Final Draft

The Economics of Land Use

Denver Workforce/For-sale Housing Economic Study

Prepared for:

City & County of Denver
and
City of Denver City Council

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1. EXECUTIVE SUMMARY

Summary of Findings

1. Household incomes have not kept pace with the cost of housing.

Median household incomes increased 28 percent between 2000 and 2012, but decreased adjusted for inflation. For a 2.5-person household (Denver's average), the Area Median Income (AMI) in 2000 was $52,800 and $67,500 in 2012. While this reflects an average rate of 2.1 percent growth per year, adjusted for inflation, median household incomes actually decreased at an average rate of 0.3 percent per year.

By contrast, the average price of new and existing housing increased by 48 percent between 2000 and 2012, while the average price of new housing alone increased by 69 percent over the same period. In the overall market, new and existing housing sold for an average of $204,000 in 2000 and escalated to $302,000 by 2012, an average increase of 3.2 percent per year. In the new housing market, defined as sales of units no more than five years old at the time of sale, the average sales price increased from approximately $307,000 in 2000 to more than $518,000 in 2012—an average increase of 4.6 percent per year.

Similarly, the *median* price of a home increased a total of 95 percent between 2000 and 2012. From $225,000 in 2000 to $438,500 by 2012, the median price of a home in Denver increased at an average of 5.7 percent per year.

2. The household affordability gap has widened by $100,000 (or 169 percent) since 2000.

The affordability gap is defined as the difference between the median sales price of a home and the purchase price amount a household can afford with the median household income (100 percent AMI). In 2000, the affordability gap was $59,000, and by 2012 had expanded to $159,000.

In 2000, a household earning 100 percent of AMI ($52,800) could afford to buy a home for approximately $166,000, but the median sales price in 2000 was $225,000, reflecting an affordability gap of $59,000. For households at 80 percent of AMI (household income of $42,200), the affordability gap was an estimated $91,600.

In 2012, a household earning 100 percent of AMI ($67,500) could afford to buy a home for approximately $279,500, but since the median sales price was $438,500, their affordability gap was an estimated $159,000. For households at 80 percent of AMI (household income of $54,000), the affordability gap was an estimated $215,400.

3. Foreclosures impacted the market with relatively inexpensive ownership housing during the housing market collapse and recession.

High foreclosure rates were a consequence of relaxed lending standards during the housing boom. According to the analysis, between 2005 and 2012, among the more than 25,800 foreclosures, approximately 15,300 housing units were available at levels that would have been affordable to households earning 70 percent of AMI or less. As a result, the average annual portion of all housing sales affordable to this income level doubled from 19 percent between 2000 and 2004 to 40 percent between 2005 and 2012.

There is, however, no evidence or data to suggest that these homes were actually purchased by households at that income level, especially given tighter lending standards during the years following the housing market collapse. It is important to note, however, that this spike in the availability of moderately-priced housing was temporary as a result of abnormal market conditions, and the magnitude of foreclosures has since receded.

4. ***The distribution of new for sale housing is increasingly concentrated at the higher end.***

   In spite of the temporary increased availability of moderately-priced housing units identified in the previous finding, the portion of all new housing unit sales affordable to households earning 120 percent of AMI or more increased between 2002 and 2012. Analysis of the distribution of new unit sales shows that 41 percent of all new housing sales in 2002 were priced for households earning 120 percent AMI or more. In 2012, that portion of new unit sales priced for households earning 120 percent AMI or more had increased to 49 percent.

5. ***Only 9 percent of IHO units were built in non large-scale projects.***

   Ninety-one percent, or 1,062 units, were produced in large scale development projects that were subject to developer agreements that either pre-dated, or were entered into as an alternative path provided within the IHO. As these projects have fulfilled their obligations, overall production of affordable homes has slowed. Although several redevelopment areas within the city remain (site of the former St. Anthony's Hospital in south Sloan's Lake, site of the former CU Hospital at 9th and Colorado, south Broadway between Alameda and Mississippi, and the Denver Post Building in Globeville), these redevelopment areas are significantly smaller than the prior generation of redevelopments (Stapleton, Lowry, Green Valley Ranch, the Central Platte Valley) with the exception of large tracts of undeveloped land near the Gateway Station in the DIA neighborhood. While the City is currently in the process of taking stock of its supply of land, as described above, it is likely that the opportunities for future large-scale projects and thus developer agreements to provide affordable housing will be limited.

   In comparison, since 2002, 9 percent, or 82 units of affordable for-sale housing have been built by developers of non-large scale projects.

6. ***Seventy-three percent of all IHO units were built before 2004.***

   By the end of 2004, 73 percent of the total IHO unit production (2002 through 2012) had occurred, because a majority of large-scale development projects' affordable unit obligations had been fulfilled. At that time, production dropped to less than 100 units per year. Since the end of the Great Recession in mid-2009, only 20 IHO units have been built. Since the IHO captures a percentage of new for-sale development as affordable to moderate-income families, IHO units are built at the pace of market rate development. In the last five years, only three multifamily family for-sale developments have been built, and only one was large enough to trigger the IHO requirements. Thus, of the 20 IHO units built in the last five years, Frontview Condominiums received the cash incentive to construct IHO units on site, contributing four IHO units, and the other 16 were built as part of large-scale developer agreements. The drop in production of affordable homes during the past five years is directly attributable to the drop in production of market rate projects subject to the ordinance, and unlike other periods, is not attributable to developers paying cash in lieu.

Inclusionary Housing Ordinance Overview

Enacted by City Council in 2002, the workforce housing ordinance is one of the primary mechanisms by which the City seeks to ensure that affordable housing is provided simultaneous to the construction of market rate ownership housing in the city. While it is one small tool to create homeownership opportunities for moderate income families, it is also one among Denver's many other strategies to create opportunities for rental housing, homeless housing, supportive services, etc., which are included in the City's Affordable Housing Plan.

The Inclusionary Housing Ordinance (IHO) requires that the developer of a for-sale housing development (detached or attached single-family or multifamily) of 30 or more units provide 10 percent of them as affordable to households earning either 80 percent or 95 percent of the city's area median income (AMI). Currently, the 10 percent set-aside requirement applies uniformly throughout the city.

As an incentive to the provision or construction of affordable units (called "moderately-priced dwelling units" or MPDUs in the ordinance language) in a development, the City offers a cash subsidy of $5,500 per MPDU built on-site up to a maximum of $250,000 per development per program year. Currently, the same amount of cash subsidy is granted to developments that meet the IHO's on-site construction set-aside requirement uniformly throughout the city.

For developments in which it is determined that providing on-site MPDUs is not possible, the IHO allows for two types of alternative satisfaction. The first allows a developer to build additional units at one or more sites in the same or adjoining statistical neighborhood or to build units at one or more sites within one half-mile of a light rail or commuter rail station.

To date, only one developer has successfully been approved to build off site and has done so. The second alternative satisfaction option available to developers is the payment of a fee in-lieu (referred to as a "cash in-lieu" payment or CIL) of constructing units. The amount of the CIL is defined as equal to 50 percent of the sales price for the MPDUs that the developer is required to provide but is not constructing. This aspect of the IHO also currently applies uniformly throughout the city.

Study Purpose

Economic & Planning Systems (EPS) was retained to conduct an economic study to support the City Council and Office of Economic Development in efforts to update and improve the City's Inclusionary Housing Ordinance. Following administrative updates in 2012, EPS was contracted to evaluate the basis of need for the ordinance, changes in housing and economic conditions, and identify differences in affordable housing need in Denver's neighborhoods. EPS was also tasked with identifying problems and proposing solutions to address the need through changes to the IHO's structure. The financial impact of the proposed changes to developers of selected prototypical projects was also evaluated.

Recommendations

Following the analysis of trends and conditions to provide context for establishing the need for the IHO going forward, this section presents EPS' proposals regarding modification of the IHO structure to address the problems and reflect the City's desire to use the IHO structure more effectively and target areas of greatest need.

1. ***The IHO structure should reflect different levels of need as they occur across the city.***

   With its features applied uniformly throughout the city, the IHO does not reflect or adequately attempt to address the priorities of creating affordable housing opportunities in areas of greatest need.

2. ***Use data to identify level of affordable housing need by neighborhood.***

   Grounded in comprehensive and detailed analysis, EPS recommends that the City determine areas of greatest need on the basis of evaluating housing costs and proximity to fixed-rail transit by neighborhood. The data recommended for use in this identification process have been selected here for applicability, reliability, accuracy, ease of understanding, and ease of updating. The recommendation to identify these metrics by statistical neighborhood is to standardize this process with other types of evaluation conducted by the City at the neighborhood level.

3. ***Adopt a tiered per-MPDU cash incentive by neighborhood.***

   In areas of high housing costs and high land values, it is unlikely that affordable housing will be built without access to greater incentives. Conversely, in areas of lower housing costs and lower land values, the City does not need to provide as much incentive in areas where the existing market contains relatively affordable housing and the future housing is more likely to produce housing closer to affordable targets. That is, place more resources in areas of greater need.

4. ***Adopt a tiered cash in-lieu structure by neighborhood.***

   While changing the incentive per unit is intended to provide an added incentivize to building units on site, modifying the CIL structure is also necessary to alter the behavior surrounding developer decisions to select the buy-out option, particularly in areas of greatest need. The proposed solution is to increase the CIL in neighborhoods of greatest need and lower the CIL in areas of lowest need. That is, because moderately-priced housing is more commonly found in some areas, it is not necessary to incentivize the construction of units to the fullest extent or to disincentive a developer to the fullest extent from opting out of the affordable housing requirement.

5. ***Periodically update the underlying data to ensure the IHO reflects changing conditions.***

   Because economic conditions change, data used to determine levels of need should be updated every three to five years. This will ensure that the IHO is reflective of relatively current conditions, but maintain a general level of predictability for developers (as opposed to a changed map each year).

6. ***The City should consider a few alternative mechanisms for affordable housing production.***

   Discussed in a separate chapter, it is recommended that the City separately evaluate the political and market feasibility of implementing a variety of different programs to generate additional funding and create a broader funding base for development of affordable housing. These recommendations are also suggested in light of the substantial debate surrounding crafting a solution for the city that does not unduly burden a small portion of the community for the benefit of all.

2. ESTABLISHMENT OF NEED

The data and information contained in this chapter are a review of demographic, economic, and housing market trends, which established the basis of need for the City's IHO. This chapter documents the changes in those trends and provides a basis for the continued civic benefits provided by the IHO.

