



## Affordability Impacts of Proposed Changes to Occupancy Limits in Austin

### Background

The Austin City Council is considering reducing the maximum number of unrelated occupants in a single-family zoned property allowed under city ordinance from six people to four people. Proponents of the proposed change from six to four argue that developers are replacing traditional single-family properties with much larger, high-occupancy structures that are designed to maximize the number of tenants that can occupy the property, usually renting by the bedroom. Neighborhoods surrounding The University of Texas at Austin, in particular, are reporting the most severe impacts, with complaints of noise, trash, parking congestion, and related nuisances, frequently attributed to student renters. Further, proponents argue that these “stealth dorms” are negatively impacting housing affordability in Austin because they are replacing what are perceived to be affordable single-family properties with high-rent properties that function more like multi-family housing rather than single-family zoned.<sup>12</sup>

Opponents of the proposed change express concern that reducing occupancy limits will exacerbate the undersupply of affordable housing in Austin by limiting the development of new rental units, especially in centrally located neighborhoods where, according to some opponents, higher levels of density should be encouraged. Opponents also argue that stealth dorms is a misnomer because it implies that students are the target of the proposed change in occupancy limits, but low-income workers will also experience fewer housing choices where multi-family properties are not available.<sup>34</sup>

In addition, proponents and opponents have questioned the city government’s ability to enforce stricter occupancy limits, given the perceived lack of enforcement under the current ordinance. While this is a relevant issue that should be addressed, it is beyond the scope of this report.

At its meeting on February 13, 2014, City Council approved the proposed change in occupancy limits on “first reading” (the first of three required votes to enact the change), with the following stipulations:

- Existing single-family zoned properties with up to six unrelated occupants are “grandfathered” and not subject to changes under the proposed four-person limit.
- The four-person limit would be in effect for two years in order to give city staff enough time to address this issue on a more permanent basis as part of the ongoing, comprehensive update to the city’s land use and development code.
- The four-person limit would apply to non-grandfathered properties located in the *McMansion Ordinance* boundaries, generally what is referred to as greater central Austin (roughly William Cannon to the south and US 183 to the north).

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<sup>1</sup> <http://kut.org/post/op-ed-austin-should-lower-occupancy-limits-stop-stealth-dorms>

<sup>2</sup> <http://stopstealthdorms.com/2014/03/06/limits-on-stealth-dorms-needed-to-protect-neighborhoods/>

<sup>3</sup> <http://www.mystatesman.com/news/news/opinion/stealth-dorms-where-to-live-in-austin-if-you-dont-/ndNHZ/>

<sup>4</sup> <http://kut.org/post/op-ed-reducing-occupancy-limits-hurts-affordability-without-solving-problems>



These stipulations can be changed, or others added, at future council meetings during second and third readings of the proposed amendment to the ordinance.

Finally, in preparation for the council meeting held on February 13, city staff prepared an “affordability impact statement” (Case No: 20140213-082) on the proposed change from six to four unrelated people. Staff determined that the change would have a negative impact on affordability for “some low-income households” due primarily to decreased supply of rental units, rising rental rates, and fewer renters per household resulting in higher per-person rent payments.<sup>5</sup>

## Study Overview

### *Purpose*

The purpose of this study is to determine what can be said with a reasonable degree of certainty about the relationship between the proposed reduction in occupancy limits and housing affordability in Austin. Specifically, this report investigates the following research questions:

1. How many single-family zoned properties in Austin have more than four unrelated occupants and therefore can be classified as high-occupancy under the proposed four-person limit?
2. What is the relationship, if any, between single-family zoned high-occupancy properties and housing affordability in Austin?
3. How will the proposed reduction in occupancy limits impact future affordability?

### *Research Team*

The Austin Board of REALTORS approached Civic Analytics LLC, an Austin-based research and consulting firm, to help identify potential affordability impacts of the proposed change in occupancy limits from six unrelated people to four unrelated people in single-family zoned properties. Brian Kelsey, Principal and Founder of Civic Analytics, is the principal researcher and author of this report.

