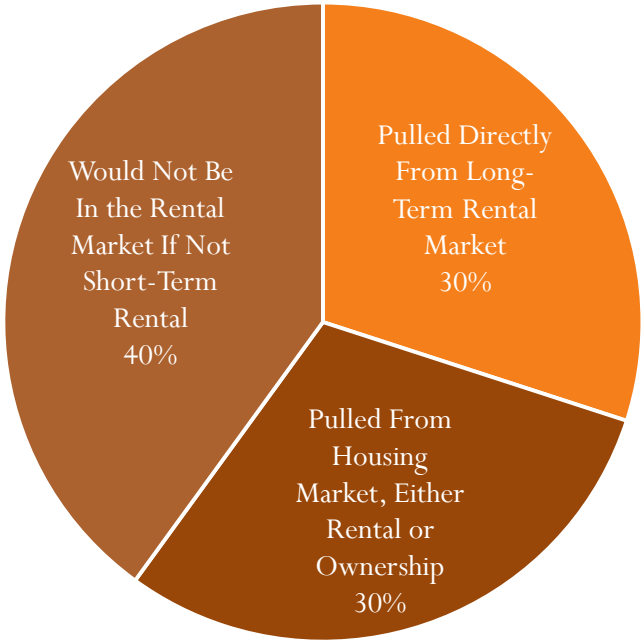
The Short-Term Rental Market

Short-Term Rentals (STRs) partially cannibalize units from the rental supply

In a tight rental housing market, a concern might arise that STRs are removing long-term rentals from the market. While this is true to some extent, not all STRs do so. Approximately 40 percent of STRs are units that would not otherwise be on the market if they weren't STRs. (For example, they might be a spare bedroom that would just be used as a spare bedroom.)

Another 30 percent of STRs are estimated to be directly converted from long-term rentals, and the remaining 30 percent are removed from the housing market, but it cannot be determined if they would have been rental units or owned units.

As such, STRs to date do negatively impact rental vacancy rates, but they are currently a smaller force than other market forces.



Executive Summary: Key Findings

Perceptions of STR Licensing Rules

Support generally outweighs opposition, though many aren't aware of the rules

Only 31 percent of residents were aware of STR licensing rules. However, when asked about support or opposition, residents were more likely to support the current rules than oppose them.

41% support current STR rules

39% have no opinion

19% oppose current STR rules

Executive Summary: Key Findings

Neighborhood Quality - Citywide

Residents generally rate their neighborhood as having positive qualities

Four measures of neighborhood quality were tested, and all received positive ratings. Peace and quiet, lawn maintenance, and home maintenance received particularly high ratings, while sense of community was lower (but still positive). The neighborhood west of campus is rated lower by its residents than other parts of the city, and renters tend to rate their neighborhood lower than owners.

		Region			Tenure		College Student in Home	
	Total	West of campus	East of campus	Remainder of city	Owner	Renter	Yes	No
Peace and quiet	1.12	0.80	1.14	1.24	1.27	0.94	1.17	1.11
Maintenance of lawns	1.05	0.77	0.87	1.18	1.10	0.99	1.13	1.04
Maintenance of houses	1.07	0.78	0.90	1.20	1.20	0.90	0.89	1.10
Sense of community	0.48	0.25	0.56	0.55	0.76	0.13	0.21	0.54

Very good = 2, Fair = 0, Very bad = -2, Not applicable = excluded

Executive Summary: Key Findings

Neighborhood Quality and Ordinance Violators

Proximity to suspected ordinance violators is correlated with lower neighborhood quality ratings

Even within neighborhoods, proximity to suspected ordinance violators tends to correlate with lower ratings on neighborhood quality.

	Total	West of campus- Neighbor(s) violating occupancy ordinance		East of campus- Neighbor(s) violating occupancy ordinance		Remainder of city- Neighbor(s) violating occupancy ordinance	
		Yes	No	Yes	No	Yes	No
Peace and quiet	**1.13**	0.52	0.92	0.78	1.24	0.85	1.3
Maintenance of lawns	**1.08**	0.51	0.97	0.57	0.93	0.72	1.28
Maintenance of houses	**1.08**	0.5	0.96	0.83	0.95	0.49	1.31
Sense of community	**0.49**	-0.11	0.44	0.45	0.58	0.03	0.65

Very good = 2, Fair = 0, Very bad = -2, Not applicable = excluded

Executive Summary: Key Findings

Neighborhood Quality and Short-Term Rentals

Proximity to suspected STRs in areas where they are not allowed is correlated with lower neighborhood quality ratings

Overall, there is a negative correlation between perceived neighborhood quality and proximity to STRs. However, this is an issue only in areas where STRs are not allowed.

	Total	Neighbor(s) operate STRs		No STRs allowed- Neighbor(s) operate STRs		Primary STRs only- Neighbor(s) operate STRs	
		Yes	No	Yes	No	Yes	No
Peace and quiet	**1.13**	1.07	1.14	1.1	1.27	1.17	1.08
Maintenance of lawns	**1.07**	0.91	1.09	0.71	1.14	1.15	1.09
Maintenance of houses	**1.07**	0.93	1.09	0.90	1.18	0.96	0.98
Sense of community	**0.5**	0.36	0.52	0.37	0.68	0.40	0.38

Very good = 2, Fair = 0, Very bad = -2, Not applicable = excluded

Executive Summary: Key Findings

Neighborhood Issues - Citywide

Residents generally observe few problems amongst their neighbors

Among the tested issues, the most common are parking vehicles inappropriately and loud noises other than parties. The latter is reported much more commonly by renters than by owners.

	Total	Region			Tenure		Opinion of Occupancy Ordinance		
		West of campus	East of campus	Remainder of city	Owner	Renter	Support	Neutral	Oppose
Uncontrolled pets running loose	**0.51**	0.69	0.47	0.45	0.43	0.6	0.58	0.53	0.39
Criminal activity	**0.33**	0.62	0.34	0.23	0.16	0.54	0.35	0.31	0.27
Disruptive parties	**0.36**	0.74	0.3	0.24	0.24	0.5	0.35	0.45	0.3
Loud noise other than parties, such as stereos or yelling	**0.59**	1.12	0.55	0.4	0.37	0.86	0.56	0.66	0.59
Parking vehicles inappropriately	**0.66**	1.03	0.64	0.53	0.59	0.74	0.71	0.66	0.59
Snow on sidewalks (snow not shoveled)	**0.54**	0.83	0.66	0.43	0.58	0.49	0.59	0.6	0.36
Trash or junk in the yard	**0.49**	0.91	0.51	0.34	0.39	0.62	0.59	0.46	0.39
Poorly maintained house	**0.36**	0.6	0.54	0.25	0.34	0.39	0.41	0.36	0.28

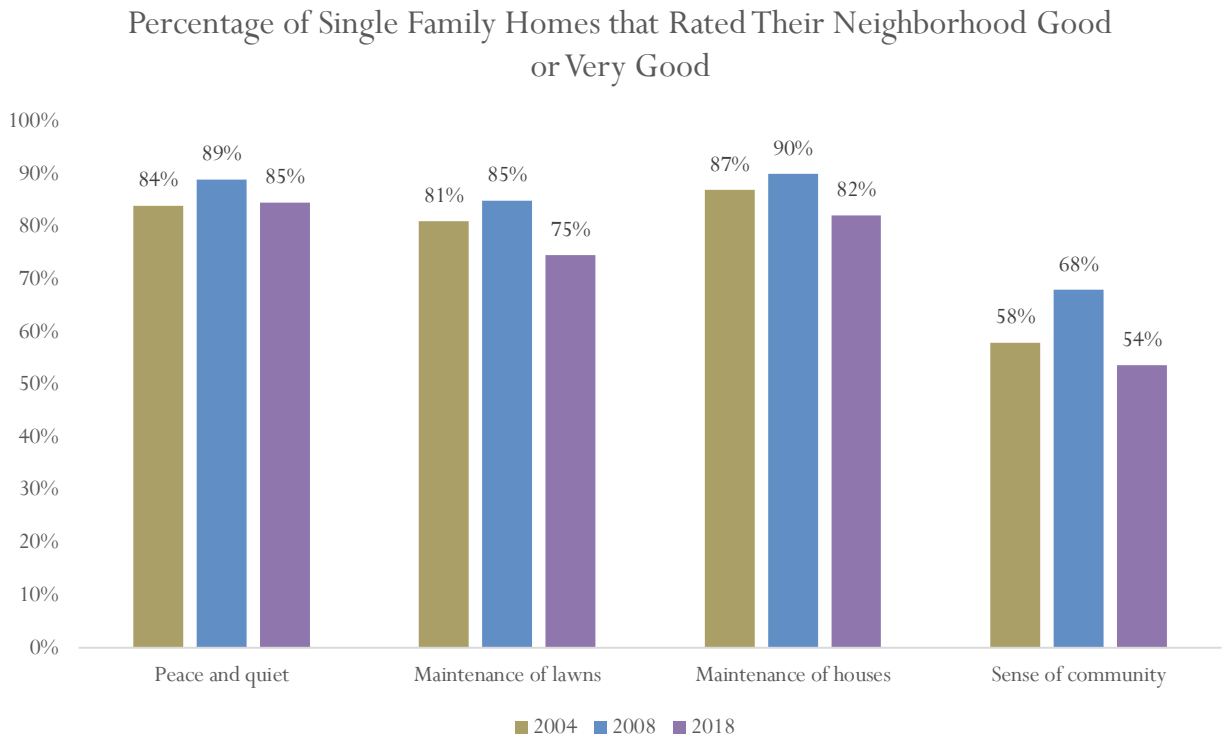
Figures represent average reported number of incidents per respondent.

Executive Summary: Key Findings

Trends in Neighborhood Quality- Citywide

Residents generally rate their neighborhood as having positive qualities

Neighborhood quality ratings rose from 2004 through 2008 for single-family homes, and have declined since. While this appears to correlate with the increases and decreases in violator households, the pattern was also reported by residents who did not live in proximity to ordinance violators.



Executive Summary: Key Findings

Neighborhood Issues and Ordinance Violators

Proximity to suspected ordinance violators is correlated with more incidents of neighborhood issues

Loud noise and inappropriately parked vehicles stand out as issues that seem associated with proximity, particularly in the area west of campus.

	Total	West of campus- Neighbor(s) violating occupancy ordinance		East of campus- Neighbor(s) violating occupancy ordinance		Remainder of city- Neighbor(s) violating occupancy ordinance	
		Yes	No	Yes	No	Yes	No
Uncontrolled pets running loose	**0.51**	1.02	0.54	0.66	0.42	0.77	0.4
Criminal activity	**0.31**	1.07	0.45	0.93	0.23	0.54	0.14
Disruptive parties	**0.36**	1.42	0.44	0.7	0.19	0.6	0.18
Loud noise other than parties, such as stereos or yelling	**0.59**	1.75	0.84	1.49	0.39	0.76	0.35
Parking vehicles inappropriately	**0.63**	1.78	0.67	1.47	0.49	0.86	0.44
Snow on sidewalks (snow not shoveled)	**0.53**	1.55	0.47	1.35	0.5	0.87	0.35
Trash or junk in the yard	**0.48**	1.53	0.58	1.53	0.32	0.91	0.25
Poorly maintained house	**0.35**	1.07	0.33	1.19	0.42	0.89	0.15

Figures represent average reported number of incidents per respondent.

Executive Summary: Key Findings

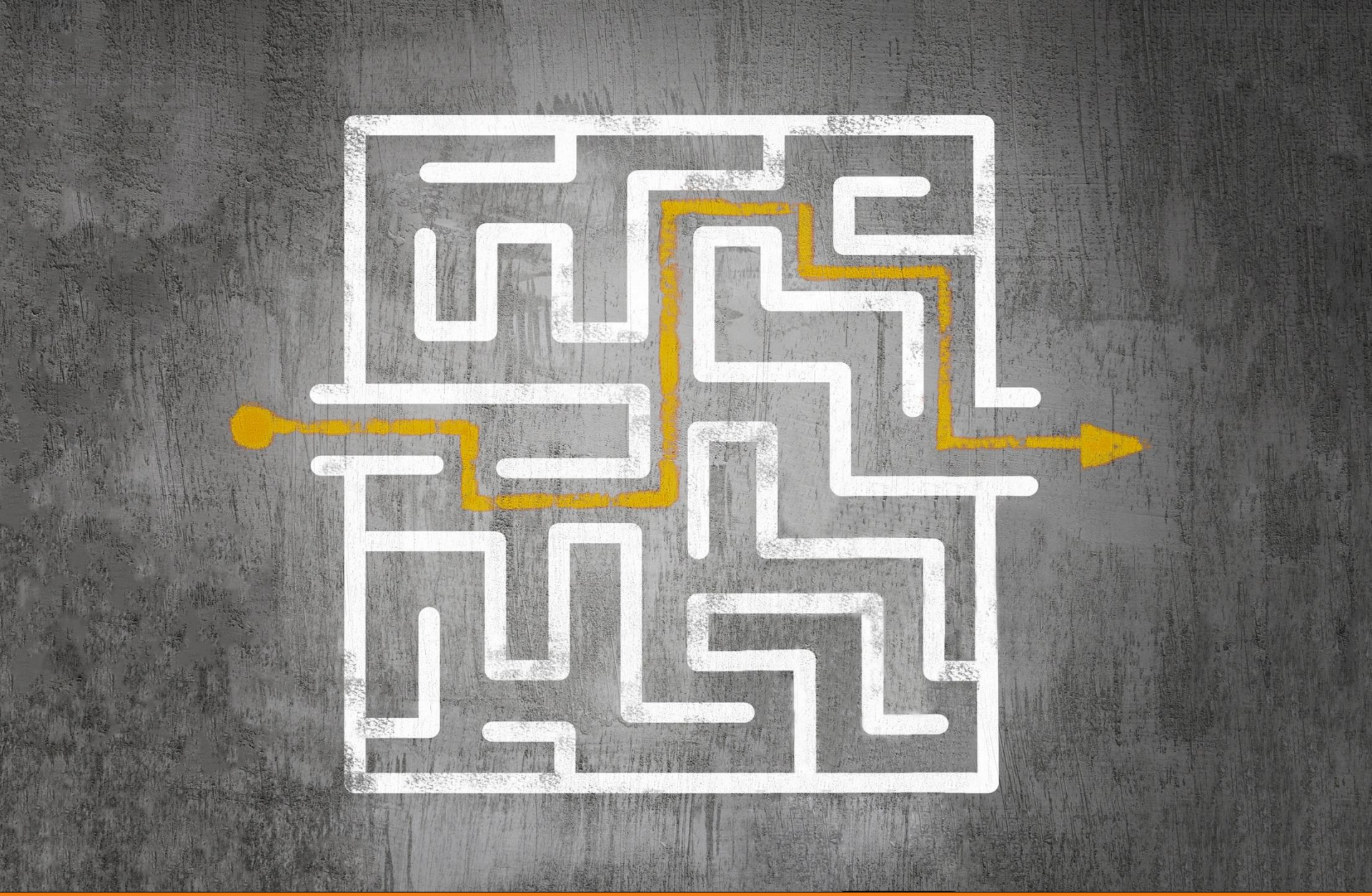
Neighborhood Quality and Short-Term Rentals

Proximity to suspected STRs is correlated with more incidents of neighborhood issues

The impact is smaller than that seen for ordinance violators, but nonetheless negative impacts are reported, particularly in areas where STRs are not allowed.

	Total	Neighbor(s) operate STRs		No STRs allowed-Neighbor(s) operate STRs		Primary STRs only-Neighbor(s) operate STRs	
		Yes	No	Yes	No	Yes	No
Uncontrolled pets running loose	**0.51**	0.82	0.47	0.85	0.47	0.78	0.46
Criminal activity	**0.3**	0.56	0.26	0.52	0.15	0.68	0.35
Disruptive parties	**0.35**	0.56	0.33	0.63	0.24	0.55	0.37
Loud noise other than parties, such as stereos or yelling	**0.57**	0.84	0.54	0.88	0.39	0.91	0.63
Parking vehicles inappropriately	**0.63**	0.87	0.60	1.03	0.52	0.8	0.66
Snow on sidewalks (snow not shoveled)	**0.53**	0.77	0.50	1.08	0.51	0.5	0.54
Trash or junk in the yard	**0.47**	0.67	0.44	0.76	0.38	0.65	0.45
Poorly maintained house	**0.35**	0.64	0.32	0.71	0.33	0.63	0.32

Figures represent average reported number of incidents per respondent.



Introduction

Introduction: Background

In 2018, the City of Fort Collins retained Corona Insights to conduct an examination of rental market conditions in Fort Collins, particularly with respect to the City's occupancy ordinance. The initial research questions were:

- Has the occupancy ordinance had an impact on neighborhood quality?
  - Our conclusions are shown on Page 4 and 7 of the Executive Summary.
- Does the occupancy ordinance impact the affordability of housing?
  - Our conclusions are shown on Page 22 and 26 of the Executive Summary.

This report is a followup to two previous studies conducted for the city in 2005 and 2009. The previous studies contained some common elements to this study, but generally had somewhat different emphases.

- The 2005 study focused primarily (but not exclusively) on estimating the impacts of the ordinance on the rental market if it were fully enforced, but also included measures of neighborhood quality among single-family home residents.
- The 2009 study focused primarily on the impacts of the ordinance enforcement on various constituency groups. It also included a tracking survey of neighborhood quality.
- This 2018 report steps back and takes a larger view of the rental market, updates the tracking survey, and provides the first examination of the impact of Short-Term Rentals on the market and on neighborhood quality. The 2018 report also expanded the survey to include all households rather than just single-family home residents.

Introduction: Occupancy Ordinance

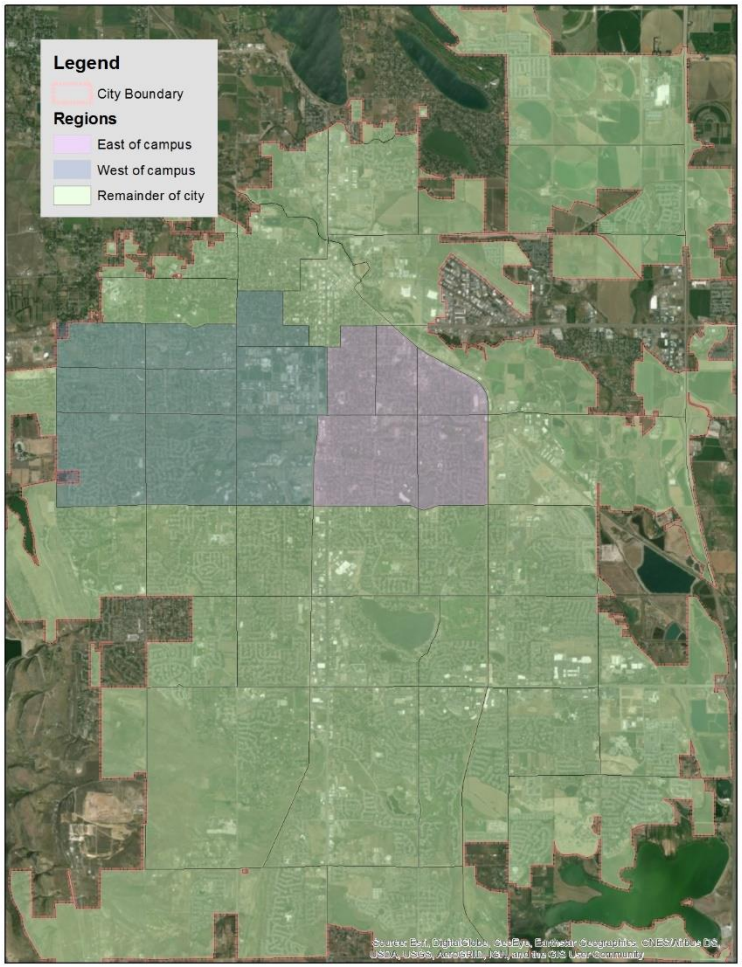
The occupancy ordinance states that

> "Occupancy in a residential dwelling unit (single-family, duplex, and multifamily) is restricted to:
>
> one family as defined below (Section 5.1.2) and not more than one additional person;
>
> OR
>
> one adult and their dependents (if any), a second adult and their dependents (if any), and not more than one additional person."

The ordinance has existed for many years, but was enforced actively beginning in 2007.

Introduction: Geographical Analysis Areas

Because the occupancy ordinance has been of particular focus in areas near the Colorado State University campus, several analyses in this report break down citywide results into three areas, as shown here.



Introduction: Report Layout

The report addresses housing in terms of overall market trends as well as specific topics. The layout follows the order below. Each sub-section includes unique key findings.

Section 1. Rental Market Trends

Comparisons to Other Colorado Metro Areas
Comparison to a Selection of Nationwide Cities
Recent Trends in Fort Collins

Section 2. Ordinance Violators

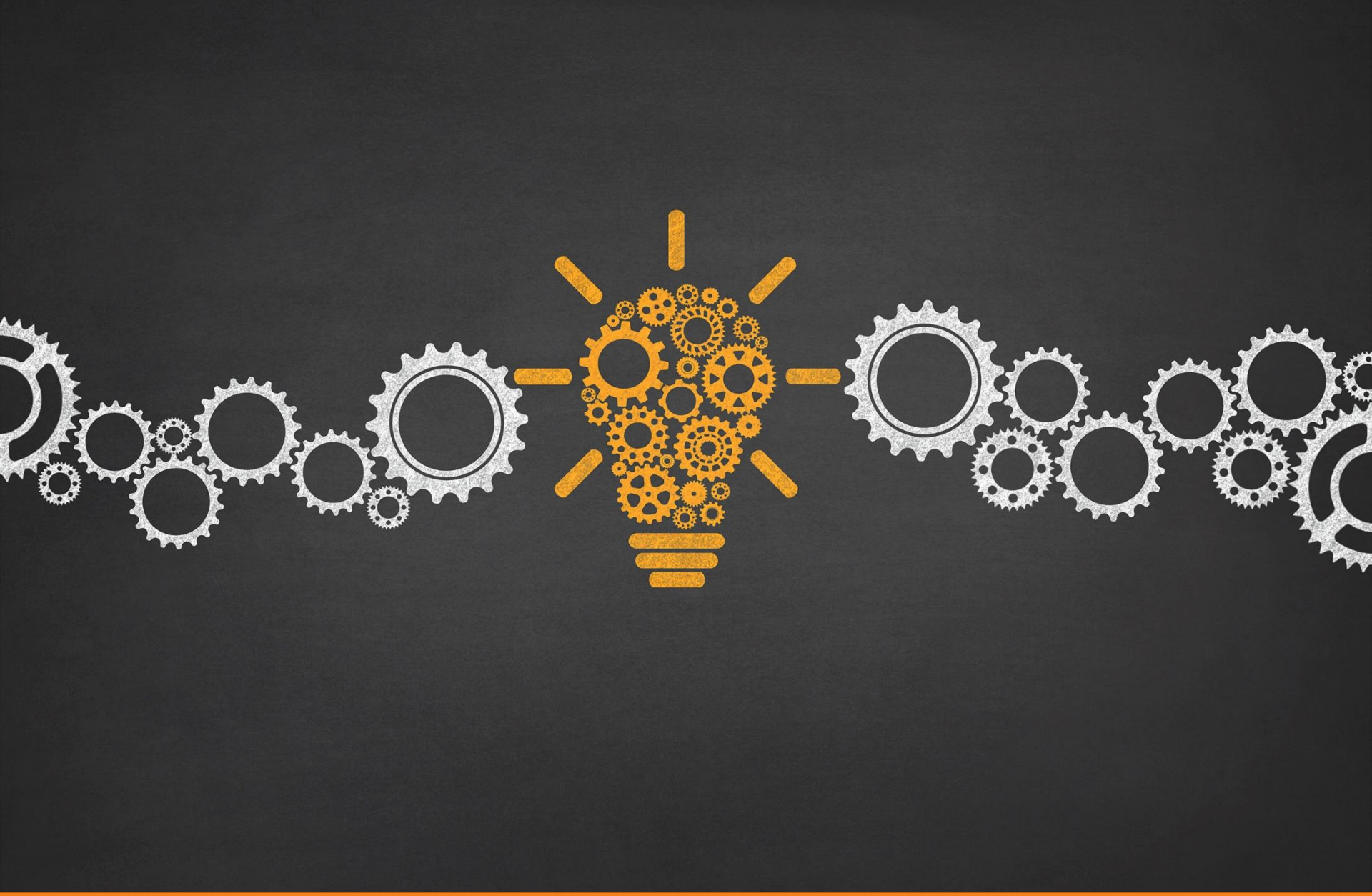
Estimated Number
Profile of Violators
Investigation Outcomes
Public Sentiment Toward Ordinance

Section 3. Short-Term Rentals

Profile of Units and Revenues
Rental Hosts and Properties
Public Sentiment Toward STR Rules

Section 4. Neighborhood Quality

Citywide Quality Measures
Proximity to Ordinance Violators
Proximity to Short-Term Rentals



Section 1: Rental Market Trends

Section 1.1

Rental Market Trends

Fort Collins Compared to Other Colorado Metro Areas

1.1.1 Change in Demand

1.1.2 Change in Supply

1.1.3 Change in Vacancies

1.1.4 Change in Average Rent

Key Findings: Colorado Comparisons

- While population growth in Fort Collins is higher than most comparable areas, the highest rates in the city were concentrated pre-ordinance.
- The average size of rental households increased over the long term.
- The proportion of homes that were renter-occupied increased over the long term.
- Housing supply trends in Fort Collins are largely consistent with other Colorado markets across time periods. The city had a significant decrease in new residential building permits between 2004-2009 that has since rebounded.
- While the entire state has seen a decrease in rental vacancy rates over the last two decades, Fort Collins has had a significantly lower (in relative and absolute terms) vacancy rate in the post-ordinance era.
- While trends in the cost of rent in Fort Collins were similar to comparable cities pre-ordinance, the rate of increase has been much higher (in relative and absolute terms) in the post-ordinance era. Nonetheless, most comparable Colorado cities have seen a steep increase in rent between 2013-2017.

A description of the methodology is found in the appendix.

Section 1.1.1

Change in Demand

Population growth in Fort Collins is fairly consistent with similar metro areas

Average Population from State Demographer

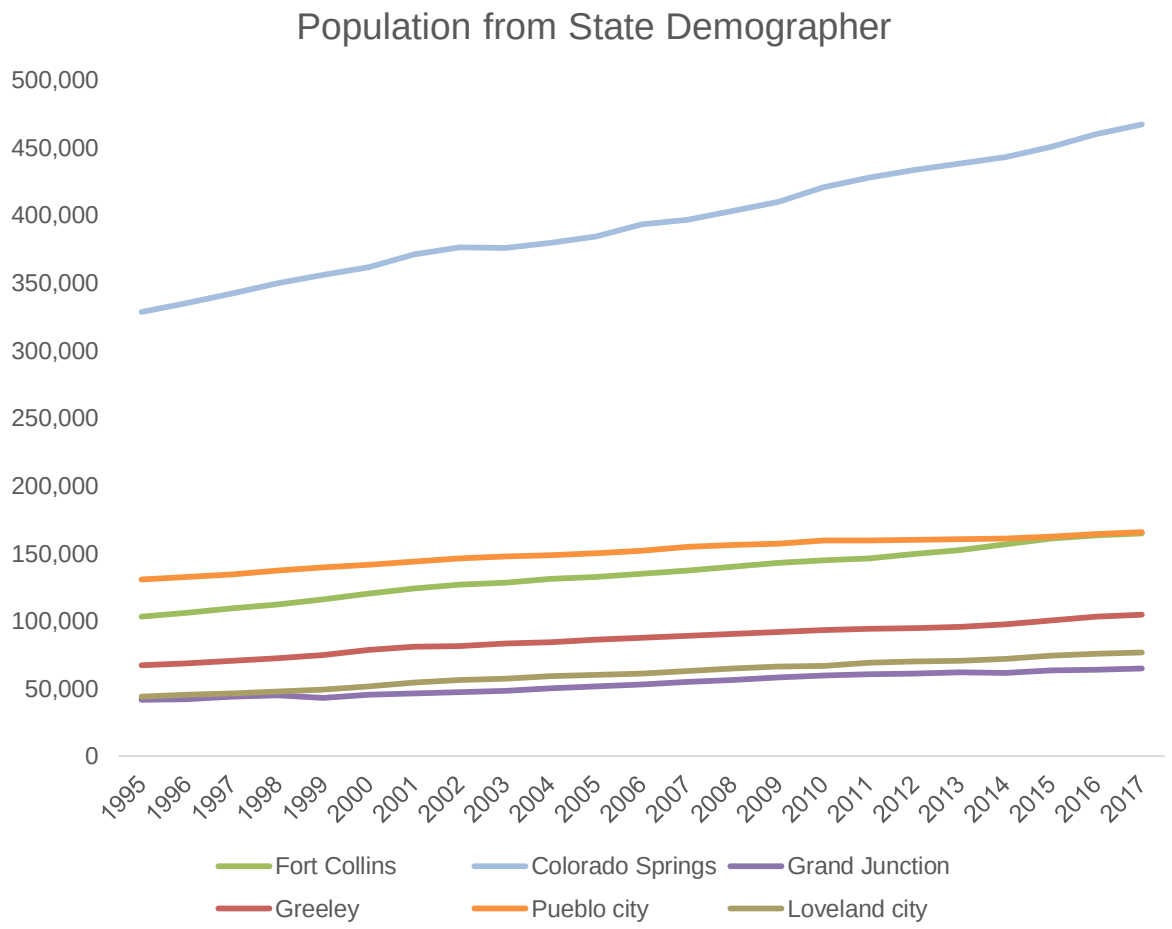
	Average Population				
	1998-2001	2002-05	2006-09	2010-13	2014-2017
	I	II	III	IV	V
Fort Collins/Loveland	169,179	188,187	202,794	217,593	236,169
Fort Collins	118,195	129,874	138,852	148,360	161,421
Loveland	50,985	58,313	63,942	69,233	74,749
Colorado Springs	359,794	379,203	400,872	430,156	455,163
Grand Junction	45,188	49,417	55,839	61,029	63,677
Greeley	76,804	84,062	89,758	94,571	101,572
Pueblo	140,737	148,286	155,100	160,084	163,532

	Population Change									
	I-II		II-III		III-IV		IV-V		I-V	
Fort Collins/Loveland	11%	19,008	8%	14,607	7%	14,800	9%	18,576	40%	66,990
Fort Collins	10%	11,679	7%	8,978	7%	9,508	9%	13,061	37%	43,226
Loveland	14%	7,329	10%	5,629	8%	5,291	8%	5,516	47%	23,764
Colorado Springs	5%	19,409	6%	21,669	7%	29,285	6%	25,007	27%	95,369
Grand Junction	9%	4,229	13%	6,422	9%	5,190	4%	2,648	41%	18,489
Greeley	9%	7,258	7%	5,696	5%	4,813	7%	7,001	32%	24,767
Pueblo	5%	7,548	5%	6,814	3%	4,984	2%	3,448	16%	22,795

Fort Collins' population has converged with Pueblo

The last 20 years has seen Fort Collins' population increase by around 51%. While at the higher end of these similar metro areas, this growth is fairly similar to Grand Junction and Greely, which have both seen an increase of 48% during the same time period.

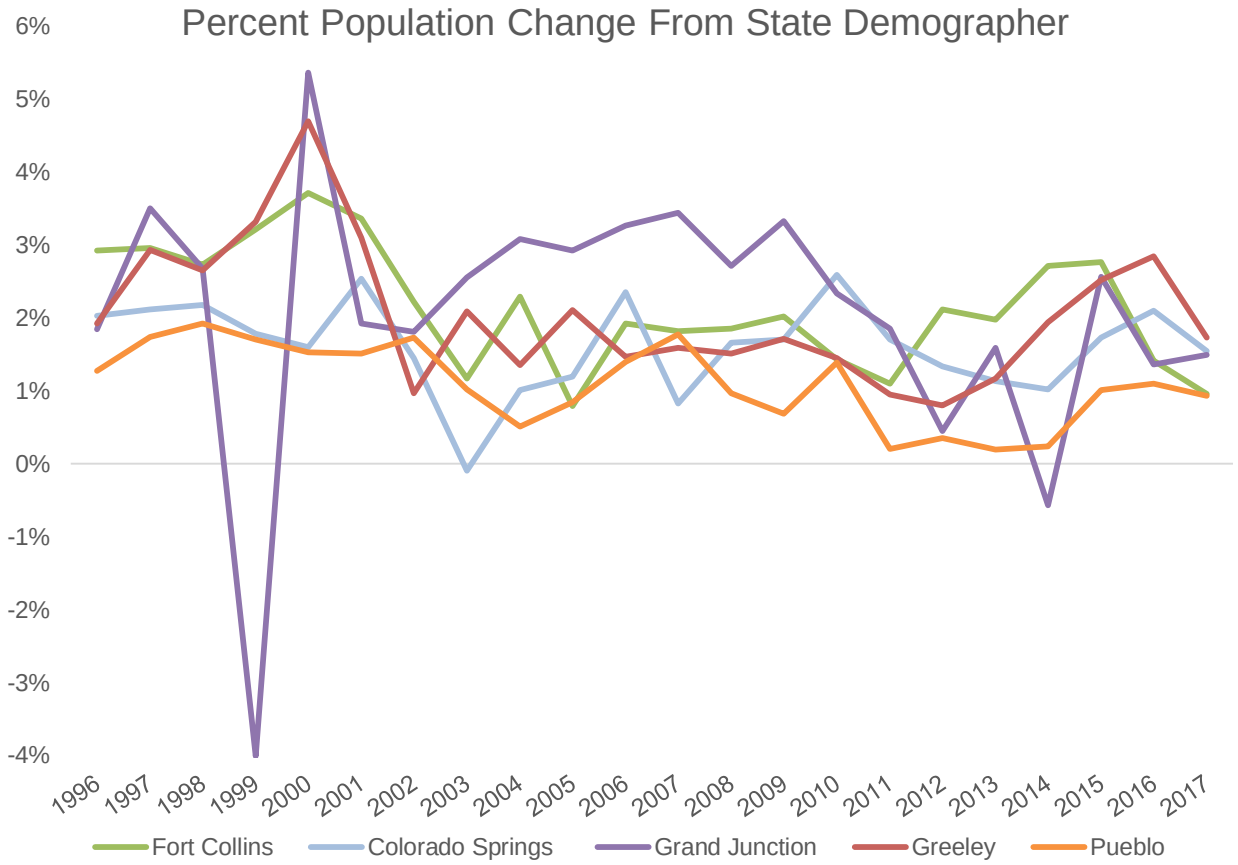
Fort Collins' convergence with Pueblo is largely the product of a smaller increase of only 23% in the latter.



Population growth rate in Fort Collins is consistent with similar metro areas

Yearly population growth in Fort Collins is similar to comparable state metro areas.

The city's annual population growth rate was the highest between 1998 and 2001, averaging 3.25%. While the last four years have seen higher rates, Fort Collins' annual population growth rate has not been above 3% since 2001.



The renter population is growing, and so is the average number of people living in rented homes

Era	Rental Households	Rental Population	Average Renter Household Size	Proportion of Households Who Are Renters
2005-2007	23,130	48,790	2.11	43.1%
2010-2012	26,044	59,530	2.29	45.6%
2015-2017	28,871	68,815	2.38	46.4%

Because Fort Collins is a growing community, we would expect the number of rental households to increase, along with number of people living in rental households. However, the more interesting analysis is how rental households are changing within the housing landscape.

Over the past ten years, the size of rental households has increased notably from an average of 2.11 people per household to 2.38 people per household. This is a notable increase in size, and essentially means that nearly 8,000 additional people are living in rental unit solely due to this increase in household size. There could be many reasons for this, but affordability is a likely suspect, potentially forcing more roommate situations or delaying home buying for families.

Also of interest is the continuing increase of rental households among the population. Comparing the current rate to ten years ago, we can conclude that approximately 950 households are renting now, and in past years would have owned their homes.

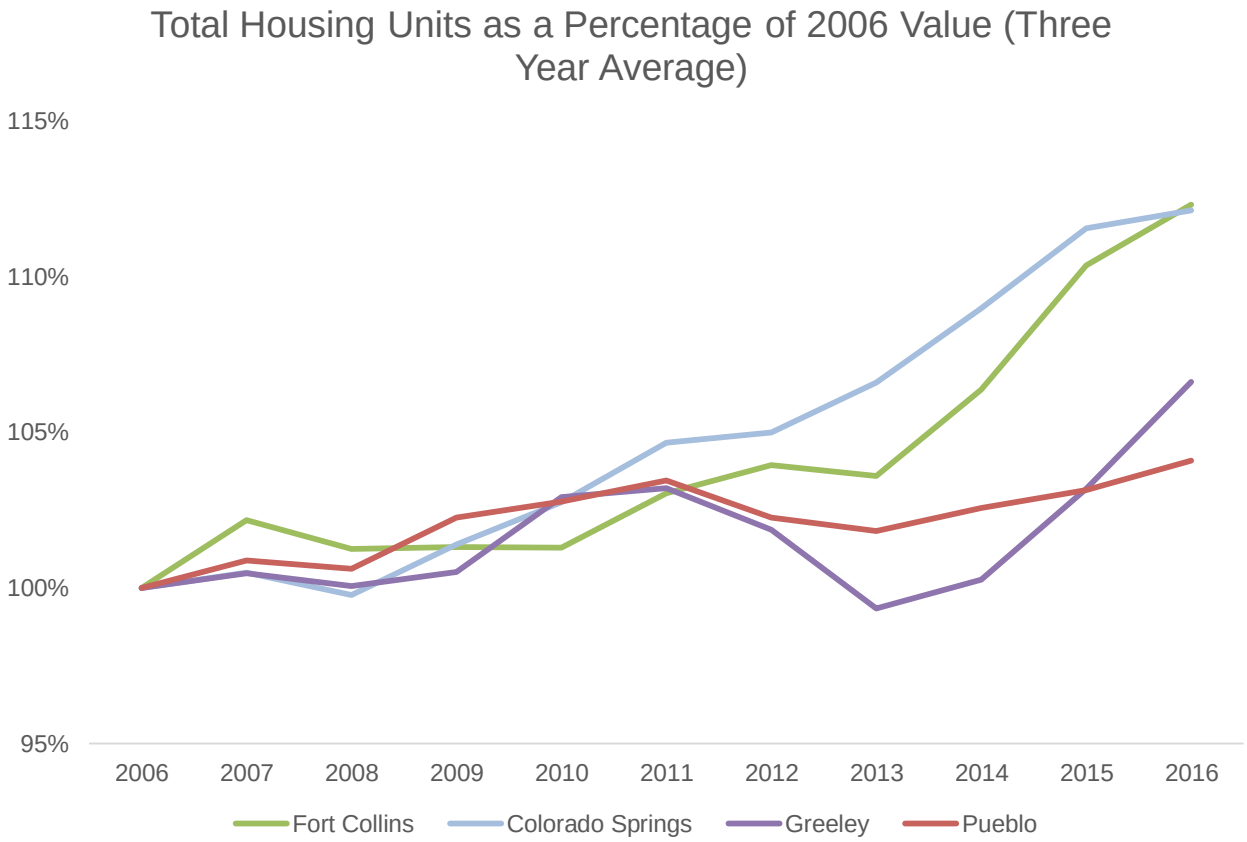
Section 1.1.2

Change in Supply

Growth in housing unit supply has increased significantly since 2013

This graph normalizes housing supply growth as a percentage of each city's 2006 value, allowing for a more effective comparison.