Original Basis of Need

At the time of passage, study and analysis of the issues found the following reasons to form the basis of need for the ordinance. The following statements are found at the beginning of the ordinance language (Ord. No. 617-02, § 1, 8-5-02):

1. *Demographics and analyses of new housing indicated that a large majority of private development is geared toward high-priced housing development and does not serve households earning less than one hundred percent AMI;*
2. *Developer practices produce the undesirable and unacceptable effects of limiting housing available to moderate and low-income households…*
3. *The continuing high level of unmet demands for housing, allows for housing to be highly priced discourages developers from offering a more diversified price range of housing, and contributes to the unwillingness of developers to create moderately priced housing*
4. *Rapid regional growth and a strong housing demand have combined to make land and construction costs higher, causing a rise in the price of housing and causing affordable housing to be located in limited areas*
5. *Income has not kept pace with this rapid and significant increase in the cost of housing in Denver*
6. *Housing problems have escalated due to population increase and a limited supply of developable land. The city seeks to assure that the limited supply of developable land provides housing opportunities for all incomes*
7. *Providing incentives to developers will assist developers in providing a minimal percentage of affordable housing units as an integral part of new developments*
8. *Developers of new housing are not meeting the need for moderately priced, affordable housing. The provision of only higher priced housing contributes to the lack of affordable housing*
9. *Developers of new for sale housing are not meeting the need for dispersed, affordable housing. In reviewing public records for 1998 to 2000, the city council has determined that less than 2 percent of the new housing is affordable in projects of 30 or more for sale units without any incentives from the city. These units were constructed primarily by one developer and concentrated in the far northeast sector of the city. The provision of only a small number of affordable for sale units in only a single limited area contributes to the citywide lack of dispersal and availability of affordable housing; and*

10. *Without a program requiring moderately priced housing to be built, it is unlikely based on current trends that developers will provide such housing on their own initiative, leaving Denver citizens without sufficient affordable housing*

Background

Inclusionary zoning (or housing) ordinances refer to municipal and county ordinances that require a portion of new housing development to be affordable for households at specified income levels. Requirements generally range from 10 to 30 percent of the total housing units, and the level of affordability generally ranges from 60 to 100 percent of area median income (AMI)[1]. Under most ordinances, a developer can comply with the requirements by building the units on site as a part of the overall project and/or by building them off-site. Alternatively, many IHO programs, such as Denver's, allow for all or a portion of the housing requirement to be met by cash-in-lieu (CIL) payments.

IHOs are generally enacted by home rule cities or counties as land use regulations under the health, safety, and welfare provisions. In Colorado and the Rocky Mountain West, the IHO is most commonly a cornerstone of many resort community's affordable housing programs including Aspen and Pitkin County, CO; Telluride and San Miguel County, CO; Breckenridge, CO; Park City, UT; and Jackson and Teton County, WY. But there are many major urban markets, as shown in **Table 1**, which have IHOs.

Nationally more than 200 communities have adopted some form of the IHO. Montgomery County, Maryland, was one of the earliest to adopt an IHO and has built over 10,000 affordable housing units. All cities and towns in Massachusetts are subject to General Law Chapter 40B that requires communities with less than 10 percent affordable housing to require new developments to provide 20 percent affordable housing and redevelopments to provide 15 percent affordable units.

While many IHOs have applied to the provision of rental and ownership units, a number of states have placed restrictions on the use of IHOs for rental housing. California invalidated IHO provisions for rental housing in 2009 when the courts found that it constituted a form of rent control that violated the Costa-Hawkins Rental Housing Act of 1996. In Colorado, courts found that IHOs for rental housing was also a form of rent control in violation of state statutes according to the Telluride decision. The legislature, however, made some limited provisions for local governments to enter into voluntary agreements with developers for the provision of deed restricted rental housing under HB10-1017. Aspen and Boulder continue to use their IHO for rental housing but within complicated legal frameworks that convert rental units to condos to be owned and operated by affordable housing providers.

[1] The AMI defined by the Department of Housing and Urban Development is the standard by which households qualify for housing that is subsidized with Federal funding, such as Community Development Block Grant (CDBG) funding.

Table 1
Inclusionary Housing Ordinances in Urban Markets

	Boulder	Boston	Burlington	Cambridge	Chapel Hill	Chicago	Davis	San Diego	San Francisco	New York
Applicability Threshold	No threshold	10 units	5 units	10 units (or 10,000 sqft)	5 units	10 units	5 units	10 units	10 units	No threshold
Tenure	For-sale; Rental	For-sale; Rental	For-sale; Rental	For-sale; Rental	For-sale	For-sale; Rental	For-sale	For-sale; Rental	For-sale; Rental	For-sale; Rental
Set-Aside	20%	10%	15% to 25%	15%	15% (10% in Town Center)	10% (20% for project receiving city financial assistance)	12.5% to 25%	15%	12% to 15% on-site or 20% off-site	20%
Affordability Level	~ 65% AMI	80% to 120% AMI	a) Less than 140% AMI b) 140% to 180% AMI c) More than 180% AMI	65% AMI (income eligible 50% to 80%)	65% AMI (50% of units); 80% AMI (50% of units)	100% AMI	80% AMI	100% AMI	90% AMI	80% AMI; 125% AMI; 175% AMI
Incentives	Affordable units may be 80% of market rate unit size	Increased height and FAR	Fee waivers; 15% to 25% density bonus; Lot coverage bonus	30% density bonus	Density bonus; Expedited approval and permitting process	Density bonus (in certain downtown districts); negotiated	Allows a 1-for-1 (unit) density bonus for each affordable unit provided	None	Fee waivers	up to 20% and 33% density bonus
Alternative Satisfaction Options	Off-site construction; Existing units off-site dedicated as permanently affordable; dedication of vacant land	Off-site construction requires 15%	Off-site construction of units at 125% of on-site requirement		Land dedication; Dedication of existing units; Off-site construction; Fee in-lieu	No off-site provision	Land dedication	Off-site construction allowed	Off-site units must be sold at 70% AMI	Off-site allowed in same community district or within 1/2-mile
CIL Amount (if applicable)	$132,000 (attached product); $157,000 (detached product); 50% additional penalty if fewer than 50% of required units are constructed on site.	Gap between affordable unit sales price and cost to construct	Not allowed	Only allowable under determination of "significant hardship"	$85,000 (inflated by cost of housing price increase)	$100,000 (2013) inflated with CPI	Gap between affordable unit sales price and cost to construct		Gap between affordable unit sales price and cost to construct ($171,000 for Studio unit in 2013)	Not allowed

Source: Economic & Planning Systems

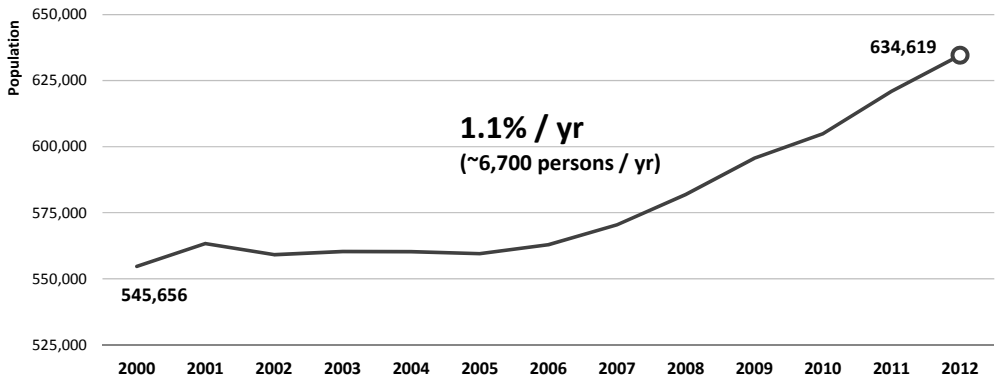
H:\123099-Denver Housing Economic Study\Data\[123099-Housing Program Matrix.xlsx]Table 1- US IZO Programs

Findings

Demographic Growth

Demographic growth, defined by the following trends of population and households since 2000, remains strong in spite of two major recessions during the same time period. **Figure 1** illustrates that since 2000, the population of City and County of Denver has grown at a rate of 1.1 percent (or approximately 6,700 persons) per year from a population base of approximately 546,000 in 2000 to more than 634,000 in 2012.

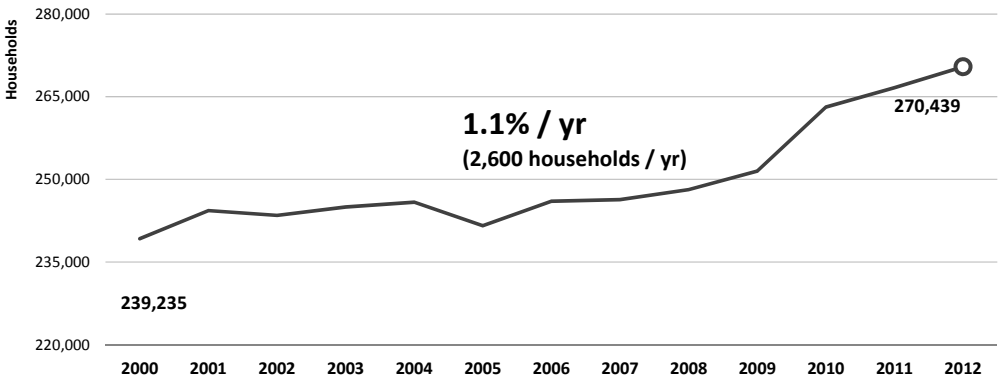
Figure 1
City/County of Denver Population Growth, 2000-2012



Source: U.S. Census, Colorado Department of Local Affairs; Economic & Planning Systems

Illustrating the same trend, but more equivalent to demand for housing, **Figure 2** shows the trend in the number of households in Denver. Between 2000 and 2012, the number of households also grew at a rate of 1.1 percent per year (approximately 2,600 households) from approximately 239,000 in 2000 to more than 270,000 in 2012. Taken together, these demographic trends suggest that the average household size of those moving to Denver has been approximately 2.5 persons per household.