This work was conducted on a pro-bono basis, with assistance from Nathan Brigmon (Civic Analytics), Melissa Beeler (UT-Austin graduate student in Community and Regional Planning), Andrei Lubomudrov and Emily Chenevert (Austin Board of REALTORS), and Jessi Koch (City of Austin). Several other people contributed insights on data availability, interpretation, and methodology, including Mandy De Mayo (HousingWorks Austin) and Nuria Zaragoza (West University resident). We would also like to thank city staff in the Planning and Development Review Department for their help in obtaining permitting data, as well as Ryan Robinson, City Demographer, for data on housing units from the U.S. Census Bureau. In addition, we are grateful to Jeff Smith at Opinion Analysts for providing data on Austin households from a proprietary voter database. Finally, several Austin residents active on this issue were very helpful in

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<sup>5</sup> <http://www.austintexas.gov/edims/document.cfm?id=205356>



providing data on properties they have identified as single-family zoned high-occupancy, including Nuria Zaragoza, Mary Sanger, Mike Wong, and Ellie Hanlon.

## Methodology

### *Assumptions*

The only critical assumption made for this analysis is that the grandfathering clause discussed at the city council meeting on February 13 remains in place. This analysis assumes that no residents currently living in single-family zoned properties with more than four unrelated occupants will be displaced as a result of the proposed change to the ordinance reducing the limit from six to four unrelated people. Changing that assumption would have a significant impact on the research questions focused on in this report.

### *Data Availability*

The most challenging aspect of this project is data availability. There is simply not much current, reliable, publicly available data that can be used to investigate these research questions. Here is a list of some of the issues that created problems during the research process:

- The U.S. Census Bureau's American Community Survey (ACS) publishes data on family and non-family households in Austin for 2012. ACS data does not include any zoning information, which is needed to identify the number of people living in nonfamily households that are also zoned single-family, which is the relevant data point for this issue. However, ACS data on nonfamily households by number of occupants is only available at the city level and not for smaller geographies, such as zip codes. As a result, it cannot be used to identify areas within the city of Austin that may be more affected by high-occupancy housing. Further, ACS data is generated from sampling and therefore estimates are subject to significant margins of error. For example, according to data from the 2012 ACS, there are 499 households in Austin with 5+ unrelated people ("nonfamily households"), which represent 0.2% of the total 330,838 households in Austin. Of the 499 nonfamily households with 5+ people, the ACS estimate for the number of 7+ people households is zero, with a margin of error of +/- 206. In other words, relying on the most recent and accurate data available from Census, the best we can say about the true number of 7+ people households in Austin is that it is likely somewhere between 0 and 206, and we have no idea where within the city those households are located.

As a result, data from the 2010 Decennial Census could be used for this type of analysis, which sacrifices some timeliness (i.e. will not capture high-occupancy properties built and/or occupied since 2010), but provides more accurate data and more relevant geography for this analysis (zip codes). But even data from the 2010 Census is problematic here because it only identifies the number of 5+ person, nonfamily households, not the number of 5+ person, nonfamily households in *single-family zoned properties*, which is really what is needed. Academic researchers may have the ability to access more detailed Census data by property address under confidentiality agreements, which could be used to determine 5+ person, nonfamily households



in single-family properties, but that level of effort is well beyond the scope, time, and resources available for this report.

- Demolition permits and building permits are recorded in the City of Austin’s AMANDA database, which can be used to examine the claim that developers are tearing down affordable single-family properties and replacing them with high-occupancy properties. AMANDA includes data on type of permit, status of permit (final, expired, withdrawn, etc.), address, demolition/building area (sqft) and limited data on number of bathrooms. AMANDA provides no information on the number of bedrooms for demolitions or new buildings, which would be helpful for the purpose of this analysis. More important, there is no readily accessible way, using data from AMANDA alone, to verify that permitted properties are ever built; visual confirmation or a secondary data source is necessary. Neighborhood representatives active on this issue provided data based on visual confirmation for two zip codes, but no data was compiled for the rest of Austin.

As a result, this analysis presents aggregated data by zip code on single-family properties with demolition permits and building permits matched by address in order to quantify the extent of teardowns occurring to make way for significantly larger properties that would be more suitable for high-occupancy housing. However, a more rigorous methodology should be employed in the future for more detailed research of this issue; AMANDA just provides a good start.