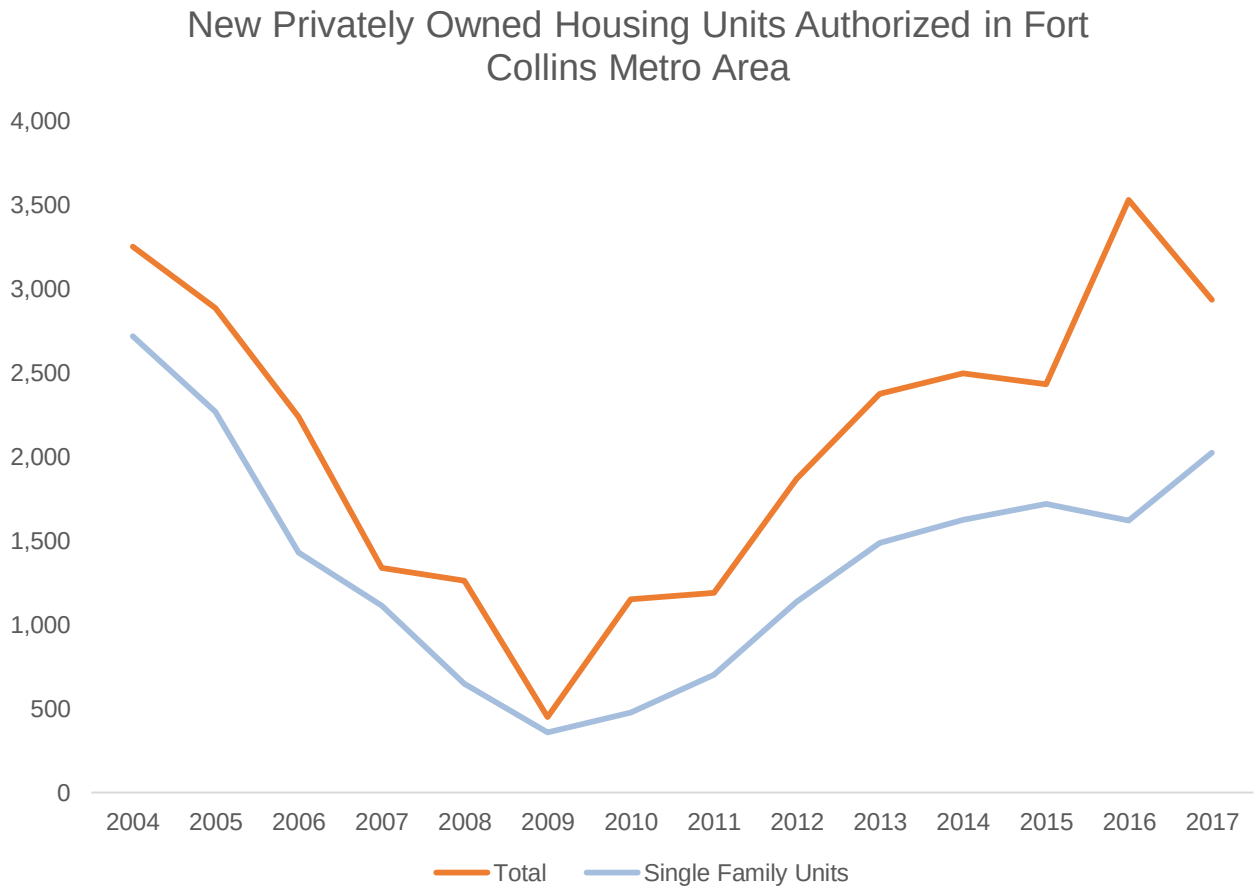
While housing supply in Fort Collins was fairly stagnant between 2005 and 2010 the last five years has seen a higher rate of expansion in housing units.



Housing development in Fort Collins bottomed out in 2009

The US Census' Building Permits Survey shows that the creation of new housing units in Fort Collins was in decline before the 2008 housing crisis and reached its nadir in 2009.

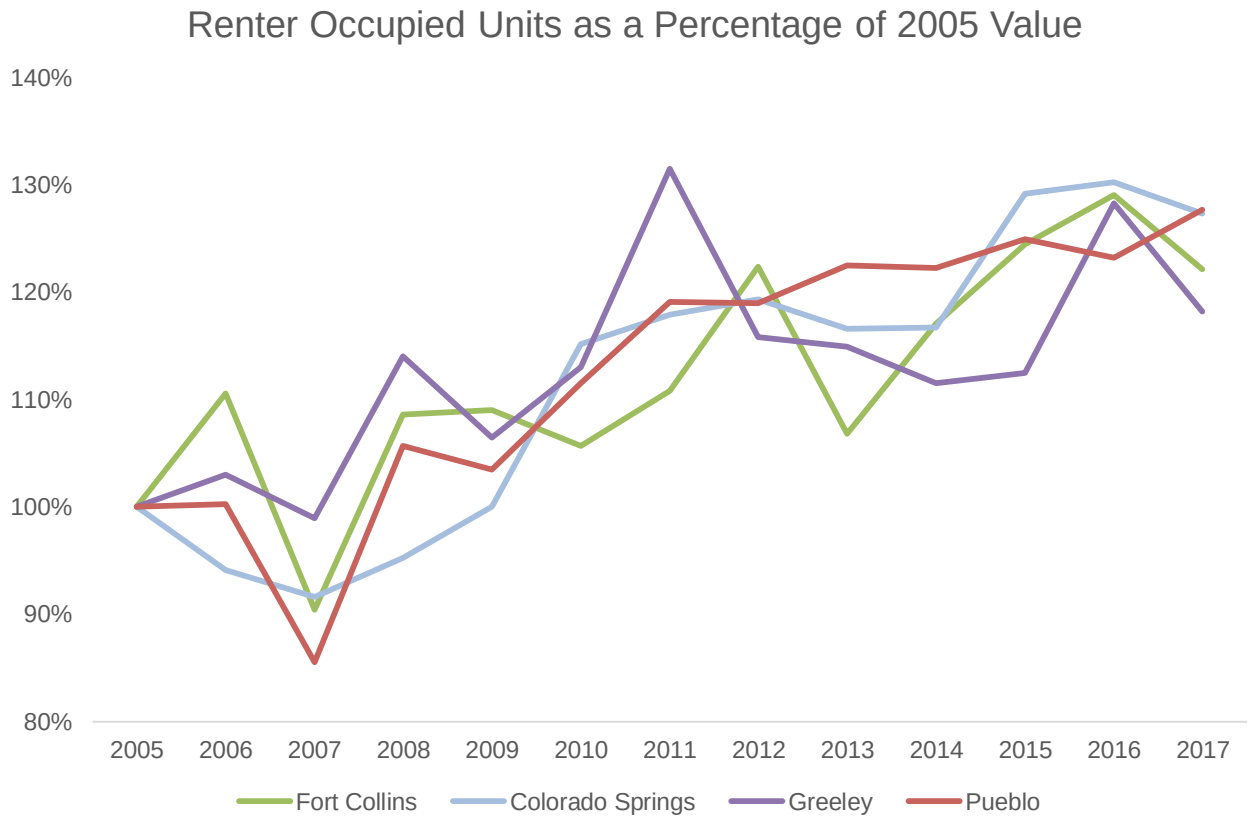
The increase seen in overall housing units after 2013 is mirrored in the growth of newly authorized units.



Growth in renter occupied units is consistent with similar metro areas

All four Colorado metro areas have seen a steady increase in renter occupied units.

The increase in renter occupied units is coming from both increases in housing units and a decrease in home ownership rate.



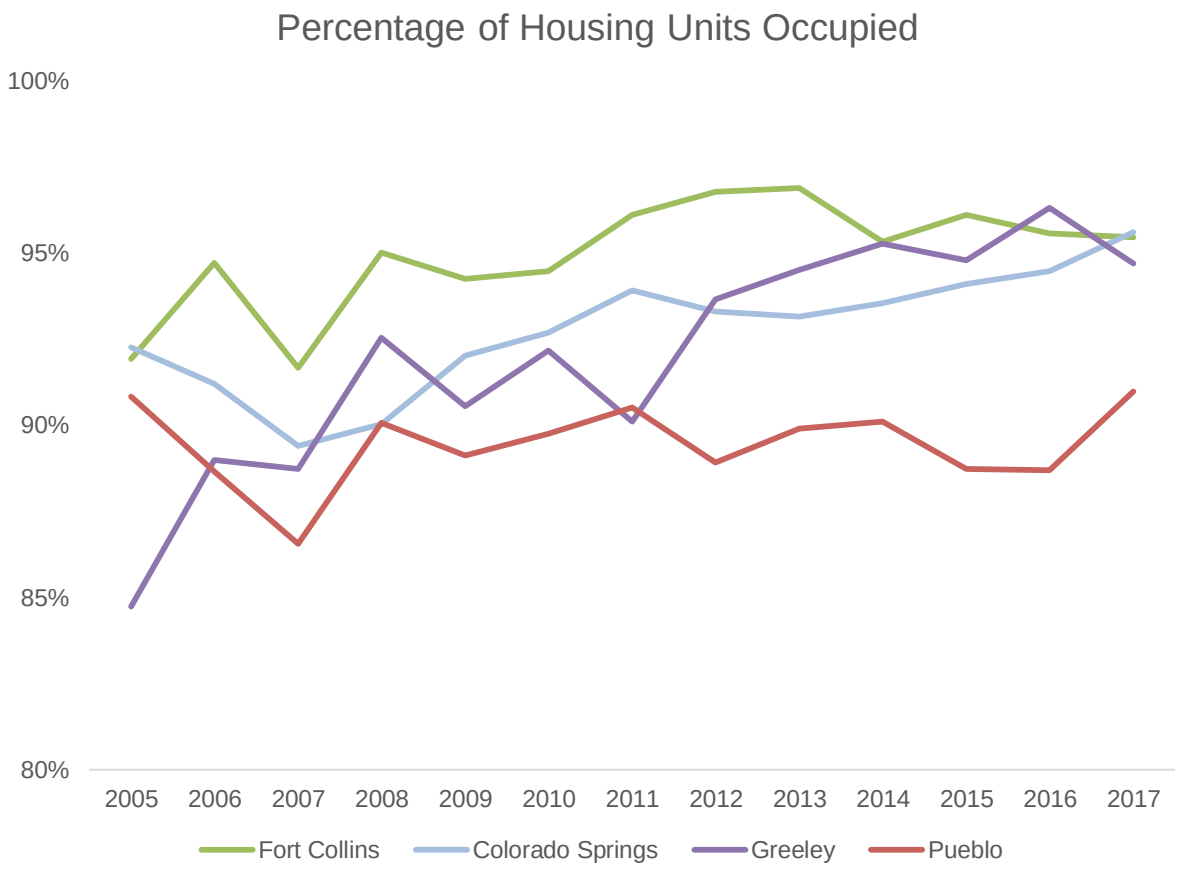
Section 1.1.3

Change in Vacancies

Colorado Springs and Greeley are converging to Fort Collins' high occupancy rate

These Census data, which combine the rental and owner housing markets, show that occupancy rates in Fort Collins have historically been higher than similar metro areas.

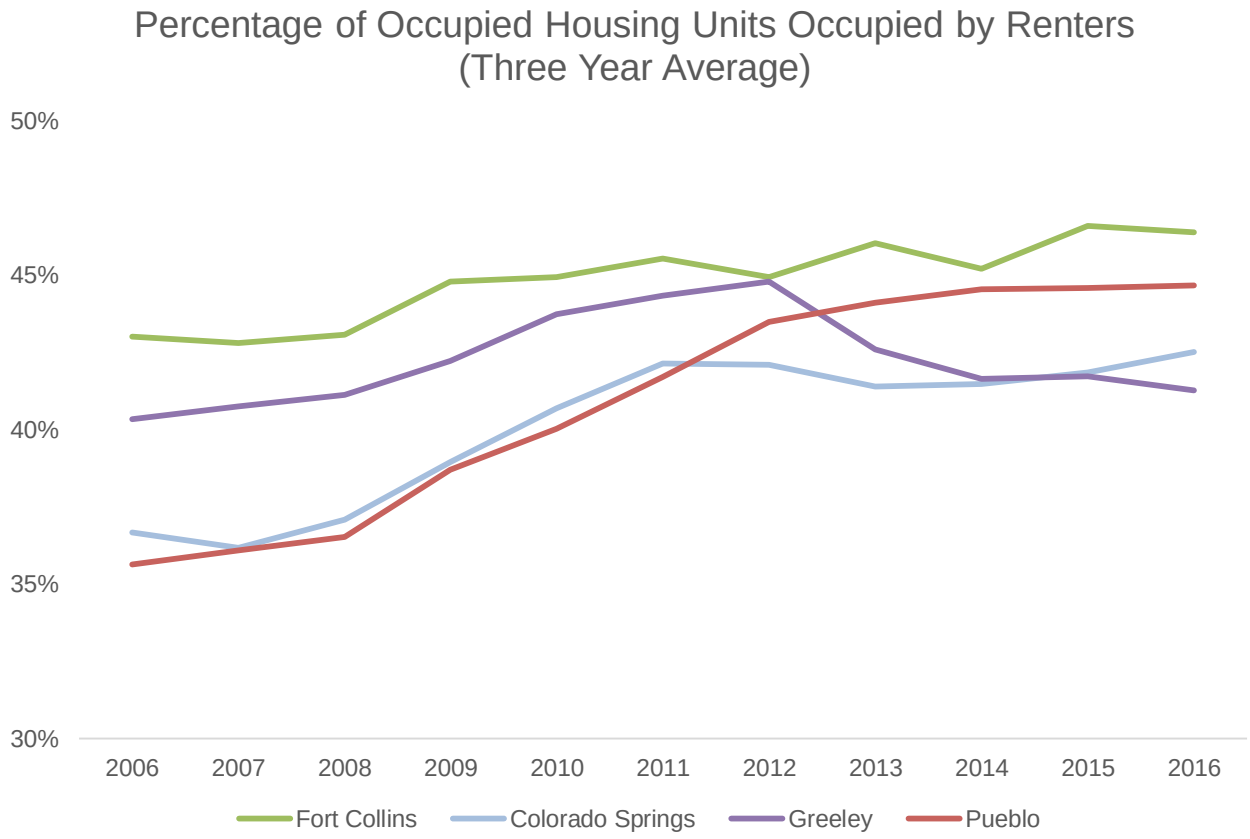
More than 95% of all Fort Collins' housing units have been occupied since 2010



Renters are making up a higher percentage of occupied units in Fort Collins

Compared to similar metro areas in the state, Fort Collins has had a high percentage of renters in occupied units.

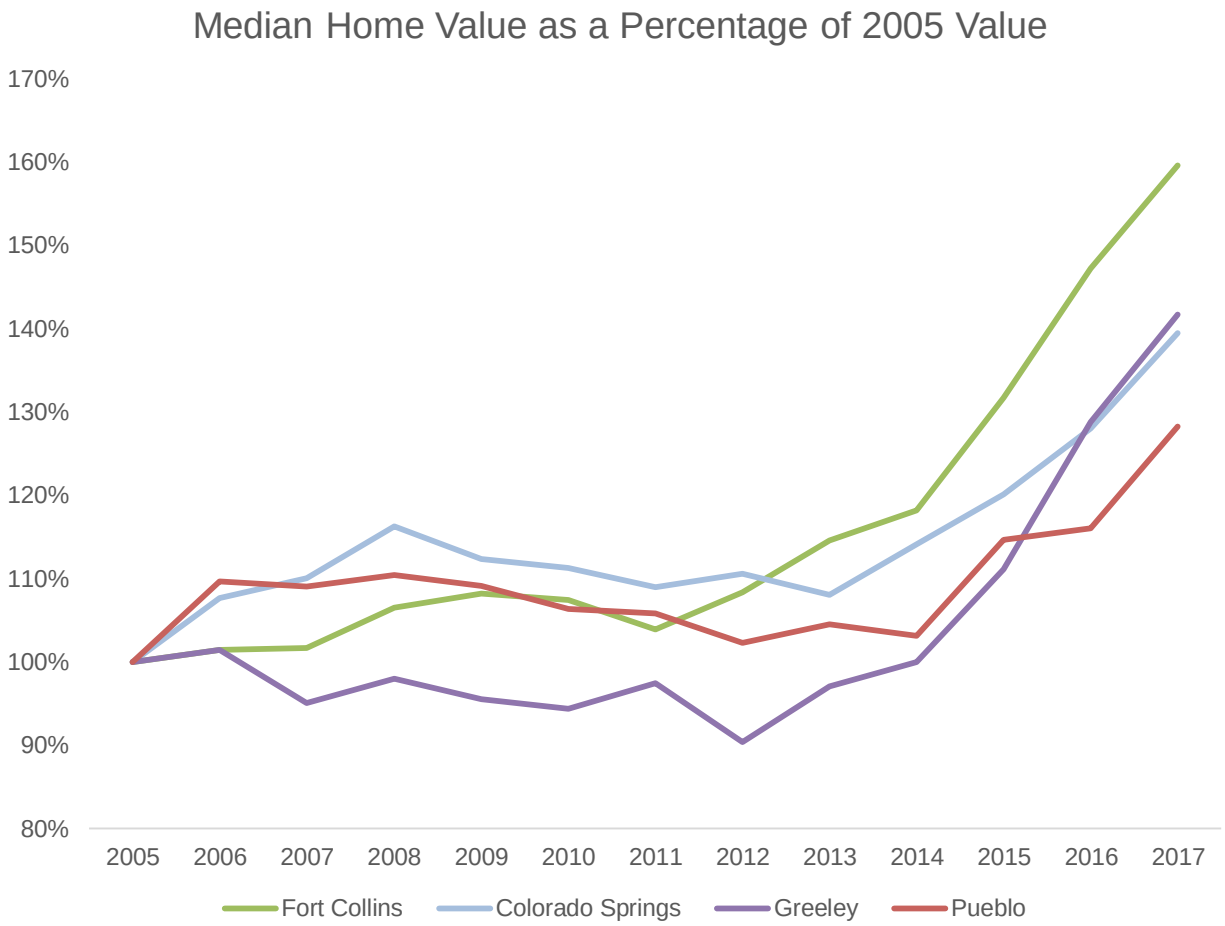
The state-wide increase in renting could be attributed to the 2008 financial crisis and increasing costs of home ownership post-recession



Colorado has seen a steep increase in home values over the last six years

While median home values in Fort Collins were largely stagnant between 2005 and 2011, the next six years saw about a 50% increase.

While all four metro areas had significant increases in home values between 2005 and 2017, Fort Collins demonstrated the largest percentage with the median home value increasing from $229,700 to $366,500

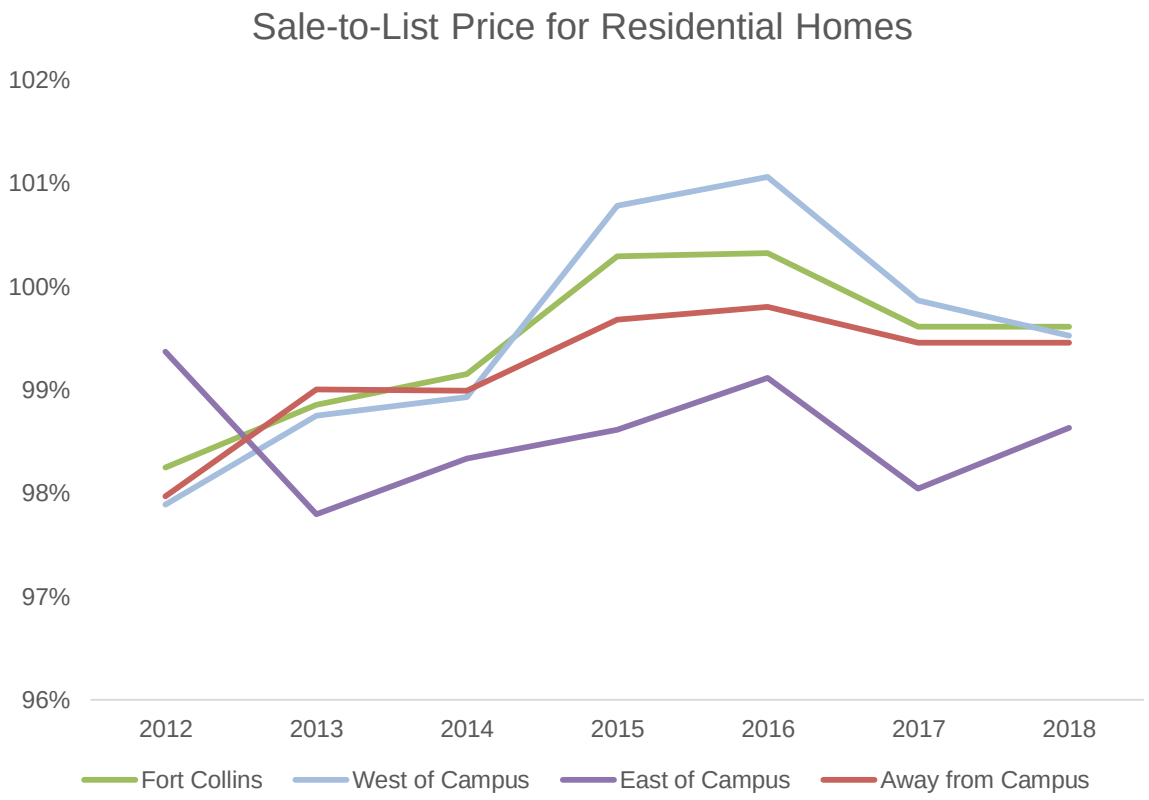


Sale-to-list price in Fort Collins has been increasing over the last few years

Detailed home sale data is only available after 2011 for Fort Collins.

The last few years have seen home buyers paying a higher percentage of list price.

While the sale-to-list price for neighborhoods east of campus appear lower than others, it is important to note that this data is based exclusively on the "University Park" area.

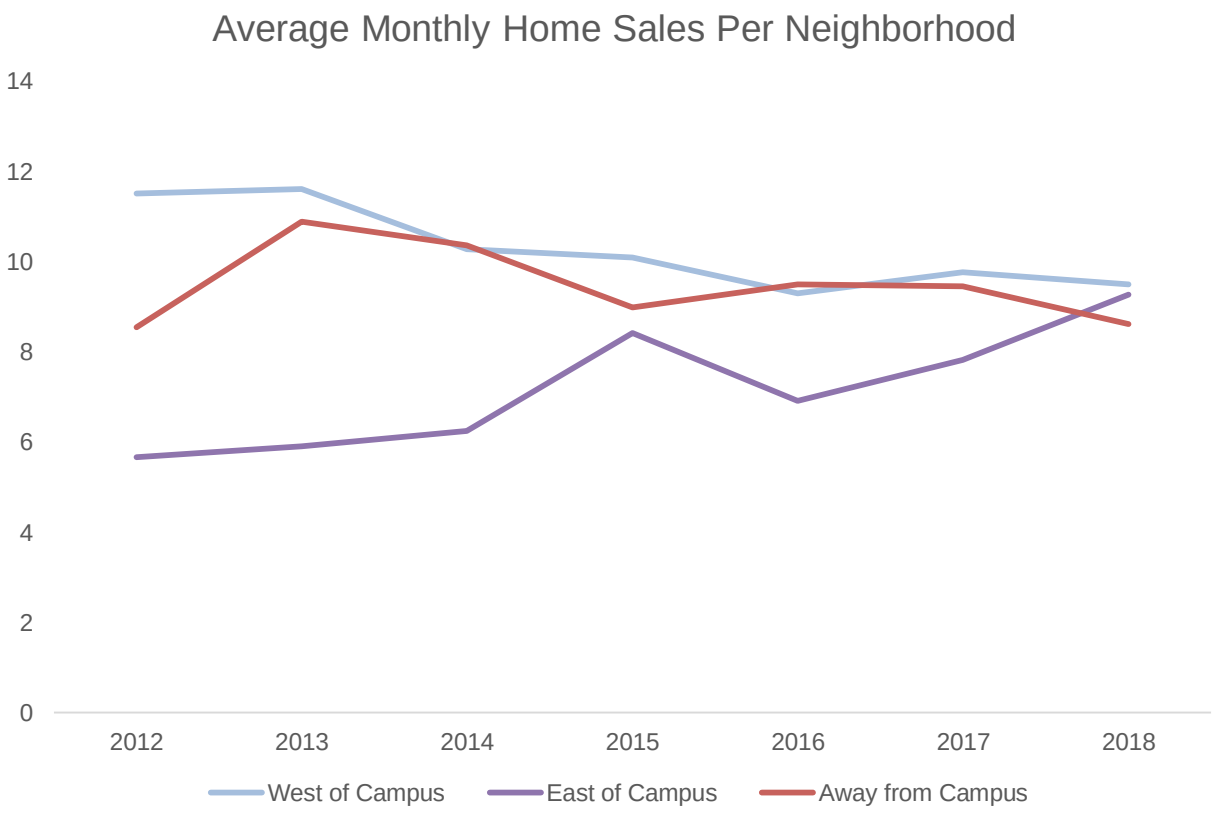


Neighborhood data is calculated from the following areas. West of Campus (Avery Park, Brown Farm, Old Town West, P.O.E.T., Prospect, Rogers Park, and Shields). Away from Campus (Downtown, English Ranch, Foxstone, Huntington Hills, Miramont, Side Hill, The Landings, and Troutman Park. East of Campus (University Park).

Sale-to-list price in Fort Collins has been increasing over the last few years

Average monthly home sales west of campus are very similar to those in neighborhoods away from campus over the last few years.

Sales in the University Park area have converged with average rates in other areas of Fort Collins over time.

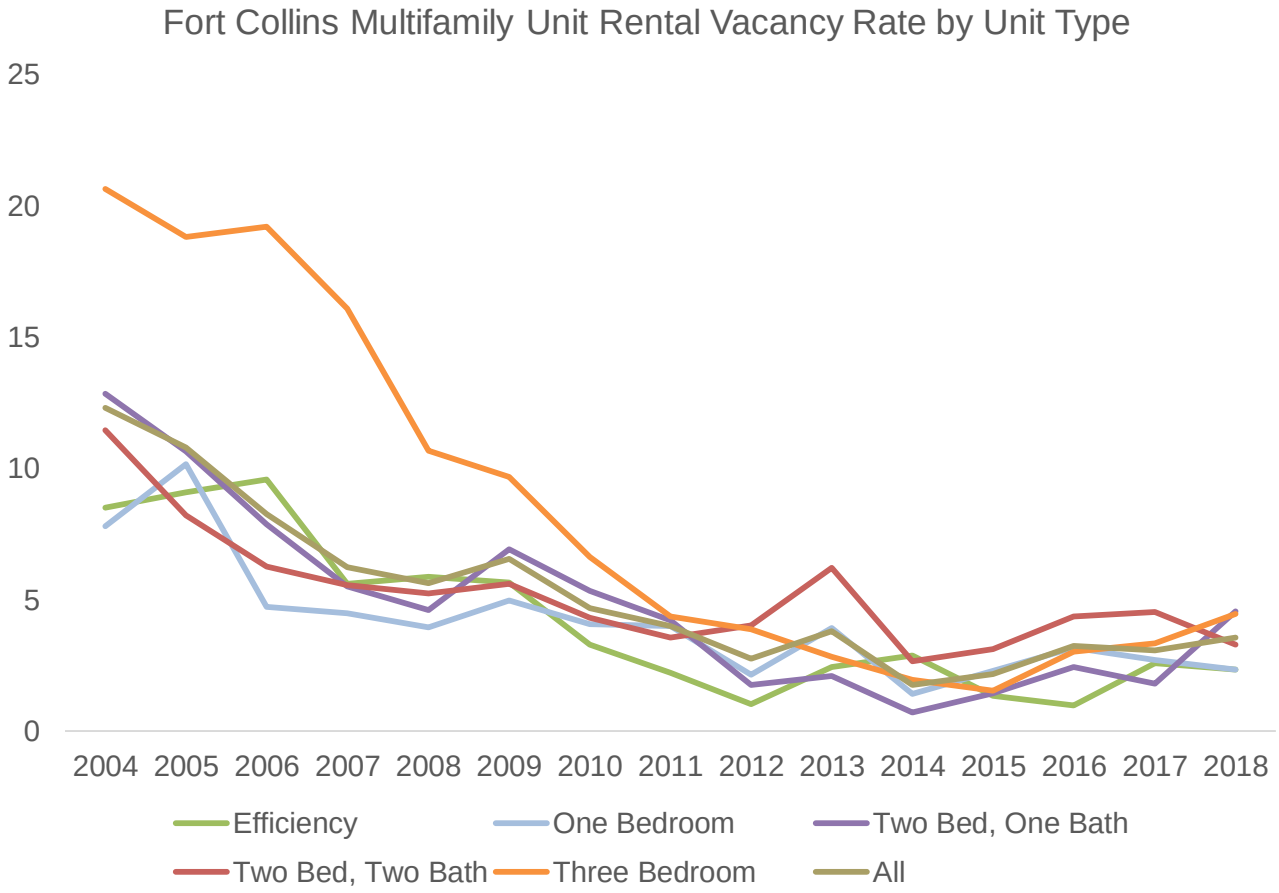


Neighborhood data is calculated from the following areas. West of Campus (Avery Park, Brown Farm, Old Town West, P.O.E.T., Prospect, Rogers Park, and Shields). Away from Campus (Downtown, English Ranch, Foxstone, Huntington Hills, Miramont, Side Hill, The Landings, and Troutman Park. East of Campus (University Park).

Multifamily vacancy rates in Fort Collins are low across unit types

Rental vacancy rates in Fort Collins steadily decreased across all unit types between 2004 and 2012 and have remained consistently below 5% since.

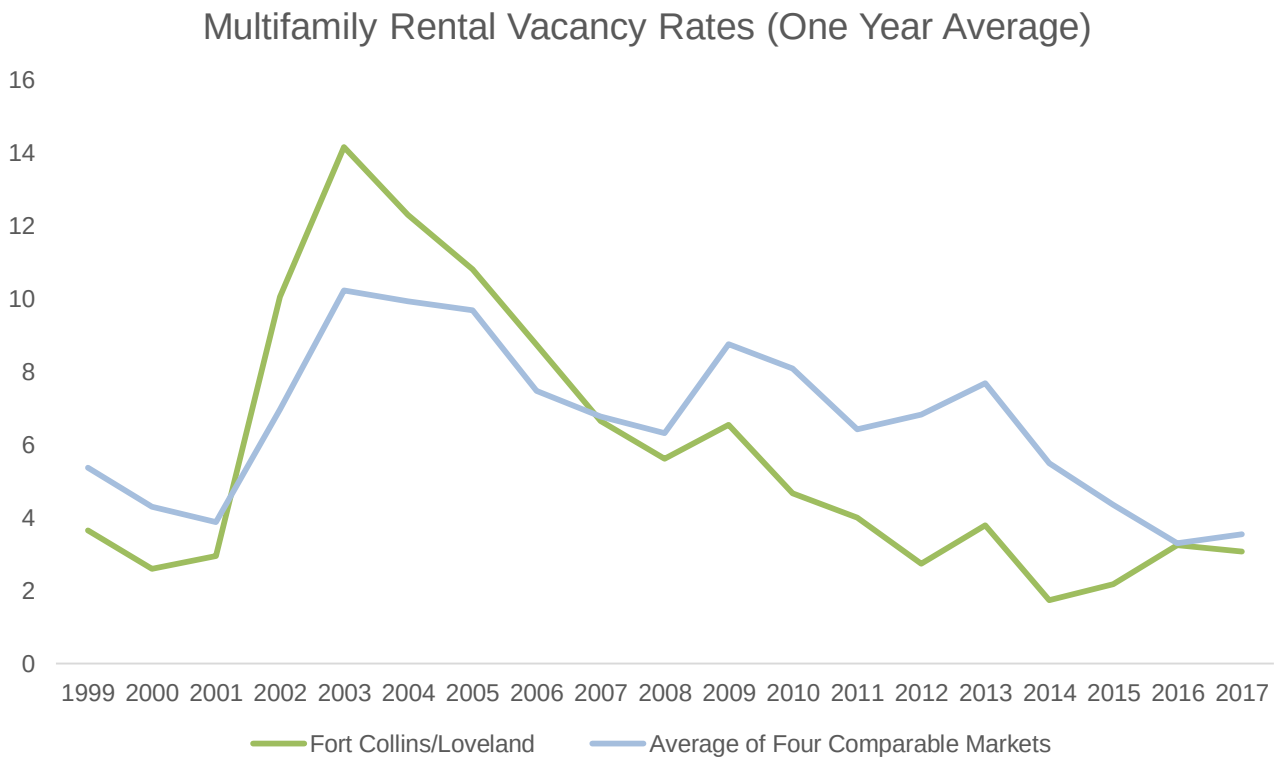
While three bedroom units experienced significantly higher vacancy rates in the mid 2000s, they have converged to the average rate in the city.



Vacancy rates in Fort Collins follow a similar trend to comparable metro areas, but are lower in the post-ordinance era

The four comparable metro areas have demonstrated a similar, but less extreme, decline in rental vacancy rates.

Fort Collins has spent most of the post-ordinance era having a significantly lower rental vacancy rate than similar Colorado markets, although appear to be converging lately.



Recent vacancy rates in Fort Collins have been lower than similar cities

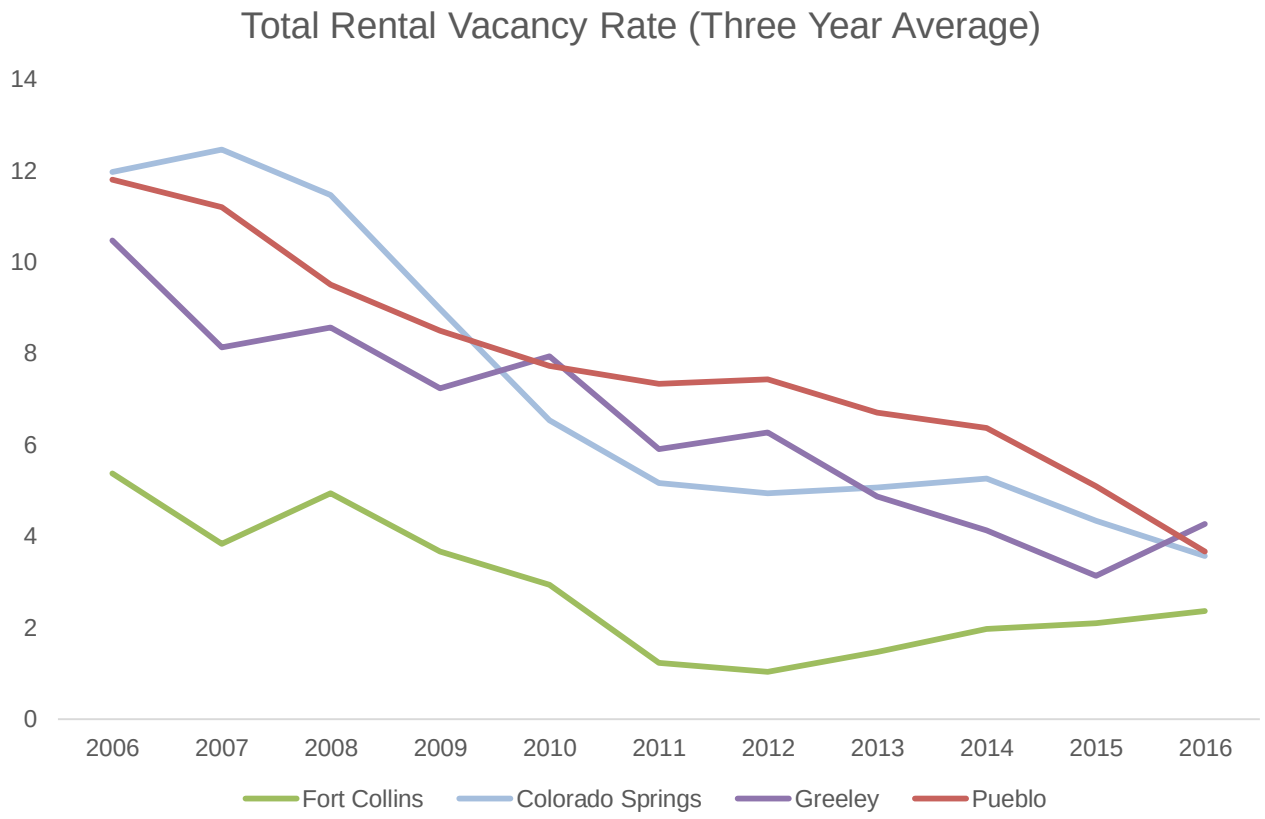
Average Vacancy Rates - Multi-Family Units

	Average Vacancy Rate				
	1998-2001	2002-05	2006-09	2010-13	2014-2017
	I	II	III	IV	V
Fort Collins/Loveland	3%	12%	7%	4%	3%
Colorado Springs	5%	11%	10%	6%	5%
Grand Junction	5%	7%	4%	9%	4%
Greeley	3%	10%	7%	4%	3%
Pueblo	5%	8%	8%	10%	5%
	Average Vacancy Rate Change				
	I-II	II-III	III-IV	IV-IV	I-V
Fort Collins/Loveland	8.6	-5.1	-3.0	-1.2	-0.7
Colorado Springs	6.3	-0.6	-3.9	-0.8	0.9
Grand Junction	2.1	-3.5	5.0	-4.9	-1.3
Greeley	7.0	-3.0	-3.1	-1.4	-0.5
Pueblo	3.6	-0.4	1.8	-5.2	-0.3

Total renter vacancy rates in Fort Collins are very low

Examining the total rental vacancy rate (single and multifamily homes) from the Census confirms the trends observed in the Colorado Department of Housing data.