Figure 2
City/County of Denver Household Growth, 2000-2012



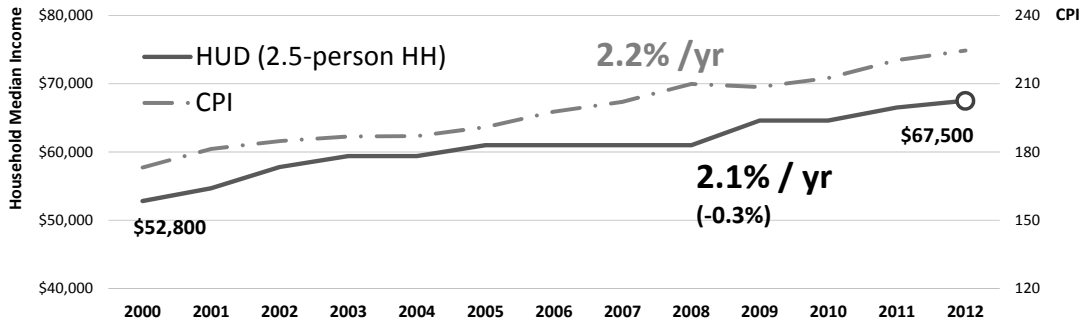
Source: U.S. Census, American Community Survey, 1-Year Estimates; Colorado Department of Local Affairs; Economic & Planning Systems

Incomes

In the administration of the City's Inclusionary Housing Ordinance, households are qualified according to measures of household area median income (AMI) according to information reported by the Department of Housing and Urban Development (HUD) and adapted further by the City's Office of Economic Development to determine maximum sales prices by AMI category (i.e. 80 percent, 95 percent, etc.) and bedroom size (i.e. studio, one-bedroom, etc.), maximum income levels, and maximum rents. **Figure 3** illustrates information from HUD and the Bureau of Labor Statistics and shows the trend in household AMI (as shown, 100 percent AMI) and the consumer price index[2] from 2000 to 2012.

Between 2000 and 2012, the City's AMI for a household size of 2.5 persons[3] increased 28 percent from $52,800 to $67,500, an average rate of 2.1 percent per year. During the same period, data from the BLS indicate that the consumer price index increased at 2.2 percent per year. Adjusted for inflation, household median incomes actually decreased between 2000 and 2012, indicating an average decrease of 0.3 percent per year. This means that the real purchasing power of a household earning 100 percent AMI decreased over this period.

Figure 3
HUD Area Median Income, 2000-2012



[**Note**]: Percentages represent annual average rates; in parentheses, percentages represent inflation-adjusted rates.
Source: U.S. Census; Economic & Planning Systems

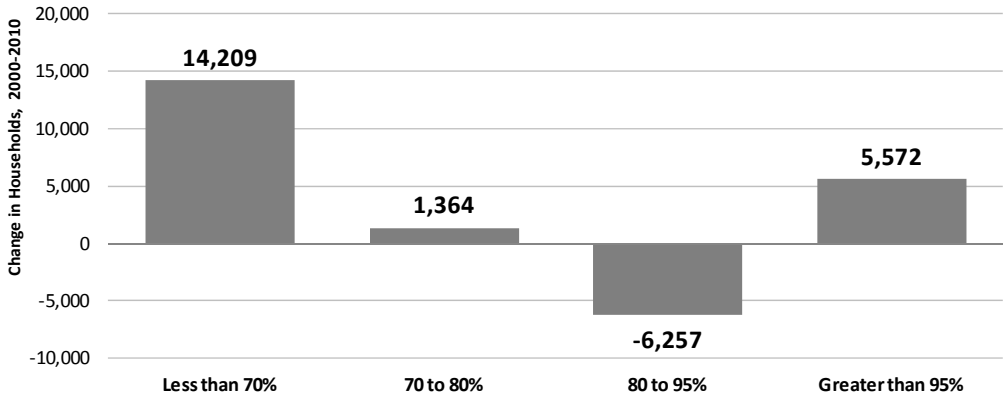
[2] This is the Denver-Boulder-Greeley consumer price index published by BLS and available at: http://www.bls.gov/cpi/#data.

[3] Data are published in household size increments of one person. These metrics are interpolated from those published numbers based on the proportionality between household size increments. Data are available at: http://www.huduser.org/portal/datasets/il.html.

Households by Income Levels

Figure 4 illustrates the shift in households by income level between 2000 and 2010, using decennial U.S. Census data. During this time, the number of households earning below 80 percent AMI increased by 15,600. Of this group, 91 percent earn less than 70 percent of AMI. The number of households earning more than 95 percent AMI increased by approximately 5,600. The single income cohort with a contraction in the number of households is the 80 to 95 percent income range, which fell by approximately 6,200.

Figure 4
Households by Income, 2000-2010



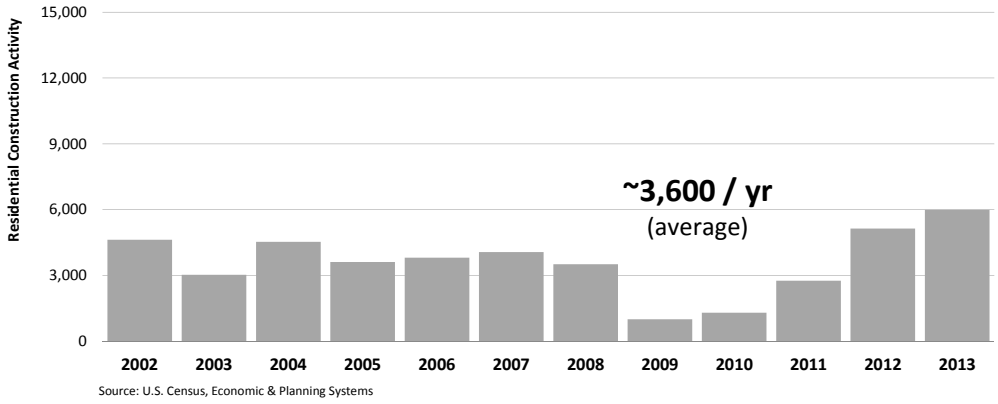
Source: U.S. Census; Economic & Planning Systems

Housing Market Trends

Construction Trends

During the same period of time, information on residential construction activity indicates that more than 43,000 housing units were constructed, averaging approximately 3,600 units per year. The magnitude of construction activity remained fairly constant through 2008, during which the average number of units permitted by the City was approximately 3,900. In 2009, the official year marking the end of the Great Recession, there were approximately 1,000 units permitted, a majority of which were rental. Activity in the following year remained at the same relative level with approximately 1,300 units permitted. Since 2011, however, generally activity has picked up to and exceeded pre-recession levels of more than 5,000 units per year. Looking specifically at the subset of multi-family units, there have been 12,399 permits issued since 2009 for projects with five or more attached units as well as dwelling units classified in mixed-use projects. Within this total, approximately 190 (or 1.5 percent) have been within ownership projects.

Figure 5
City/County of Denver Construction Activity, 2000-2012



Source: U.S. Census, Economic & Planning Systems

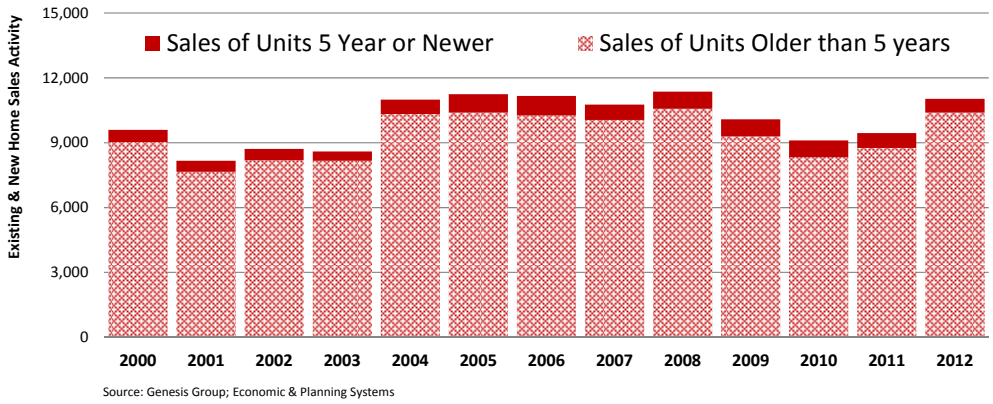
Sales Activity

During the same time, the City maintained a fairly consistent magnitude of sales activity, according to existing and new home sales data obtained from the Genesis Group. **Figure 6** illustrates that the trend in home sales for Denver did not decline as markedly during the recession or following years as much as the city's building activity did. These data are also broken down by age of the unit at time of sale: new units are defined as those which were newer than five years at the time of sale; and old units are defined as those which were older than five years at the time of sale.

Overall annual sales activity of all housing types has averaged approximately 10,000 housing units per year since 2000. Between 2000 and 2003, the average was approximately 8,800; while between 2004 and 2008, annual sales activity averaged 11,100 (more than 25 percent over the preceding level). Since 2009, the annual sales activity has dropped to approximately 9,900 per year with slight increases year over year since 2010.

Of the new housing product, annual sales activity averaged approximately 500 per year between 2000 and 2003, and between 2004 and 2008 averaged nearly 800 per year. Since 2009, the number of new units sold has averaged approximately 700.

Figure 6
City/County of Denver Housing Sales Activity, 2000-2012



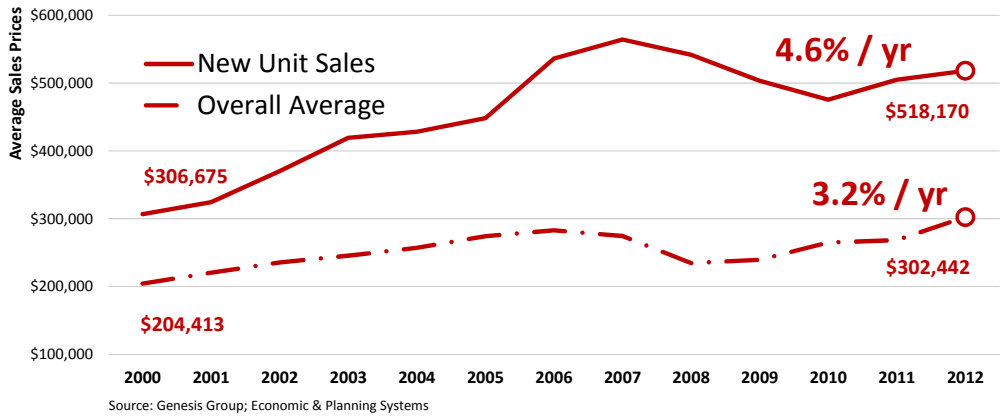
Source: Genesis Group; Economic & Planning Systems

Sales Prices

Figure 7 illustrates that in 2000, the average home in Denver sold for approximately $204,000, and by 2012 had increased to more than $302,000. This growth reflects an overall increase of 48 percent and an annual increase of 3.2 percent on average. For new housing, however, the average home sold for approximately $307,000 in 2000 and escalated to more than $518,000 by 2012, an overall increase of 69 percent and an annual increase of 4.6 percent per year on average.

Using a different metric of sales activity, the median sales price, the data show an increase from $225,000 in 2000 to $438,500 in 2012, reflecting an overall change of 95 percent, or an average of 5.7 percent escalation per year.