- Several proprietary data sources are used in this analysis, primarily as a way to compensate for the lack of publicly available data on high-occupancy properties since the 2010 Census. These proprietary data sources include a residential database from infoUSA<sup>6</sup> (a product of Infogroup), a voter database from Opinion Analysts<sup>7</sup>, and the Multiple Listing Service (MLS) from the Austin Board of REALTORS. The most significant downside of using proprietary sources is that the data is not open to public inspection and scrutiny. While data from infoUSA, or its main competitor, Dun & Bradstreet, is often used in academic studies and community/regional planning activities, the accuracy and quality of the data can be lacking in places because of errors or shortcomings in the public record sources it is generated from. For example, utility records provide one source of information for proprietary residential databases. If a renter vacates a property and owes the utility money from an outstanding bill, then some utilities keep that renter’s name attached to the property until the bill is paid. A public information request to the utility asking for names of customers by address could produce an overcount of names at any point in time because of the names of past residents still attached to the property for overdue bills.

As a result, and in order to protect against falsely identifying a property as high-occupancy due to measurement error, this report aggregates property data to zip codes, which, of course, does not correct for possible measurement error, but does avoid identifying specific addresses that may or may not be in violation of the current occupancy limit of six unrelated people.

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<sup>6</sup> <http://www.infousa.com/>

<sup>7</sup> <http://opinionanalysts.com/>



In addition, this analysis uses the number of different last names attached to a property in the proprietary data in order to identify unrelated people. This methodology could overestimate the number of high-occupancy properties because it is possible for people with different last names to be related, such as through marriage without name changes.

- Student data needs to be incorporated into this analysis. The City of Austin requested from UT-Austin a list of addresses with 5+ students registered as residents at that address, which would meet the definition of a high-occupancy property. City staff had not received that data from UT at the time of writing this report and therefore it is not included in this analysis. Future research into this issue should include requests to St. Edward's, Huston-Tillotson, ACC, etc.
- Neighborhood representatives active on this issue supplied a list of 142 properties identified as single-family zoned high-occupancy properties, including 97 properties in Zip Code 78751 and 45 properties in 78705. According to the representatives, these properties were identified using MLS, lease advertisements (Craigslist), appraisal records, and visual identification/confirmation. MLS data was used to match sale transactions by address in order to identify older, single-family properties that were demolished and replaced with newer, larger, single-family properties, or significantly expanded to include more bedrooms (28 addresses in 78751). The neighborhoods' data was included "as is" for this report and not independently verified or edited in any way.

Finally, this report should be viewed as a starting point for a much longer and more in-depth discussion of this issue as part of the city's work on revisions to the Land Development Code. A group of volunteers conducted this analysis during free time over the course of less than four weeks, with necessary data not arriving until three days before this report was due to City Council in preparation for a meeting on March 20 (and UT-Austin data still not available). Much more work should be done from here.

## Findings

*How many single-family zoned properties in Austin have more than four unrelated occupants and therefore can be classified as high-occupancy under the proposed four-person limit?*

This analysis identified **1,796** possible single-family zoned high-occupancy properties with 5+ unrelated occupants.<sup>8</sup> Of the 330,838 total households in Austin (2012 ACS), single-family (or duplex) zoned high-occupancy properties make up an estimated 0.5% of total households. Four zip codes have 100+ single-family zoned high-occupancy properties (78702, 78751, 78745, 78723). As a share of total housing units, seven zip codes have concentrations of single-family zoned high-occupancy properties that are at least double the citywide rate (0.5%): 78751, 78742, 78702, 78721, 78725, 78719, and 78722.

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<sup>8</sup> Includes duplexes with 5+ unrelated occupants in each unit. Specifically, three city-defined land use codes are considered relevant for this analysis: Single Family (100), Duplex (150), and Large-lot Single Family (160). While not technically single-family, duplexes are included here because the proposed change in occupancy limits would apply to duplexes, and duplexes are included in the neighborhood-identified high-occupancy properties.