Fort Collins has had a lower rental vacancy rate than similar markets in the post-ordinance era. The decrease between 2008 and 2011 has led to an extremely tight rental market with few vacant rental units.



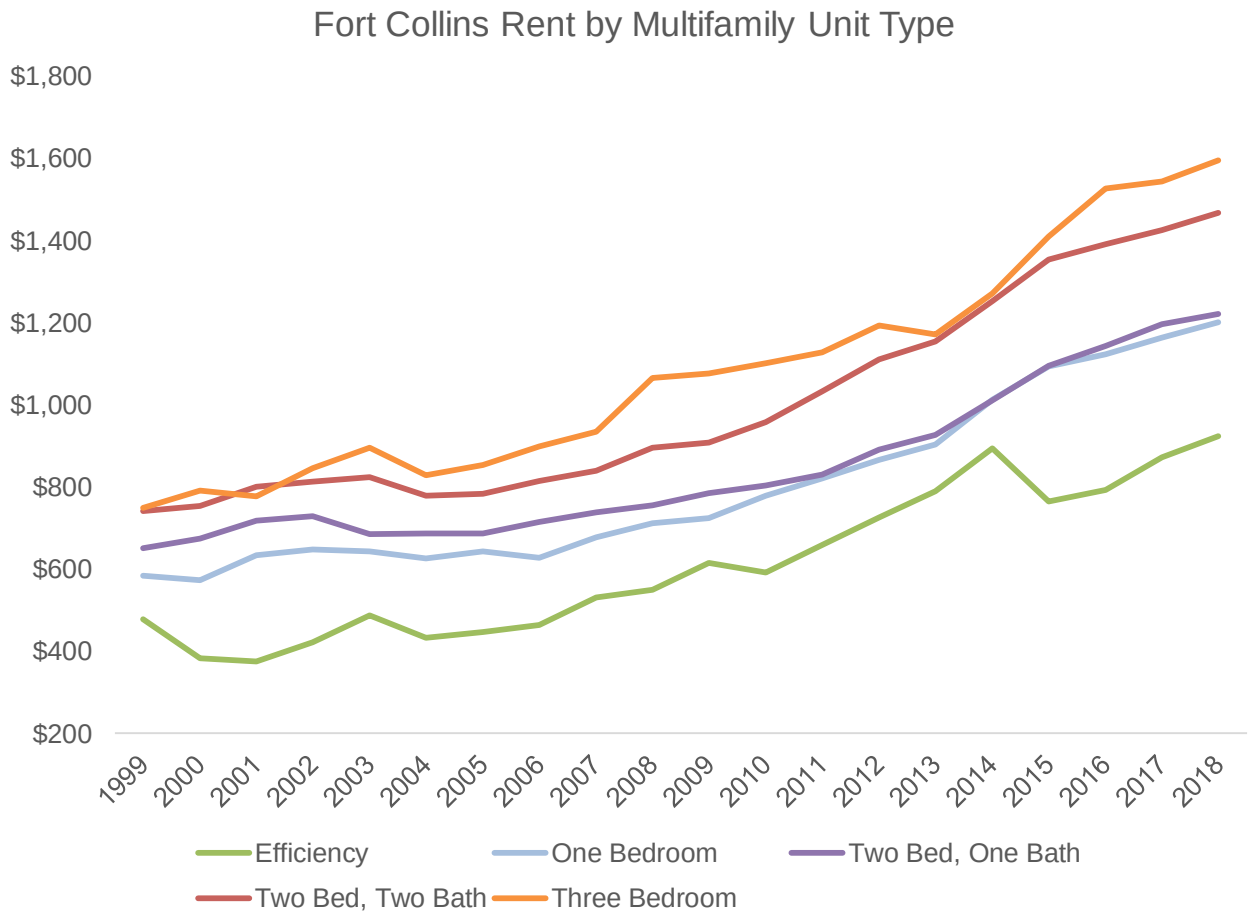
Section 1.1.4

Change in Average Rent

Across unit types, average rent in Fort Collins has nearly doubled over the last 20 years

Rent in Fort Collins is increasing across all unit types. Efficiencies and three bedroom units have seen the largest percentage increase over the last two decades.

2009-2018 saw a 56% increase in the average rent of all unit types. This is significantly higher than the 18% increase observed between 1999-2008.



Average rent increased in Fort Collins at a higher rate than similar metro areas, especially between 2006-2013

Breaking down the change in average rent across four year segments illustrates how Fort Collins' rent compares to similar metro areas in the state. The percentage change from era I to II shows that Fort Collins followed a similar pattern of steady increase seen across the state. More recently, the change between IV and V shows most metro areas experiencing a steep increase in rental prices. The main period where the Fort Collins' market appears to be unique is the change between III and IV. Here the rate of change is double that of comparable cities.

Rental Prices - Multi-Family Units

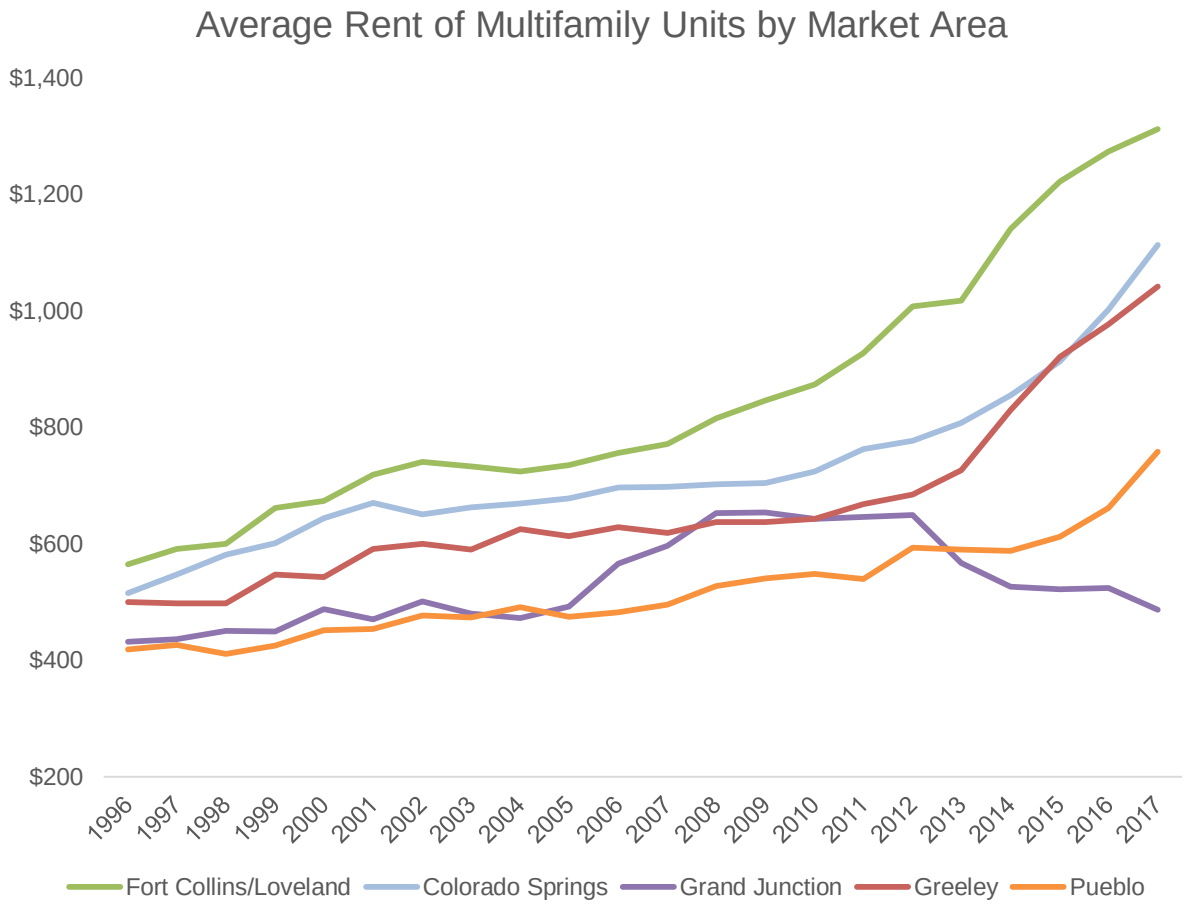
	Average Rent				
	1998-2001 I	2002-05 II	2006-09 III	2010-13 IV	2014-2017 V
Fort Collins/Loveland	$656.90	$733.22	$799.85	$956.93	$1,237.35
Colorado Springs	$613.51	$665.32	$700.37	$768.00	$970.91
Grand Junction	$465.27	$486.76	$620.62	$626.14	$514.95
Greeley	$537.49	$606.97	$630.59	$680.35	$942.25
Pueblo	$434.08	$479.29	$513.34	$567.87	$655.00

	Rental Price Change									
	I-II		II-III		III-IV		IV-V		Total Change I-V	
Fort Collins/Loveland	12%	$76.33	9%	$66.63	20%	$157.08	29%	$280.41	88%	$580.45
Colorado Springs	8%	$51.80	5%	$35.05	10%	$67.63	26%	$202.92	58%	$357.40
Grand Junction	5%	$21.49	28%	$133.86	1%	$5.52	-18%	-$111.19	11%	$49.68
Greeley	13%	$69.48	4%	$23.62	8%	$49.76	38%	$261.90	75%	$404.76
Pueblo	10%	$45.20	7%	$34.05	11%	$54.54	15%	$87.13	51%	$220.92

Average rent in Fort Collins increased at a higher rate than similar metro areas

While rent in Fort Collins has always been higher than comparable metro areas, the last decade has seen rent in the city increase at a faster rate.

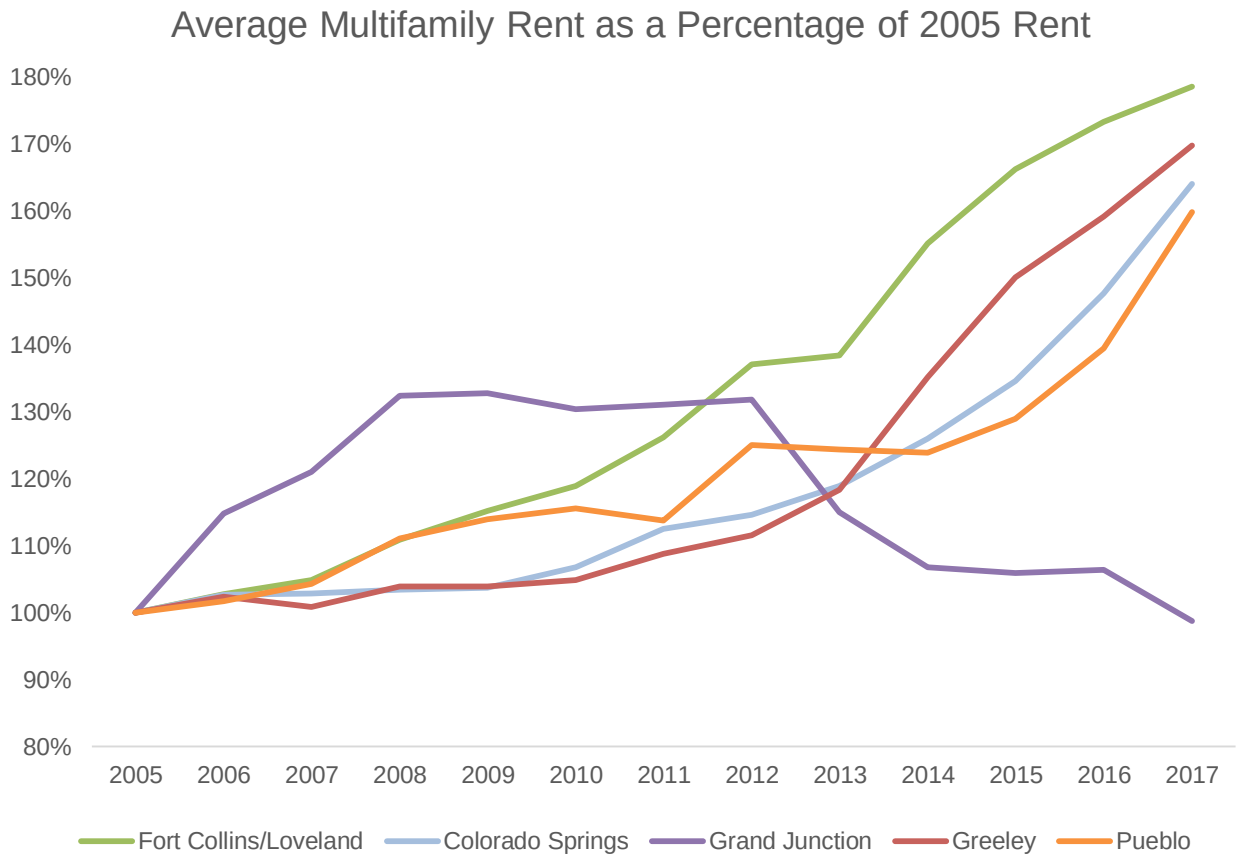
All metro areas, except for Grand Junction, have seen steep increases in multi-family unit rent in recent years.



Post 2005 rent has increased in Fort Collins at a higher rate than similar metro areas

Examining average rent as a percentage of each city's 2005 value confirms the previously identified pattern.

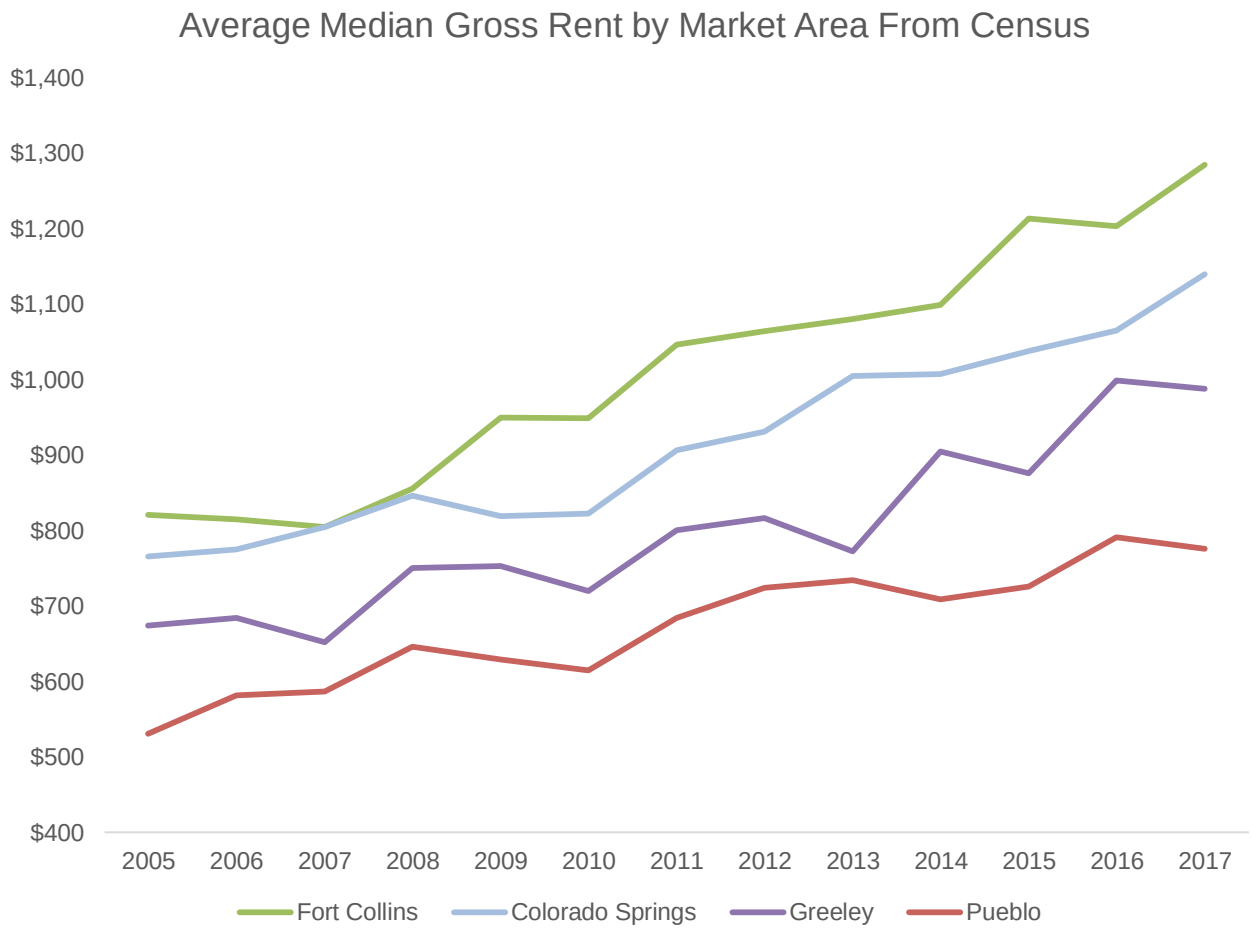
While recent years have brought increased rents across the state, Fort Collins has experienced the most significant rise in rental costs.



Calculating total median rent from the Census confirms the trend

Examining total median rent (single and multifamily homes) from the Census confirms the trends observed in the Colorado Department of Housing data.

Fort Collins has historically had higher rental costs than comparable metro areas, but has also seen the largest increase during this period - 68% compared to an average of 48% for the three comparable cities.



Despite similar population trends, rent in Fort Collins increased at a higher rate than similar areas post-ordinance

- The geographic and temporal coverage of the Colorado Department of Housing's data allow for an assessment of pre and post-ordinance trends. The table below shows average yearly changes in population and multifamily rent in two eight year periods before and after the ordinance. In its 2009 report, Corona Insights identified 2006 as the first year that ordinance affected the rental market due to the start of education and registration efforts.
- The table demonstrates that rental costs in Fort Collins grew at a very similar rate to comparable metro areas pre-ordinance. However, rent increased at a much faster rate post-ordinance. A decrease in the average yearly change in population shows that this change is not likely due to a increase in housing demand unique to Fort Collins.

Population and Multifamily Unit Rent Change Pre and Post-Ordinance

	Average Yearly Change in Rent			Average Yearly Change in Population		
	1997-2005	2006-14	Difference	1997-2005	2006-14	Difference
Fort Collins/Loveland	2.76%	5.28%	2.51%	2.70%	1.92%	-0.77%
Colorado Springs	2.73%	2.60%	-0.14%	1.45%	1.49%	0.04%
Grand Junction	1.52%	-0.89%	-2.42%	2.01%	1.88%	-0.12%
Greeley	2.63%	3.54%	0.91%	2.53%	1.39%	-1.14%
Pueblo	1.34%	2.49%	1.15%	1.34%	0.72%	-0.62%

Average change calculated: (last year/first year)^(1/# years in period)

Section 1.2

Rental Market Trends

Fort Collins Compared to Selected Nationwide Cities

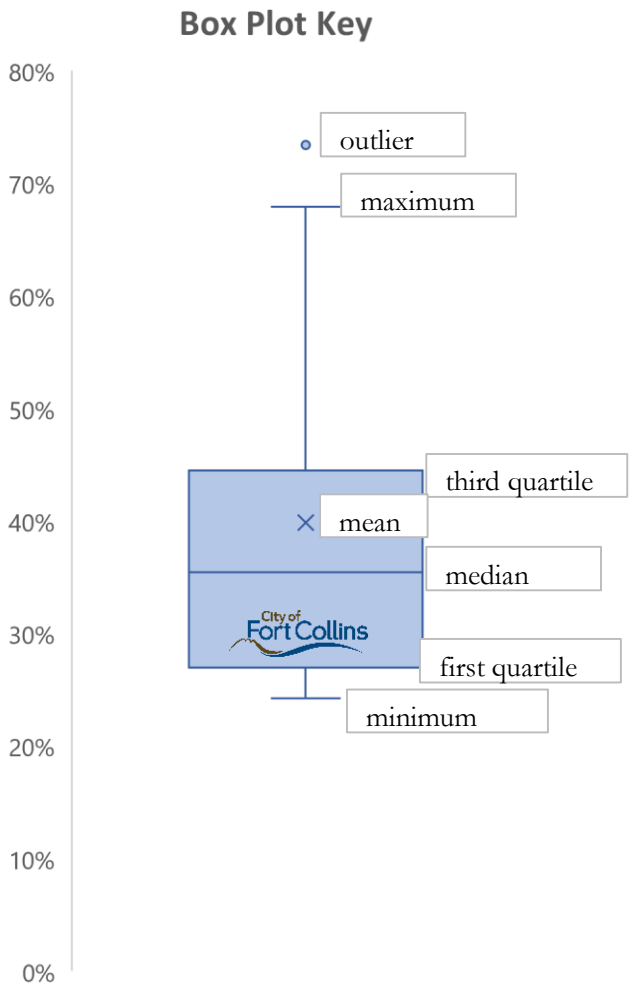
Key Findings: Nationwide Comparisons

- While population growth in Fort Collins was higher than comparable national cities in the 1990s, it has regressed toward the mean in the post-ordinance era.
- Fort Collins' housing supply increased at a relatively high rate in the 1990s, but is near average in the post-ordinance era. Housing stock growth is lower across all comparable cities.
- The rate that renters have occupied housing units in Fort Collins is higher in absolute and relative terms post-ordinance.
- Fort Collins' rental vacancy rates are lower (in relative and absolute terms) than similar cities in the post ordinance era.
- Fort Collins' expansion in demand (population growth) has exceeded supply (housing units).
- Rental costs in Fort Collins have increased at a faster rate than similar national cities in the post-ordinance era. Fort Collins also had a high increase in rent in the 1990s.

A description of the methodology is found in the appendix.

How to read a box plot

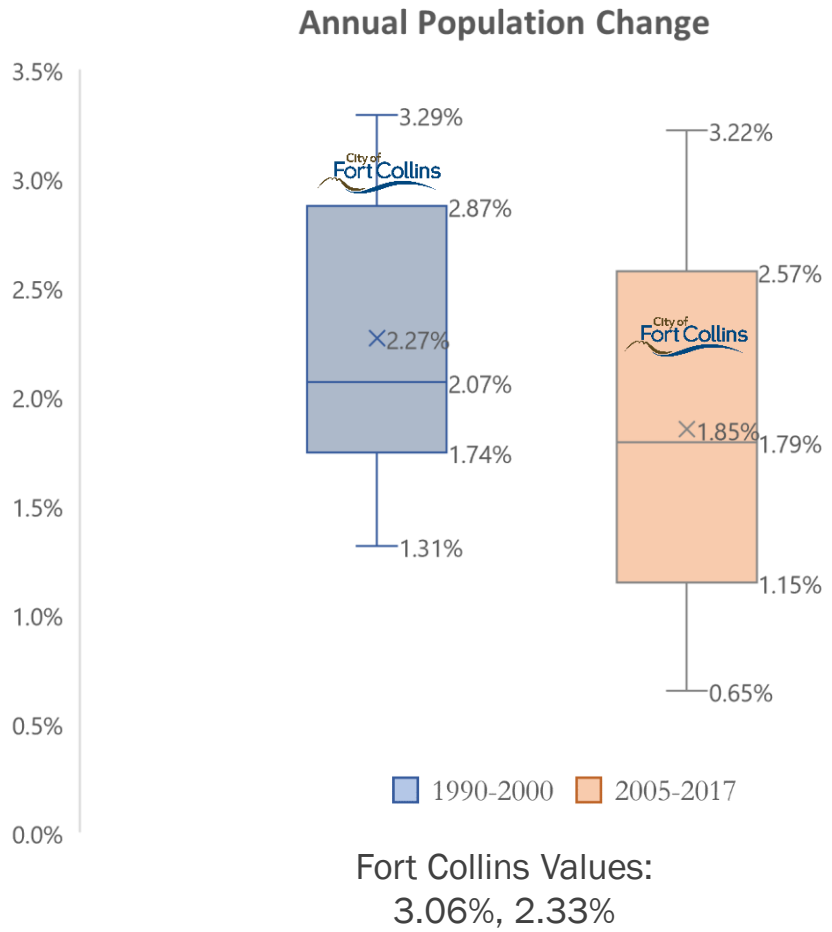
- Box plots offer a quick and effective way to identify differences between groups of populations.
- They show the median value of each population (marked with a line) and a surrounding box that stretches from the 25th to 75th percentile. The "middle half" of observations are contained in the box.
- The "whiskers" show the range of the top and bottom 25% of observations respectively. If an observation has a value that is more than 1.5 times the interquartile range (the distance between the 75th and 25th percentile value), it is deemed an outlier.
- The City of Fort Collins logo shows where the city falls on the distribution.



Fort Collins' population growth has regressed toward the mean

Average population growth has generally declined across the case study cities.

Fort Collins' population growth rate has decreased in absolute relative terms. While the city's rate was previously at the higher end of the distribution in the 1990s, it is well within the middle half in the modern era.

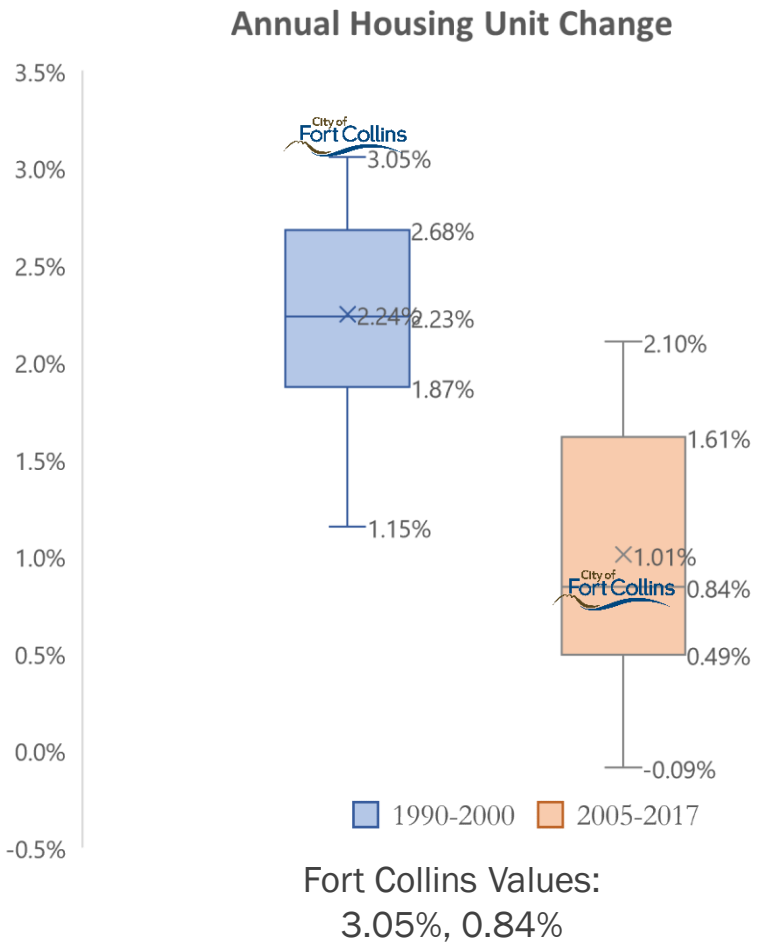


Fort Collins Values:
3.06%, 2.33%

The rate of Fort Collins' housing stock growth has significantly decreased

While Fort Collins had the highest rate of housing unit change in the 1990s, this value has decreased in absolute and relative terms.

Given the 2008 housing crisis and subsequent recession, there is a significantly lower rate of housing unit change between 2005-2017 for the entire sample. Nonetheless, Fort Collins went from pacing this group in the first time period to the median in the second.

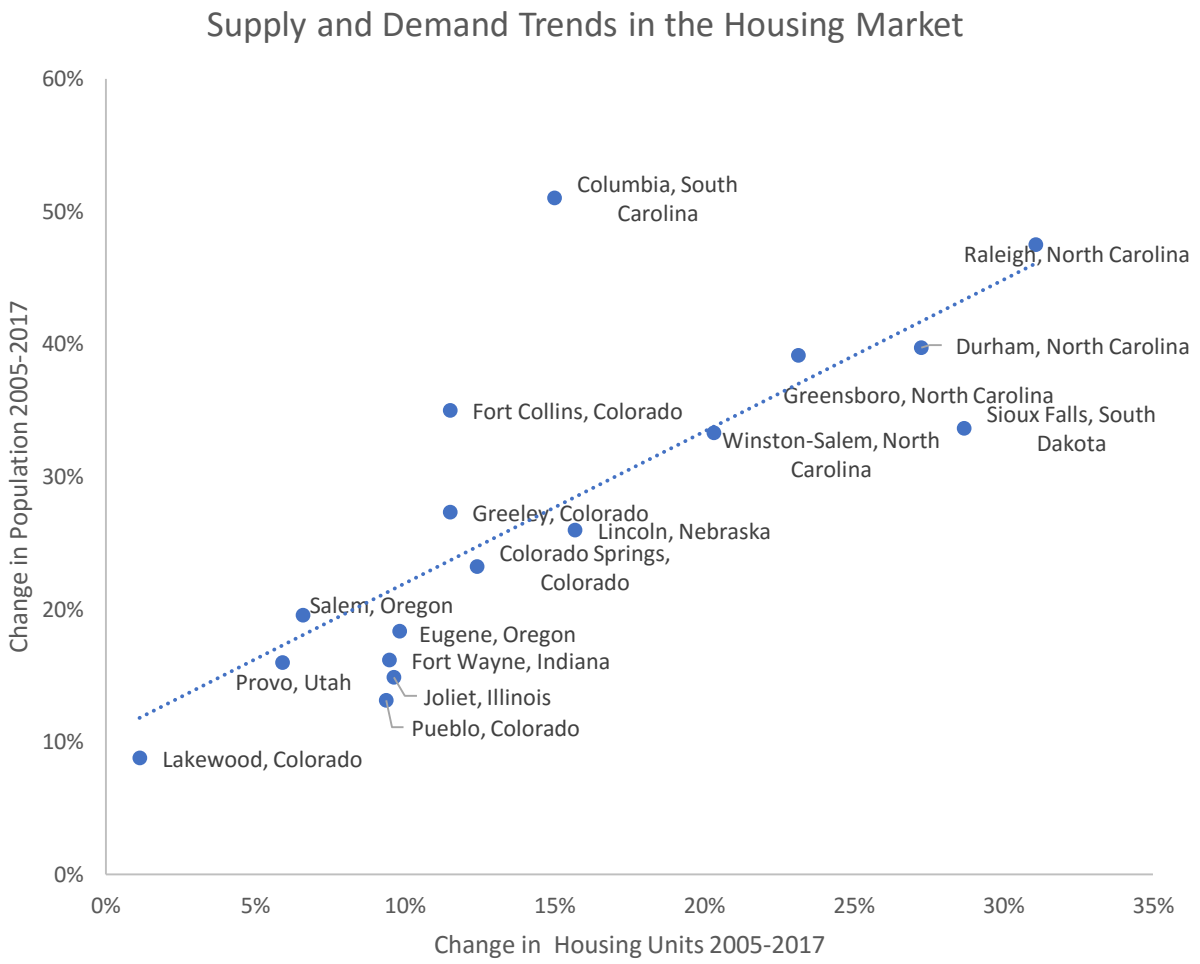


Fort Collins Values:
3.05%, 0.84%

Fort Collins' housing growth lags population growth

This graph plots the change in population and housing units between 2005-2017. The Colorado markets from the previous section are added for reference.

The trendline shows the average relationship between supply and demand. Fort Collins and Columbia are notable outliers in that their population growth (demand) exceeds growth in housing units (supply).

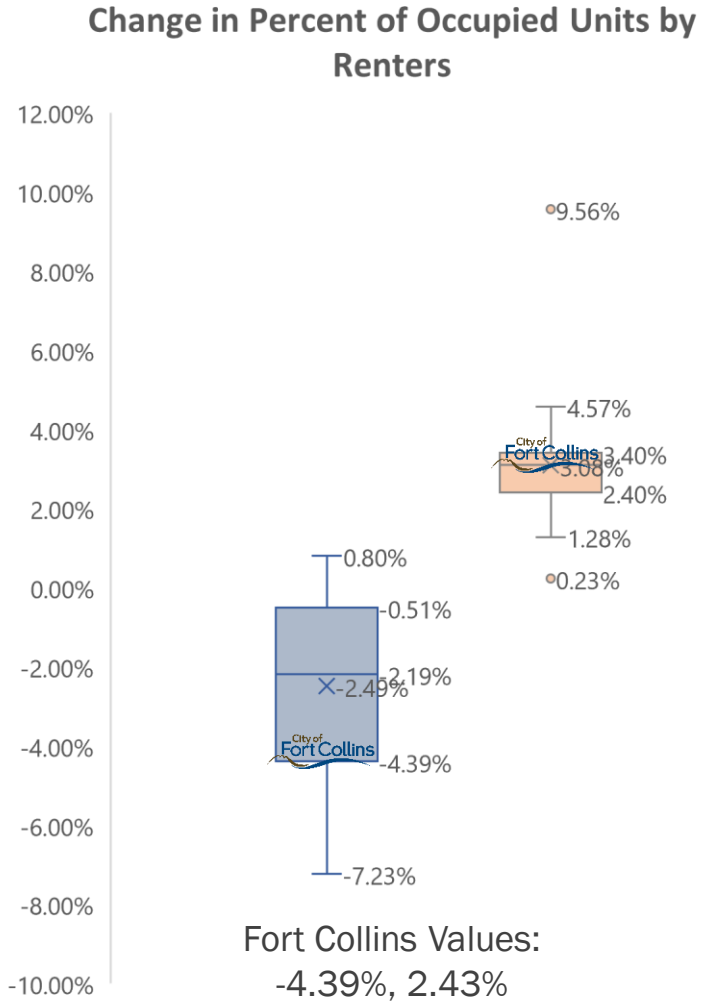


In general, the percentage of renters is on the rise

As a group, the percentage of occupied units by renters is on the rise amongst the comparison cities.

Fort Collins has seen both an absolute and relative increase in the rate of renters in occupied units in the modern era.

This dynamic has the potential to lower rental vacancy rates and raise the cost of rent, but does not appear to be unique to Fort Collins.

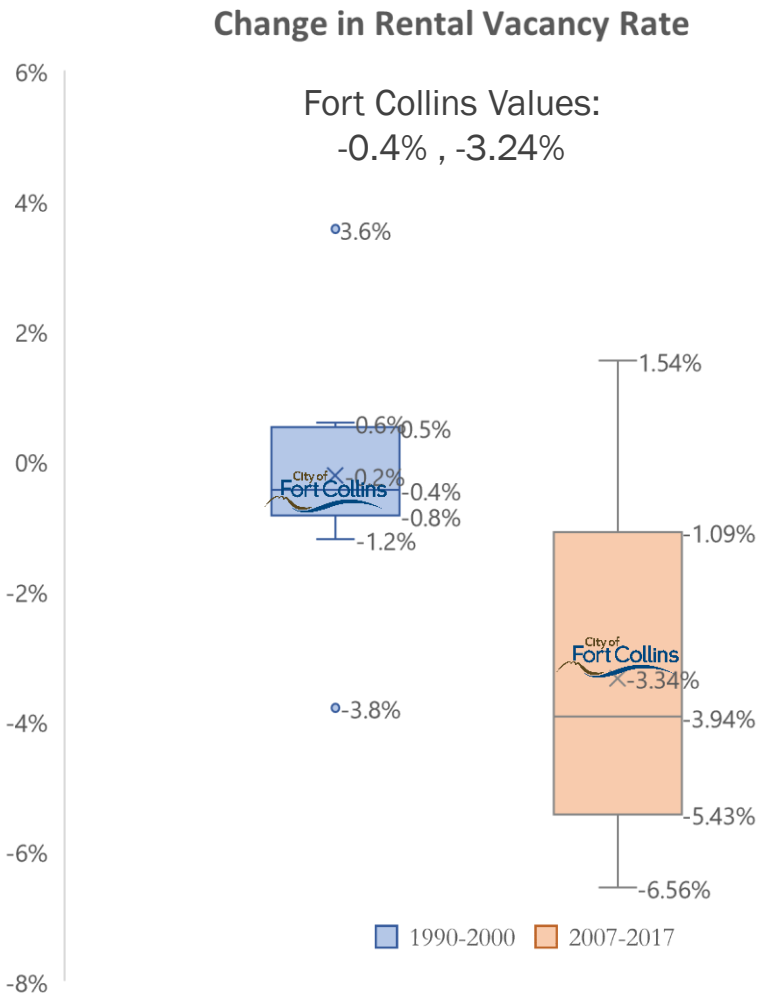


Fort Collins Values:
-4.39%, 2.43%

Change in Fort Collin's rental vacancy rates appears average.

As in the previous state analysis, this comparison demonstrates a general trend in decreasing rental vacancy rates across markets.

While Fort Collins appears to be at the center of each distribution, it is important to remember that these plots are reporting a measurement of change. Unlike population and housing units, vacancy rates are subject to ceiling and floor effects. Once value approaches the floor (0% rental vacancy rate), change becomes less likely.

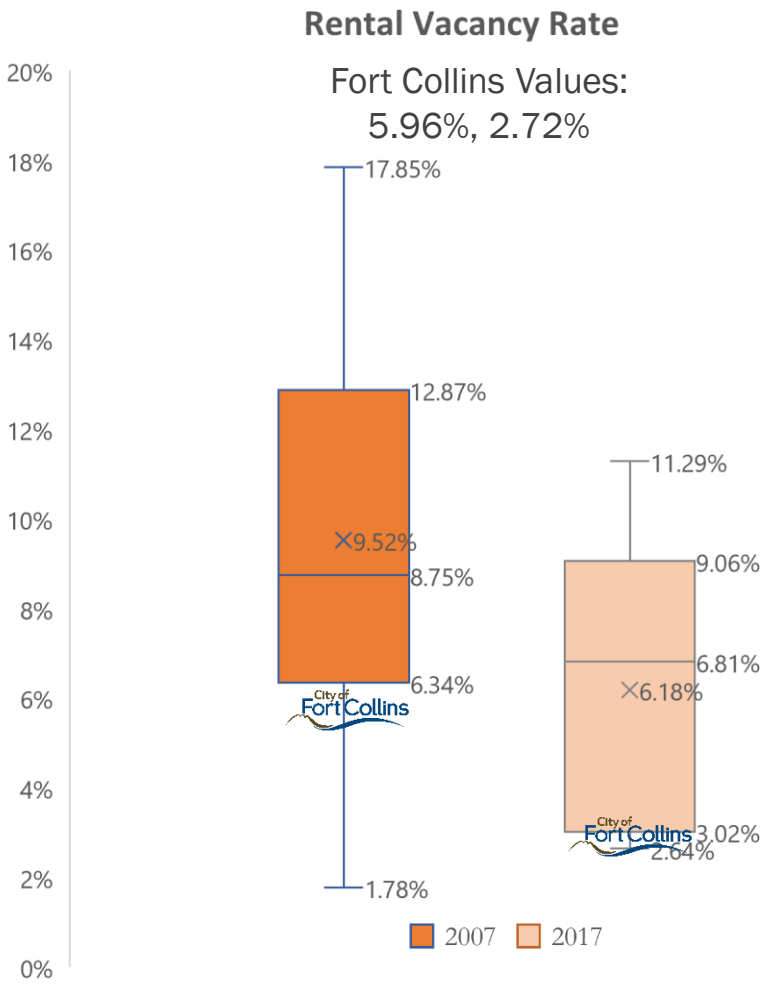


Note: Data limitations reduce sample by six cities.