Figure 7
City/County of Denver Housing Sales Prices, 2000-2012

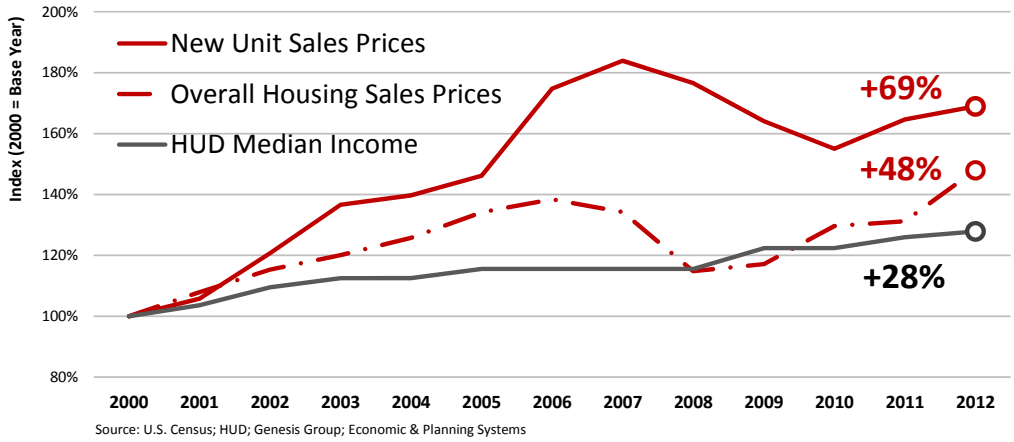


Source: Genesis Group; Economic & Planning Systems

Overlaying a few of the previously documented trends illustrates a picture of the affordability of the housing market for households in the City of Denver. **Figure 8** illustrates that, since 2000, while the median income has increased 28 percent over its 2000 level, overall housing sales prices have escalated 20 percent more and new housing sales prices have escalated more than 41 percent above median incomes.

Although this trend shows that the relative decline in overall housing sales prices aligned temporarily with the household median income trend during 2008 and 2009, it should be noted that these were two of the years officially associated with the Great Recession[4]. Since that time, the rate of overall housing price increase has begun again to exceed that of household median income increase.

Figure 8
City/County of Denver Housing Sales Prices, 2000-2012



Source: U.S. Census; HUD; Genesis Group; Economic & Planning Systems

[4] According to the National Bureau of Economic Research, the official arbiter of U.S. recessions, the Great Recession as it has been called, began in December 2007 and ended in June 2009.

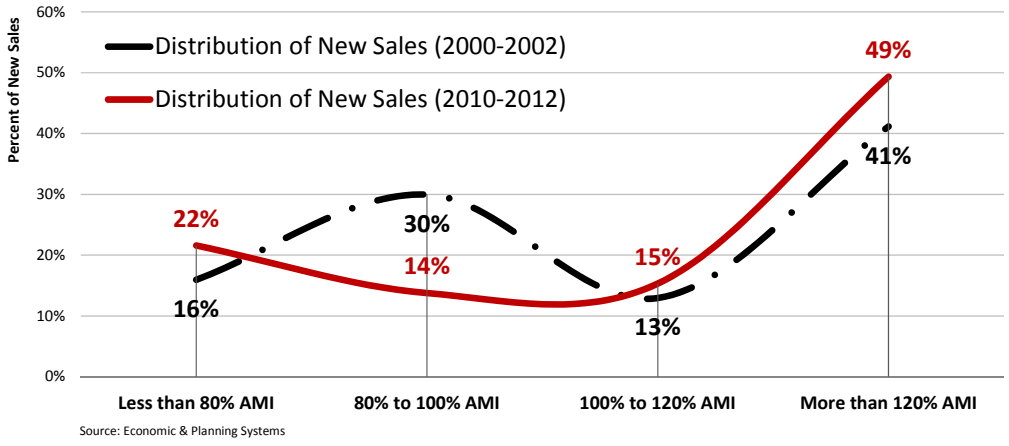
New Sales Distribution

Figure 9 displays the change in distribution of new housing sales prices by AMI category. Data used in this analysis include three years of new sales data for the period leading up to adoption of the original IHO in 2002, as well as the three final years of data collection for this project, 2010 through 2012. The sales are escalated to 2002 and 2012 prices respectively for direct comparison and the prices are translated to AMI categories using the same affordable metrics. (Note that the average mortgage interest rates from each respective period have been used to accurately reflect the conditions of 2002 and 2012.)

In spite of the temporary increased availability of moderately-priced housing units identified in the previous finding, the portion of all new housing unit sales affordable to households earning 120 percent of AMI or more increased between 2002 and 2012. Analysis of the distribution of new unit sales shows that 41 percent of all new housing sales in 2002 were priced for households earning 120 percent AMI or more. In 2012, that portion of new unit sales priced for households earning 120 percent AMI or more had increased to 49 percent.

As the data in **Figure 9** show, the recent sales activity of new housing is concentrated on the higher end of the income spectrum. Nearly half of all sales (49 percent) were priced at the 120 percent and higher threshold, which is 8 percentage points higher than the comparable set of earlier sales (41 percent). There has been a significant decrease in the portion of new unit sales in the 80 to 100 percent AMI category. Whereas these accounted for 30 percent of sales between 2000 and 2002, they only accounted for 14 percent in the distribution of new unit sales between 2010 and 2012.

Figure 9
City/County of Denver New Housing Sales Price Distributions



Source: Economic & Planning Systems

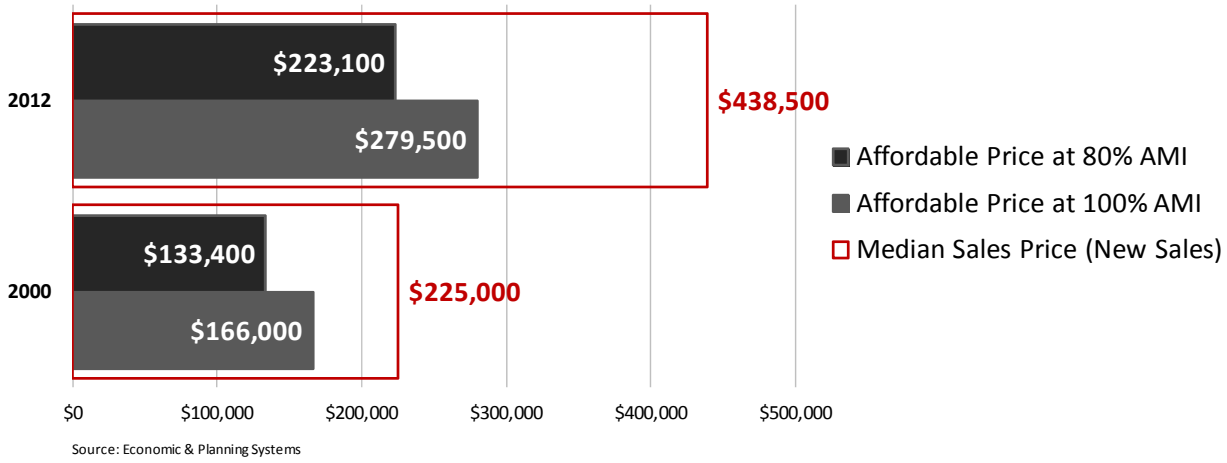
Affordability Gap

The affordability gap is defined as the difference between the median sales price of a home and the purchase price amount a household can afford with the median household income (100 percent AMI). **Figure 10** illustrates how this gap has widened between 2000 and 2012, using housing sales price information, household income data, and standard purchase price assumptions.

Overall, the affordability gap was $59,000 in 2000 and by 2012 had expanded to $159,000. In 2000, a household earning 100 percent of AMI ($52,800) could afford to buy a home for approximately $166,000, but the median sales price in 2000 was $225,000, reflecting an affordability gap of $59,000. For households at 80 percent of AMI (household income of $42,200), the affordability gap was an estimated $91,600.

In 2012, a household earning 100 percent of AMI ($67,500) could afford to buy a home for approximately $279,500, but since the median sales price was $438,500, their affordability gap was an estimated $159,000. For households at 80 percent of AMI (household income of $54,000), the affordability gap was an estimated $215,400.

Figure 10
Affordability Gaps, 2000 and 2012



Source: Economic & Planning Systems

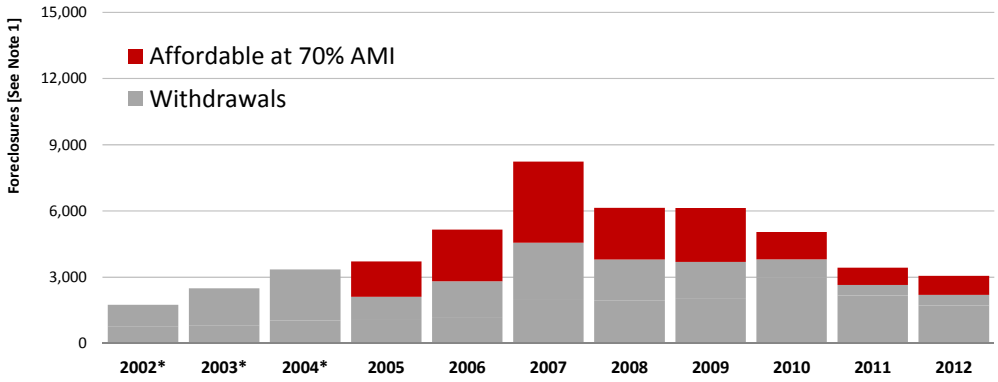
Other Factors

Foreclosures

During several of years preceding the onset of the Great Recession, it has been recognized that lending practices had become much more lenient that previously experienced. The practice of issuing mortgages with little to no documentation had become more commonplace, and the risks of default had not been adequately quantified. One of the consequences of this pattern was the increased rate of foreclosure.

Figure 11 illustrates the magnitude of foreclosures in the City and County of Denver between 2002 and 2012. Overall, there were nearly 30,800 foreclosures, of which approximately 15,300 housing units available at levels that would have been affordable to households earning 70 percent of AMI or less. Although detailed data are not available prior to 2005 at this level of detail, the information identifies that from 2005 through 2012, approximately 15,300 foreclosures were affordable to households earning 70 percent of AMI. As a result, housing affordable to this income level doubled from an average of 20 percent of all sales between 2000 and 2004 to an average of 40 percent between 2005 and 2012. There is, however, no evidence or data to suggest that these homes were actually purchased by households at that income level, especially given tighter lending standards during the years following the housing market collapse. Moreover, this was also just a temporary increase in the availability of moderately-priced housing, as the number of foreclosures has recently returned to lower historic levels.