Figure 1 Zip Codes in Austin with Greatest Number of High-Occupancy Properties  
(Minimum 50 shown in table)

Zip	High-Occupancy (SF/Duplex)	Share of Total Housing Units
78702	139	1.5%
78751	137	1.6%
78745	131	0.5%
78723	114	0.9%
78748	99	0.6%
78704	85	0.4%
78744	80	0.6%
78753	69	0.4%
78758	68	0.3%
78749	66	0.4%
78705	64	0.6%
78721	58	1.4%

Figure 2 Zip Codes in Austin with the Largest Concentrations of High-Occupancy Properties  
Ranked by Share of Total Housing Units  
(Minimum 1.0% shown in table)

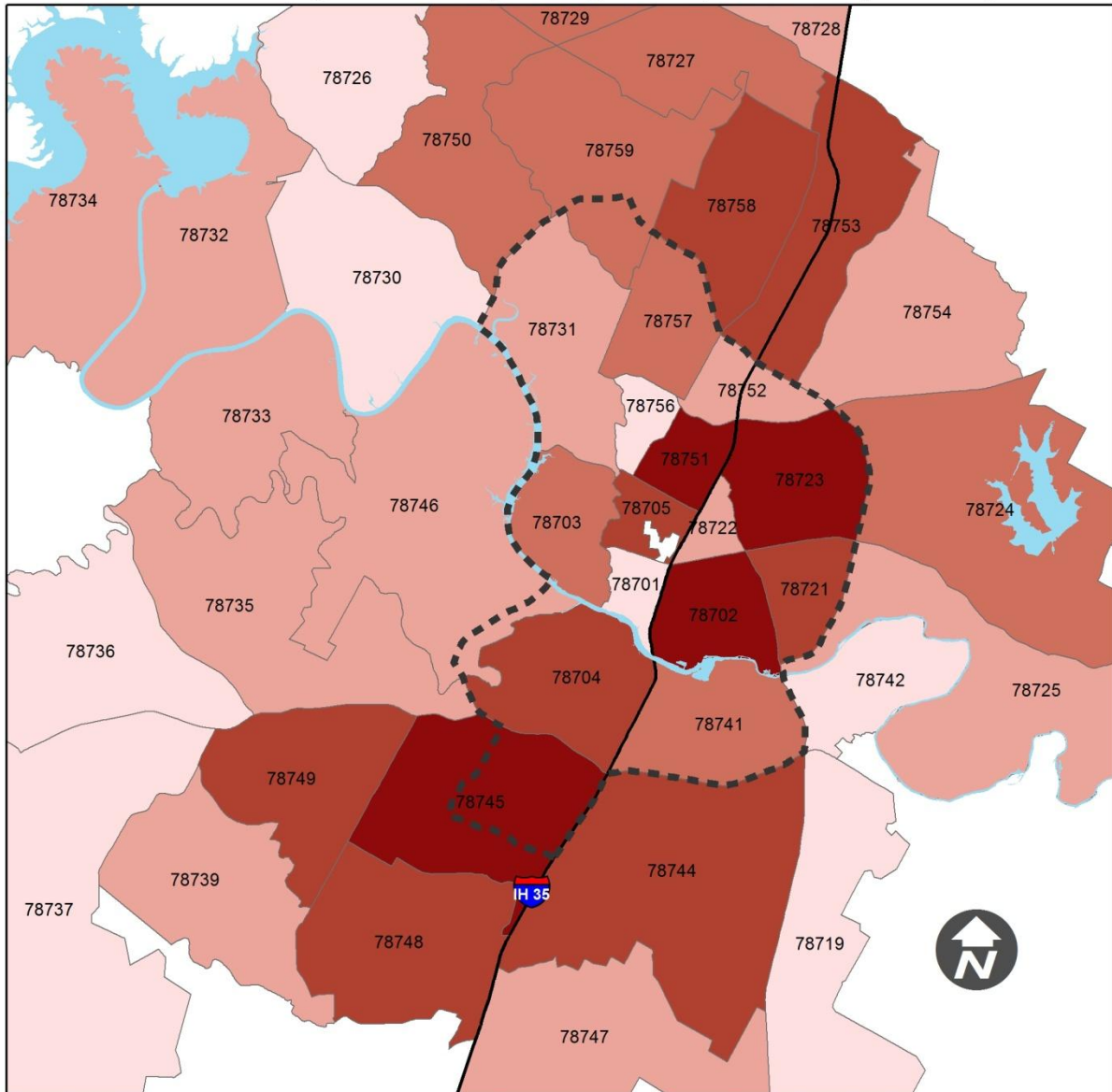
Zip	High-Occupancy (SF/Duplex)	Share of Total Housing Units
78751	137	1.6%
78742	5	1.6%
78702	139	1.5%
78721	58	1.4%
78725	23	1.2%
78719	6	1.0%
78722	29	1.0%