However, Fort Collins' vacancy rates are subject to a "floor effect"

Comparing the 2007 and 2017 rental vacancy rates demonstrates that, while the change in these rates is average for this sample, the absolute values are toward the bottom of the distribution.

Again, data show that Fort Collins rental market has been extremely tight in recent years with very few vacant rental units.

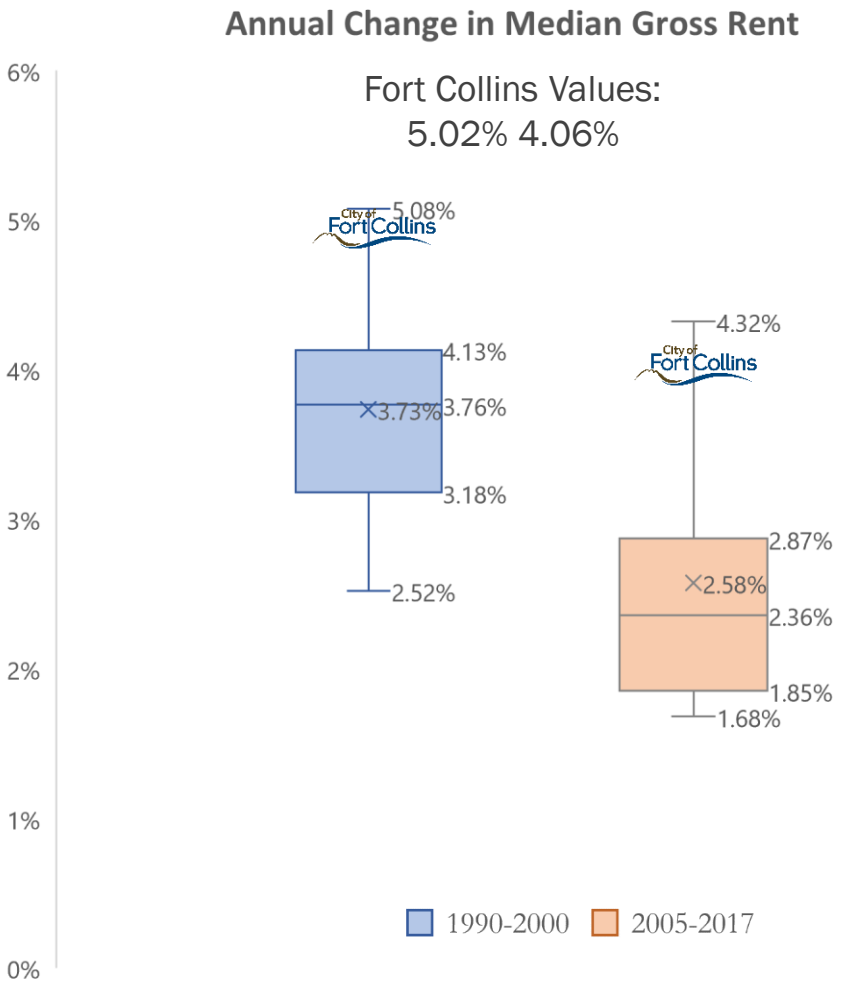


Note: Data limitations reduce sample by six cities.

Rent continues to grow at a relatively high rate in Fort Collins

As with the state analysis, Fort Collins' rate of rent increase is at the high end of the distribution in the modern era. However, this is not necessarily out of the ordinary for this sample as the city was also at the high end of the distribution in the 1990s.

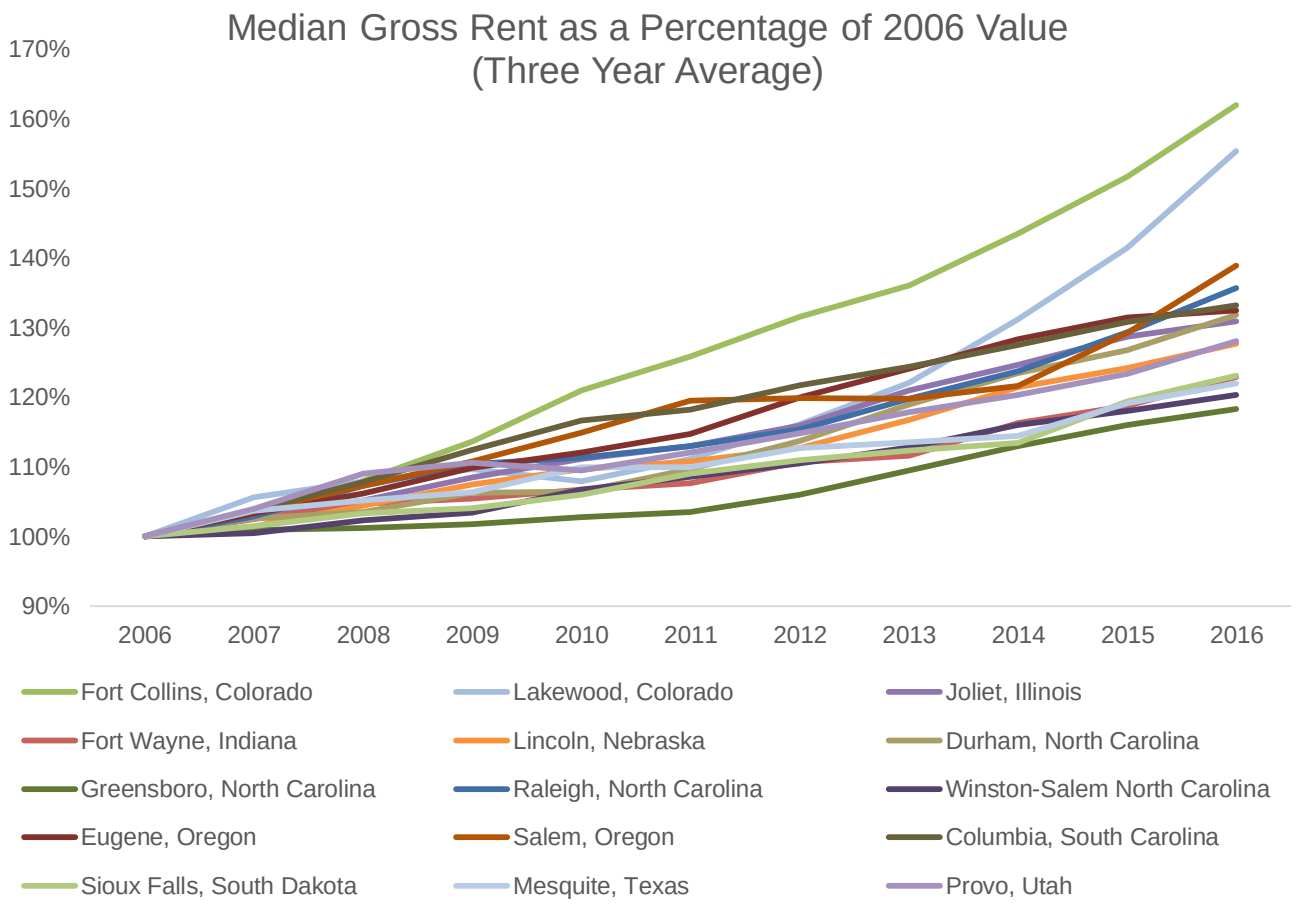
Overall, the rate of change in median rent is lower in the modern era. This trend may be attributed to the great recession.



Fort Collins' rent increase is unmatched by comparable national cities

The dramatic increase of rent in Fort Collins between 2005-2017 is unique in the sample of comparable cities.

The previously observed increase in rent amongst Colorado cities post 2013 is exhibited by Lakewood having a significant increase in rent over the last few years as well.

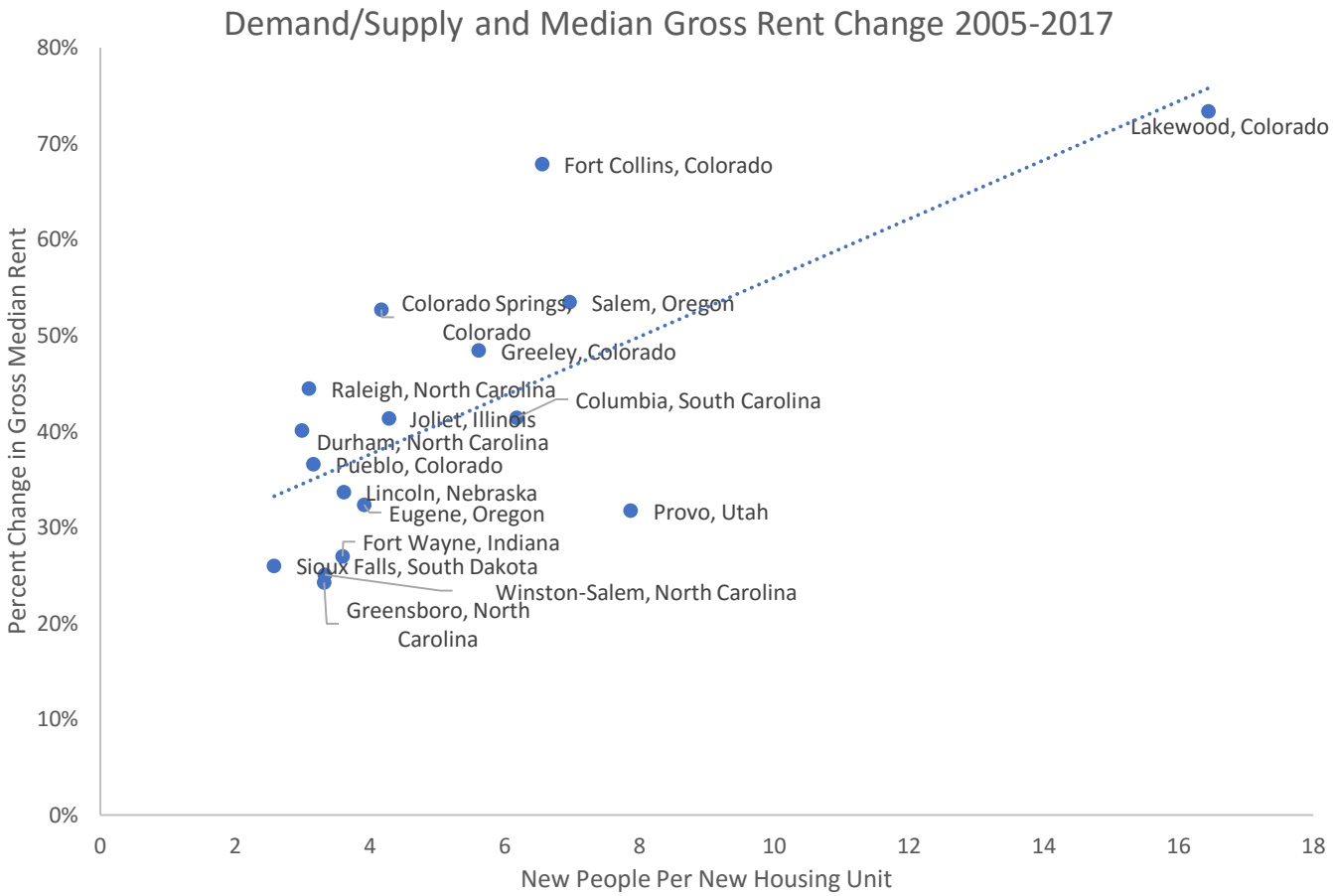


Changes in rent appear to be (in part) a product of supply and demand

The X axis of this plot calculates the increase in population divided by the increase in housing units between 2005-2017. During this time period, Fort Collins has had 6.6 new individuals for every new housing unit. Lakewood is a notable outlier due to a very small (1%) increase in housing units.

The trendline demonstrates a relationship between excess demand and higher median rents.

Colorado market analysis cities are included for reference.

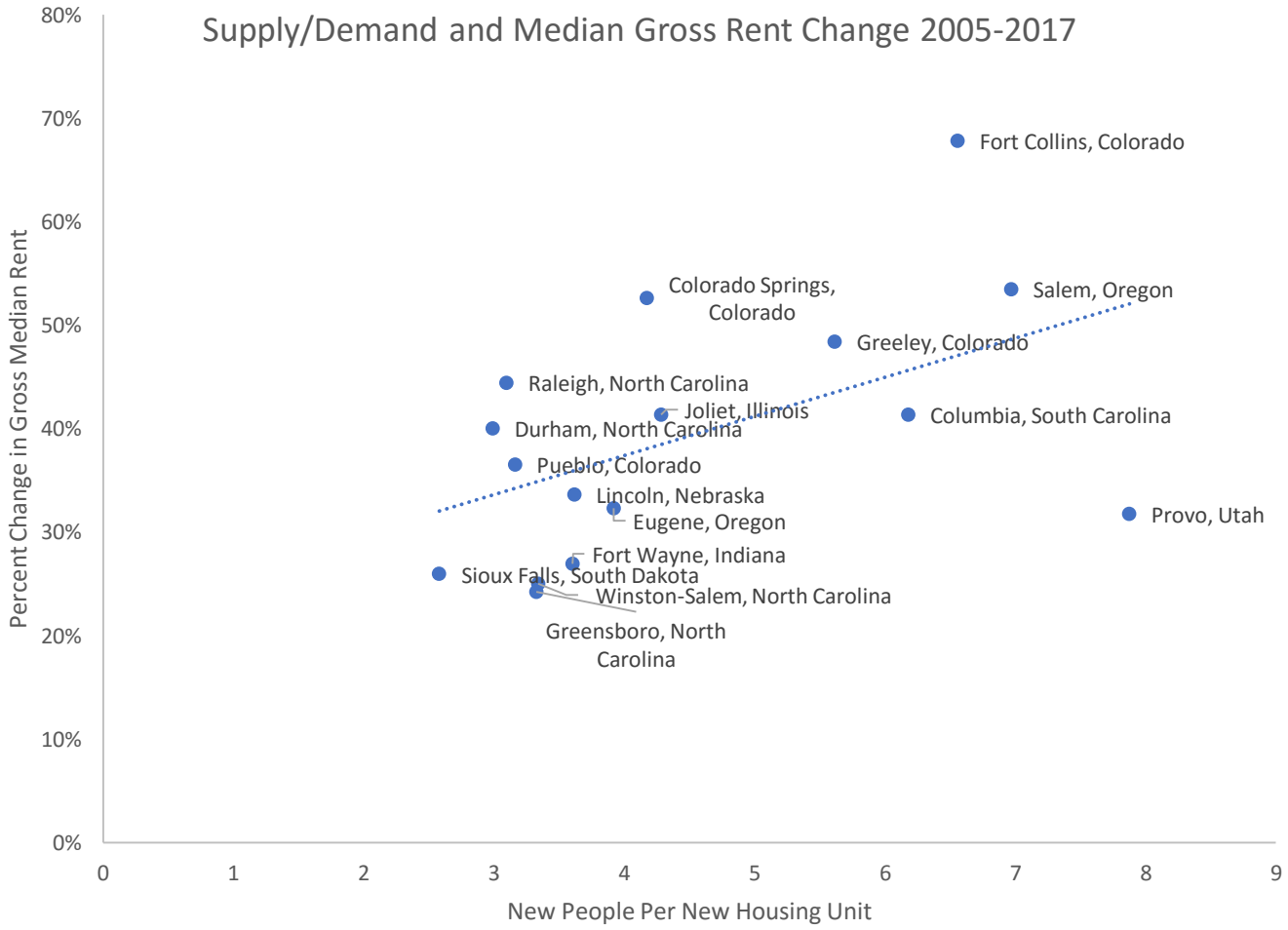


Changes in rent appear to be (in part) a product of supply and demand (removing Lakewood as an outlier)

The main conclusions of the previous plot are preserved when Lakewood is removed.

Fort Collins' 6.6 new individuals per new housing unit is significantly higher than the remaining sample's average of 4.4.

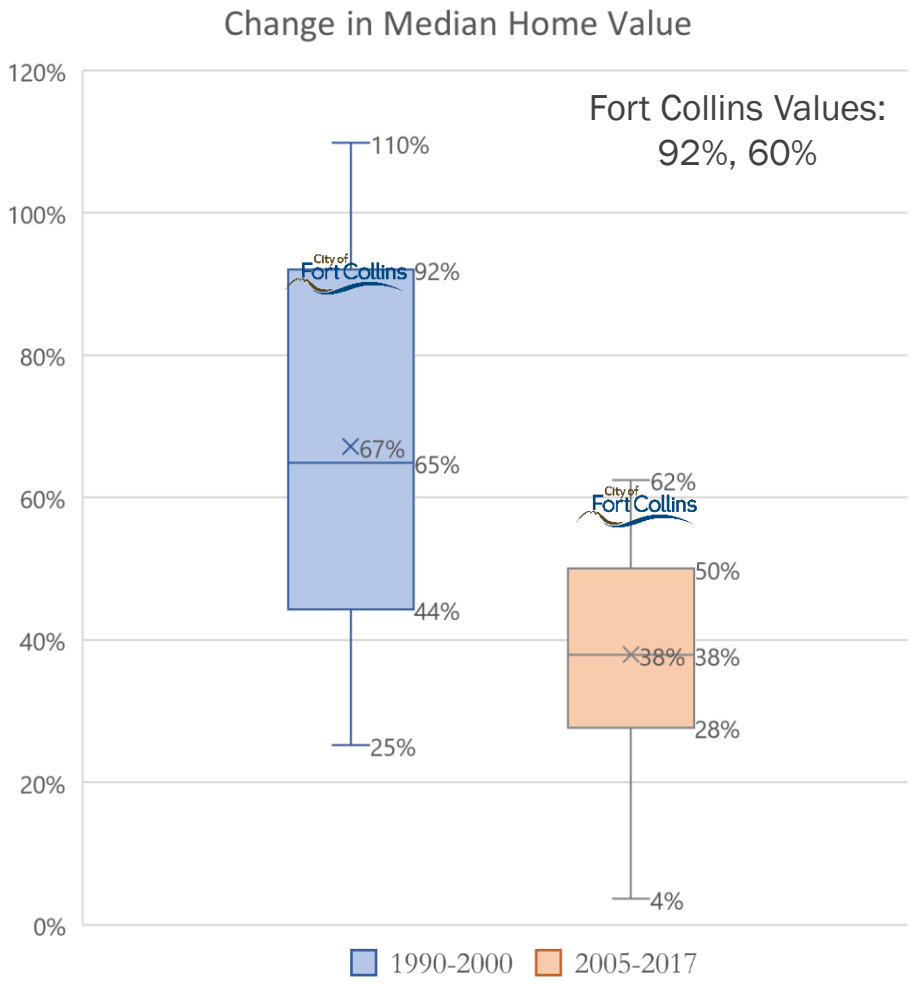
However, it is notable that Fort Collins lies substantially above the trendline in this plot. This location suggests that demand/supply is only one cause, amongst others, of the high rents in the city.



Increase in rent has been mirrored by home values

In general, the home values in the modern era increased at a lower rate than they did in the 1990s. The lower rate is likely a product of the 2008 housing crisis and subsequent recession.

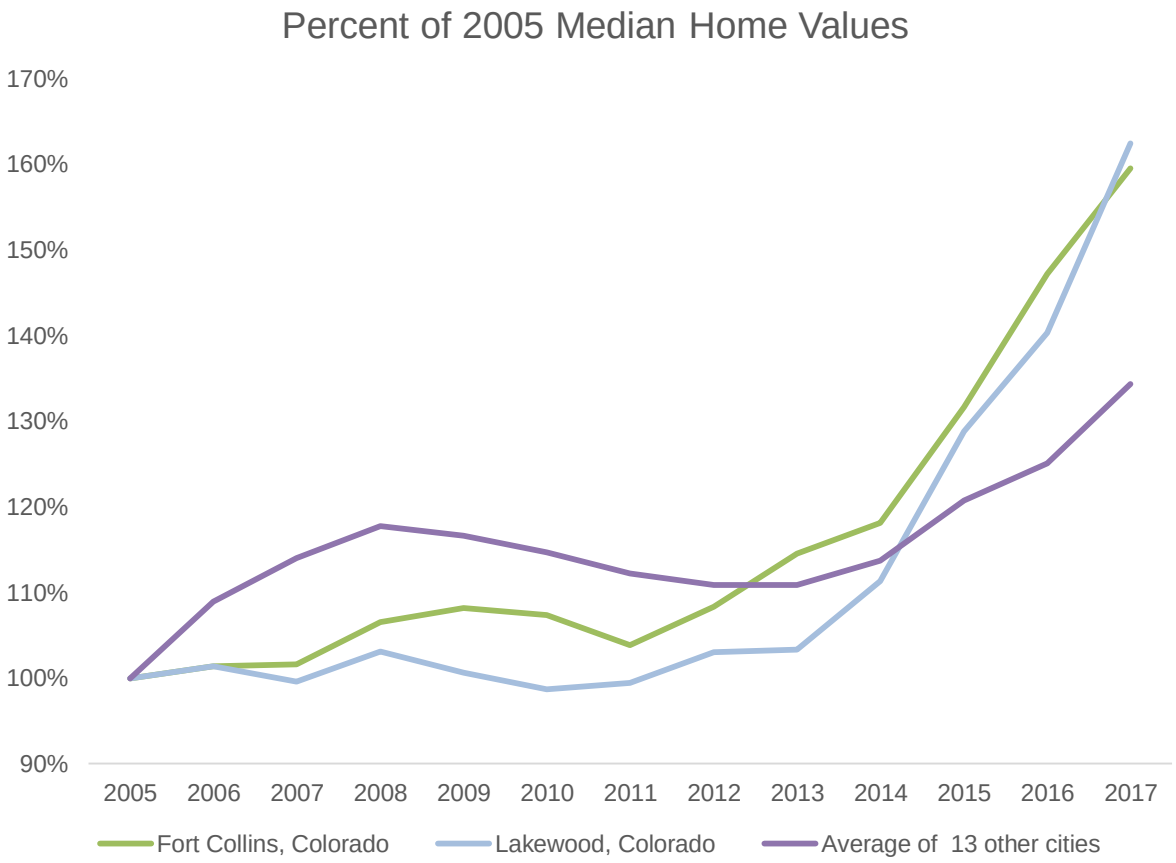
While the rate in Fort Collins decreased in absolute terms, it has increased relatively toward the high end of the distribution.



Fort Collins and Lakewood follow similar trajectories in home values

The recent trend of increasing rent in Colorado has also been present in median home values.

While Fort Collins and Lakewood show a distinct and drastic increase in median home values after 2011, they previously lagged comparable cities.



Section 1.3

Rental Market Trends

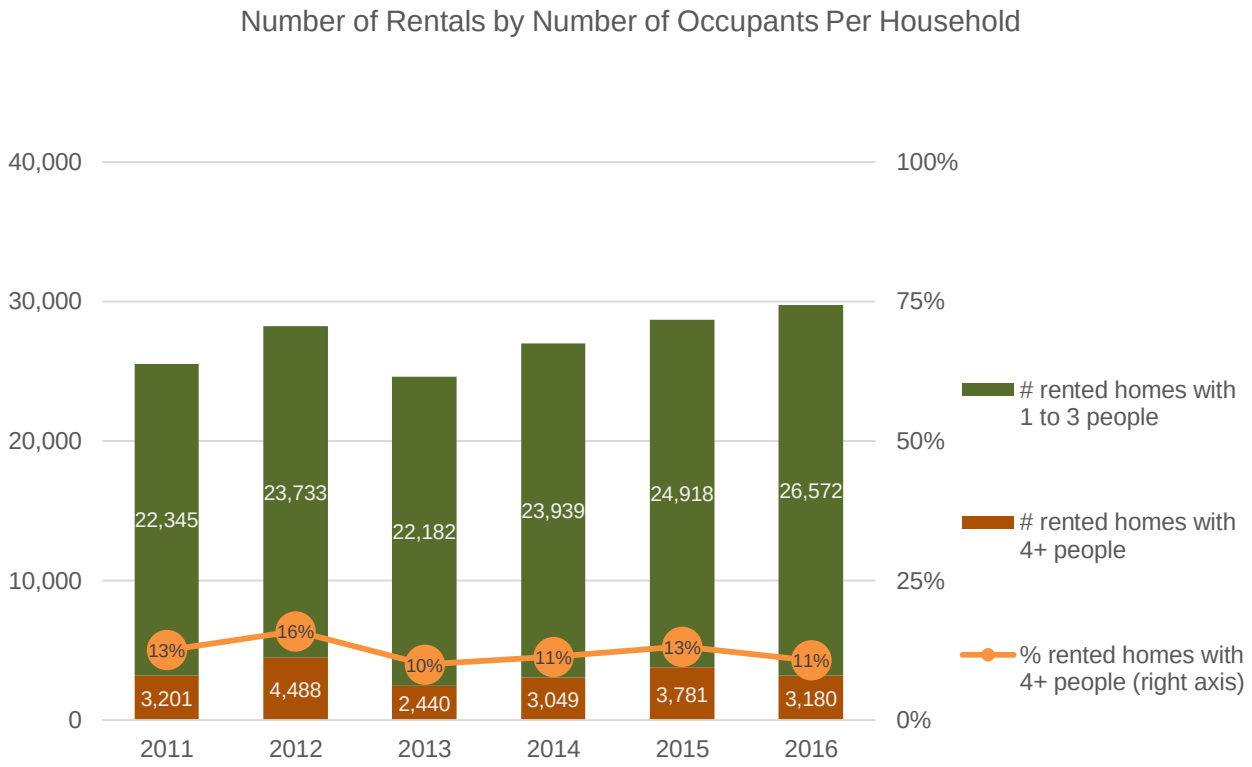
Recent Trends in Fort Collins

Key Findings: Recent Trends in Fort Collins

- Across the last six years, around 12% of rented homes have had four or more occupants. These households could have related occupants or otherwise not be in violation of the occupancy ordinance, so this does not indicate that 12% of rented homes are occupancy ordinance violators.
- Rented homes with four or more bedrooms is relatively uncommon, typically around 12%.
- A typical rented home has about 1.6 to 1.7 cars available
- Over time, the proportion of homes in multi-unit structures stayed about the same

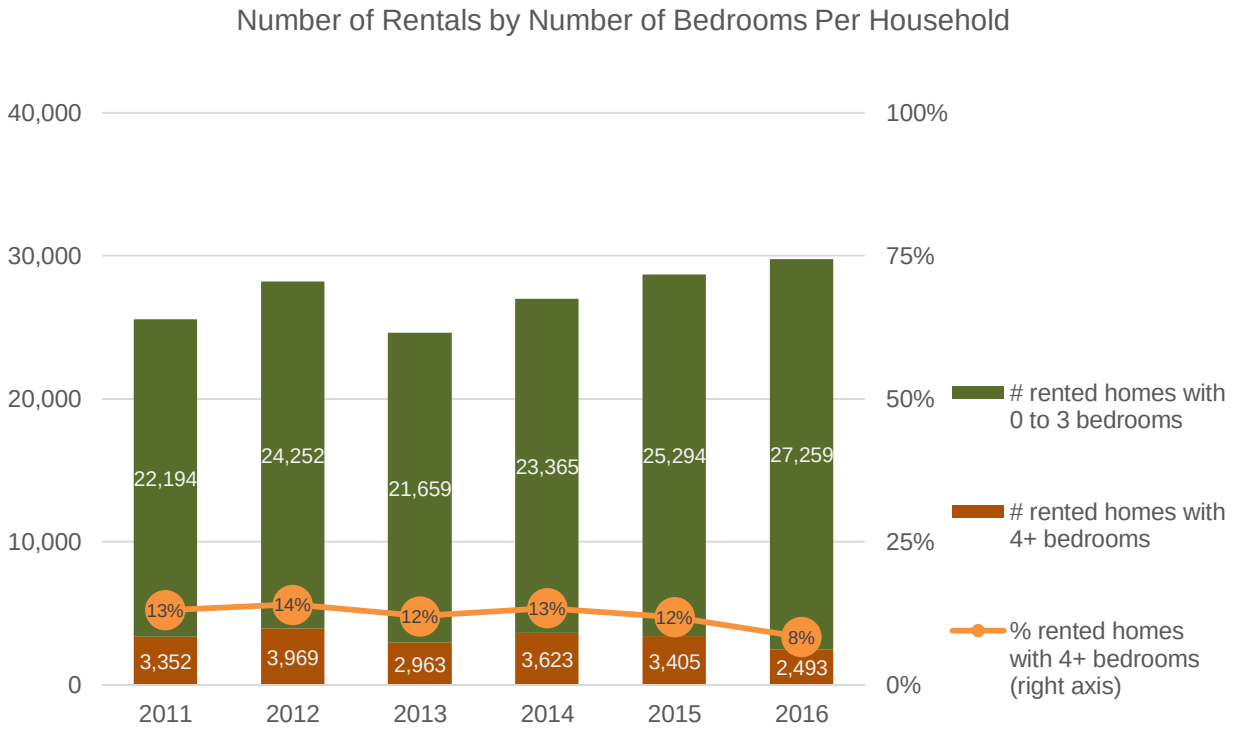
The proportion of rented homes with four or more occupants hovered around 12%

The proportion of rented homes with four or more occupants varied around 12%, but did not steadily increase.



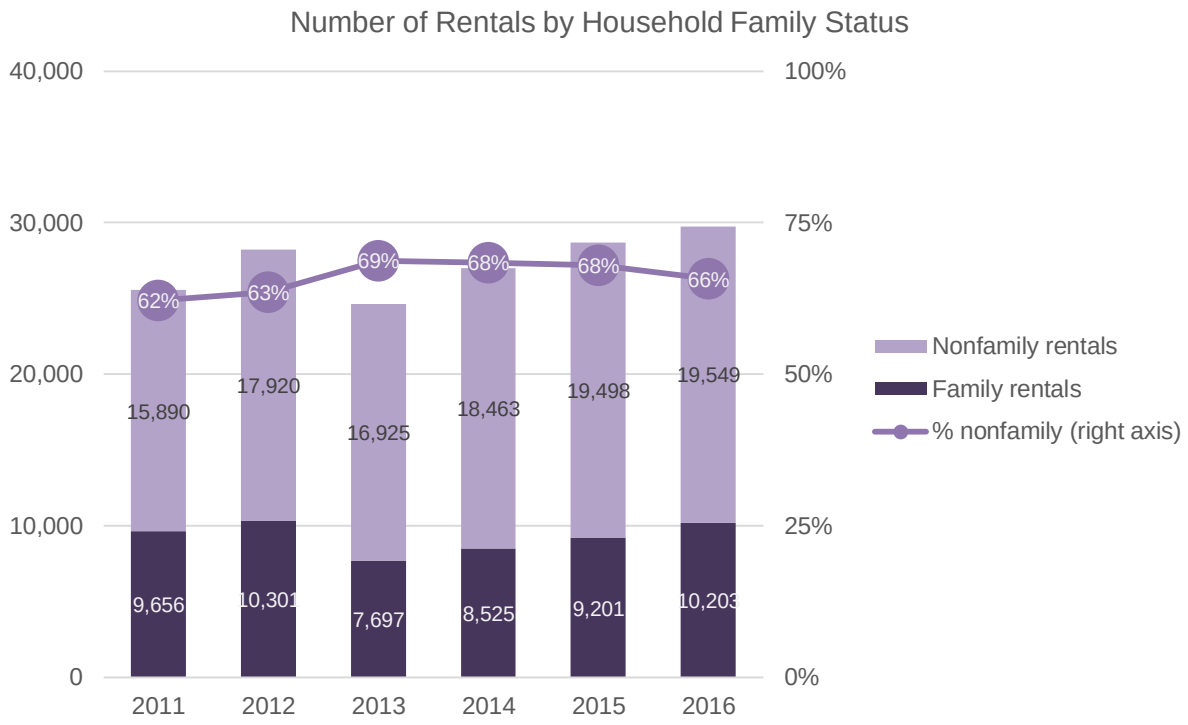
The proportion of rented homes with four or more bedrooms dipped slightly in 2016

The proportion of rented homes with four or more bedrooms bounced around 12% but did not steadily increase. The pattern of rented home with four or more bedrooms was similar to the proportion of rented homes with four or more occupants.



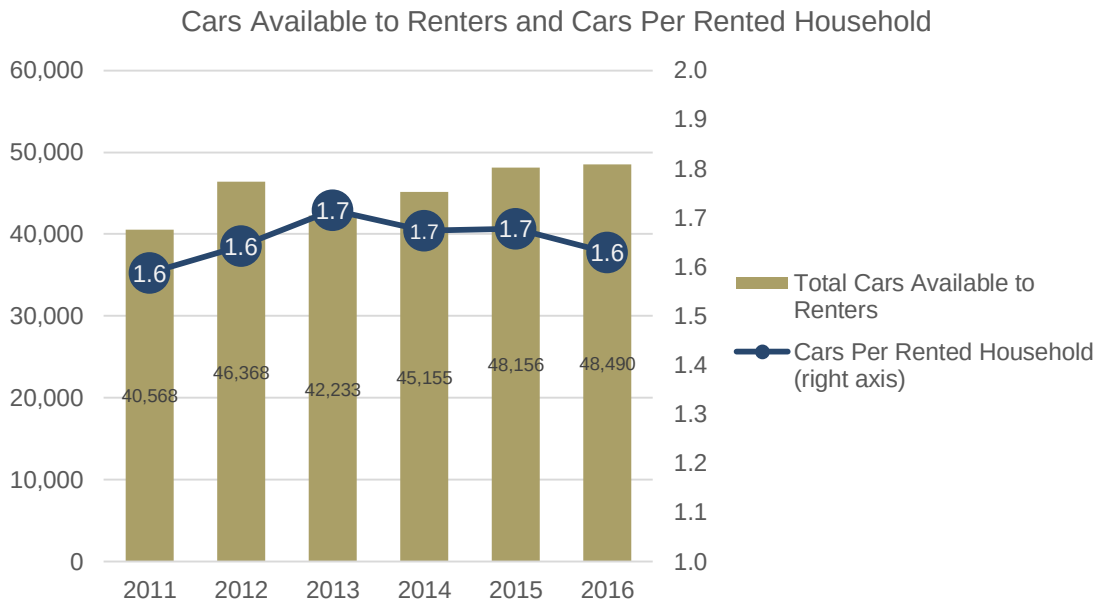
The proportion of homes rented by non-families increased very slightly from 2011

In 2016, about 66% of rented homes were rented by nonfamilies, which is typically defined as no one in the household is related. This proportion was slightly larger than estimates from 2011 (62%) and 2012 (63%) but similar to estimates from 2013 to 2015. Based on 3-year running averages, there was a very slight increasing trend in the percentage of nonfamily rentals.



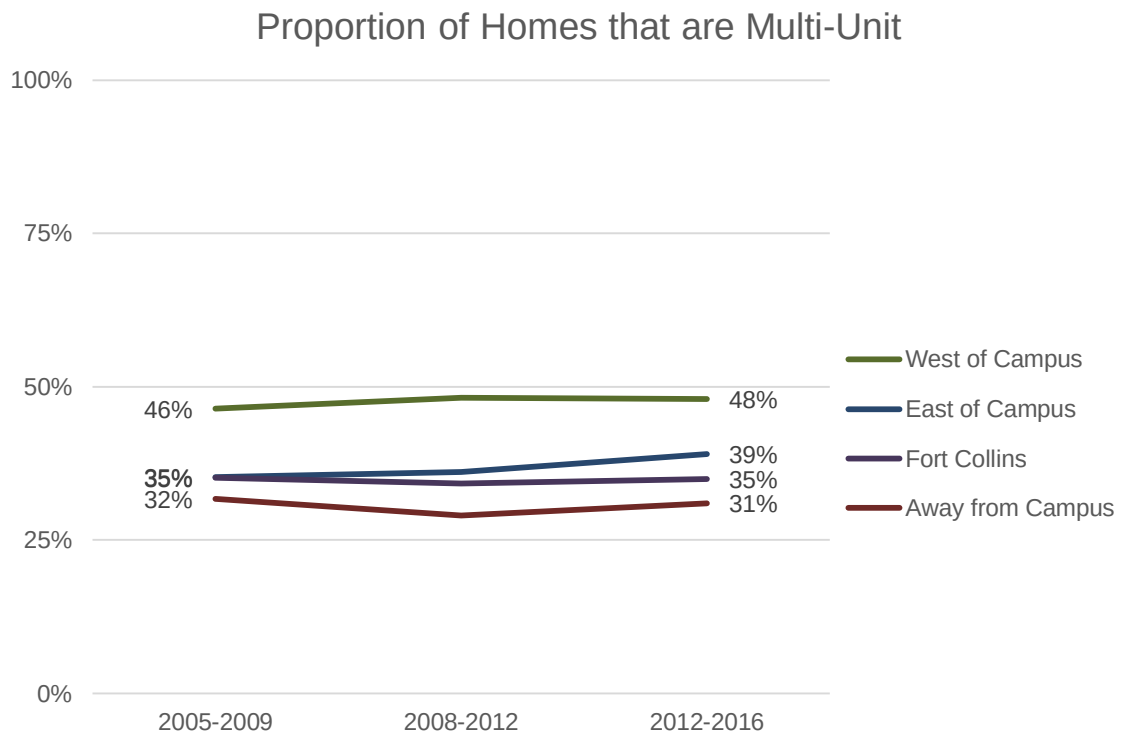
There have been about 1.6 to 1.7 cars available per rented household since 2011

The number of cars available per rented household bounced around 1.6 and 1.7, but it did not substantially change in a sustained pattern between 2011 and 2016.