Figure 11
City/County of Denver Foreclosures, 2000-2012



[**Note 1**]: These estimates are calculated as the difference between reported Notices of Election & Demand and reported Withdrawals.
* Denotes that detailed data on loan amounts were not available, such that affordability by AMI level is estimable.
Source: Denver Office of the Clerk & Recorder, Economic & Planning Systems

Insurance and Financing Costs

While the magnitude of effects caused by the threat of construction defects claims on the residential construction industry are difficult to quantify and even correlate, the perception of the problem represents a reality. This problem affects communities throughout the state and is complicated by the entanglement of legal, financial, and insurance issues. Although not the sole cause for the lack of for-sale multifamily housing construction, developers and builders view the risk of exposure to lawsuits and the cost of insuring against such risks as a significant deterrent or barrier to developing projects.

During the 1990s and up to the early 2000s, construction defects claims affected predominately single-family housing. As the state's population boomed and, as a result, housing construction increased in the early 2000s, demand for multifamily housing became more commonplace. Multifamily (for-sale) developments soon became a more frequent target of construction defects lawsuits.

The legal environment has evolved since the 1990s, as well. In the early 2000s, passage of the Construction Defect Action Reform Act (CDARA), which governs construction defects claims, allows for and, according to some in the construction community, even discourages pre-suit settlements. At the end of the decade, passage of HB 10-1394, called "Concerning Commercial Liability Insurance Policies Issued to Construction Professionals"[5], potentially exacerbated a situation where demand for new multifamily for-sale construction was already weak. The intent was to provide courts clarity on how to interpret general liability insurance provisions and therefore claims. While not a direct cause of the enactment of this bill, a number of insurance providers left the state, leaving a potentially more competitive and costlier environment for developers to acquire commercial general liability insurance policies[6].

Today, the City of Denver is not alone in experiencing a shortage of for-sale multifamily construction and it is also not the only community to perceive this issue to be closely linked to the cause for the lack of for-sale multifamily construction. Because the provision of attached multifamily housing is commonly associated with more affordable housing options either due to market affordability as compared to single family homes, or due to intentional policy set sides like the IHO. Overcoming this current obstacle to this inventory's development would be significant to effecting change in the dynamic of overall housing affordability in Denver and the rest of the state.

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[5] The bill's origins stem from two liability insurance cases, known by their abbreviated titles, *General Security* and *Greystone,* both decided in 2009. In *General Security*, the insurance provider (General Security), had denied that it was responsible for providing coverage for a construction defect, where existing statute defined it as an accident/occurrence. Part of the bill's purpose is to clarify how courts interpret future claims, and that the bill is a response to what was perceived as a failure of the court to "properly consider a construction professional's reasonable expectation that an insurer would defend the construction professional against an action or notice of claim."

[6] The legislation's intent is to clarify the definitions of a construction defect for claims purposes, and to generally provide greater certainty. In the first part of the legislation, it is stated that "insurance policies issued to construction professionals have become increasingly complex, often containing multiple, lengthy endorsements and exclusions conflicting with the reasonable expectations of the insured." In response, the act declares that insurance coverage and an insurer's duty to defend shall be interpreted broadly in favor of the insured. It also ensures that a court still consider application of any exclusions to coverage, because it was not intended to "create insurance coverage that is not included in the insurance policy." It also places extra burden on the insurance providers. One provision requires that insurance providers have a duty to defend the policy holder in the event of a notice of claim process even if the insurer owes a duty to defend or not. The idea was to reduce defect litigation by encouraging pre-suit settlements.

3. CHALLENGES

This chapter summarizes the most significant challenges revealed through the analysis of demographic and housing market conditions and trends presented in the previous chapter. While acknowledging that the City's general experience with the IHO should be considered alongside the challenging economic circumstances that occurred during the 12 years since passage, the following chapter discusses the challenges with the IHO and frames a discussion for possible solutions, detailed further in the following chapter.

Market Context

Policy makers have expressed concerns that the City's IHO has failed to produce as many affordable units as hoped since its establishment in 2002. As a policy tool that leverages market rate for-sale construction only, the tool will always be inherently limited by the pace of that specific market. The economic conditions of the past 12 years provide some insight into the pace of the market and the corresponding activity for the ordinance to leverage, including:

- 2002. At the time of the IHO's passage in 2002, the nation and region were still recovering from the effects of the tech (dot-com) industry bust and a recession which began in early 2001.
- 2002-2007. The nation and region then also experienced a housing boom during the following five years, during which housing construction activity peaked and housing prices were escalating at rates unsustainable over the long-term.
- 2007-2009. This rate of rapid growth ended in the housing and financial market collapse of 2007 and Great Recession lasting officially until mid-2009. While many projects were completed during this period, based on financing acquired before the crash, new projects did not emerge to follow them.
- 2009-2014. Since then, while the region's employment base has been recovering, the foundations of the housing market have been slower to recover, as multiple factors, including financing and construction defect insurance, have created cost uncertainty and instability among the development industry particularly as they relate to the construction of multifamily ownership housing, which is a substantial market segment with applicability to the IHO's requirements.

Ordinance Specific Challenges

After isolating the factors impacting the market economy the ordinance leverages, the following are the most relevant problems as they relate to the structure of the IHO and its responsiveness or appropriateness as applied uniformly throughout the city.

1. ***Since establishment of the IHO, only 1,144 on-site units have been built[7].***

   With an ever-increasing base of demand (2,600 new households per year in the city), stagnating (inflation-adjusted) wages, and housing prices that have been increasing considerably faster than wages, the number of on-site affordable units produced represents less than 5 percent of the estimated for-sale units built in the city between 2002 and 2012 (approximately 25,520) and only 4 percent of the number of total new households to Denver to 2012 (nearly 27,000).

2. ***Only 9 percent of IHO units were built in non large-scale projects.***

   Ninety-one percent, or 1,062 units, were produced in large scale development projects that were subject to developer agreements that either pre-dated, or were entered into as an alternative path provided within the IHO. As these projects have fulfilled their obligations, overall production of affordable homes has slowed. Although several redevelopment areas within the city remain (Former St. Anthony's, 9th and Colorado, and the Denver Post Building in Globeville) these redevelopment areas are significantly smaller than the prior generation of redevelopments (Stapleton, Lowry, Green Valley Ranch, the Central Platte Valley), with the exception of large tracts of undeveloped land near the Gateway Station in the DIA neighborhood. On the other hand, just 9 percent, or 82 on-site units have been built by developers of non-large scale projects.

3. ***Too few affordable units have been built in areas of greatest need.***

   Of the 1,144 units built, none has been built in the CBD, and less than 3 percent have been built in central Denver. The remainder has been built outside of Central Denver in areas of relatively less need. While the construction of affordable units anywhere in the city may be desirable to meet the overall need, this pattern indicates that a uniform structure regarding the cash per unit subsidy and cash in-lieu option is ineffective at addressing areas with greater need, and that modifications to the cash subsidy amount and cash in-lieu could be more appropriately calibrated to reflect the magnitude of need in different neighborhoods.

4. ***Seventy-three percent of all IHO units were built before 2004.***

   By the end of 2004, 73 percent of the total IHO unit production (2002 through 2012) had occurred, because a majority of large-scale development projects' affordable unit obligations had been fulfilled. At that time, production dropped to less than 100 units per year. Since the end of the Great Recession in mid-2009, only 20 IHO units have been built. Since the IHO captures a percentage of new for-sale development as affordable to moderate-income families, IHO units are built at the pace of market rate development. In the last five years, only three multifamily family for-sale developments have been built, and only one was large enough to trigger the IHO requirements. Thus, of the 20 IHO units built in the last five years, Frontview Condominiums received the cash incentive to construct IHO units on site, contributing four IHO units, and the other 16 were built as part of large-scale developer agreements. The drop in production of affordable homes during the past five years is directly attributable to the drop in production of market rate projects subject to the ordinance, and unlike other periods, is not attributable to developers paying cash in lieu.

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7 Data regarding IHO unit production based on OED sources, August 2014. The City and County of Denver tracks both units produced under the IHO and the developer agreements. This number reflects the total of both.

5. ***It is unclear to what extent large-scale developments may occur in the future.***

   While the City is currently in the process of taking stock of its supply of land, it is unclear how many opportunities for future large-scale projects may exist.

6. ***Going forward, a reduction of the 30-unit threshold could expand the City's opportunity to see affordable units built through the IHO.***

7. ***In the past, it has been typically more feasible for developers to pay cash in lieu of building units.***

   Anecdotally, it has been indicated that it is more financially feasible for developers to pay the CIL fee than to build MPDUs on site. In the pro forma analysis conducted in this study, the results of testing the feasibility of four different development prototypes (given the current estimated cost and revenue assumptions) confirm that it has been generally more financially feasible for projects to pay the CIL than to build units on-site, particularly in high cost areas .

8. ***Levels of affordable housing need differ by neighborhood.***

   The current IHO structure does not adequately respond to different levels of affordable housing need by neighborhood. The analysis of housing costs by neighborhood illustrates the wide spectrum of differences between housing costs throughout the city. In some neighborhoods in 2012, for example, housing costs were nearly 75 percent below the citywide average of $302,400, and in others, housing costs were more than 250 percent above the citywide average. Moreover, trends suggest that housing in some neighborhoods has become more expensive more rapidly than in others, pushing lower-income households out.

9. ***The current IHO structure does not adequately reflect the importance of creating affordable housing opportunities in areas of greatest need.***

   The subsidy and cash in-lieu structure of the IHO as applied uniformly throughout the city does not reflect the level of priority the City would like to place on creating affordable housing in areas of greatest need. A significant number of these units have been created in the central city where land and housing values are highest and where moderately-priced housing opportunities are diminishing. That is, through redevelopment and development with higher-priced housing, the market seems unlikely to create affordable housing opportunities for moderate income households on its own.

10. ***The IHO's cash incentive per MPDU does little to motivate a developer's behavior.***

    While never truly effective, the elimination of the density bonus through Denver's adoption of form-based zoning limits the tools Denver can offer to incentivize construction. The only remaining incentive with economic value is the per unit subsidy, which is currently ineffective at influencing developer behavior. Originally intended to effectively waive development review fees at $5,500 per unit, it is insufficient at influencing the economics of development feasibility to warrant consideration of building units rather than buying out, particularly in high cost areas.

11. ***A housing development of significant scale under the current IHO structure would not be able to receive its full cash subsidy at an appropriate time.***

    The current IHO structure does not allow more than $250,000 to be disbursed to a single project in one program year. This structure was put in place to limit large scale single family home developers, building their affordable units at a fast rate, from depleting the fund. Condo projects, however, are free standing, single-structure projects and cannot pace their production in the same way single family homebuilders can.