At least one single-family zoned high-occupancy property was identified in every zip code in Austin, with the exception of 78738 (west of Barton Creek toward Bee Cave).<sup>9</sup> The map below shows the range of single-family zoned high-occupancy properties for many of the zip codes in Austin. Several zip codes with 50+ single-family zoned high-occupancy properties are located outside the McMansion Ordinance boundary and, under the current proposal, would not be impacted by the change in occupancy limits. In addition, a portion of 78745 (131 properties) is outside the boundary. Approximately 53% of the single-family zoned high-occupancy properties identified in this analysis are within the McMansion boundary.

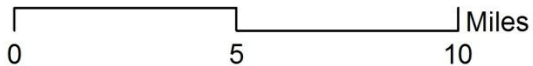
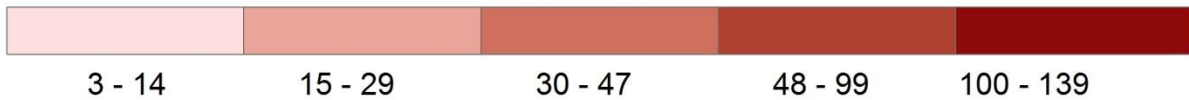
<sup>9</sup> Some data in this report, including housing units, is based on Census-defined Zip Code Tabulation Areas (ZCTA), which can be different from USPS Zip Codes. Impact on the results should be minimal.



## High-Occupancy Properties per Zipcode



 McMansion Ordinance Boundary



Data from City of Austin GIS  
accessed 16 March 2014.



*What is the relationship, if any, between single-family zoned high-occupancy properties and housing affordability in Austin?*

Zip codes with the greatest number of single-family (and duplex)<sup>10</sup> zoned high-occupancy properties are among the most expensive housing markets in Austin ranked by sale price per sq. ft. in 2013, including 78702 (#10), 78751 (#6), and 78704 (#4). However, large concentrations of high-occupancy properties are also found in more affordable housing markets that are roughly in line with regional averages, such as 78745 and 78723. In fact, this analysis finds no statistically significant relationship between home sale prices or rental rates and the presence of single-family zoned high-occupancy properties, at least when using data for all zip codes partially or wholly located in the city limits. This finding casts doubt on claims that single-family zoned high-occupancy properties are a “result of” high home or rental prices.

Figure 3 Housing Prices for Zip Codes with the Greatest Number of High-Occupancy Properties (Minimum 50 shown in table)

Zip	High-Occupancy (SF/Duplex)	Average Sale Price Per SqFt, 2013	Average Lease Price Per SqFt, 2013
78702	139	\$224	\$1.41
78751	137	\$253	\$1.15
78745	131	\$139	\$0.79
78723	114	\$151	\$0.90
78748	99	\$117	\$0.74
78704	85	\$271	\$1.22
78744	80	\$87	\$0.77
78753	69	\$94	\$0.73
78758	68	\$110	\$0.68
78749	66	\$133	\$0.93
78705	64	\$249	\$0.77
78721	58	\$140	\$0.79

However, there is evidence that suggests a relationship between the presence of single-family zoned high-occupancy properties and **rising** rental rates, especially when combined with lower-income areas. This research employed regression analysis to investigate potential determinants of single-family zoned high-occupancy properties. Results showed that the two strongest predictors of the number of single-family zoned high-occupancy properties by zip code were change in the average rental rate and median household income. Larger increases in rental rates (calculated as percentage growth of the average rate per sq. ft. during 2009-2013, not adjusted for inflation) were associated with greater numbers of single-family zoned high-occupancy properties. This relationship applied only to rental rates; no evidence was found of a statistically significant relationship between single-family zoned high-occupancy properties and change in home sale prices. Similarly, results showed a statistically significant relationship between median household income and high-occupancy properties—more single-family zoned high-occupancy

<sup>10</sup> References to “single-family zoned” in this report include duplexes unless otherwise noted.