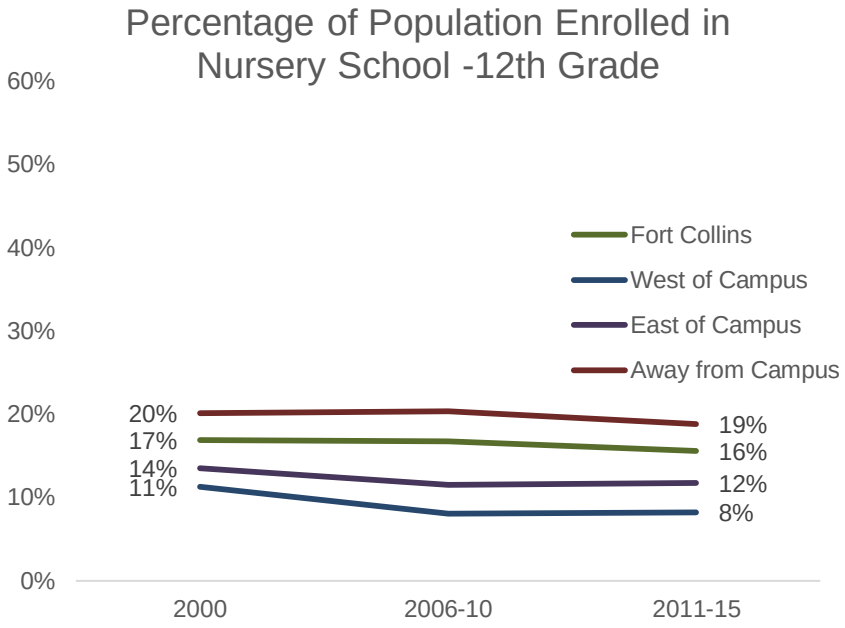


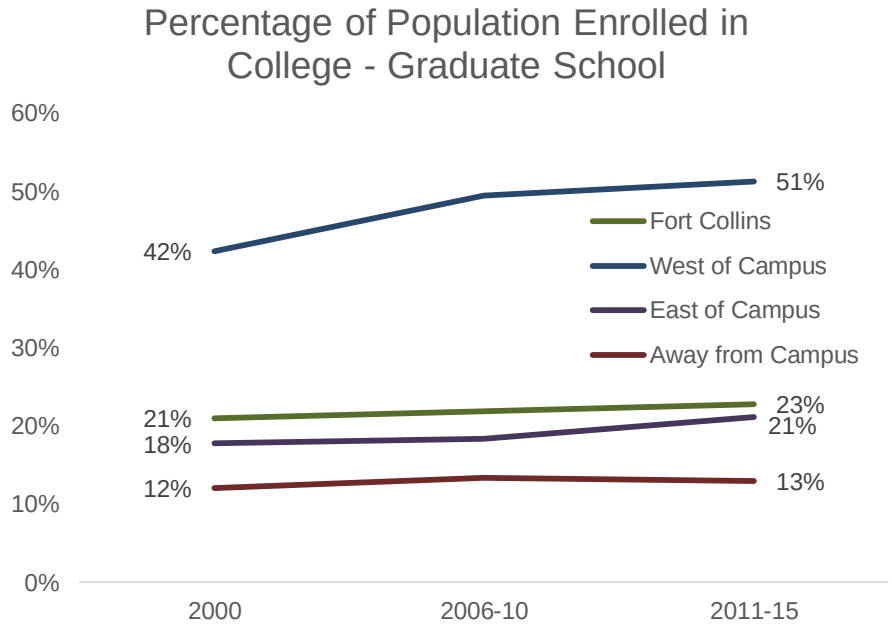
Over time, the proportion of homes in multi-unit structures stayed about the same

Since pre-2010, the proportion of all homes in multi-unit structures (e.g., apartments, duplexes, etc.) stayed about the same throughout Fort Collins and by region.



School children (nursery-12) make up a smaller percentage of population in the areas around campus post-ordinance





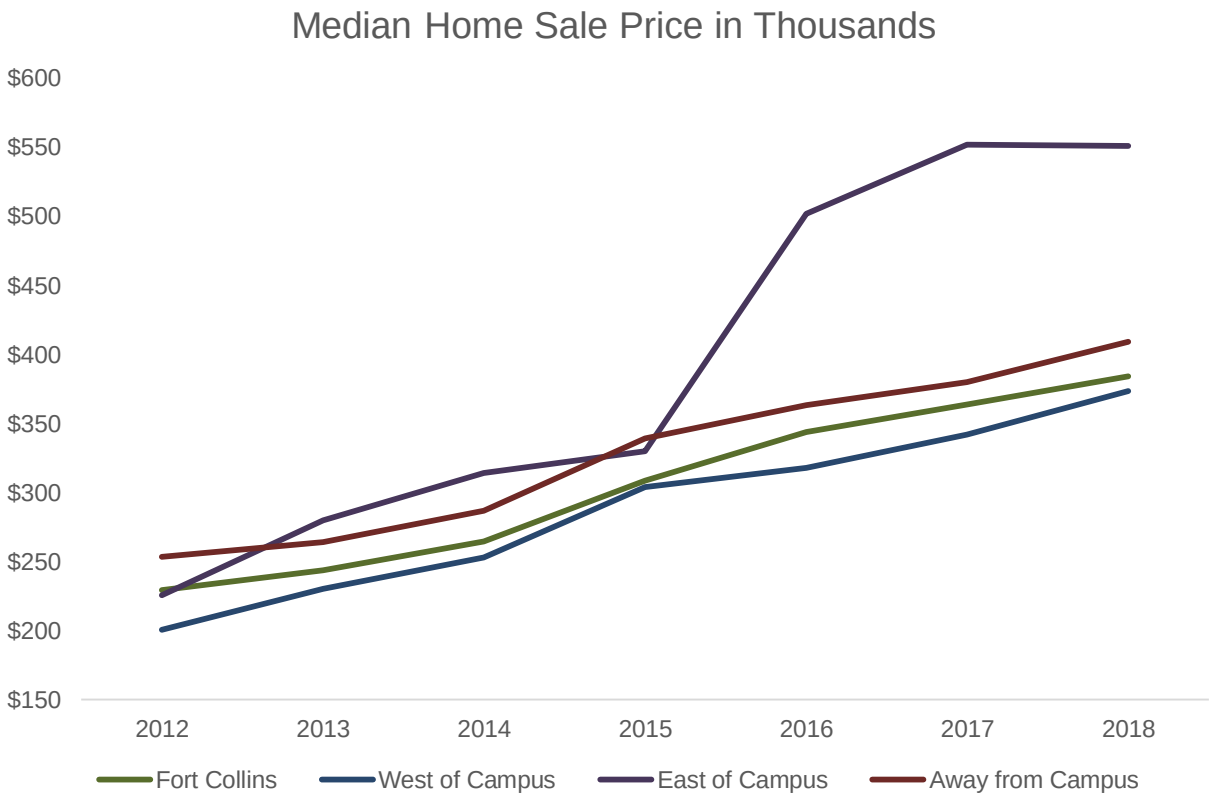
Enforcement of the ordinance has not particularly changed the composition of neighborhoods around campus, as measured by the population of children. The areas around campus have seen a small increase in college students and a small decrease in school children (nursery -12th grade) over the past 15 years, though most of that change occurred pre-enforcement.

Due to changing geographic boundaries, Census tract 2 is treated as "Away from Campus" in these calculations. It was split into two areas (one away and one West) in the 2010 census.

The price of median home sales has been significantly increasing across neighborhoods in Fort Collins

The median home in Fort Collins sold for $155,000 more in 2018 than it did in 2012, a 67% increase.

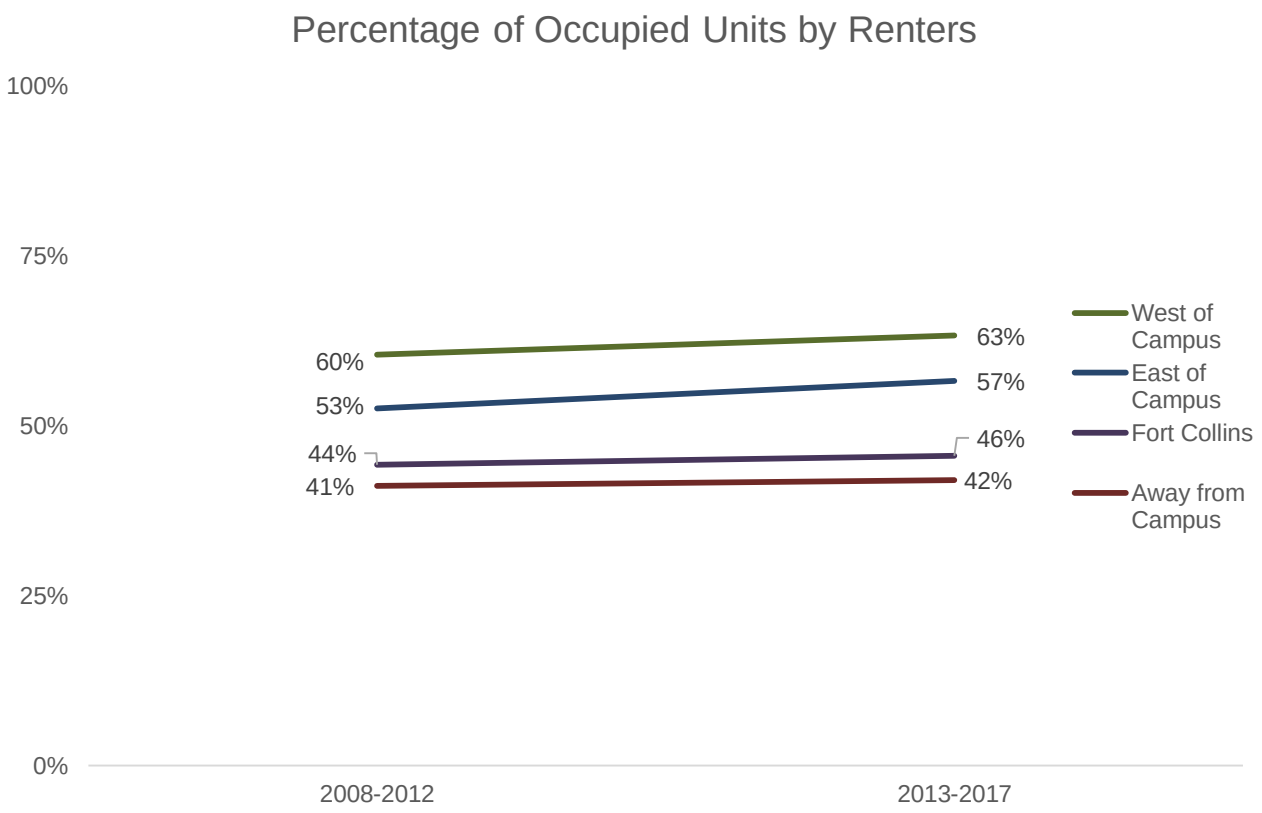
While home values east of campus appear to increase dramatically after 2015, this is based exclusively on data available from the University Park neighborhood.



Neighborhood data is calculated from the following areas. West of Campus (Avery Park, Brown Farm, Old Town West, P.O.E.T., Prospect, Rogers Park, and Shields). Away from Campus (Downtown, English Ranch, Foxstone, Huntington Hills, Miramont, Side Hill, The Landings, and Troutman Park. East of Campus (University Park).

Renters have been filling occupied units at higher rates across neighborhoods

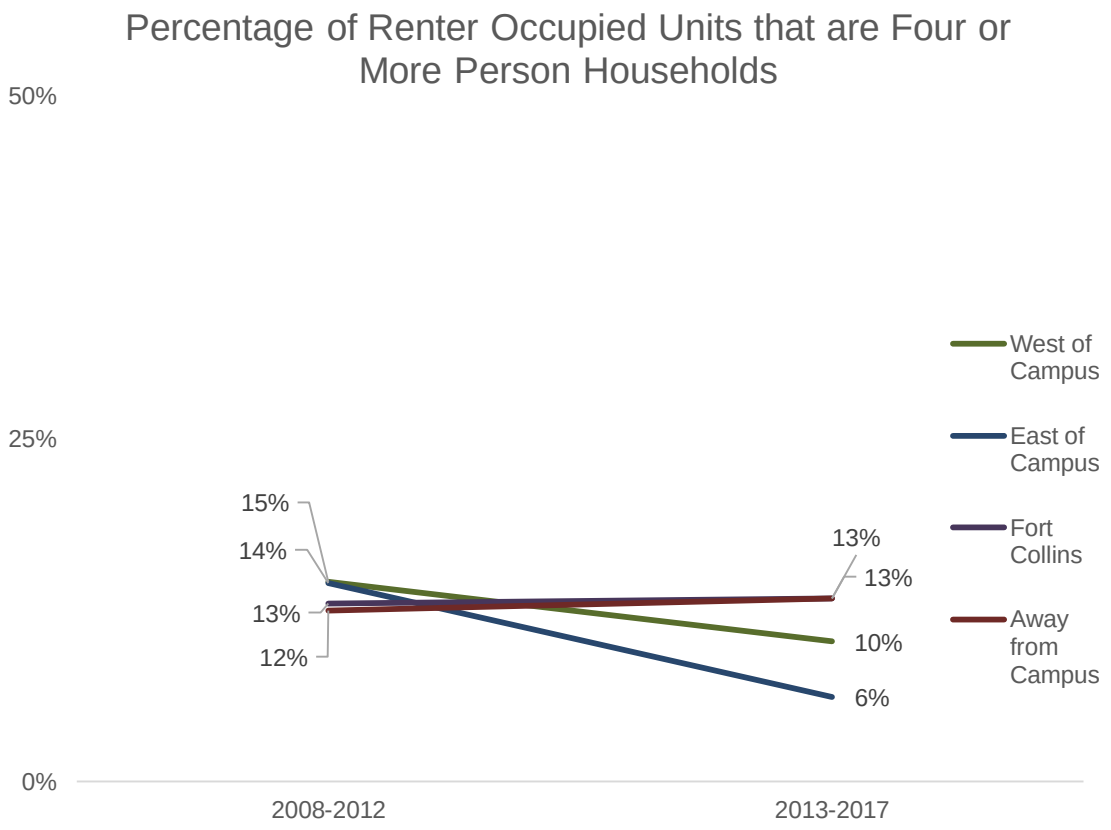
While the percentage of renters in occupied units has been increasing across all neighborhoods, the largest increase has been seen around campus.



The percentage of four or more person rental households has decreased around campus

While the percentage of occupied rental households with four or more people has remained constant in the City at large, it has decreased in the areas around campus.

The areas around campus have seen a decrease of renters in one person households and an increase of renters in two person households.



Section 3. Occupancy Ordinance Violators

Section 2.1

Occupancy Ordinance Violators

Estimated Number of Violator Households

Key Findings: Number of Violator Households

- The number of violator households is estimated at slightly more than 1,200 households. This is notably higher than the figure estimated in 2009, and approximately the same number that was estimated in 2005.

A description of the methodology is found in the appendix.

Estimating the Number of Violator Households

Two approaches were used to estimate the number of households that are living in violation of the occupancy ordinance. The first estimate examined data reported by respondents in the public survey when asked how many of the four houses nearest to their home were in violation of the ordinance. The figures were then multiplied by the current rate at which occupancy violation investigations found such violations. (In other words, 38% of occupancy ordinance complaints were found to be valid.) A high estimate counted every home that was reported in the survey (scaled up to the population of homes), and a low estimates assumed that any reported number greater than one was equal to one.

A second estimate was developed using self-reported data from the census documents. These figures include a high estimate that assumed that all violator households lived within the city of Fort Collins, and a low estimate that assumed that violator households were equally likely inside the city and in the rural areas outside the city. (The particular census source extends beyond the city limits to include much of rural northern Larimer County.)

The four estimates were then averaged to develop an overall estimate of the number of violator households at 1,234. See the next page for the figures.)

Slightly more than 1,200 households are in violation of the occupancy ordinance

Using these two methods, the estimated number of violator households is 1,234, with an average household size of 5.06 people.

	Survey Data	Census Data	
High Range	**4,291**	x	Violator Households
Low Range	**2,727**	x	Violator Households
Substantiation Rate	**38%**	x	Occupancy Investigations
High Range	***1,630***	***1,285***	***Estimated Violator Housholds***
Low Range	***1,036***	***986***	***Estimated Violator Housholds***

Estimate	***1,234***

Average Household Size - 5.06 people

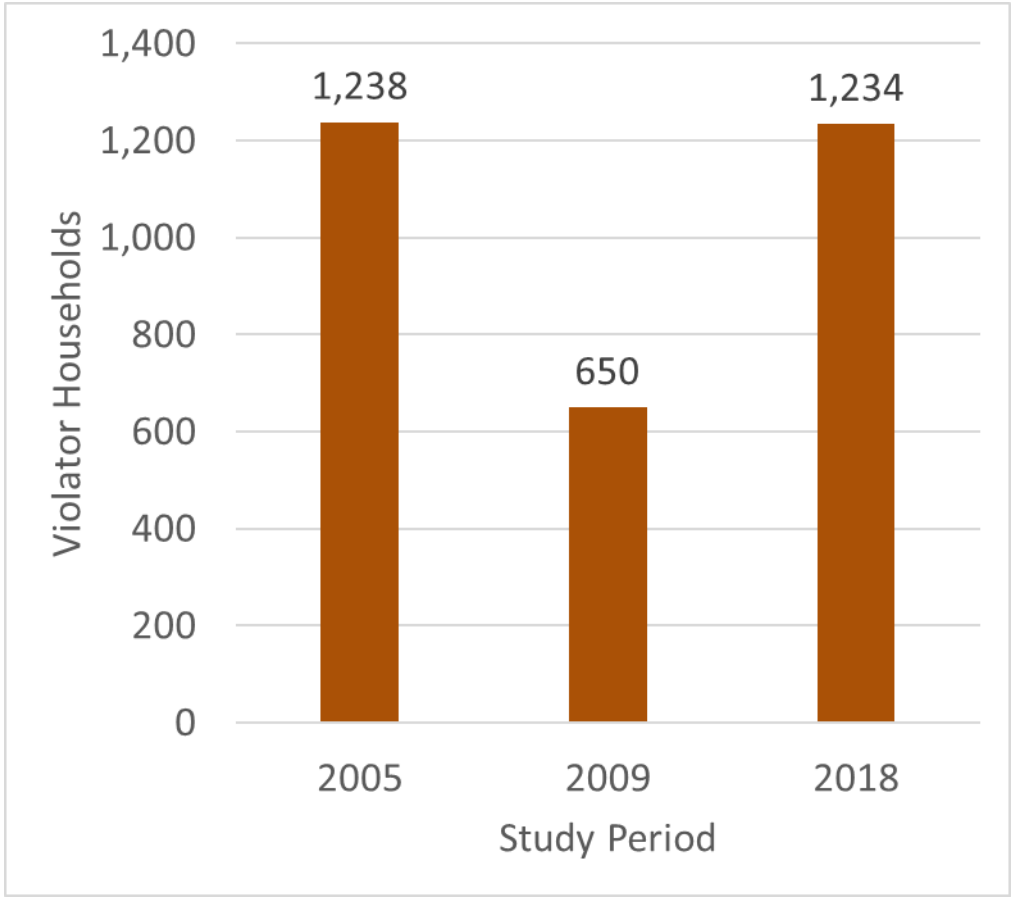
The number of violators has fluctuated over time

In comparing the last three studies (completed in 2005, 2009, and 2018), the number of violators has fluctuated.

Prior to active enforcement of the ordinance, the 2005 study estimated that slightly more than 1,200 households were in violation.

After the ordinance enforcement began, the figures dropped to approximately 650. However, since that time period, the number has risen again, back to the pre-enforcement levels. (Note that the population has grown, so the overall incidence rate is lower now.)

As is discussed elsewhere, a strong theory is that affordability issues may be causing more households to violate the ordinance.



Section 2.2

Occupancy Ordinance Violators

Profile of Violator Households

Key Findings: Profile of Violator Households

- The makeup of residents in violator households has changed notably, going from 71% college students to 44% college students since 2005. Children under 18 now make up roughly 13% of these households, despite being a negligible population in 2005.
- The public is very aware of the ordinance (89%), and more likely to support the ordinance than oppose it (42% versus 24%). However, 78% say that it has no impact on their neighborhood.

A description of the methodology is found in the appendix.

A slight majority of violator households are rentals

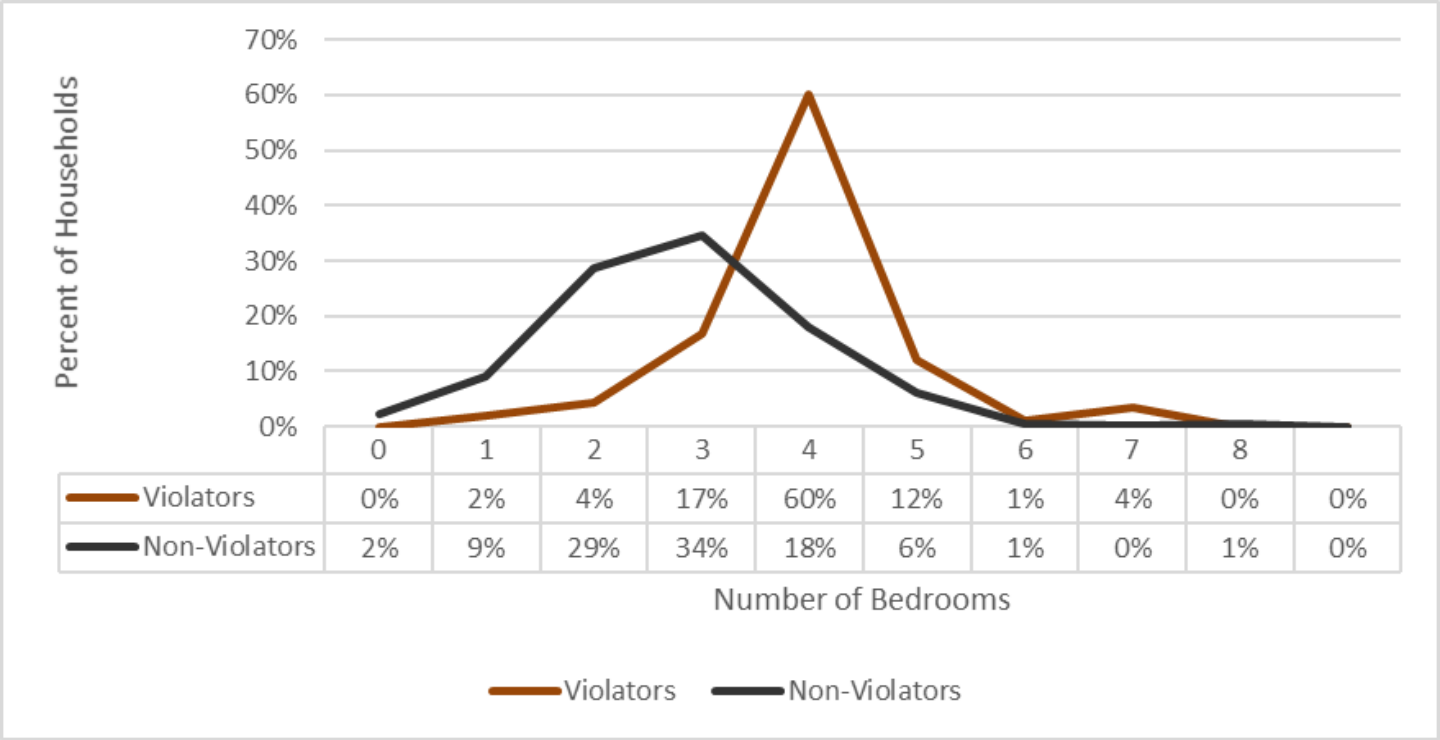
Violator households are nearly evenly split between single family and multi-family homes. Violators who own their home are nearly all in single-family homes, while violators who rent their homes are evenly split between single-family and multi-family units..

	Owned Home	Rented Home
Single-Family Home	45%	28%
Multi-Family Home	1%	26%

	Owned Home	Rented Home
Single-Family Home	560	343
Multi-Family Home	6	326

Violator households tend to share larger homes

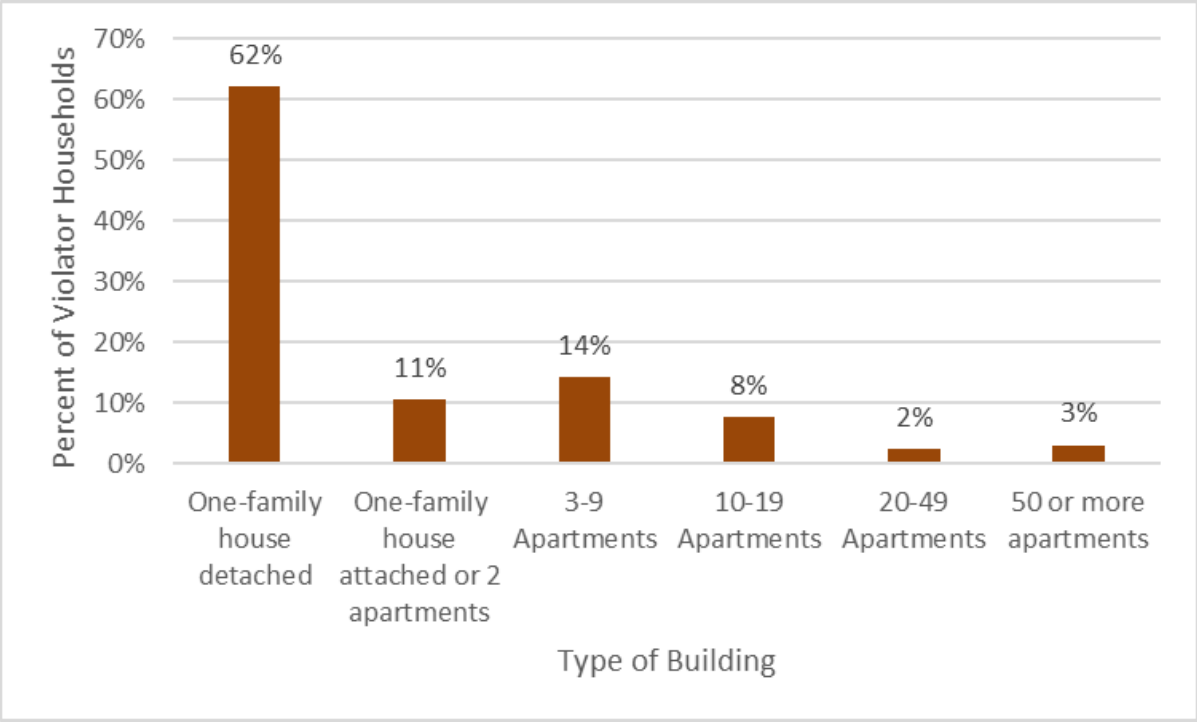
Most violator households live in 4-bedroom units. This implies that most violator households are not living in overcrowded conditions inside the home.



	0	1	2	3	4	5	6	7	8	
Violators	0%	2%	4%	17%	60%	12%	1%	4%	0%	0%
Non-Violators	2%	9%	29%	34%	18%	6%	1%	0%	1%	0%

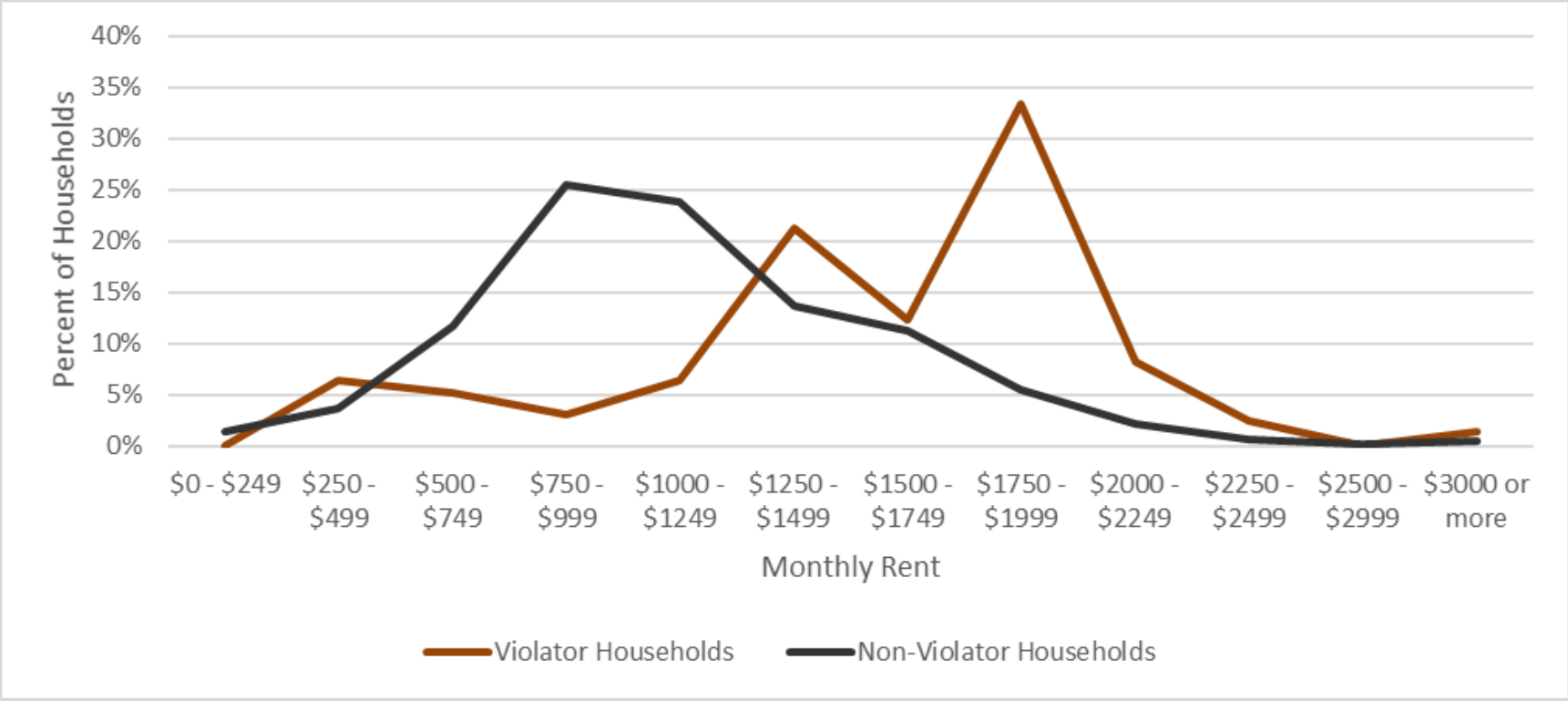
Violator households tend to live in single family homes

As might be expected from the finding on the previous page about the sizes of violator households' homes, most violator households live in single family homes (meaning houses that are detached from other houses). Among those who live in apartments, most live in smaller developments.



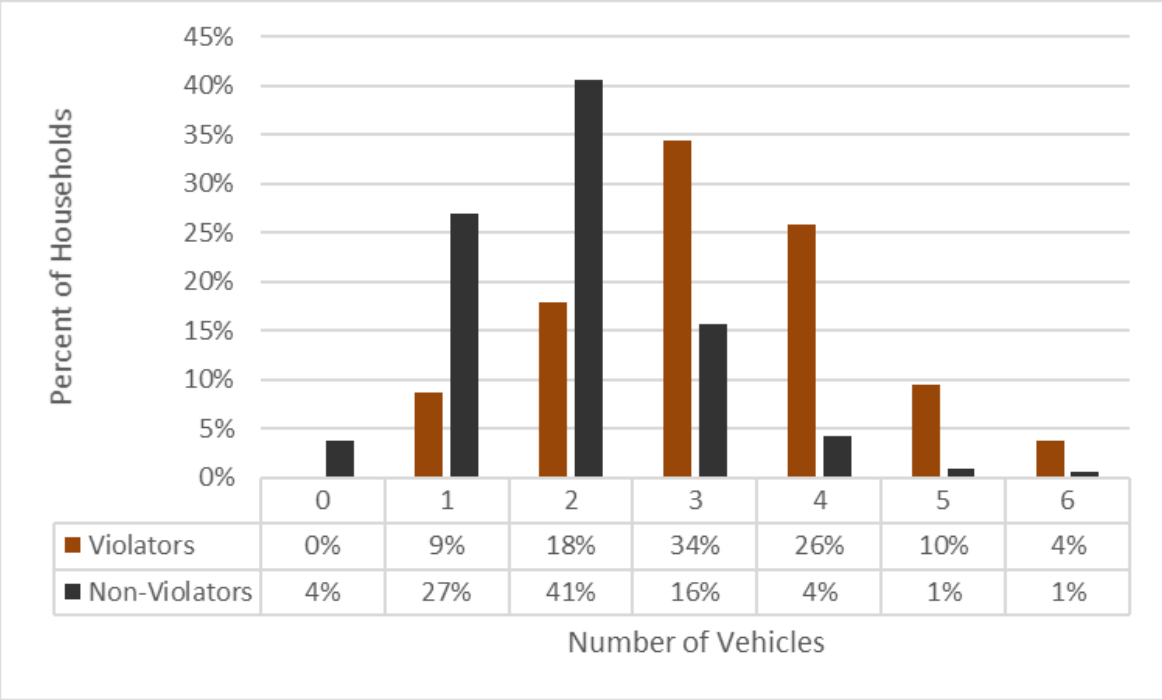
Violator households are higher on the rent spectrum

Because they tend to live in larger housing unit, violator households also tend to pay higher rents. However, the rent is split between more independent payers.



Violator households tend to have more vehicles.

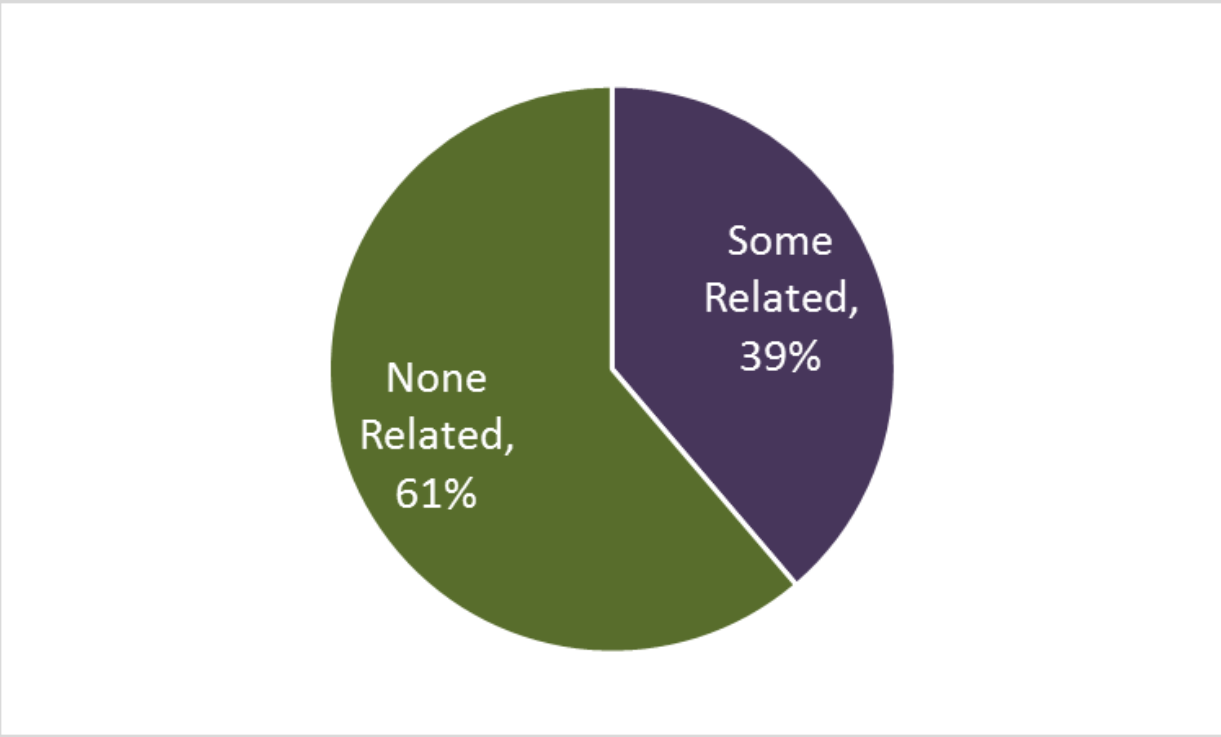
Violator households have notably more vehicles than other types of households. This is an important distinction because, as seen elsewhere in this report, inappropriately parked vehicles tend to be a common complaint by Fort Collins residents with respect to neighborhood quality, and it would be a consistent issue to observe by residents.



	0	1	2	3	4	5	6
Violators	0%	9%	18%	34%	26%	10%	4%
Non-Violators	4%	27%	41%	16%	4%	1%	1%

Tenant relationships are generally non-blood

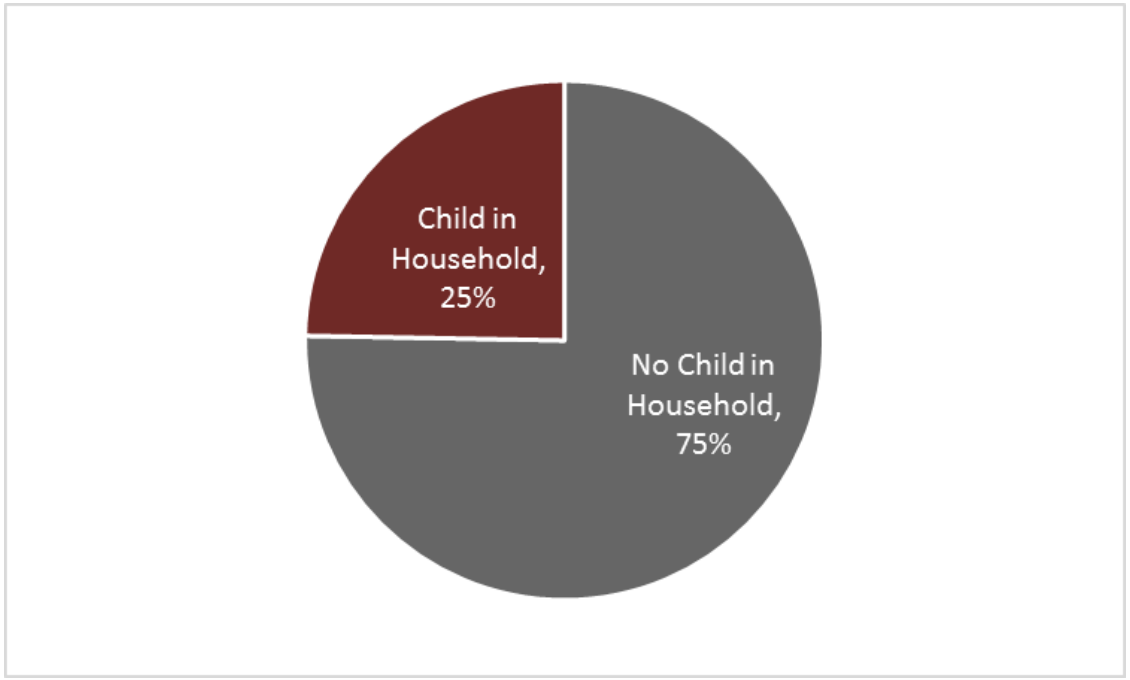
Violator households are usually groups of unrelated people.* Less than 40% consist of groups where at least two people are related to each other. This would imply that nuances to the definition of the ordinance might have an impact on some households, but not the majority.