4. PROPOSED SOLUTIONS

Following the analysis of trends and conditions to provide context for establishing the need for the IHO going forward, this chapter presents EPS' proposals regarding modification of the IHO structure to address the problems and reflect the City's desire to use the IHO structure more effectively and target areas of greatest need.

1. ***The IHO structure should reflect different levels of need as they occur across the city.***

   With its features applied uniformly throughout the city, the IHO does not reflect or adequately attempt to address the priorities of creating affordable housing opportunities in areas of greatest need.

2. ***Use data to identify level of affordable housing need by neighborhood.***

   Grounded in substantial debate and analysis, EPS recommends that the City determine areas of greatest need on the basis of evaluating housing costs and proximity to fixed-rail transit by neighborhood. The data recommended for use in this identification process have been selected here for applicability, reliability, accuracy, ease of understanding, and ease of updating. The recommendation to identify these metrics by statistical neighborhood is to standardize this process with other types of evaluation conducted by the City at the neighborhood level.

3. ***Adopt a tiered per-MPDU cash incentive by neighborhood.***

   In areas of high housing costs and high land values, it is unlikely that affordable housing will be built without access to greater incentives. Conversely, in areas of lower housing costs and lower land values, the City does not need to provide as much incentive in areas where the existing market contains relatively affordable housing and the future housing is more likely to produce housing closer to affordable targets. That is, place more resources in areas of greater need.

4. ***Adopt a tiered cash in-lieu structure by neighborhood.***

   While changing the incentive per unit is intended to provide an added incentivize to building units on site, modifying the CIL structure is also necessary to alter the behavior surrounding developer decisions to select the buy-out option, particularly in areas of greatest need. The proposed solution is to increase the CIL in neighborhoods of greatest need and lower the CIL in areas of lowest need. That is, because moderately-priced housing is more commonly found in some areas, it is not necessary to incentivize the construction of units to the fullest extent or to disincentive a developer to the fullest extent from opting out of the affordable housing requirement.

5. ***Periodically update the underlying data to ensure the IHO reflects changing conditions.***

   Because economic conditions change, data used to determine levels of need should be updated every three to five years. This will ensure that the IHO is reflective of relatively current conditions, but maintain a general level of predictability for developers (as opposed to a changed map each year).

6. The City should consider a few alternative mechanisms for affordable housing production.

It is recommended that the City separately evaluate the political and market feasibility of implementing a variety of different programs to generate additional funding and create a broader funding base for development of affordable housing. These recommendations are also suggested in light of the substantial debate surrounding crafting a solution for the city that does not unduly burden a small portion of the community for the benefit of all.

Modified Structure

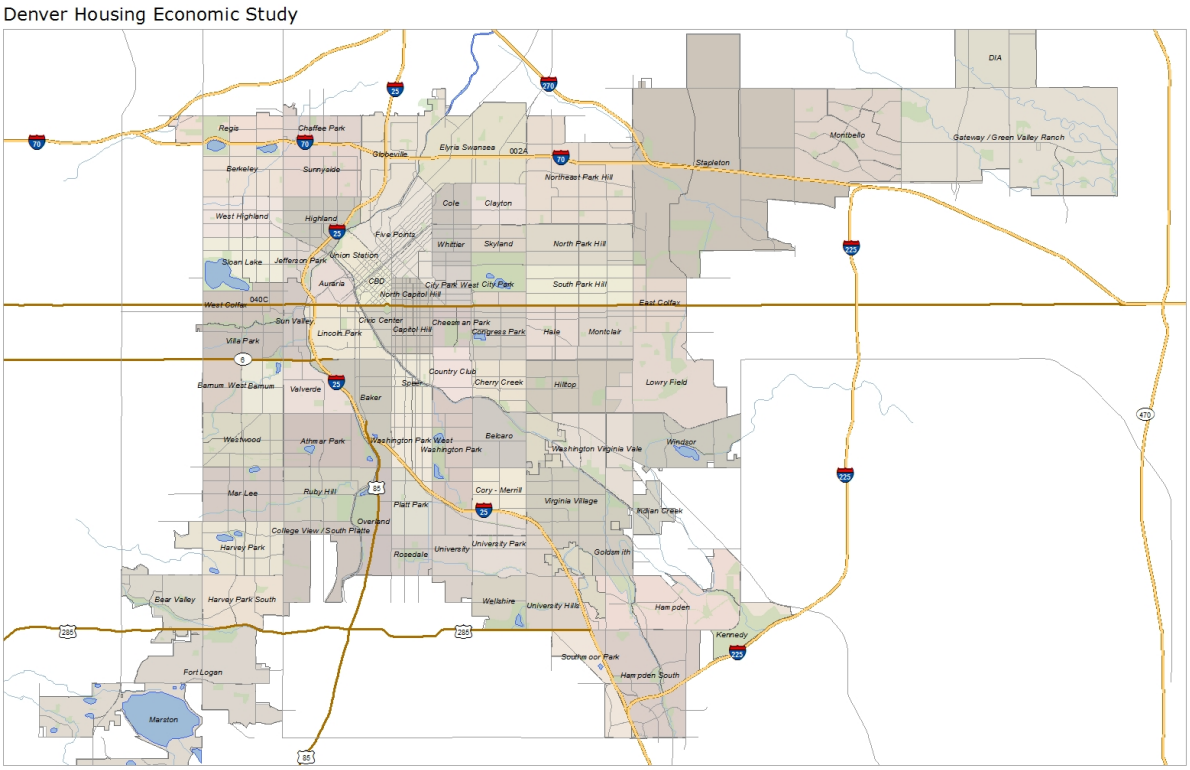
The following section outlines the analysis and determinations for modifying the IHO's cash incentive and cash in-lieu fee structures on a neighborhood basis. The discussion of this analysis summarizes how the two major variables that were ultimately decided through considerable stakeholder involvement and public meetings were evaluated and how they are used to determine a tiered neighborhood level IHO application structure.

Neighborhood Level Housing Costs

The purpose of a neighborhood level analysis was to delineate the different levels of affordable housing need throughout the city. In general, degrees of affordable housing need were defined by two variables: different levels of housing costs and by proximities to fixed-rail transit[8]. **Figure 12** shows the city's statistical neighborhoods by which the analysis of economic factors was performed.

[8] During the study process, several other variables were evaluated and debated. Significant policy debate, however, occurred around a few other factors, such as proximity to employment centers and jobs. In the final analysis, the jobs variable was eliminated because its results were determined to be largely redundant of the results of the fixed-rail transit and housing cost variables.

Figure 12
Neighborhood Map



Economic Variables

The following discusses the two main variables used in determining which neighborhoods would fall under the low, medium, and high categories. Each variable was overlaid and analyzed at the neighborhood level, at which point a trigger point was also determined, i.e. at which point the economic condition became strong enough to characterize the neighborhood as having low, medium, or high affordable housing need according to each variable. Because two different economic variables were used in the final analysis, the following also discusses how these two variables were overlaid to determine the final low/medium/high neighborhood map.

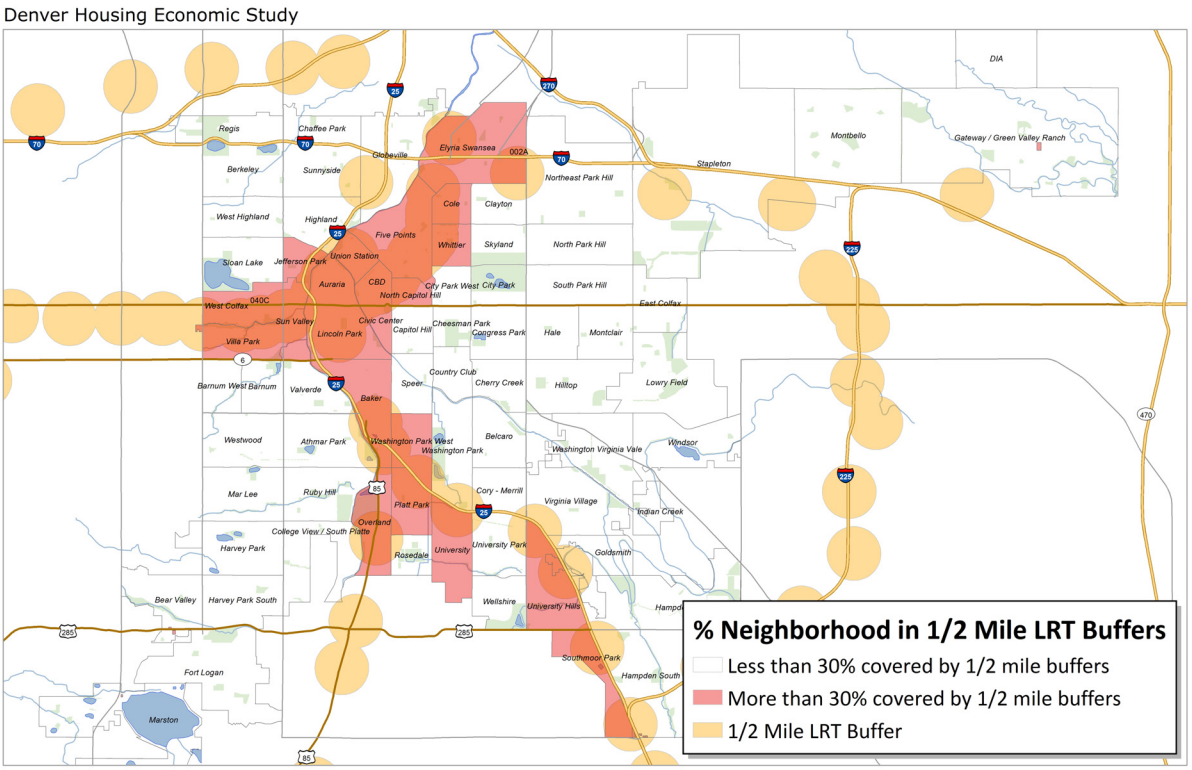
Fixed-Rail Coverage

The first variable used in this analysis is proximity to fixed-rail transit[9]. In this analysis, proximity to transit was considered important because it saves moderate income families money compared to owning and/or always using a car. Moreover, market forces have generally raised housing prices near fixed-rail transit, and, therefore, these areas suffer from lower availability of housing for moderate income families. Data used for this analysis are half-mile buffer zones around existing and proposed fixed-rail transit stations. The half-mile buffer zone was chosen because it is commonly understood to be the maximum distance a person is willing to walk to a transit option, such as fixed-rail.