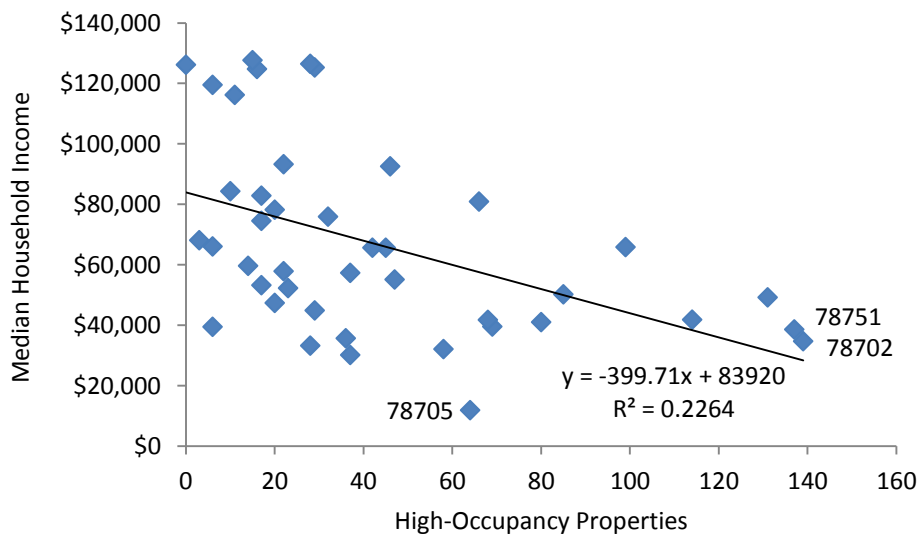
properties are found, on average, in zip codes with lower median household incomes. These results held even as outliers with significant numbers of students, such as 78705, were removed from the data set.

Figure 4 Lease Rate Statistics for Zip Codes with 50+ High-Occupancy Properties

Zip	High-Occupancy (SF/Duplex)	Median HH Income	Avg Lease Price Per SqFt, 2013	Lease Rate Growth Per Sq Ft, 2009-13
78702	139	\$34,734	\$1.41	44%
78751	137	\$38,624	\$1.15	75%
78745	131	\$49,243	\$0.79	29%
78723	114	\$41,869	\$0.90	41%
78748	99	\$65,889	\$0.74	21%
78704	85	\$50,248	\$1.22	53%
78744	80	\$41,056	\$0.77	31%
78753	69	\$39,593	\$0.73	21%
78758	68	\$41,792	\$0.68	46%
78749	66	\$80,956	\$0.93	27%
78705	64	\$11,917	\$0.77	3%
78721	58	\$32,131	\$0.79	46%

Average rental rates are growing significantly faster in three of the four zip codes with 100+ single-family zoned high-occupancy properties compared to the Austin market as a whole during 2009-2013 (28%).

Figure 5 Comparison of Median Household Incomes and Single-Family Zoned High-Occupancy Properties by Zip Code in Austin<sup>11</sup>



<sup>11</sup> Source for Median Household Income is 2008-2012 ACS, Five-Year Estimates.



Correlation, of course, also runs in the other direction (even if it doesn't mean causation)—i.e. single-family zoned high-occupancy properties could also be driving up rental rates. Figure 6 shows matched demolition permits and building permits by address from AMANDA, filed between 2009 and 2013. Many of the zip codes with the most activity correspond to the zip codes with the greatest number of possible single-family zoned high-occupancy properties. Further, in most cases, the average size of the permitted building is much larger than the average size of the demolished building, with a significantly higher rent payment if the average lease rate per sq. ft. (2013) in the zip code is applied, as shown in Figure 6. Thus, these larger properties could be putting upward pressure on average rent in the zip code.