* - Relationships are for the person filling out the census form. Others in the household could possibly be related.

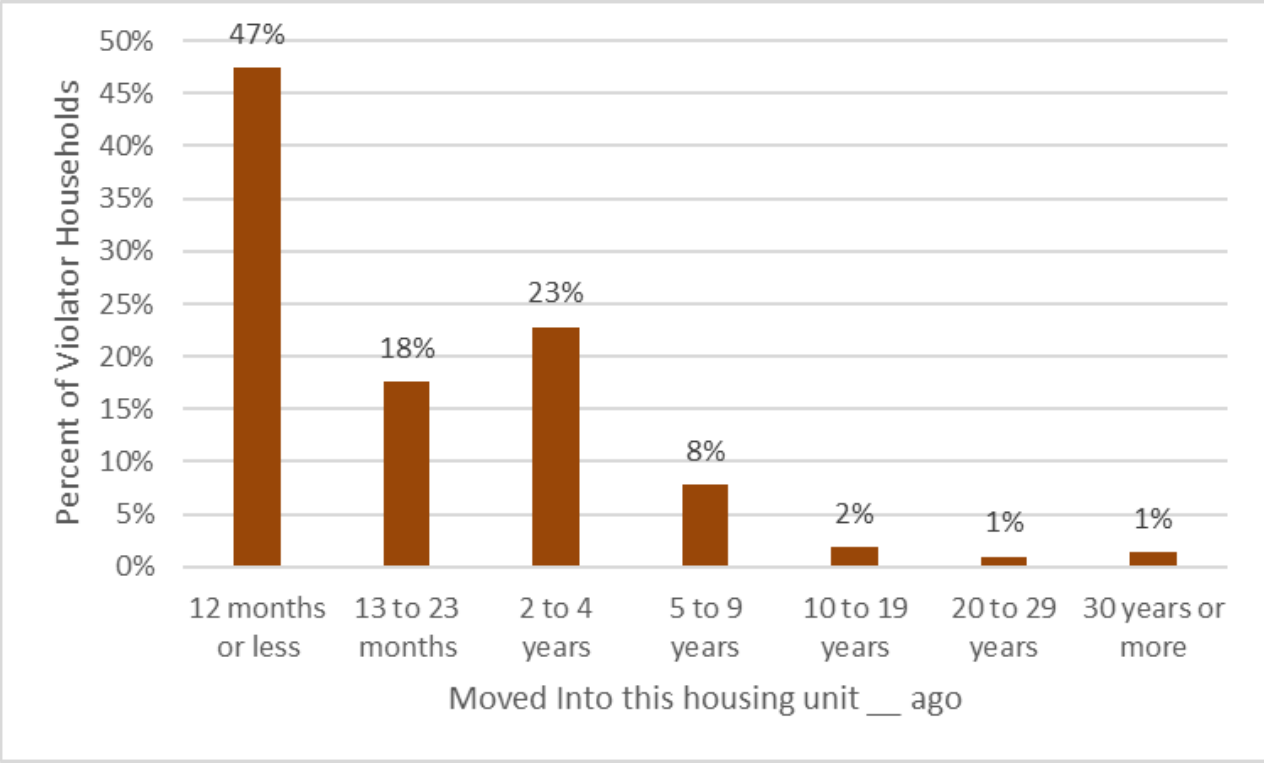
Relationships

When there are related people in the household, the related person is often a child. Children are present in violator households at a very similar rate to their presence in non-violator households (27%). This may suggest younger families that are bringing in others to help with housing costs.



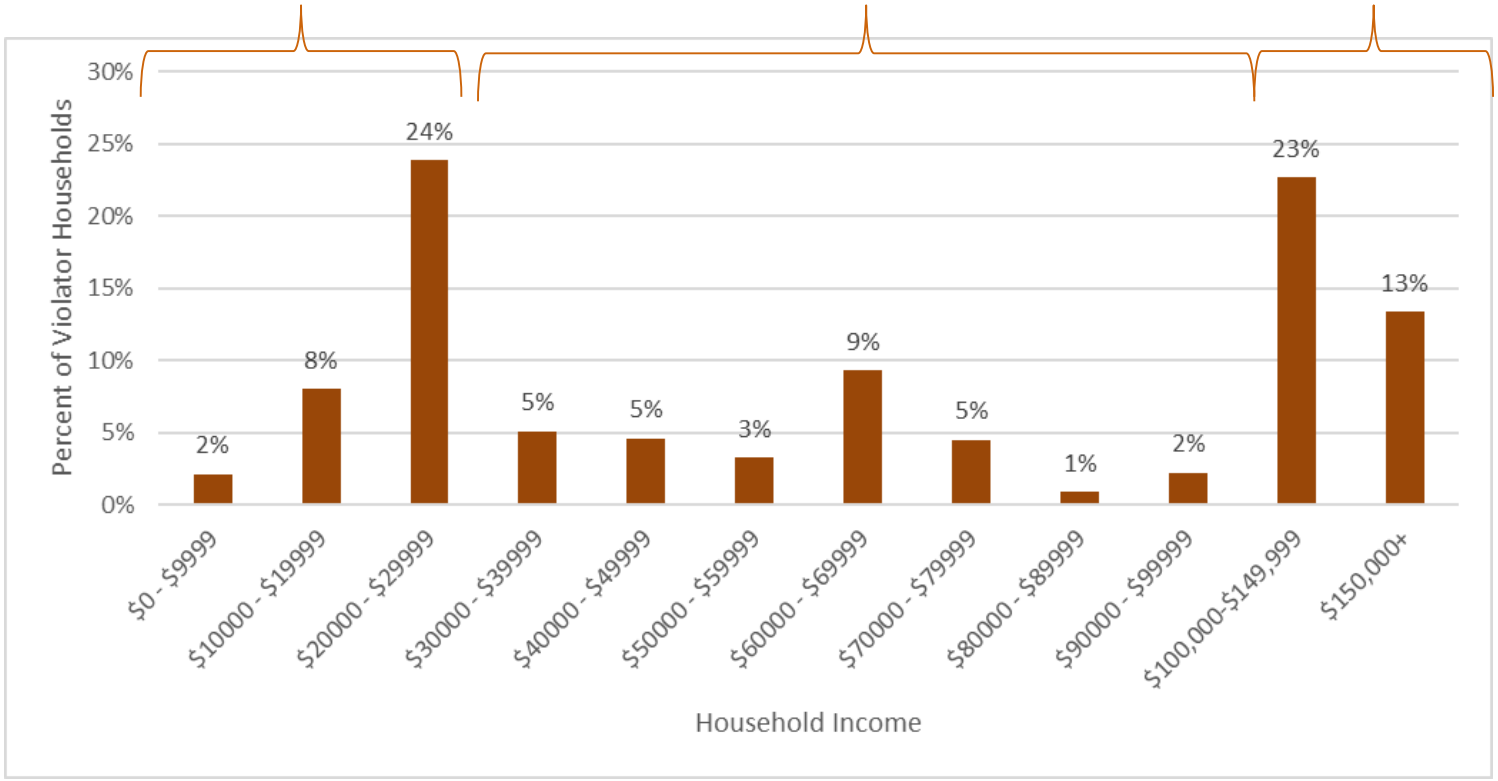
Violator households generally form quickly or move frequently

Nearly half of all violator households have lived in their home for less than a year. This is an important item to consider, because conflicts may be more likely to occur with new residents who haven't yet integrated into a neighborhood or who introduce change to a neighborhood.



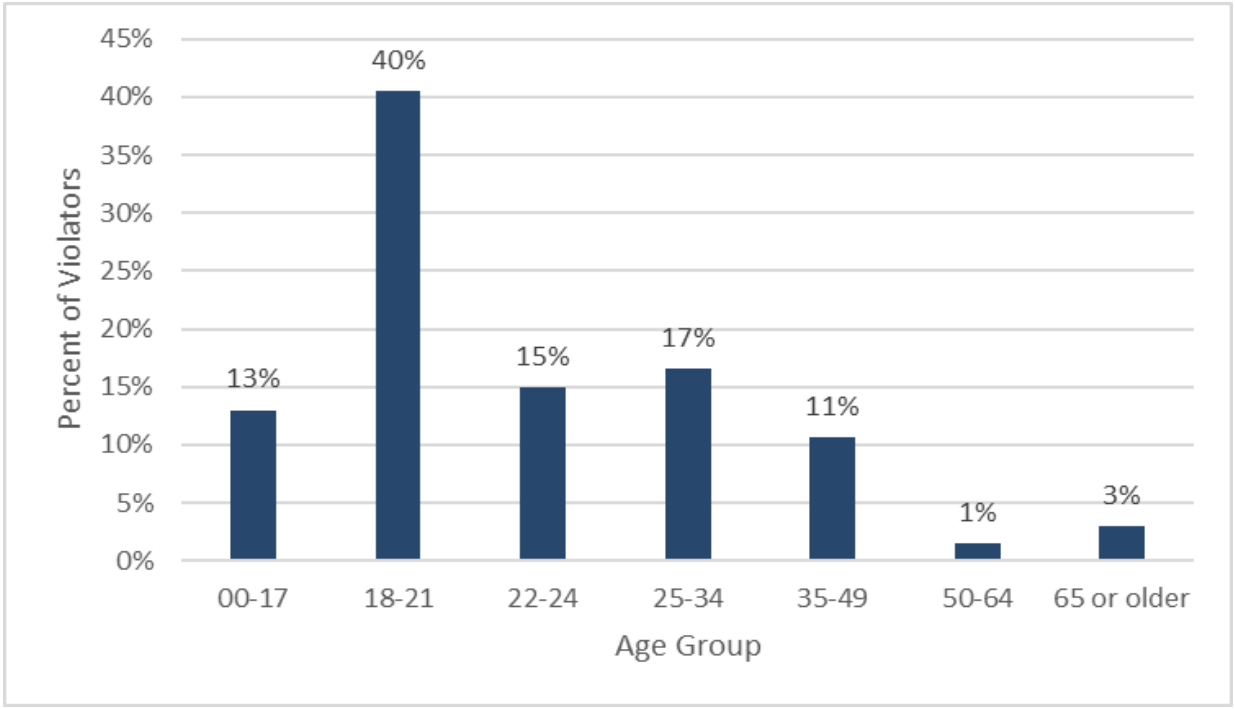
There is no relationship of household income to violator status

Violator households fall into three main income groups: one-third fall into lower household income segments (which is the combined income of all residents of the home), while slightly more than one-third have combined incomes of $100,000 or more. The remainder fall into the income bank in between.



Violator households are often young adults

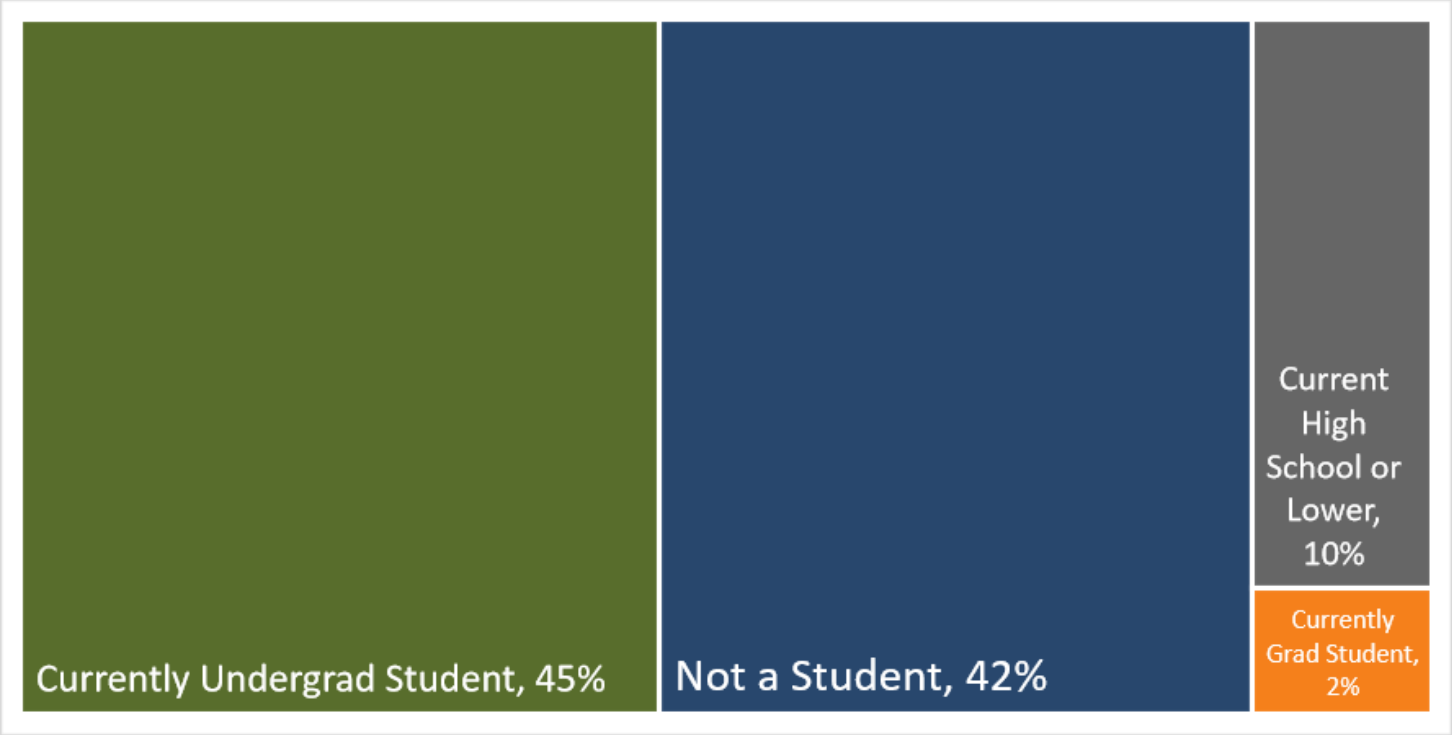
Forty percent of the residents living in violator households are young adults between the ages of 18 and 21. Conversely, very few residents of violator households are age 50 or older. As is discussed later in this section of the report, non-students tend to be older than college students. A new population that is emerging in the violator population is children under the age of 18, who were negligible in the 2005 study and now represent 1 in 8 violators.



50-50 split of males and females

College students represent nearly half the violator population

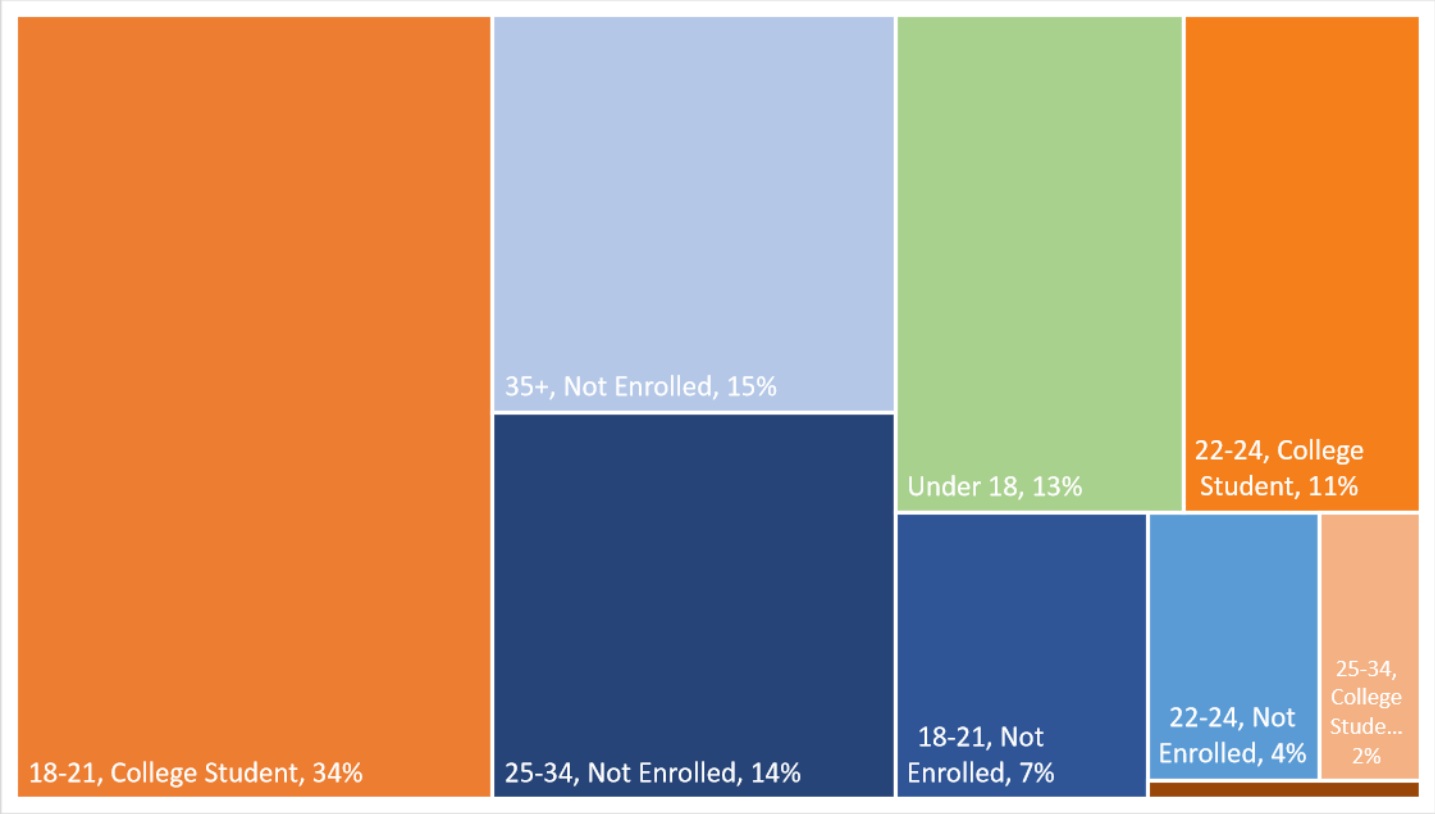
A slight majority of residents in violator households are college students, with the bulk being undergraduates. This represents a notable change from the initial 2005 study, which showed that 71% of residents in violator households were college students.



Ten percent of residents are enrolled in primary or secondary school. This figure is lower than the number of children in those households because some children are not yet of school age.

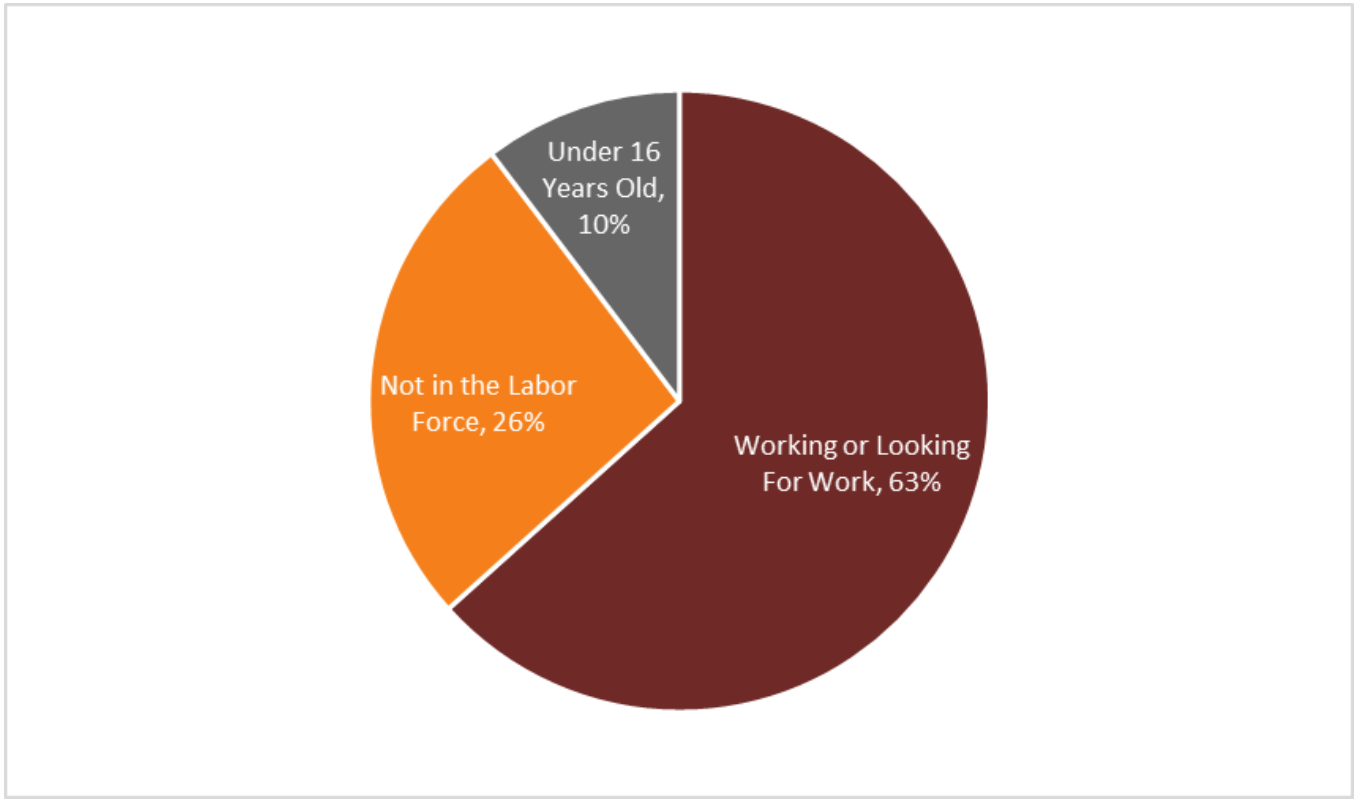
College students are younger, while non-students are older

If we examine violator household members by both age and college student status, we see the that most common segment is college students age 18 to 21. However, the next two largest segments are non-students over the age of 25, with a particular concentration of non-students between the ages of 25 and 34.



Residents of violator households are generally working

This analysis was intended to assess whether significant numbers of residents in violator households were unable to work. Recognizing that many college students may not be in the work force, we see that a majority of residents are working, and relatively few are disabled or receiving any type of public assistance.



5% are disabled

4% receive SNAP

0% receive public assistance payments

Section 2.3

Occupancy Ordinance Violators

Investigation Outcomes

- 2.3.1 Citywide Trends
- 2.3.2 Neighborhood Trends

Key Findings: Investigation Outcomes

- There was notable year to year variation in the number of over occupancy investigations.
- Citywide, the number of investigations trended upward, while the number of violations remained about the same; thus, the percentage of investigations with unfounded outcomes increased.
- The greatest number of violations were in the West of Campus region.
- The highest violation per home ratio was in the West of Campus region.
  - Two-thirds of occupancy violations occur in the area west of campus, despite the fact that the area represents only 23% of homes in the city.
- The proportion of violations increased in the West of Campus region, from 57% of all violations in 2011 to 68% of all violations in 2017.
- The greatest number of unfounded cases were in the Away from Campus region.

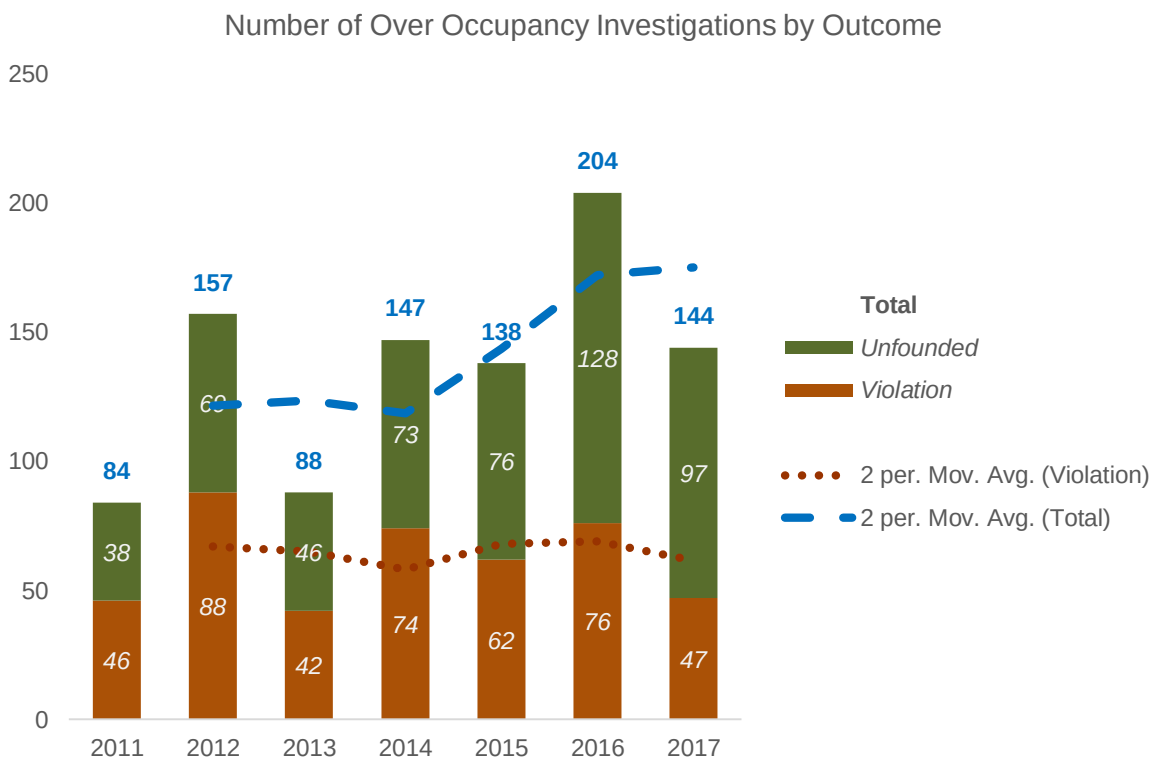
A description of the methodology is found in the appendix.

Section 2.3.1

Citywide Trends

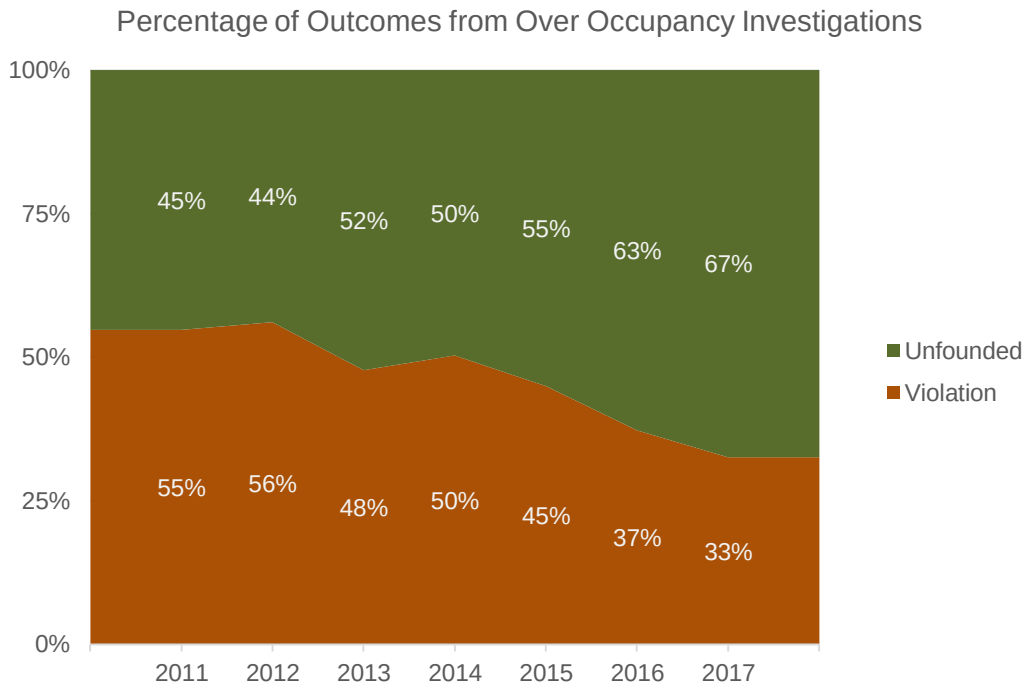
The number of over occupancy investigations increased, but the number of violations did not change

The number of investigations varied substantially from year to year, with a low of 84 investigations in 2011 and a high of 204 investigations in 2016. Based on a two-year running average (the average of the current and prior years), there was an increase in the number of investigations between 2012 and 2017. However, there was not a trending increase in violations, based on a two-year running average, which is represented in the chart below with dotted lines.



The percentage of unfounded investigations increased

Among all investigations, the proportion of violations decreased from 55% in 2011 to 33% in 2017.



Section 2.3.2

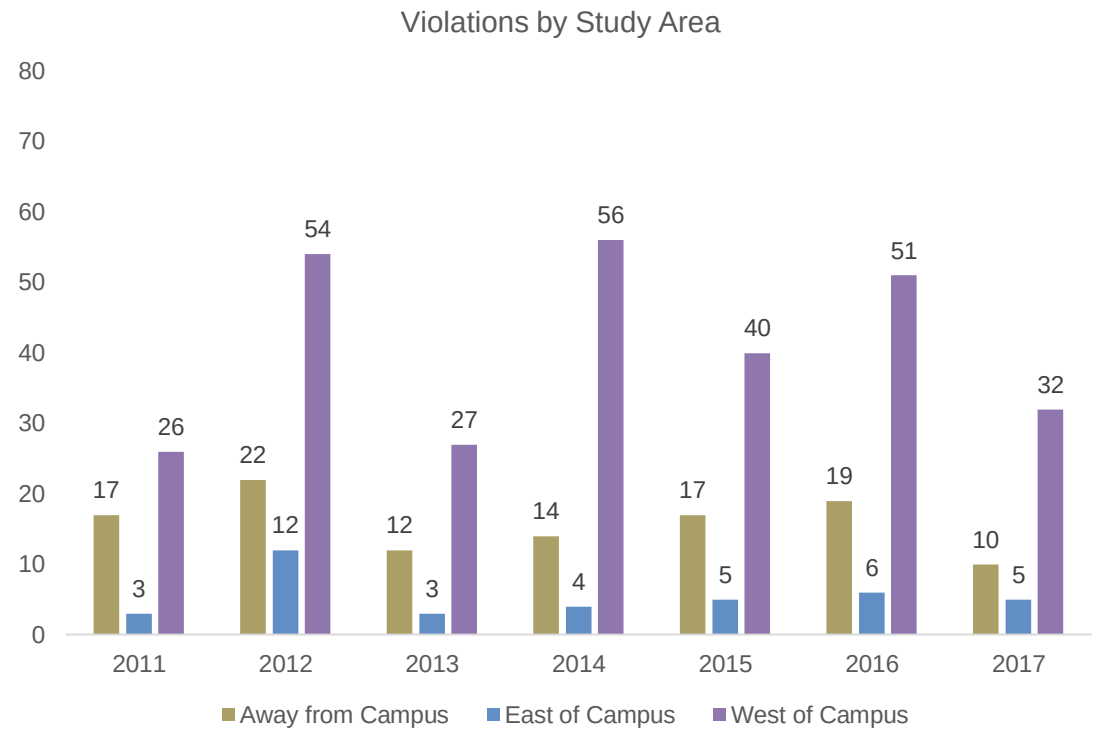
Neighborhood Trends

Neighborhood Summary

Neighborhood	Percentage of occupied homes that are rented	Percentage of occupied homes that are multi-unit (more than one unit in structure)
Away from Campus	35%	31%
East of Campus	57%	39%
West of Campus	70%	48%
Fort Collins	*46%*	35%

The greatest number of violations were always west of campus

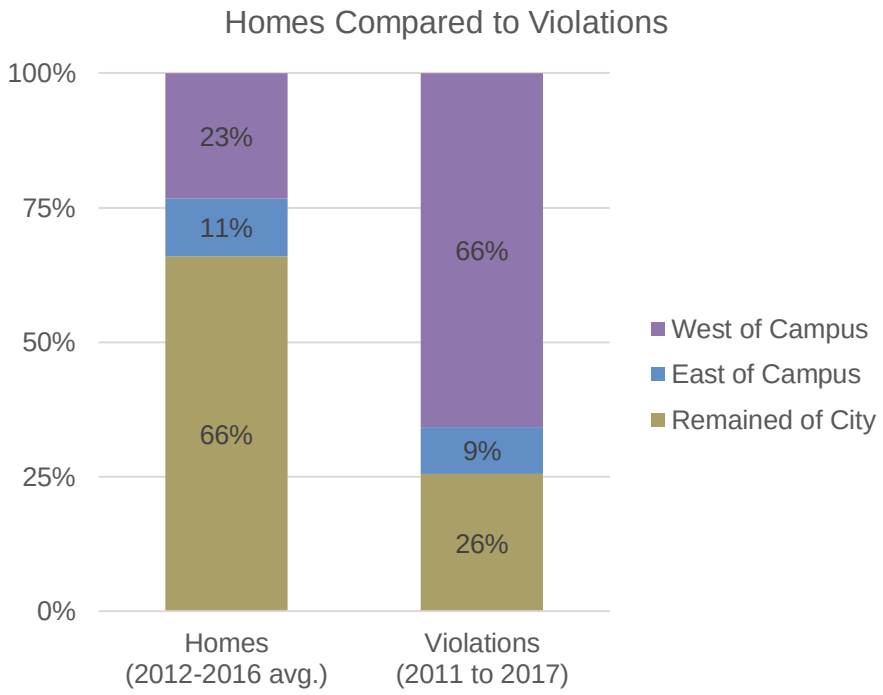
The neighborhoods west, north, and south of campus (labeled as "West of campus" in this report) consistently had the highest number of violations per year since 2011, with total of 286 violations since 2011 and an average of 41 violations per year. The neighborhoods east of campus had a total 38 violations with an average of 5 per year, while the rest of the city had a total of 111 violations with an average of 16 per year.



The area west of campus has the highest violation per home ratio

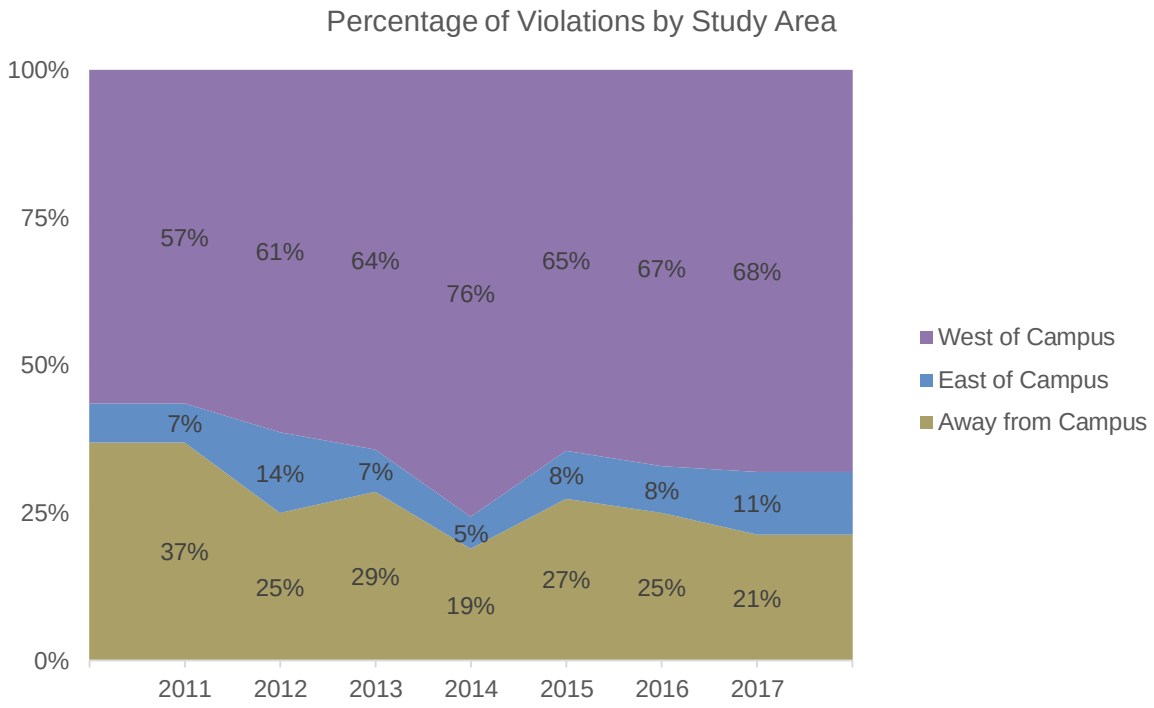
The area west of campus comprises about 23% of all occupied homes within Fort Collins, but this is where 66% of violations occurred from 2011 to 2017. Therefore, the ratio of violations per household was very high.

The share of violations in the area east of campus was about the same as the share of homes. Violations in the remainder of the city were less common than the percentage of homes in this area.