[9] Consideration was given to and significant debate surrounded high-frequency bus service. Because, however, high-frequency bus lines are dispersed fairly consistently throughout the City, the resulting analysis indicated that virtually all neighborhoods would be characterized as having high affordable housing need and, thus, was not differentiated enough to use in this analysis.

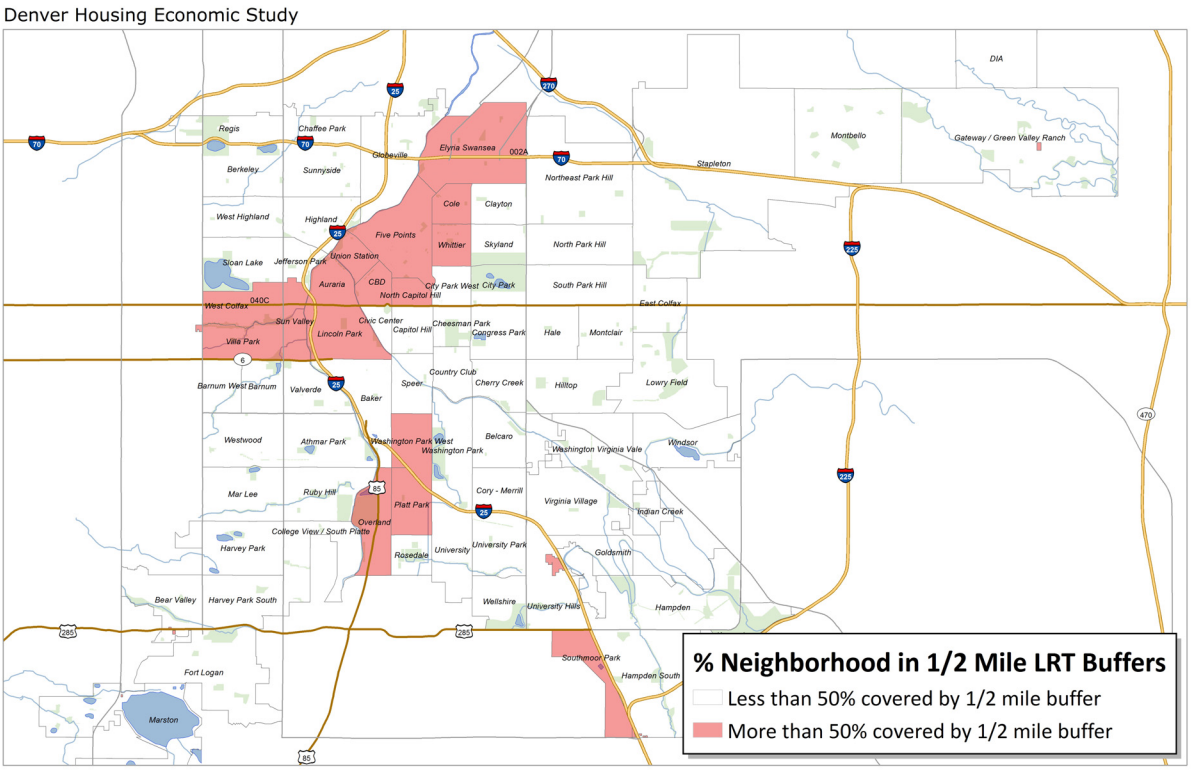
Figure 13 illustrates the fixed-rail transit proximity variable. Shown in circles are half-mile buffers from each of the existing and proposed fixed-rail transit stops throughout the city. It also illustrates which 21 neighborhoods are identified as having higher affordable housing need, according to the trigger point, i.e. 30 percent or more of a neighborhood is covered by a half-mile fixed-rail transit buffer.

Figure 13
30 Percent Fixed-Rail Coverage by Neighborhood



To provide a higher level of sensitivity to this variable, **Figure 14** illustrates the 16 neighborhoods that are selected when the trigger point is set to a neighborhood having 50 percent coverage by a half-mile fixed rail transit stop buffer.

Figure 14
50 Percent Fixed-Rail Coverage by Neighborhood



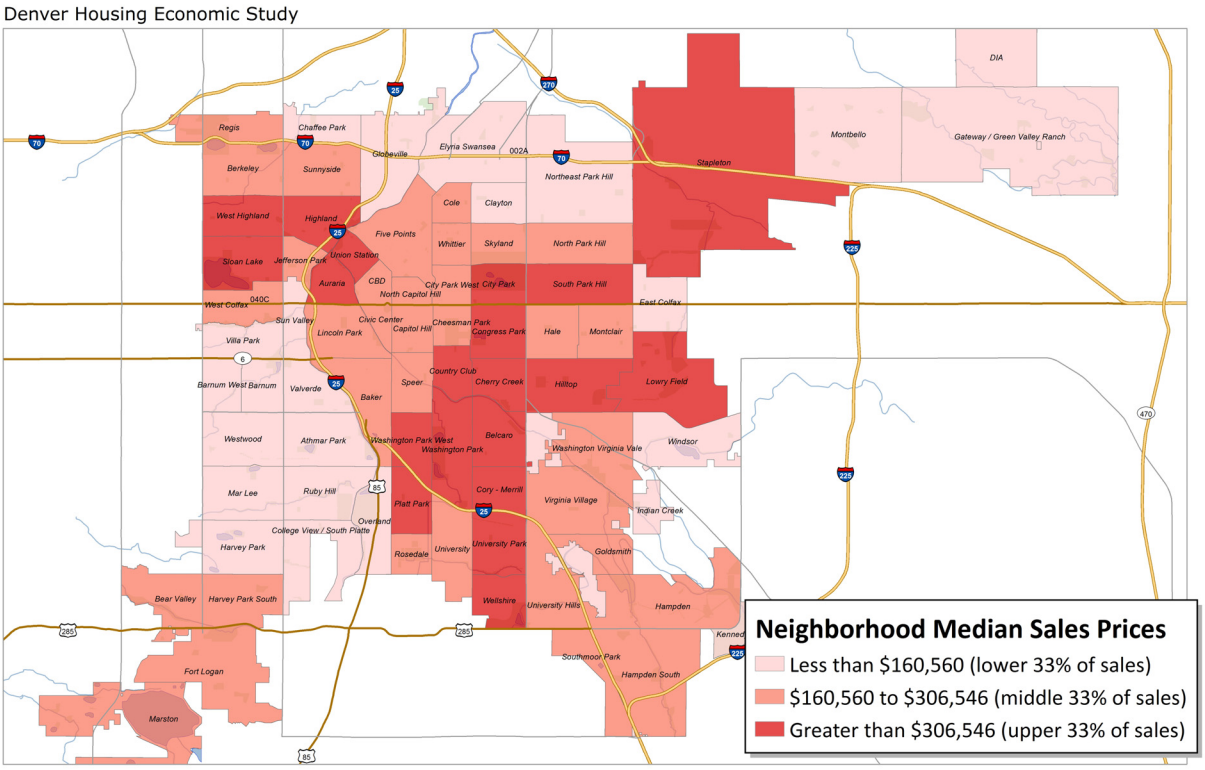
Housing Costs

The second variable in this neighborhood level analysis is housing cost. This was determined to be an important consideration because there is a greater need for new affordable housing as a part of development in higher-cost neighborhoods than in neighborhoods where the market already contains moderate priced housing or is more likely to create it due to lower real estate costs. The data source used for determining the level of need based on this variable was median sales prices for homes by neighborhood[10].

[10] Other data sources, metrics, and time periods for analysis were explored and rejected during discussion and debate over the use of housing cost data for this analysis. Due to the magnitude of foreclosures distorting the housing market in many neighborhoods, and due to the foreseen complexity and difficulty in administering and generating future updates to this analysis, these other time periods and metrics were eliminated.

Figure 15 illustrates the results of analysis on median sales prices. The data used are median sales prices by neighborhood from 2010 through 2012 and categorized neighborhoods into three levels according to where the respective median sales prices fell. In the highest level–the top 33 percent of all sales–median sales prices were higher than $306,546. In the middle level– the middle 33 percent of sales–median sales prices fell between $160,560 and $306,546. In the lowest level–the bottom 33 percent of sales–median sales prices fell at or below $160,560.