Figure 6 Single-Family Zoned Addresses with Demolition and Building Permits Filed, 2009-2013<sup>12</sup>

Zip	Properties SF/Duplex	Building Permit Avg Size (SqFt)	Lease Rate (Avg/Month)	Demo Permit Avg Size (SqFt)	Lease Rate (Avg/Month)
78704	145	3,062	\$3,740	977	\$1,194
78703	115	3,962	\$5,283	1,473	\$1,964
78702	110	2,117	\$2,979	625	\$880
78731	47	4,114	\$4,624	1,431	\$1,608
78757	44	3,076	\$3,049	999	\$991
78751	42	2,996	\$3,450	850	\$978
78756	39	3,400	\$2,420	864	\$615
78741	18	1,622	\$1,182	948	\$690
78721	15	2,045	\$1,625	525	\$417
78746	13	7,758	\$11,037	3,159	\$4,494
78722	11	2,472	\$2,921	836	\$989
78752	9	1,465	\$500	562	\$192
78705	8	2,920	\$2,246	787	\$605
78745	6	2,322	\$1,833	1,271	\$1,003
78723	6	1,897	\$1,716	1,482	\$1,340
78724	4	2,179	\$1,538	1,474	\$1,040
78759	3	3,656	\$2,903	1,494	\$1,186
78734	3	5,585	\$5,631	2,628	\$2,650
78736	3	3,301	\$2,008	1,959	\$1,191
78748	2	2,161	\$1,608	1,431	\$1,065
78744	2	616	\$472	0	\$0
78733	2	6,125	\$6,683	1,226	\$1,338
78730	2	1,974	\$2,313	2,292	\$2,686
78742	2	1,904	\$762	1,197	\$479
78758	1	2,724	\$1,848	0	\$0
78753	1	3,516	\$2,570	3,092	\$2,260
78727	1	2,393	\$2,029	1,923	\$1,630
78732	1	4,108	\$3,917	1,184	\$1,129

<sup>12</sup> Lease rate is calculated using the average lease rate per sq. ft. by zip code in 2013.



This preliminary-stage analysis suggests that there is some connection between the number of single-family zoned high-occupancy properties and lower-income areas experiencing rising rental rates. But without more time for additional analysis, access to student addresses, and perspective that could be gleaned from talking directly to residents of high-occupancy properties, it is difficult to say anything with certainty about how that relationship is impacting housing affordability in Austin. Are 5+ occupants in a single-family zoned property a response to the market, in that incomes are not keeping up with the cost of housing in some neighborhoods? Or is development of significantly larger properties commanding a higher total rent compared to existing properties driving up overall rents in impacted areas? Or both?

Given Austin's population growth, increasing wealth (for part of the income distribution at least) and significant demand for housing in centrally located neighborhoods, more time (hopefully from a housing economist familiar with Austin) should be devoted to sorting out this issue before a ban is enacted that could limit the number of net new housing units offered in any neighborhood. This analysis provides a starting point by identifying which zip codes should receive further attention based on the presence of significant numbers or concentrations of single-family zoned high-occupancy properties.

*How will the proposed reduction in occupancy limits impact future affordability?*

Single-family zoned high-occupancy properties make up a small percentage of total housing units, even in neighborhoods with 100+ possible high-occupancy properties. If you assume, for example, that every matched demolition and building permit in 78751 indicates a new high-occupancy property, the number of new properties per year is approximately eight. So, on the one hand, a temporary ban on *constructing* new single-family zoned high-occupancy properties is not likely to have a dramatic impact on housing supply in many centrally located neighborhoods, particularly given the new multi-family housing under development in transit-oriented corridors such as Burnet and Lamar.

On the other hand, much more needs to be understood about why single-family zoned high-occupancy properties are more likely to be found in lower-income areas with increasing rents to avoid unintended consequences of reducing the limit from six to four unrelated people. For example, if increasing rents force a household of four unrelated, low-income workers sharing a single-family zoned property to take on an additional roommate, and that property is located in the McMansion Ordinance overlay, will that household be in violation of the four-person limit? As the stipulations listed on p. 1 are written now, it is unclear if this property would be grandfathered—i.e. no alterations to the structure are being made to permanently accommodate more occupants and thus this would not be adding a “new” single-family zoned high-occupancy property, but the new number of tenants would exceed the four-person limit.

## Summary

The debate over occupancy limits up to now has been largely defined by the experiences of only a few centrally located neighborhoods. Their concerns about high-occupancy properties are valid and should not be dismissed as anti-density NIMBYism. The goal of this analysis is to provide the best available data to policy makers on how the rest of Austin may be impacted if the proposed change in occupancy limits, shaped largely by a few neighborhoods, is extended to the McMansion Ordinance boundary or citywide. It is the author's opinion that much more needs to be understood before even a temporary change.