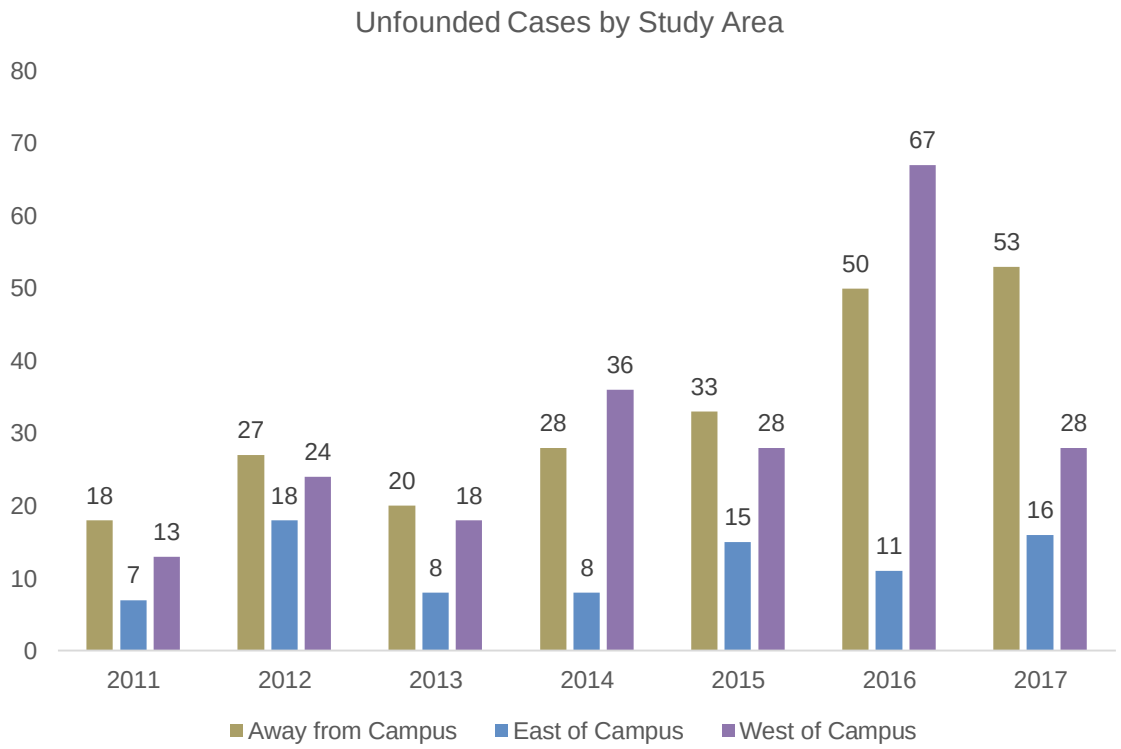
Over time, violations became more likely west of campus

The proportion of violations increased in the neighborhoods West of campus, from 57% of all violations in 2011 to 68% of all violations in 2017.



The greatest number of unfounded cases were typically away from campus

The greatest number of unfounded cases were in neighborhoods away from campus, where there were 229 unfounded cases since 2011 with an average of 33 unfounded cases per year. There were 214 unfounded cases west of campus with an average of 31 per year, and there were 83 unfounded cases east of campus, for an average of 12 per year.



Section 2.4

Occupancy Ordinance Violators

Public Sentiment Towards Occupancy Ordinance

Key Findings: Public Sentiment

- The public is very aware of the ordinance (89%), and more likely to support the ordinance than oppose it (42% versus 24%).
- However, 78% say that it has no impact on their neighborhood. Among those impacted by the ordinance, more residents said it had a positive impact (15%) than a negative impact (8%).
- Two-thirds of residents either wanted no change in enforcement of the ordinance or didn't know enough to have a preference. The remaining 35% were about evenly split, with 17% preferring enforcement more strict than now and 18% preferring enforcement less strict than now.

A description of the methodology is found in the appendix.

Most residents were aware of the occupancy ordinance

Most residents (89%) were aware of the ordinance There was little variation across different segments of the population, other than slightly more awareness among residents of single-family homes versus multi-family homes. Nonetheless, awareness is high even among multi-family home dwellers.

	Total	Region			Dwelling Type		College Student in Home		Opinion of Occupancy Ordinance			
		West of campus	East of campus	Remainder of city	Single family	Multi-family	Yes	No	Support	Neutral	Oppose	No opinion
Base												
Unweighted	**1323**	**350**	**495**	**478**	**1029**	**294**	**205**	**1061**	**620**	**323**	**304**	**43**
Weighted	**1329**	**318**	**142**	**868**	**836**	**493**	**241**	**1030**	**539**	**394**	**311**	**45**
Aware of Occupancy Ordinance												
Yes	**89%**	90%	88%	89%	91%	85%	91%	88%	93%	86%	88%	85%
No	**11%**	10%	12%	11%	9%	15%	9%	12%	7%	14%	12%	15%

Student homes and non-student homes oppose each other on the ordinance

Overall, residents are more likely to support the ordinance than oppose it, though a significant number are neutral or undecided. Support outweighs opposition by a level of 42% versus 24%. The largest observed difference in support is homes containing college students versus those without. Homes with college students are more than twice as likely to oppose the ordinance than support it, but the opposite is true for homes without students. We also see that homeowners strongly support the ordinance while renters are evenly split between support and opposition.

		Region			Dwelling Type		Tenure		College Student in Home		Aware of Occupancy Ordinance	
	Total	West of campus	East of campus	Remainder of city	Single family	Multi-family	Owner	Renter	Yes	No	Yes	No
Base												
Unweighted	**1328**	**355**	**498**	**475**	**1044**	**284**	**1049**	**271**	**202**	**1064**	**1167**	**123**
Opinion of Occupancy Ordinance												
Support	**42%**	38%	44%	43%	45%	37%	53%	30%	19%	47%	43%	28%
Neutral	**31%**	34%	26%	31%	29%	34%	25%	38%	31%	31%	29%	40%
Oppose	**24%**	26%	25%	23%	22%	27%	19%	29%	44%	19%	24%	27%
No opinion	**3%**	3%	4%	3%	4%	3%	3%	4%	7%	2%	3%	5%

The ordinance does not impact most residents

Only 23% of residents say that the ordinance impacts their neighborhood. Among these, positive impacts outweigh negative impacts by a margin to 15% to 8%. Every segment saw more positives than negatives, other than homes with college students.

The most common reasons cited for positive impacts were simply that the ordinance is effective in its goal, that the ordinance enhances peace and quiet, and that the ordinance leads to fewer cars nearby. The most common reasons cited for negative impacts were affordability and general comments about obtaining housing.

	Total	Region			Tenure		College Student in Home	
		West of campus	East of campus	Remainder of city	Owner	Renter	Yes	No
Base								
Unweighted	**1283**	**342**	**477**	**464**	**1018**	**257**	**196**	**1029**
Weighted	**1266**	**301**	**128**	**837**	**700**	**560**	**226**	**983**
Positive impact	**15%**	23%	17%	11%	15%	14%	11%	15%
No significant impact	**78%**	61%	76%	84%	79%	77%	72%	79%
Negative impact	**8%**	16%	7%	5%	7%	9%	17%	6%

Support for ordinance changes is split

Two-thirds of residents either wanted no change in enforcement or didn't know enough to have a preference. The other 35% was evenly split on preferring more or less enforcement. Residents in homes with college students preferred less strict enforcement.

		Region			College Student in Home		Opinion of Occupancy Ordinance			
	Total	West of campus	East of campus	Remainder of city	Yes	No	Support	Neutral	Oppose	No opinion
Base										
Unweighted	***1319***	***354***	***491***	***474***	***200***	***1058***	***640***	***327***	***306***	***42***
Weighted	***1314***	***316***	***139***	***859***	***236***	***1021***	***554***	***405***	***311***	***41***
More strictly than now	***17%***	20%	18%	15%	8%	19%	33%	4%	5%	5%
Same as now	***38%***	40%	33%	37%	31%	38%	49%	46%	9%	19%
Less strictly than now	***18%***	20%	27%	16%	34%	14%	0%	9%	63%	6%
Don't know	***28%***	21%	21%	32%	27%	29%	18%	41%	23%	70%

Section 3.1

Short-Term Rentals

Profile of Units and Revenues

Key Findings: Profile of Units and Revenue

- The number of STRs increased strongly between 2015 and 2017. The number is still growing, though the growth rate has slowed into 2018.
- A majority of STRs are full-time rentals. They are increasingly entire homes, as opposed to rooms in primary residences.
- Revenues from STRs are growing rapidly, with nearly $10 million in citywide revenues estimated for 2018.

A description of the methodology is found in the appendix.

The supply of short-term rentals (STRs) has increased quickly

The accompanying table shows the number of properties listed each month from late 2014 through mid-2018. The number of properties roughly doubled each year until 2018, when it rose roughly 10% (through the latest available data).

	Month											
Year	1	2	3	4	5	6	7	8	9	10	11	12
2014										86	88	100
2015	109	99	103	117	140	148	176	176	185	192	213	241
2016	256	266	277	282	329	343	364	376	414	434	445	465
2017	477	473	501	491	533	524	549	541	525	527	541	562
2018	556	528	524	514								

STRs are vacant more often than not

We can calculate an occupancy rate by dividing the number of occupied nights by the number of nights that the property was available for rent. On average, occupancy rates are 32% on any given night, but with strong seasonal changes. Occupancy rates in the summer are higher than occupancy in other seasons, and particularly in the month of July.

Note that not all STRs are available for rent full time. Some are available less often, depending on the host's preferences. So the units are occupied less than the formal occupancy rate will show. However, as seen later in this chapter, most STRs are available full-time or a strong majority of the time.

Occupancy Rate	Month												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
2014										27%	25%	20%	24%
2015	21%	17%	22%	24%	34%	38%	50%	41%	26%	27%	22%	21%	28%
2016	20%	18%	23%	25%	34%	43%	49%	43%	31%	32%	25%	26%	31%
2017	20%	20%	25%	26%	35%	46%	57%	52%	38%	37%	29%	30%	35%
2018	23%	24%	30%	32%									27%
Total	21%	21%	26%	28%	34%	44%	53%	48%	33%	33%	26%	26%	32%

Most STRs are available as full-time rentals

Over half of STRs are for rent every day, while most of the remainder are available more than half of the days in any given month. As the market has matured, the number of casual rentals (less than half time) has settled into the 10% to 14% range.

Among those that are available more than half the time, most are available for nearly every day of the month, being pulled off the market only occasionally.

Availability

	1	2	3	4	5	6	7	8	9	10	11	12
2014												
Full										58%	64%	61%
Less Than Half										9%	13%	11%
More Than Half										33%	24%	28%
2015												
Full	62%	58%	53%	46%	38%	33%	23%	28%	28%	28%	44%	43%
Less Than Half	11%	13%	15%	17%	21%	22%	30%	33%	22%	18%	13%	15%
More Than Half	27%	29%	32%	37%	41%	45%	47%	39%	51%	55%	44%	42%
2016												
Full	55%	60%	53%	60%	48%	44%	42%	41%	52%	53%	57%	58%
Less Than Half	16%	14%	14%	12%	13%	14%	13%	14%	10%	12%	12%	14%
More Than Half	30%	26%	32%	28%	39%	42%	46%	45%	37%	34%	31%	29%
2017												
Full	62%	65%	54%	60%	48%	48%	47%	46%	51%	51%	55%	60%
Less Than Half	12%	13%	9%	8%	12%	15%	14%	14%	12%	11%	14%	14%
More Than Half	26%	22%	37%	32%	40%	37%	39%	40%	37%	37%	32%	27%
2018												
Full	60%	63%	61%	60%								
Less Than Half	14%	13%	13%	8%								
More Than Half	26%	24%	26%	32%								

STR units are dispersed across the city

Roughly half of STRs were located near campus in the past, but rentals are dispersing over time. Rentals outside the two campus neighborhoods have risen from roughly 50% to over 60% as the market has grown.

East of Campus

	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
2014										22%	23%	27%
2015	24%	23%	24%	27%	26%	25%	24%	22%	23%	23%	22%	22%
2016	21%	19%	21%	21%	20%	20%	18%	20%	23%	23%	23%	22%
2017	22%	22%	21%	21%	21%	21%	20%	22%	22%	22%	21%	21%
2018	21%	21%	21%	22%								

West of Campus

	1	2	3	4	5	6	7	8	9	10	11	12
2014										24%	27%	26%
2015	24%	24%	21%	21%	21%	22%	21%	23%	20%	20%	23%	23%
2016	25%	24%	21%	24%	26%	24%	24%	22%	20%	20%	20%	22%
2017	21%	21%	21%	20%	21%	19%	19%	16%	16%	16%	16%	16%
2018	17%	17%	17%	16%								

Remainder of City

	1	2	3	4	5	6	7	8	9	10	11	12
2014										53%	50%	47%
2015	52%	53%	54%	52%	53%	53%	55%	55%	57%	57%	55%	55%
2016	53%	57%	58%	55%	54%	56%	57%	58%	57%	57%	57%	56%
2017	57%	58%	58%	58%	58%	60%	61%	62%	62%	63%	63%	63%
2018	62%	62%	62%	62%								

The types of STR units are evolving

Private rooms in homes have historically been the bulk of rentals, but this is changing over time as renting entire units is becoming more common. Renting entire housing units, generally more of an investment approach than renting rooms, has risen from 34% of units to 46% of units.

	Entire home/apt	Private room	Shared room
2014	34%	57%	9%
2015	37%	56%	6%
2016	41%	54%	4%
2017	44%	52%	5%
2018	46%	50%	4%

Prices are rising over time

Length of stay is relatively consistent over time, but price per night is rising (likely due in part to full units becoming more common as STRs).

Average Nights Per Reservation

	Month												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
2014										4.3	7.0	6.0	5.5
2015	7.5	3.6	3.8	3.8	3.0	3.0	3.4	3.0	2.8	3.1	3.8	3.4	3.3
2016	3.9	3.5	3.5	3.0	3.2	3.3	3.4	3.2	3.0	3.0	3.5	3.6	3.3
2017	3.6	3.3	3.4	3.2	3.2	3.2	3.7	3.1	3.1	3.0	3.2	3.8	3.3
2018	3.7	3.5	3.3	3.2									

Average Dollars Per Night Reserved

	Month												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
2014										$82	$89	$81	$84
2015	$90	$94	$86	$86	$88	$91	$89	$87	$92	$89	$86	$100	$90
2016	$88	$86	$84	$90	$99	$103	$106	$101	$99	$102	$99	$102	$99
2017	$92	$96	$104	$105	$119	$120	$120	$118	$123	$123	$130	$124	$117
2018	$108	$107	$112	$114									

Total revenues are growing rapidly

Revenues are growing on both a per-property basis and on a citywide basis. Over the past three years, monthly revenues per unit have roughly doubled, and citywide revenues have risen from less than $1 million to an estimated $9.6 million in 2018.

Revenue Per Property										Month			Citywide Revenues	
	1	2	3	4	5	6	7	8	9	10	11	12	Measured Total	Estimated Annnual Total
2014										$599	$566	$429	$144,297	$489,519
2015	$498	$376	$486	$495	$692	$764	$923	$752	$528	$571	$466	$524	$1,137,225	$1,137,225
2016	$452	$391	$499	$579	$880	$1,120	$1,319	$1,087	$783	$884	$641	$691	$3,398,016	$3,398,016
2017	$479	$461	$696	$718	$1,088	$1,357	$1,748	$1,581	$1,187	$1,201	$960	$990	$6,586,274	$6,586,274
2018	$673	$625	$884	$981									$1,671,493	$9,591,305

Section 3.2

Short-Term Rentals

Rental Hosts and Properties

Key Findings: Rental Hosts and Properties

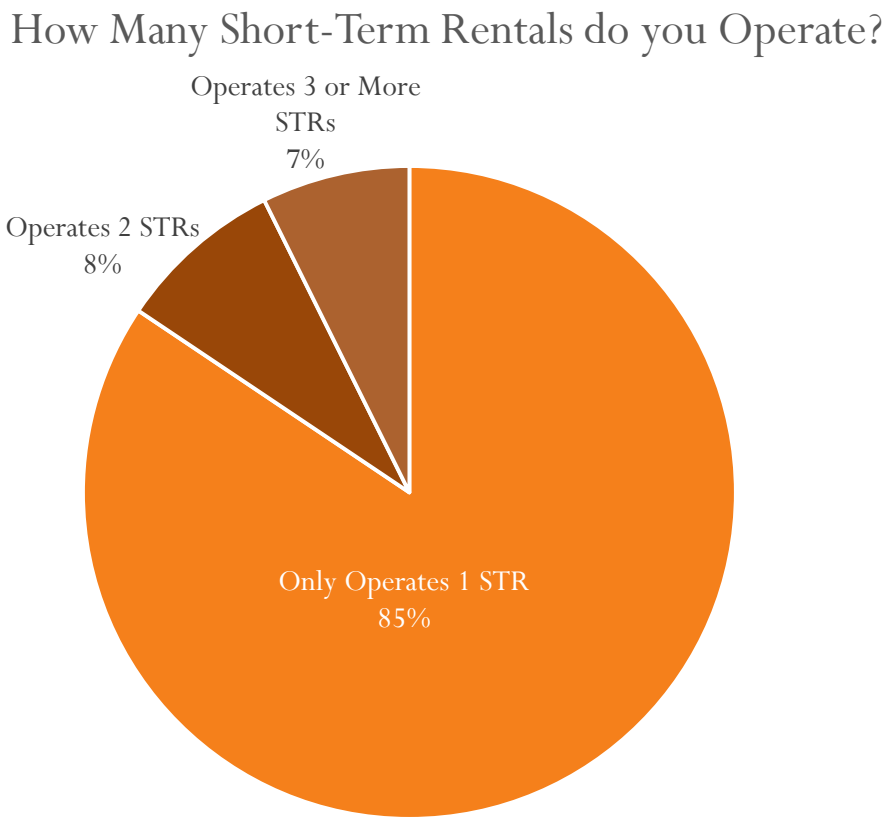
- The STR market in Fort Collins is run by individuals and appears to be significantly insulated from large property management companies.
  - 85% of hosts only own and operate a single STR.
  - Only 5% of hosts said they owned their STRs with anyone other than their spouse.
  - 62% of STRs in Fort Collins are also hosts' primary residence.
  - Only 4% of STR units were managed by professional firms.
- Hosts mention income, culture, and the unique benefits or appeal of STRs as motivations for buying property for this purpose.
- Around 30% of STRs have been pulled from the long-term rental market.

A description of the methodology is found in the appendix.

The majority of city-licensed hosts operate only one STR

Few hosts in Fort Collins operate more than one STR. Overall, the STR market in Fort Collins appears to be insulated from large property management companies. Only 5% of respondents said they owned their property with someone other than their spouse.

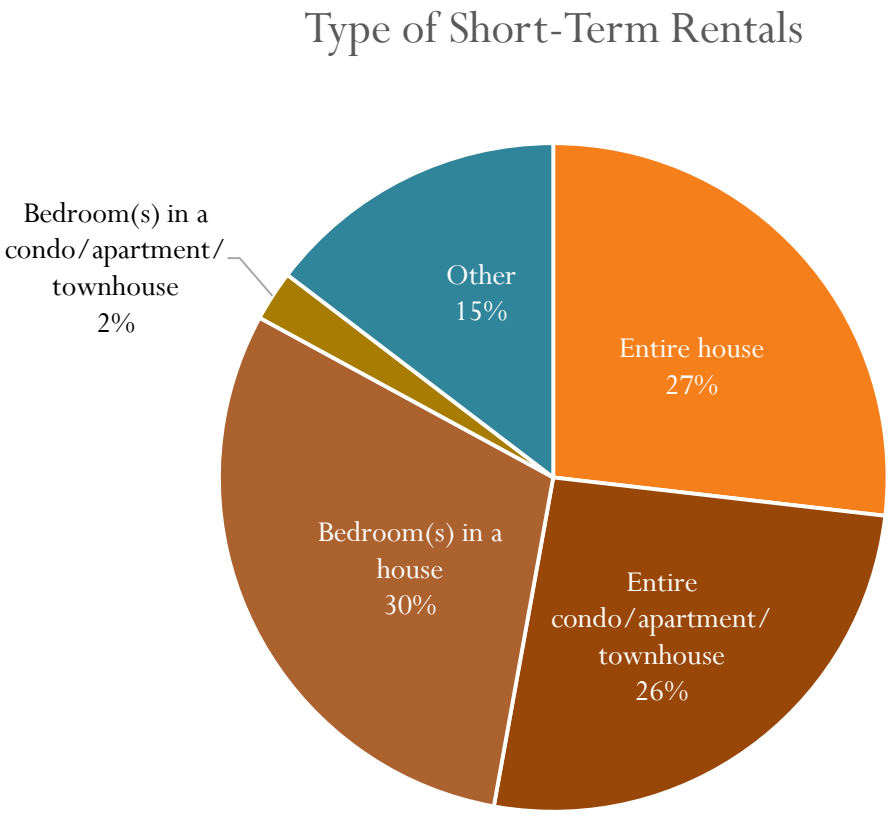
Only one respondent noted that they operated five STRs, the highest value in the survey.



City-licensed STRs in Fort Collins are distributed evenly across unit type

Hosts report renting bedrooms, entire houses, and entire apartments at similar rates.

The most frequent responses within the "Other" category were "Carriage House" and "Private Suite, Basement, or Garage."



Few city-licensed STR hosts have plans to own new properties

While a significant percentage of STR hosts also report owning long-term rentals in Fort Collins (38%), few plan on purchasing new properties for the purpose short-term (10%) or long-term (13%) renting in the next two years.

Very few (4%) hosts plan on making long-term rentals into STRs in the near future.

Host Activity

Please check each statement that applies to you.	
I currently own long-term rentals in Fort Collins	38%
I currently own a second, unrented home for personal use	8%
I plan on purchasing more properties to use as short-term rentals in Fort Collins in the next two years	10%
I plan on purchasing more properties to use as long-term rentals in Fort Collins in the next two years	13%
I plan on selling properties I own that are currently short-term rentals in Fort Collins in the next two years	4%
I plan on selling properties I own that are currently long-term rentals in Fort Collins in the next two years	5%
I currently own long-term rental(s) in Fort Collins and plan on making some or all of them short-term rental(s) in the next two years	4%
I currently own long-term rental(s) in Fort Collins and plan on selling some or all of the property(ies) in the next two years	3%

The average city-licensed STR in Fort Collins rents for $125 a night

Host Reported Nightly Cost by Most Common Unit Types

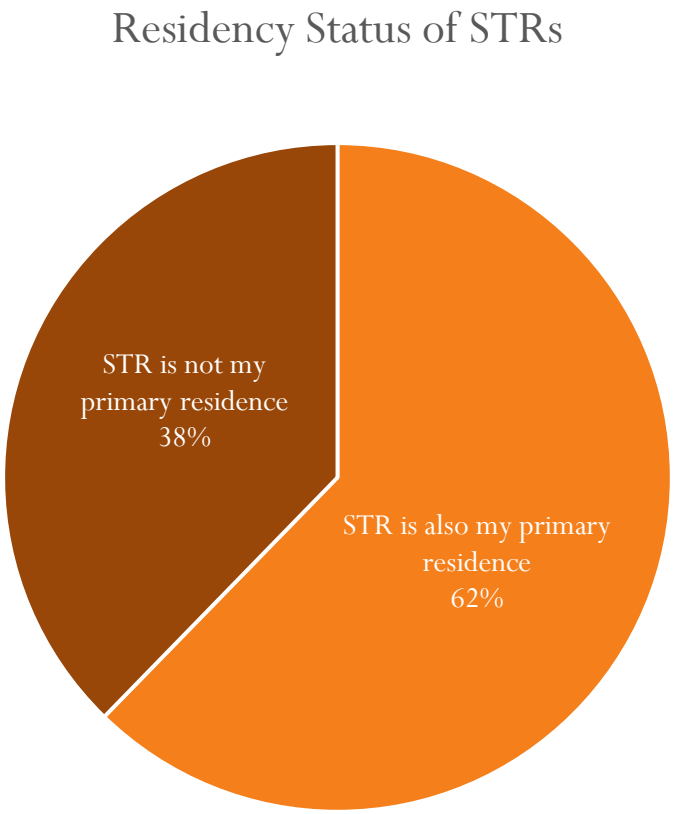
	Average rent per night			
	Less than $65	$65 - $100	$101 - $150	More than $150
Entire house	-	7%	30%	63%
Entire condo/apartment/townhouse	6%	42%	33%	19%
Bedroom(s) in a house	65%	24%	6%	6%

Hosts reported charging an average of $125 per night for their STRs. A majority of bedroom(s) within a house were rented for less than $65 a night, while a majority of entire houses were rented for more than $150 a night. The median nightly rent was $100, indicating the presence of a few very expensive STRs. The most expensive reported average nightly rent was $450 for an entire house.

Most city-licensed STRs are hosts' primary residence

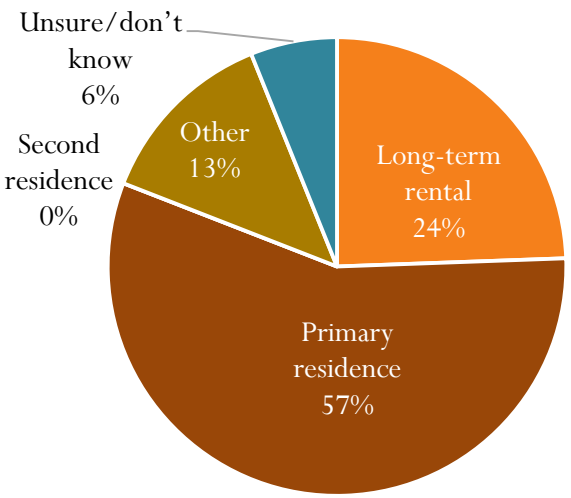
The majority of STRs described in the survey were also hosts' primary residence. This pattern is consistent with previous findings that suggest the STR market in Fort Collins is managed more by individuals than property companies. Hosts reported only 4% of STRs in the survey as being managed by professional firms.

A significant proportion of STRs that are not primary residences belong to the few hosts who happen to operate multiple STRs.

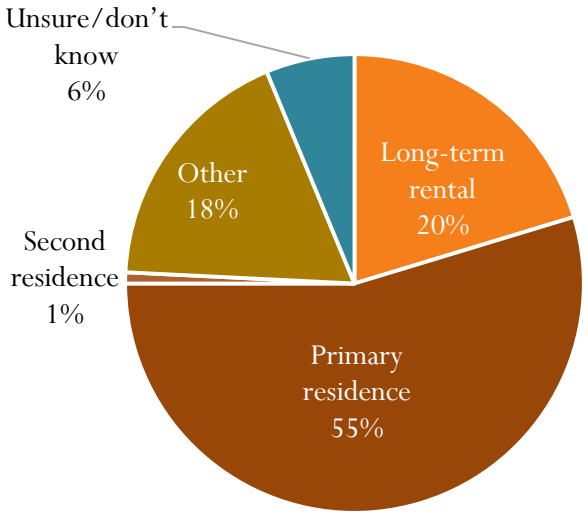


A majority of city-licensed STRs were previously primary residences

Previous use Before Ownership



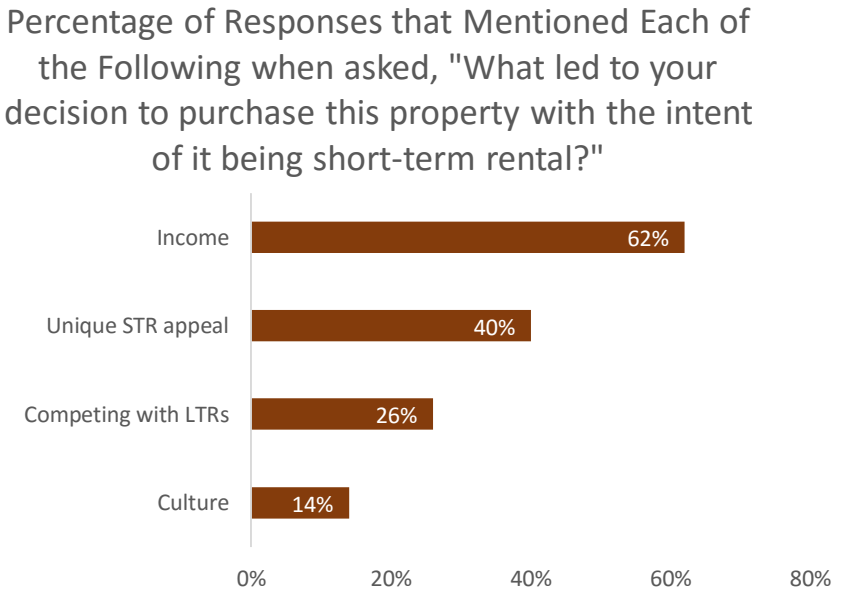
Previous use While Owned



When asked to recall the previous use of their STRs before and during ownership, a majority of hosts said these units used to be primary residences. Hosts recall 24% and 20% of STRs previously being long-term rental units (with lease agreements 1 month or longer) before and during ownership, respectively. The most common descriptions of the "Other" category reference new construction or remodeling.

City-licensed Hosts mention income, culture, and the unique benefits or appeal of STRs as motivations for renting

The majority of hosts mentioned income when asked about their decision to purchase a STR property. 40% of hosts indicated that they would not have a rental property if it were not short-term, primarily due to scheduling flexibility and alternative uses of the property. 26% of hosts noted that they prefer STR renting to long-term renting due to the quality of tenants, higher income, and other benefits. Finally, 14% of hosts highlighted the cultural experience of short-term renting. Example quotes can be found below.



Income: *"For extra income so I can pay my mortgage and HOA fees."*

Unique STR appeal: *"The amount of time I spend away from home for both work and personal travel, might as well let someone else use the space while it sits there empty."*

Competing with LTRs: *"Too much wear and tear on the property from long term tenants."*

Culture: *"There is something really special and unique about staying in a home where you can share a cup of coffee with your host, share stories, and learn about the town you're visiting."*

Approximately 30% of city-licensed STRs were once long-term rentals

Estimation Strategies to Calculate Percentage of STRs that Came from the LTR Market

	Units			Bedrooms		
	Switched STRs	Total STRs	Percent	Switched Rooms	Total Rooms	Percent
Q7: Previous Use While Owned was LTR	26	123	21%	57	236	24%
Q8: Original Intent at Purchase was LTR	20	122	16%	45	236	19%
Q10: Decision Process Considered LTR	23	122	19%	50	232	22%
Q12: Recall Previous Owner LTR	31	122	25%	71	235	30%
Average	25	122	20%	56	235	24%
Any Switch Indicator	52	122	43%	107	236	45%
Q7, Q8, or Q10	36	122	30%	80	236	34%

The table above details a series of strategies to estimate the percentage of STRs that came from the LTR market. The number of bedrooms switched is calculated by multiplying the various switch data by the number of bedrooms hosts reported for each switched STR unit. The most conservative estimate is the average of all potential switch indicators (20% of STRs). Relying on hosts to report only their own past actions (questions 7, 8, and 10), and not their recollection of previous owners (question 10), provides a higher estimate of 30% of STR units that were converted from long-term rentals.

Section 3.3

Short-Term Rentals

Public Sentiment Toward Short-Term Rental Rules

Key Findings: Public Sentiment

- About one-third of residents are aware of STR licensing rules.
- Support for STR rules outweighs opposition by a margin of 38% to 20% (with the remainder being neutral).

A description of the methodology is found in the appendix.

Most residents are not aware of STR licensing rules

About one-third of residents were aware of STR licensing rules. The highest awareness was seen east of campus, while the lowest awareness was in areas where only primary STRs are allowed.

	Total	Region			STR Zone		
		West of campus	East of campus	Remainder of city	No STRs allowed	Primary STRs only	Primary and non-primary STRs allowed
Base							
Unweighted	**1366**	**361**	**513**	**492**	**851**	**468**	**47**
Weighted	**1362**	**323**	**145**	**894**	**640**	**622**	**101**
Missing							
No reply	**5%**	5%	4%	5%	2%	7%	7%
Aware of STR Licensing							
Yes	**31%**	29%	39%	31%	34%	27%	37%
No	**64%**	67%	57%	65%	64%	66%	56%

The public generally supports STR rules

While a large proportion of residents were not aware of STR rules, those people still generally supported such rules when informed about them. Nonetheless roughly 20% still opposed them. Support for the rules was higher among residents who were already aware of the rules.

Residents with higher incomes were slightly more likely to support rules than those with lower incomes.

		Region			Aware of STR Licensing		Impact of STRs on Neighborhood				Household Income		
	Total	West of campus	East of campus	Remainder of city	Yes	No	Positive impact	No significant impact	Negative impact	Not applicable	Less than $50,000	$50,000 or more	Decline to specify
Base													
Unweighted	**1344**	354	506	484	487	817	31	673	144	438	287	777	215
Weighted	**1337**	316	144	877	422	863	23	647	170	439	401	661	213
Opinion of STR Rules													
Support	**41%**	38%	41%	42%	50%	37%	31%	38%	61%	38%	35%	44%	43%
Neutral or no opinion	**39%**	42%	41%	38%	34%	42%	39%	43%	23%	42%	44%	36%	40%
Oppose	**19%**	20%	18%	20%	16%	21%	31%	19%	16%	20%	21%	20%	17%

Section 4.1

Neighborhood Quality

Citywide

Key Findings: Citywide Neighborhood Quality

- Residents give generally high ratings to neighborhood quality, though ratings have decline over the past 15 years.
- Parking vehicles inappropriately and loud noises (other than parties) were most common neighborhood issues citywide.

A description of the methodology is found in the appendix.

Neighborhood quality was generally high

On a citywide basis, residents had positive perceptions of their neighborhood, particularly in terms of peace and quiet, and maintenance of lawns and homes. Sense of community had lower scores, but still positive.

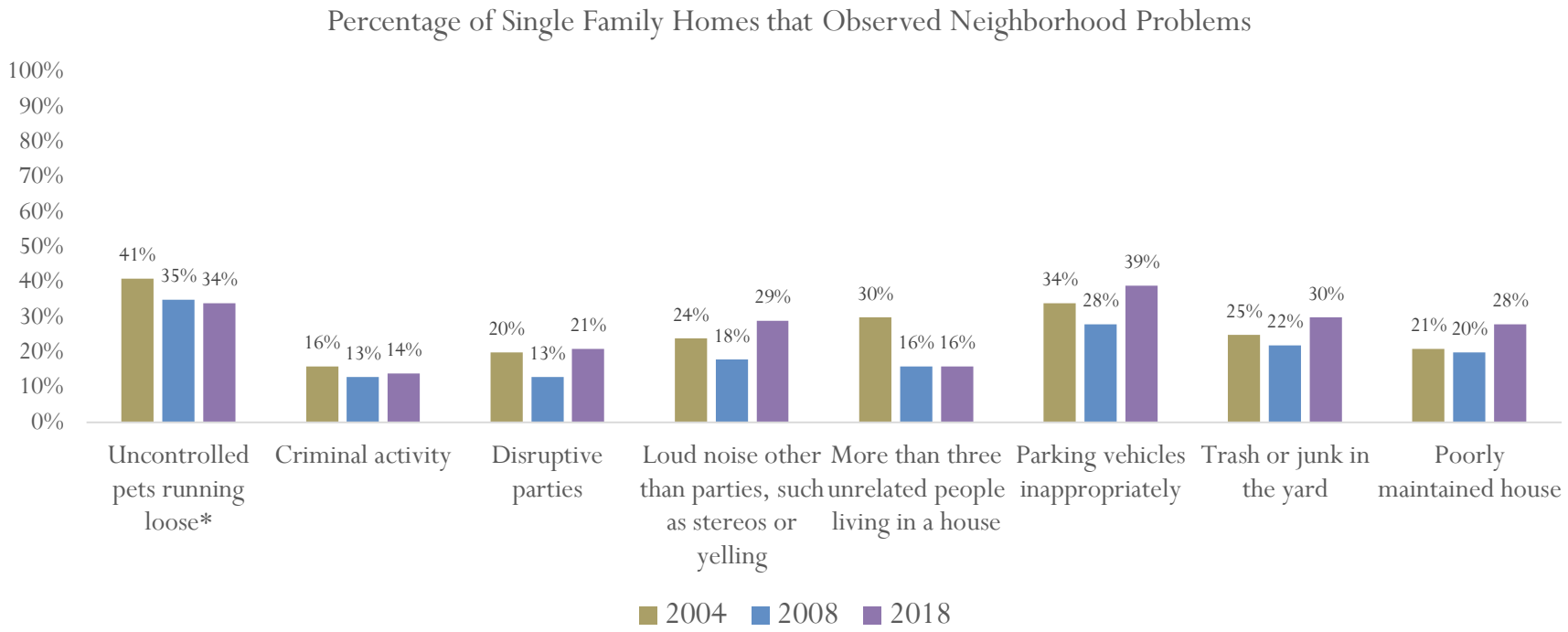
However, opinions were not uniform. The neighborhoods west of the campus rated all of these attributes considerably lower than did the other areas of the city, though all attributes were still rated positively. Additionally, homeowners tended to rate all elements higher than renters, particularly sense of community.

Interestingly, residents who opposed ordinance generally gave higher neighborhood ratings than those who supported the ordinance.

		Region			Tenure		College Student in Home		Opinion of Occupancy Ordinance			
	Total	West of campus	East of campus	Remainder of city	Owner	Renter	Yes	No	Support	Neutral	Oppose	No opinion
Peace and quiet	1.12	0.80	1.14	1.24	1.27	0.94	1.17	1.11	1.06	1.11	1.21	1.40
Maintenance of lawns	1.05	0.77	0.87	1.18	1.10	0.99	1.13	1.04	0.99	1.01	1.25	1.19
Maintenance of houses	1.07	0.78	0.90	1.20	1.20	0.90	0.89	1.10	1.04	1.04	1.12	1.28
Sense of community	0.48	0.25	0.56	0.55	0.76	0.13	0.21	0.54	0.54	0.39	0.52	0.69

Very good = 2, Fair = 0, Very bad = -2,
Not applicable = excluded

Some neighborhood problems have increased over the last decade



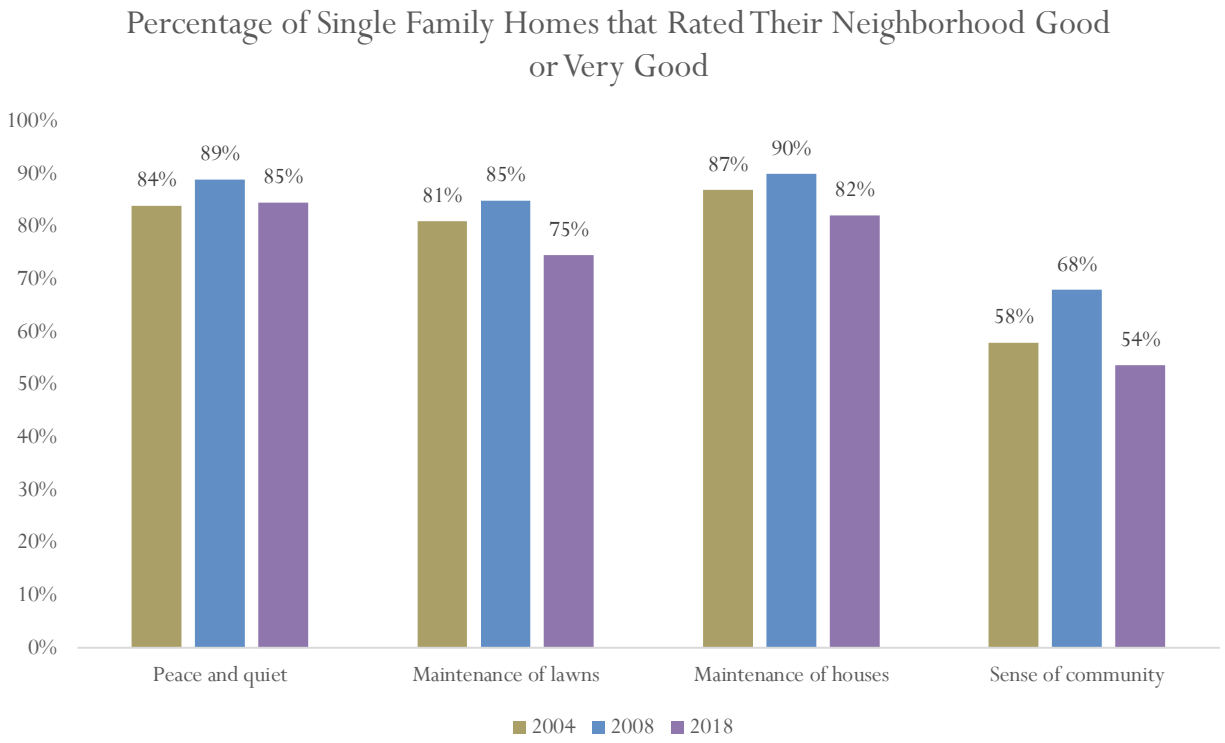
While neighborhood problems decreased between 2004 and 2008, a higher percentage of residents in 2018 reported observing at least one of their four nearest residences having disruptive parties, loud noise, parking vehicles inappropriately, trash or junk in the yard, and a poorly maintained house.

* "Uncontrolled pets running loose" was the question text from 2018 while "Animals running loose" was the wording in 2008 and 2004.

While neighborhood ratings are high, the percentage of residents rating their neighborhood good or very good has reverted to, or dropped below, pre-ordinance levels

While the 2008 survey saw universal increases in neighborhood ratings compared to 2004, the change between 2008 and 2018 saw the percentage of residents rating their neighborhood good or very good decrease across the board.

Nonetheless, substantial majorities rate their neighborhood as good or very good on these measures.



Inappropriately parked vehicles are the most common neighborhood issue

Parking vehicles inappropriately and loud noises (other than parties) were most common issues, particularly in the neighborhoods west of campus. This area was more likely to see every one of the tested issues. Similarly, renters were more likely to see every tested issue in comparison to owners.

	Total	Region			Tenure		Opinion of Occupancy Ordinance		
		West of campus	East of campus	Remainder of city	Owner	Renter	Support	Neutral	Oppose
Uncontrolled pets running loose	**0.51**	0.69	0.47	0.45	0.43	0.6	0.58	0.53	0.39
Criminal activity	**0.33**	0.62	0.34	0.23	0.16	0.54	0.35	0.31	0.27
Disruptive parties	**0.36**	0.74	0.3	0.24	0.24	0.5	0.35	0.45	0.3
Loud noise other than parties, such as stereos or yelling	**0.59**	1.12	0.55	0.4	0.37	0.86	0.56	0.66	0.59
Parking vehicles inappropriately	**0.66**	1.03	0.64	0.53	0.59	0.74	0.71	0.66	0.59
Snow on sidewalks (snow not shoveled)	**0.54**	0.83	0.66	0.43	0.58	0.49	0.59	0.6	0.36
Trash or junk in the yard	**0.49**	0.91	0.51	0.34	0.39	0.62	0.59	0.46	0.39
Poorly maintained house	**0.36**	0.6	0.54	0.25	0.34	0.39	0.41	0.36	0.28

Averages exclude "not applicable" responses

Section 4.2

Neighborhood Quality

Proximity to Ordinance Violators

Key Findings: Proximity to Ordinance Violators

- Lower neighborhood quality and more negative neighborhood issues are strongly correlated with being neighbors to a suspected ordinance-violating household.
- However, the overall negative trend is neighborhood quality and long-term increases in negative neighborhood issues are also seen when no ordinance-violating neighbors are present.

A description of the methodology is found in the appendix.

Neighborhood impacts were linked to perceptions of a violating neighbor

Residents who reported having at least one violating neighbor were much more likely to report lower neighborhood quality, especially for maintenance of houses in the remainder of the city.

	Total	West of campus- Neighbor(s) violating occupancy ordinance		East of campus- Neighbor(s) violating occupancy ordinance		Remainder of city- Neighbor(s) violating occupancy ordinance	
		Yes	No	Yes	No	Yes	No
Peace and quiet	**1.13**	0.52	0.92	0.78	1.24	0.85	1.3
Maintenance of lawns	**1.08**	0.51	0.97	0.57	0.93	0.72	1.28
Maintenance of houses	**1.08**	0.5	0.96	0.83	0.95	0.49	1.31
Sense of community	**0.49**	-0.11	0.44	0.45	0.58	0.03	0.65

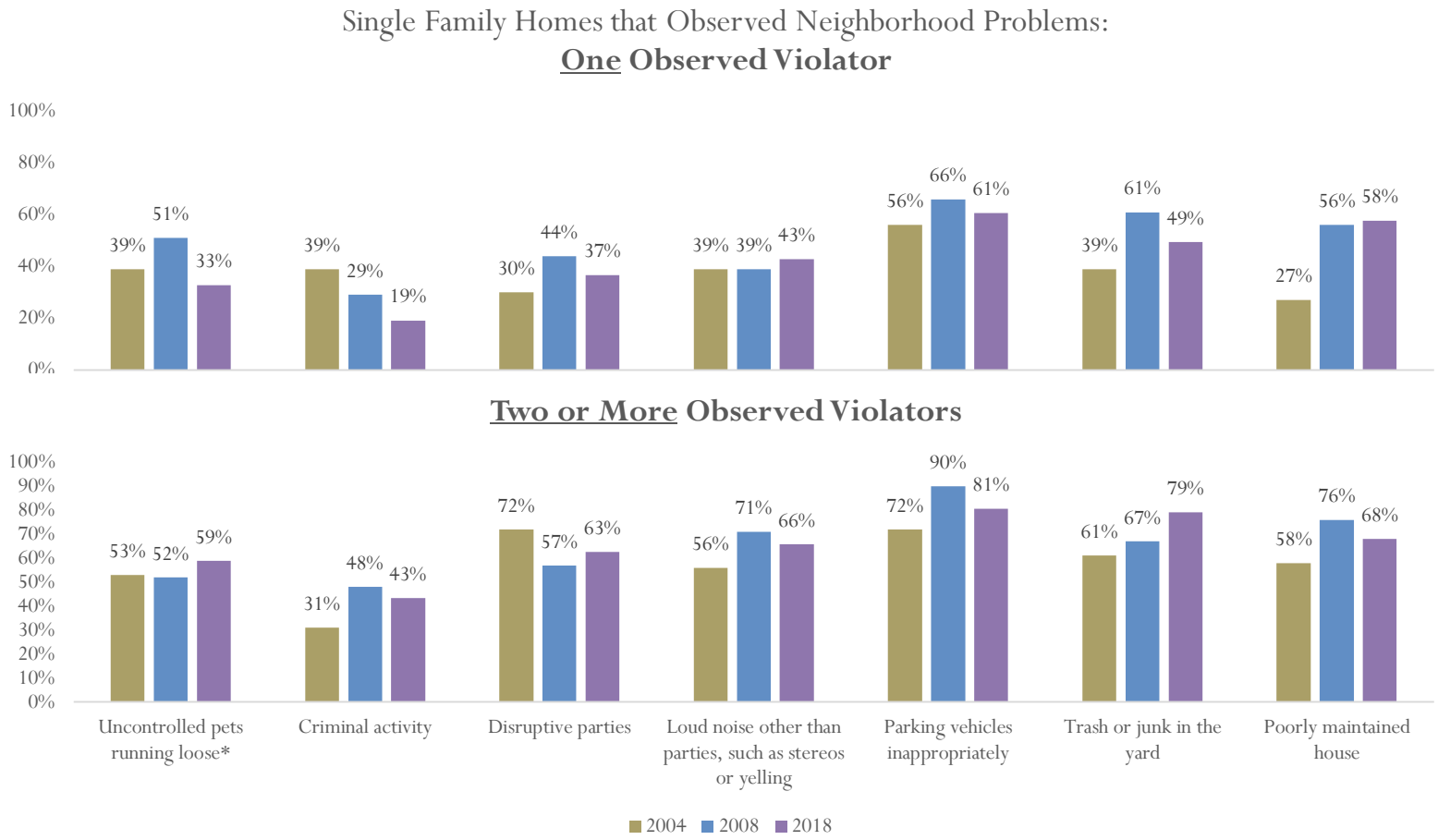
Very good = 2, Fair = 0, Very bad = -2,
Not applicable = excluded

Within neighborhoods, proximity to violator households led to differences in neighborhood issues

Residents reporting at least one violating neighbor were much more likely to report a higher number of neighbor issues, especially for trash or junk in the yard in the East region and parking vehicles in the West region.

	Total	West of campus- Neighbor(s) violating occupancy ordinance		East of campus- Neighbor(s) violating occupancy ordinance		Remainder of city- Neighbor(s) violating occupancy ordinance	
		Yes	No	Yes	No	Yes	No
Uncontrolled pets running loose	**0.51**	1.02	0.54	0.66	0.42	0.77	0.4
Criminal activity	**0.31**	1.07	0.45	0.93	0.23	0.54	0.14
Disruptive parties	**0.36**	1.42	0.44	0.7	0.19	0.6	0.18
Loud noise other than parties, such as stereos or yelling	**0.59**	1.75	0.84	1.49	0.39	0.76	0.35
Parking vehicles inappropriately	**0.63**	1.78	0.67	1.47	0.49	0.86	0.44
Snow on sidewalks (snow not shoveled)	**0.53**	1.55	0.47	1.35	0.5	0.87	0.35
Trash or junk in the yard	**0.48**	1.53	0.58	1.53	0.32	0.91	0.25
Poorly maintained house	**0.35**	1.07	0.33	1.19	0.42	0.89	0.15

The presence of violators in 2018 increased reported neighborhood problems, but often at a lower rate than 2008

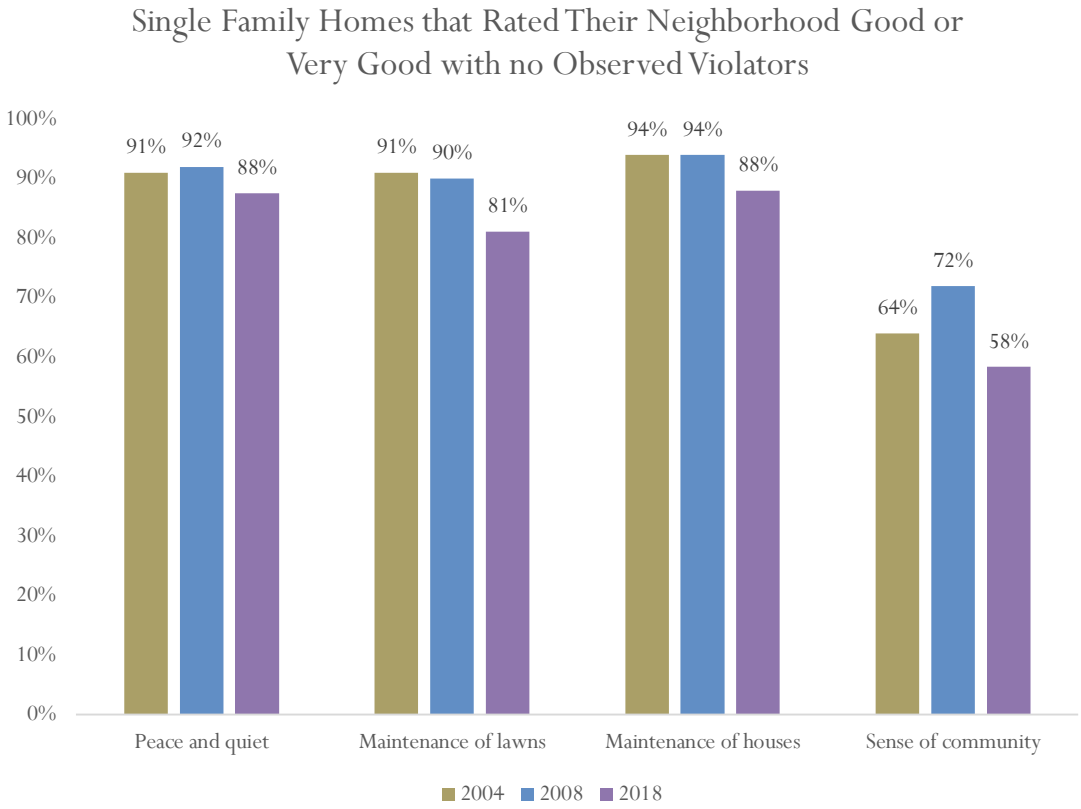


* "Uncontrolled pets running loose" was the question text from 2018 while "Animals running loose" was the wording in 2008 and 2004.

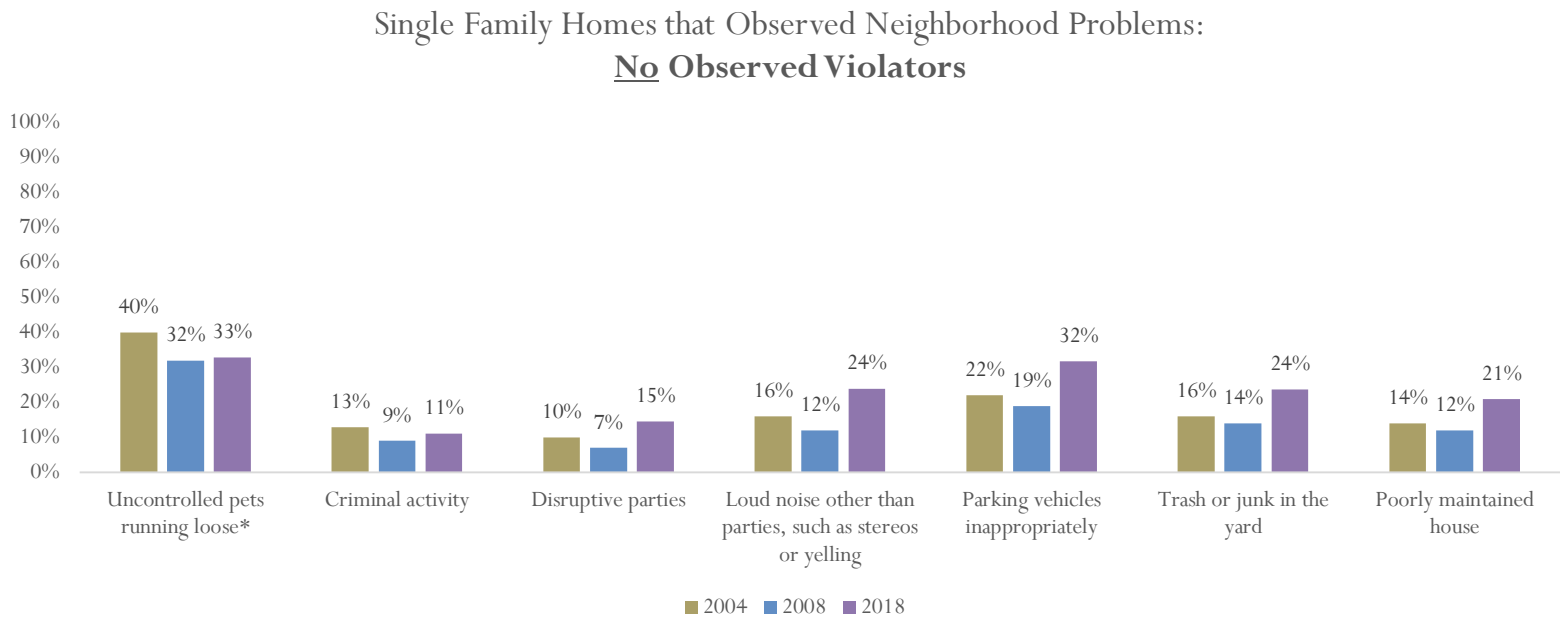
Decreases in neighborhood ratings were observed in the absence of violator households

While residents who observed no violators in their four neighboring households rated their neighborhood good or very good at higher rates than those who did, they did so at a lower rate than they have in the past.

This suggests something beyond, or in addition to, ordinance violators is causing the observed decrease in neighborhood quality.



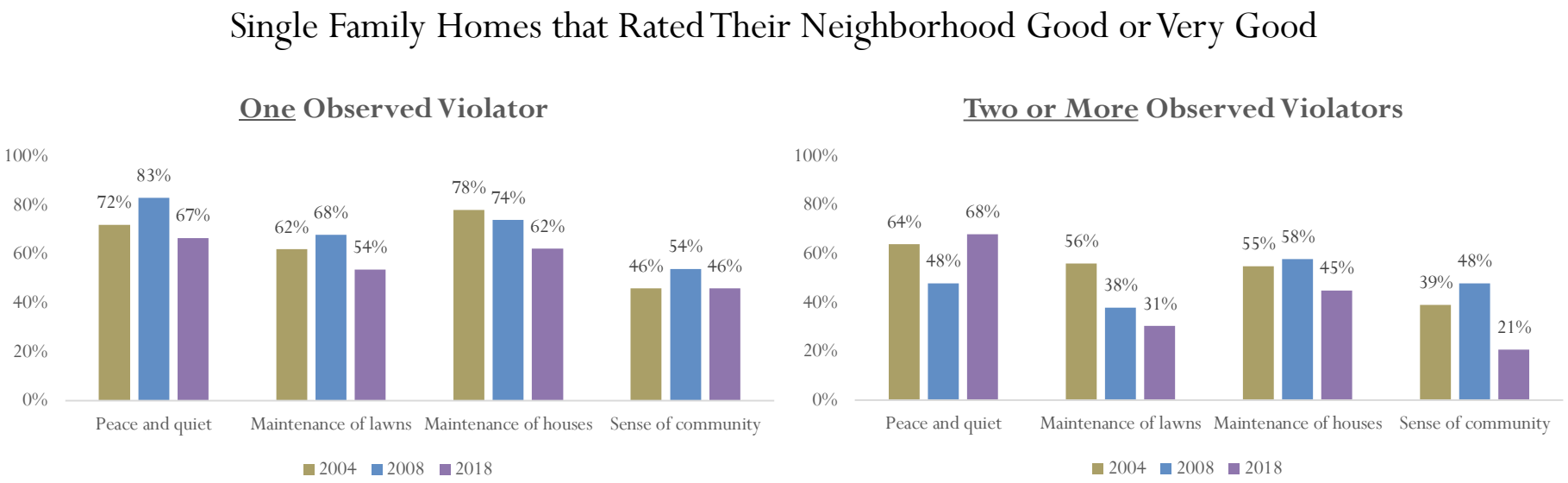
Increases in neighborhood problems were observed in the absence of violator households



The above graph plots the percentage of neighborhood issues reported by residents who said none of their four nearest homes had more than three unrelated people living in them. While the number of problems reported by this group is significantly lower than those who observe neighbors violating the ordinance, this group was more likely to report problems in 2018 than they were in 2008.

* "Uncontrolled pets running loose" was the question text from 2018 while "Animals running loose" was the wording in 2008 and 2004.

The presence of violating households decreases the percentage of good or very good neighborhood ratings



Living next to violators decreases good and very good neighborhood ratings across all surveys and indicators. As with residents who observed zero violating households, these percentages decreased in between 2008 and 2018 for those who reported one or multiple violating neighbor.

Section 4.3

Neighborhood Quality

Proximity to Short-Term Rentals

Key Findings: Proximity to Short-Term Rentals

- Lower neighborhood quality and more negative neighborhood issues are also correlated with being neighbors to an STR property.
- However, the impact is smaller than proximity to a suspected ordinance-violating property, and the negative impacts are notably smaller in areas where STRs are allowed, compared to areas where they are not allowed.

A description of the methodology is found in the appendix.

STR presence correlates with lower neighborhood quality

- Residents report somewhat lower neighborhood quality when they live near an STR, with the largest impact being on sense of community.
- While the sample sizes are too small to draw confident conclusions, it appears that the negative impact is primarily when STRs operate in areas where they're not allowed. An STR operating in a zone where STRs are allowed did not appear to impact quality of life (with results even leaning very slightly positive).

		Neighbor(s) operate STRs		No STRs allowed-Neighbor(s) operate STRs		Primary STRs only-Neighbor(s) operate STRs	
	Total	Yes	No	Yes	No	Yes	No
Peace and quiet	**1.13**	1.07	1.14	1.1	1.27	1.17	1.08
Maintenance of lawns	**1.07**	0.91	1.09	0.71	1.14	1.15	1.09
Maintenance of houses	**1.07**	0.93	1.09	0.90	1.18	0.96	0.98
Sense of community	**0.5**	0.36	0.52	0.37	0.68	0.40	0.38

Very good = 2, Fair = 0, Very bad = -2,
Not applicable = excluded

Small sample sizes

Neighborhood issues are correlated with STR presence

Residents report more neighborhood issues when neighbor(s) operate(s) an STR. The impact is larger when STRs are operating in areas where they are not allowed, particularly having snow on sidewalks, parking, and loud noises.

	Total	Neighbor(s) operate STRs		No STRs allowed-Neighbor(s) operate STRs		Primary STRs only-Neighbor(s) operate STRs	
		Yes	No	Yes	No	Yes	No
Uncontrolled pets running loose	**0.51**	0.82	0.47	0.85	0.47	0.78	0.46
Criminal activity	**0.3**	0.56	0.26	0.52	0.15	0.68	0.35
Disruptive parties	**0.35**	0.56	0.33	0.63	0.24	0.55	0.37
Loud noise other than parties, such as stereos or yelling	**0.57**	0.84	0.54	0.88	0.39	0.91	0.63
Parking vehicles inappropriately	**0.63**	0.87	0.60	1.03	0.52	0.8	0.66
Snow on sidewalks (snow not shoveled)	**0.53**	0.77	0.50	1.08	0.51	0.5	0.54
Trash or junk in the yard	**0.47**	0.67	0.44	0.76	0.38	0.65	0.45
Poorly maintained house	**0.35**	0.64	0.32	0.71	0.33	0.63	0.32

Averages exclude "not applicable" responses

The impact of STRs is narrow

STRs impact the neighborhood of about 15% of residents, showing that they are not yet widespread and/or that their impact is narrow within a neighborhood. Of impacted residents, more cited a negative impact than a positive impact (13% versus 2%). The impact goes up if they have a neighbor operating an STR, as does the support of STR rules. The most commonly cited reasons for negative impacts were strangers coming and going, trash/lack of maintenance, parking, and partying/noise.

		Neighbor(s) Operate STRs		STR Zone			Aware of STR Licensing		Opinion of STR Rules			
	Total	Yes	No	No STRs allowed	Primary STRs only	Primary and non-primary STRs allowed	Yes	No	Support	Neutral	Oppose	No opinion
Base												
Unweighted	**1366**	***147***	***1152***	**851**	**468**	**47**	**491**	**825**	**558**	**388**	**274**	**124**
Weighted	**1362**	***145***	***1134***	**640**	**622**	**101**	**423**	**877**	**547**	**391**	**260**	**138**
Missing												
No reply	**7%**	3%	3%	5%	7%	15%	4%	3%	5%	5%	6%	4%
Positive impact	**2%**	1%	2%	2%	1%	3%	2%	2%	1%	0%	3%	6%
No significant impact	**47%**	61%	49%	45%	50%	50%	57%	45%	45%	56%	47%	42%
Negative impact	**13%**	31%	10%	12%	14%	8%	14%	13%	19%	9%	10%	2%
Not applicable	**33%**	4%	38%	37%	29%	25%	24%	38%	30%	31%	34%	46%

Appendix - Methodology

Methodology

Rental Market Trends

- *Comparisons to Other Colorado Metro Areas*
- *Comparison to a Selection of Nationwide Cities*

Methodology: Rental Market Trends

Comparisons to Other Colorado Metro Areas

In order to assess changes to the overall rental market in Fort Collins, Corona Insights employed data from current and archived reports from the Colorado Department of Housing. These data allow for an analysis of trends in vacancy and rental rates by unit type and offer the chance to make two important comparisons.

First, we replicate analysis from our 2009 report and include trends from similar Colorado cities including, Colorado Springs, Greeley, Grand Junction, and Pueblo. By observing these similar metro areas we can start to distinguish what separates Fort Collins' rental market from broader trends in the state. Second, these data often allow for comparisons overtime spanning multiple decades. Comparing trends pre and post-ordinance provides insights into the law's potential effect.

It is important to note that the Colorado Division of Housing only collects data on multifamily homes. While this accounts for a majority of the rental market in Fort Collins, these data were supplemented with data from the US Census' American Community Survey to account for the entire scope of the market. Population data was collected from the State Demographer and the US Census.

Finally, Corona Insights collected supplemental data from Redfin and the Census' Building Permits Survey in order to assess the broader housing market in Fort Collins. While the Colorado Division of Housing often reports data for the combined Fort Collins/Loveland market, these cities are reported independently when possible. Cities and years are included/excluded in analysis based on data availability.

Methodology: Rental Market Trends

Comparisons to a Selection of Nationwide Cities

The Comparisons to Other Colorado Metro Areas section of this report identified how the Fort Collins rental market has compared to similar metro areas within the state of Colorado. While that analysis allowed for the ability to account for broader trends within the state, it could not rule out the possibility that the patterns observed in Fort Collins were common to similar cities across the country. Specifically, Fort Collins' household growth and composition have historically been filled by younger individuals (aged 15-24) at higher rates than other cities in the state. As such, a comparison of similar cities nationwide is needed to supplement the assessment of the previous section.

This section replicates analysis conducted in Corona Insights' 2005 report to compare trends in the rental markets across 15 similar case study cities. This national analysis allows for an additional assessment of how the Fort Collins housing market has fared in the pre and post-ordinance era. Data in this section comes from the US Census' American Community Survey. Two main time periods will be compared. The first is the era between 1990 and 2000. This provides a baseline for how the Fort Collins rental market compared to similar cities. The second era is between 2005 and 2017. Here, comparisons demonstrate what trends emerge post-ordinance. Data have been annualized to account for the difference in each era's length.

Methodology: Rental Market Trends

Case Selection for National Market Analysis

- This section details the case selection process for the national market analysis.
- As of the Year 2000, there were 243 cities in the United States and its protectorates with population of 100,000 or more, which made up the initial population of eligible comparable cities. From that initial list, Corona pared down the candidates as follows:
  - Corona eliminated from consideration 41 cities that had **population over 400,000.**
  - Corona eliminated two cities that **radically changed their boundaries** between 1990 and 2000, and thus acquired large pre-existing populations and housing stocks.
  - Corona eliminated 34 cities that experienced **declines in population** from 1990 through 2000.
  - Corona eliminated 7 cities that experienced **phenomenal growth** from 1990 through 2000, with rates of over 6.8% per year.
  - Corona eliminated two cities in **Puerto Rico** for which standard data were not available.
- These cuts pared the list from 243 cities to 157 cities. Data was then gathered on those cities to identify specific growth patterns between 1990 and 2000. From that list, **16 cities** were identified to have exhibited highly similar household growth patterns to those projected for Fort Collins, **based on total household growth, household growth among traditional college-age students, and a higher growth rate among the second group than the first.**

2005 Report Case Study Cities

Similar Growth Cities	Annual Household Growth	Annual Household Growth, Ages 15-24	Ratio of Young/Total Household Growth
Columbia, South Carolina	2.19%	4.14%	1.89
Durham, North Carolina	2.95%	3.33%	1.13
Eugene, Oregon	2.26%	3.68%	1.63
Fort Collins, Colorado	3.07%	3.34%	1.08
Fort Wayne, Indiana	1.86%	3.20%	1.72
Greensboro, North Carolina	2.12%	3.34%	1.58
Joliet, Illinois	3.06%	3.10%	1.01
Lakewood, Colorado	1.59%	2.74%	1.73
Lexington-Fayette, Kentucky*	1.93%	3.73%	1.93
Lincoln, Nebraska	1.83%	2.73%	1.49
Mesquite, Texas	2.03%	2.52%	1.24
Provo, Utah	2.13%	3.06%	1.44
Raleigh, North Carolina	2.77%	2.69%	0.97
Salem, Oregon	2.09%	3.39%	1.63
Sioux Falls, South Dakota	2.22%	2.93%	1.32
Winston-Salem, North Carolina	2.49%	2.94%	1.18

*Lexington-Fayette, Kentucky is excluded from all subsequent analysis as the US Census no longer collects annual data for the city.

2005 Report Case Studies: Cities with Large Universities

Similar Growth Cities	Largest University	Number of Undergraduates
Columbia, South Carolina*	University of South Carolina	24,941
Durham, North Carolina	Duke	6,501
Eugene, Oregon*	University of Oregon	20,220
Fort Collins, Colorado*	Colorado State University	22,727
Fort Wayne, Indiana	Purdue Fort Wayne	8,746
Greensboro, North Carolina*	The University of North Carolina at Greensboro	15,158
Joliet, Illinois	NA	
Lakewood, Colorado	Colorado Christian University	3,885
Lincoln, Nebraska*	University of Nebraska Lincoln	20,182
Mesquite, Texas	NA	
Provo, Utah*	Brigham Young University	30,221
Raleigh, North Carolina*	North Carolina State University	22,458
Salem, Oregon	Willamette University	1,925
Sioux Falls, South Dakota	University of Sioux Falls	1,185
Winston-Salem, North Carolina	Wake Forest Unversity	4,866

*These cities contain colleges or universities with more than 15,000 undergraduates. The sample of case studies shows effective diversity between college towns and comparable cities that have experienced historically similar household growth and composition to Fort Collins.

Methodology

Ordinance Violators

- *Estimated Number*
- *Profile of Violators*
- *Investigation Outcomes*

Methodology: Violator Estimates and Profiles

Estimates of the number of violators were developed via two means. First, the study team examined specialized census data on a sample of the population, where individual (anonymized) records are made available to the public. This has emerged as the predominant means of developing estimates. As a second check, the public survey was used to develop estimates, in conjunction with complaint data to estimate the accuracy with which residents identify violator households. These are the same two methods used in the past, though specific methodologies have evolved over time.

The profiles of violator households are drawn specifically from the specialized census records referenced above. These microdata records are deemed to be accurate since they are gathered for other purposes, but also contain information about household makeup.

One limitation of the microdata sample is that relationships within a household are always measured from the perspective of the person who filled out the census form. If that person is not related to others in the household, then it is not possible to identify whether those others are related. The research team took a conservative approach that they were not related, which in most cases is the likely scenario (for example, when all residents are labeled as roommates or boarders relative to the householder). However, some of these may be related in which case some households that are not violators could be labeled as violators. This is unlikely to have a large enough effect on the conclusions to change any findings, though.

Methodology: Investigation Outcomes

Over occupancy investigation outcome results were calculated from complaint, investigation, and outcome records provided by City of Fort Collins Neighborhood Services. These data included the case year (based on investigation start date), the address of the investigated residence, and the outcome determined as either violation or unfounded. Additionally, each residence was assigned to a study area region that aligned with the regions from the resident survey in this report. The dataset analyzed spanned the years 2011 to 2017.

Methodology

Short-Term Rentals

- *Profile of Units and Revenues*
- *Rental Host Survey*

Methodology: Profile of Units and Revenue

For the short-term rental market analysis, the research team purchased data that had been scraped from the AirBnB web site by a third-party vendor. (We recognize that other sites exist for short-term rentals, but the STR survey conducted on this project showed a large overlap in advertising across sites.) The data included information on specific properties, including nights available, nights rented, asking price, type of unit, and location.

The research team used GIS software to assign the STRs to specific zones relative to STR licensing rules. This also allowed the team to eliminate any properties that were outside the Fort Collins city limits, even if they were in the general Fort Collins market area. Therefore, the figures relates specifically to units inside the city limits.

Data were available beginning in October of 2014, and Corona Insights purchased all available data, which at the time of purchase extended through April of 2018.

Methodology: Short-Term Rental Host Survey

The survey of short-term rental hosts was conducted by using the contact list for licensed STR units that is gathered during the licensing process. Corona Insights designed an 10-minute online survey and sent an invitation to complete the survey to every available STR host. We sent 255 survey invitations and received 143 useable responses, constituting a very strong response rate of 56%.

One way to check the representativeness of a sample is to compare demographic breakdowns within a survey to available data from the population (like a census). While there is no broader demographic data for STR hosts in Fort Collins, comparing available information (residency status and the title of the registered STR) from the total recruited population (registered STR hosts) offers an opportunity to assess representativeness.

The similar percentages amongst the two samples provides evidence in favor of the STR survey sample being representative of the population.

Comparing Response and Non-Response by Residency

	Total	Residency	
		Primary	Non-Primary
Non-Response	111	67%	33%
In Survey	143	68%	32%

Comparing Response and Non-Response by Title Registered

	Total	Title Registered			
		Business	Personal	Address	Other
Non-Response	111	32%	48%	6%	14%
In Survey	143	36%	50%	5%	8%

Methodology

Resident Survey

- *Public Sentiment Toward Occupancy Ordinance*
- *Public Sentiment Toward STR Rules*
- *Citywide Quality Measures*
- *Proximity to Ordinance Violators*
- *Proximity to Short-Term Rentals*

Methodology: Resident Survey

Survey Instrument

To facilitate comparability to previous results, many of the survey questions were asked in the same way as they were asked in the previous community surveys, with some updates where applicable.

The final survey instrument was six pages long, printed in black and white, with a cover letter on the first page. The cover letter instructed that any adult resident of the household could complete the questionnaire. It also assured residents that their responses would remain confidential and would not be used for enforcement.

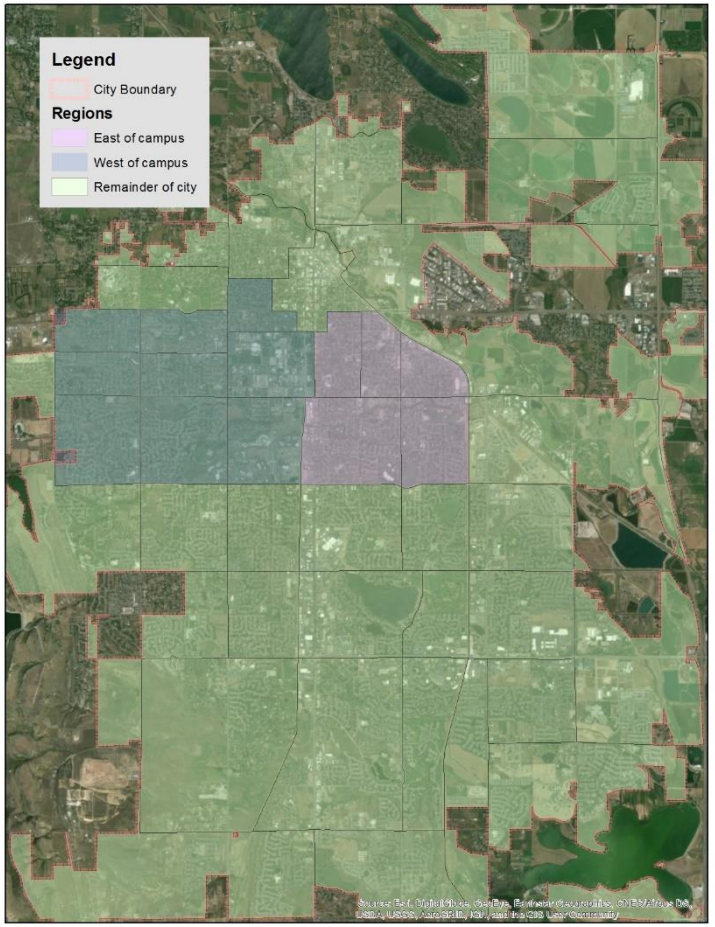
To further encourage residents to complete and return the questionnaire, an incentive was offered, which was a chance to win one of two $500 grand prizes or one of ten separate $100 prizes. Lastly, a pre-stamped and pre-addressed return envelope was included to make it easy for residents to return their completed questionnaire.

Methodology: Resident Survey

Sampling

Selecting a subset of home addresses to send a survey packet is called sampling. We used a stratified random address-based sampling technique to draw a list of 6,450 home addresses in Fort Collins that each received one survey packet in the mail. We used a stratified approach to send disproportionally more questionnaires to homes in the regions immediately east and west of campus with the goal of collecting enough responses from each region to report results by those segments. The list of home addresses was purchased from MSG, a commercial address-based sampling vendor.

Region	% of Homes	% of Sample
Away from Campus	66%	34%
East of Campus	11%	33%
West of Campus	23%	33%
Fort Collins	100%	100%



Methodology: Resident Survey

Survey Administration

Survey packets were mailed in mid-September of 2018. About ten days after mailing the initial survey packet, a postcard was sent to each household to remind and encourage residents to complete and return the questionnaire.

Response Rate

1,053 survey packets were returned as non-deliverable. We received and entered 1,366 useable responses, for a final adjusted response rate of 25%. A typical response rate for a community-issue mail-based survey is around 15%.

Region	% of Delivered Surveys	% of Returned Surveys	Adjusted Response Rate
Away from Campus	35%	36%	26%
East of Campus	33%	38%	29%
West of Campus	32%	26%	21%
Fort Collins	100%	100%	25%

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Weighting

In a community survey, it is common for certain demographics to be over or under-represented. For example, mail survey respondents are often older. Additionally, because the sample was originally stratified, it was necessary to check the balance of responses between the three strata.

To check and correct for potential skew and response biases, we calculated corrective weights based on the known demographic estimates provided by the U.S. Census Bureau. Three dimensions were used for weighting: region (west, east, or away from campus), owner/renter status, and years lived at current residence (more than two years or no more than two years). The corrective weights were applied to the data so that the results would more closely reflect the community as a whole. All results in this report, including demographic tables, are based on the weighted data.

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Margin of Error

The corrected top-level margin of error was +/-4.6% at the 95% confidence level. If we were to conduct this survey 200 times, drawing a new random sample each time, we would expect that our estimates would be within the margin-of-error in 19 of those 20 surveys. The margin of error accounts for the study's design and weighting effects, which increased the margin of error relative to the size of the weights.

The corrected margin of error for each region is shown below.

Region	Corrected Margin of Error
Away from Campus	±6.1%
East of Campus	±8.0%
West of Campus	±9.1%
Fort Collins	±4.6%

About Corona Insights

Our founder named the company Corona because the word means "light." It's the knowledge that surrounds and illuminates an issue; exactly what we provide. Our firm's mission is to provide accurate and unbiased information and counsel to decision makers. We provide market research, evaluation, and strategic consulting for organizations both small and large.

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