Figure 15
Housing Cost Levels in 3 Tiers by Neighborhood

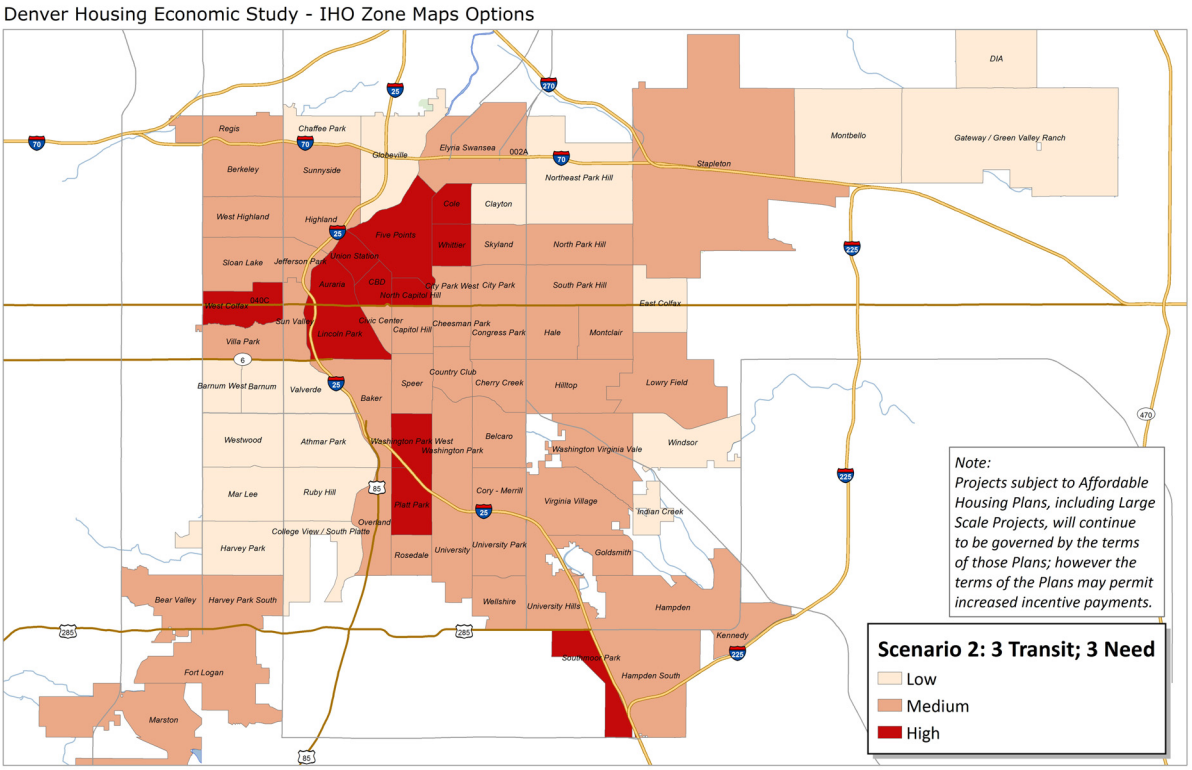


Affordable Housing Need Zones

Figure 16 illustrates the combined map of low, medium, and high need based on both the proximity to fixed-rail transit variable and the housing cost variable. The criteria used to determine these neighborhood levels placed the following values on each neighborhood. For the fixed-rail transit half-mile buffer proximity, neighborhoods that had less than 30 percent coverage received 0 points; neighborhood that had between 30 and 50 percent coverage received 1 point, and neighborhoods that had more than 50 percent coverage received 2 points. For the housing cost variable, neighborhoods where median sales prices fell in the lower 33 percent of the distribution of sales prices received 0 points, neighborhoods where the median fell in the middle 33 percent of sales prices received 1 point, and neighborhoods where the median fell in the top 33 percent of sales prices received 2 points. Added together, neighborhoods that had 0 points were categorized as neighborhoods with "low" need; neighborhoods with 1 or 2 points were categorized as neighborhoods with "medium" need; and neighborhoods with 3 or 4 points were categorized as neighborhoods with "high" need. It should also be noted that the illustrated zones are not recommended to change the IHO's 10 percent set-aside requirement; they are recommended for determining incentive levels for on-site construction or cash in lieu levels when developers choose that option. The analysis resulted in a distribution of the neighborhoods into the following categories:

- **Low**: 24 percent of neighborhoods throughout the city are characterized as having low affordable housing need.
- **Medium**: 60 percent of neighborhoods in the city are characterized as having medium affordable housing need.
- **High**: 15 percent of neighborhoods are characterized as having high affordable housing need.

Figure 16
Affordable Housing Need Map by Neighborhood



Updating the Maps

It is suggested that, because economic conditions change, that the data used to determine levels of affordable housing need be updated periodically, e.g. every three to five years, to reflect the changing needs by neighborhood. While it is unlikely that the location of fixed-rail transit would change frequently, locations should be reevaluated. With housing sales price information, it is recommended that median sales prices should be recalculated for every neighborhood every three to five years based on at least three years of data, or at least a period of time sufficient to provide an adequate data sample size.

5. ALTERNATIVES

EPS was asked to provide summary background on several policy tools that have been identified by Council members or stakeholders as potential alternatives to, or complements to, the IHO for funding affordable housing.

Commercial Linkage

Commercial linkage fees are a form of impact fee assessed on new commercial developments or major employers based on mitigating the need for workforce housing generated by the new or expanding commercial business or development providing commercial space for new business. Revenues collected from fees are then used to help fund the development of affordable housing within the community.

Because they are an impact fee, linkage fees legally require a nexus study to establish the basis for the fee. The study quantifies the cost of the capital facilities needed to address the estimated impacts, allocates these costs to the new development, and sets the required payments. The commercial impacts are most often calculated as a cost per square foot of commercial space based on the number of employees estimated to occupy the commercial space. As a result there are different rates calculated for retail, restaurant, office, hotel, and industrial space. It is important to note that commercial linkage, like all impact fees, can only be used to pay for the impact of new development on housing demand going forward. They cannot be used to address existing capital deficiencies in the community.

Some communities combine an IHO with commercial linkage fees to allocate a portion of the affordable housing burden to both new residential and commercial development. Cambridge, MA, for example, has a form of commercial linkage fee as part of its housing program, though it is regulated as a component of its IZO/IHO. In resort settings, commercial linkage fees are used jointly with IHOs in Aspen, Telluride, and Park City.

Case Study: Cambridge

Cambridge, Massachusetts's incentive zoning ordinance (IZO) requires developers seeking certain Special Permits to comply with the Incentive Zoning provisions. Incentive zoning applies to commercial developments of more than 30,000 square feet of gross floor area. The provisions apply when a developer seeks: an increase in the density or intensity use, such as increased floor area or height; waiver or reduction of parking requirements; changes in dimensional requirements; or additional uses that result in an increase in density or intensity of use.

Developers with projects that are subject to the IZO are required to make a housing contribution (HC) or create affordable housing units. The HC is currently $4.44 for every square foot of gross floor area over 2,500 square feet of the portion of the project authorized by the Special Permit. The amount of the HC may be adjusted annually by the Cambridge Affordable Housing Trust. Payment of the HC is required before the issuance of certificates of occupancy for developments subject to the IZO.

Developers may instead elect to create affordable units or donate land to be used exclusively for the development of affordable housing in the city. Affordable units or land donation must be of equivalent benefit as the HC toward addressing the City's affordable housing needs.

In terms of the administration of this IZO, its provisions are reviewed and recalculated every three years by the City Council based on consideration of current economic trends including but not limited to development activity, commercial rents per square foot, employment growth, and housing trends measured in terms of vacancy rates, production statistics, and prices for units.

Residential Linkage

A less common practice, and more relevant in high-end and resort markets, is the adoption of residential linkage fees. These fees are assessed against residential developments to mitigate the affordable housing needs created by the permanent employment they are estimated to generate. In Teton County, Wyoming, these fees are imposed on large vacation homes (e.g. greater than 2,500 square feet of habitable floor area) to mitigate the demand for employees to provide property management, landscape maintenance, cleaning, road maintenance, and snow removal services. In Telluride, these fees are applied to resort lodging developments to mitigate the requirements for accommodations related to employment such as retail, restaurant, maids, and other service workers.

Case Study: Aspen

Today the requirement to construct affordable and workforce housing is controlled through the City's Growth Management Quota System (GMQS). The system affects any new residential and commercial construction in the city. Though the City characterizes its affordable housing requirements as more general employee housing requirements, the City has each of the major affordable housing tools: an IHO for multifamily residential construction, residential linkage program for single-family and duplex construction, and a commercial linkage program for non-residential development.

The GMQS requires residential development provide a total of 30 percent of total floor area as affordable. Commercial development must provide affordable housing for 60 percent of the anticipated employees through commercial mitigation. Overall, the program has overseen the construction of approximately 2,800 affordable residential units, approximately 1,500 for-sale units and 1,300 rental units.

As with most IHOs or linkage programs, a developer may construct units off-site or pay a fee in-lieu of the construction requirement. The in-lieu payment, however, must be approved by APCHA. The CIL differs by housing category, from $264,228 for a low-income unit (Category 1) to $130,213 for a middle income unit (Category 4). Each year the CIL is increased by 3 percent or the Consumer Price Index (CPI), whichever is greater.

Dedicated Property Tax

One of most powerful alternatives and/or additional affordable housing funding mechanisms is a dedicated and time-limited property tax. According to the City's latest Abstract of Assessment[11], there was approximately $9.4 billion in residential and commercial property valuation in the City/County of Denver in 2013. **Table 2** reports the estimated mill levies needed to generate hypothetical total revenue amounts, as well as the estimated property tax liability impact to households with a median value home.

The table shows the mill levies needed to generate $5 million, $10 million, or $100 million over a one- or three-year period of time. According to the Gallagher Amendment, residential property generates no more than 45 percent of total property tax revenues. As such, the following calculations show the estimated mill levy amounts for residential property.

To generate $5 million, for example, of which residential property would generate approximately $2.3 million (or 45 percent), and which is roughly equivalent to the balance of the current IHO special revenue fund, the City could establish a one-year property tax mill of 0.503 or a three-year mill levy of 0.168. Generating $10 million would require a doubling of those mills: i.e. 1.007 mills for a one-year levy and 0.336 for a three-year levy; and generating $100 million would require a mill 10 times those levels.

In terms of impacts to households, it is estimated that a property tax mill of 3.356 (generating $100 million over three years) would add approximately $67 to a household's annual property tax liability (or $26 per $100,000 of market valuation).

Table 2
Estimated Impact of Time-Limited Property Tax

	Property Tax Mill		Estimated Property Tax Liability Impact on Households with a Median Value Home	
	One-Year	Three-Year	One-Year Option	Three-Year Option
Residential & Commercial Assessed Valuation (AV) in 2013	$9,356,216,090	$9,356,216,090	---	---
Residential AV	$4,469,705,810	$4,469,705,810		
AV of Median Home Value (2012)	---	---	$19,996	$19,996
Residential Mill to Generate Hypothetical Revenue Goals [1]				
$5,000,000	0.503 mills	0.168 mills	$10.07 / yr	$3.36 / yr
$10,000,000	1.007 mills	0.336 mills	$20.13 / yr	$6.71 / yr
$100,000,000	10.068 mills	3.356 mills	$201.31 / yr	$67.10 / yr

[**Note 1**]: Based on the requirements of the Gallagher Amendment, residential property provides approximately 45 percent of total property tax revenues, assessed at approximately 7.96%.

Source: City/County of Denver; Economic & Planning Systems

H:\123099-Denver Housing Economic Study\Data\[123099-Property Tax Impact.xlsx]TABLE 1- Property Tax Impact

As with the pursuit of a dedicated and time-limited sales tax, EPS would recommend that the City pursue a time-limited property tax dedicated to housing as a component of a longer-term funding strategy. If it takes this path–because this option would result in a higher burden on the business property owners–EPS recommends that a very small mill levy of 1 mill or less, as used in the example, be pursued.

[11] Available online at: https://denvergov.org/Portals/2/documents/Denver%202013.pdf

Case Study: Seattle

Seattle has had remarkable success in the use of a dedicated property tax to fund affordable housing needs of a wide variety. With its first voter-approved housing levy in 1981, Seattle has funded four additional bonds and/or levies for these purposes. In 2009, the City passed its fifth, a 7-year dedicated property tax mill of approximately 0.17 to fund $145 million for affordable housing opportunities for low-income residents.

Since the first housing levy, Seattle has funded more than 10,000 affordable apartments for seniors, formerly homeless individuals and families, and low- to moderate-income wage earners, as well as provided loans to more than 600 first-time homebuyers and rental assistance to more than 4,000 households. The 2009 levy is estimated to produce nearly 1,700 rental housing units, 175 housing units through acquisition and rehab, preserve 220 rental units, facilitate homebuyer assistance for 180 home purchases, and provide rental assistance and homelessness prevention for more than 3,000 households. To date, the City is either on target to reaching all these goals or has surpassed the goals with less funding than anticipated.

Appendix:
Supporting Information

Supporting Tables and Charts

Figure A1
Existing and Proposed Stations Map

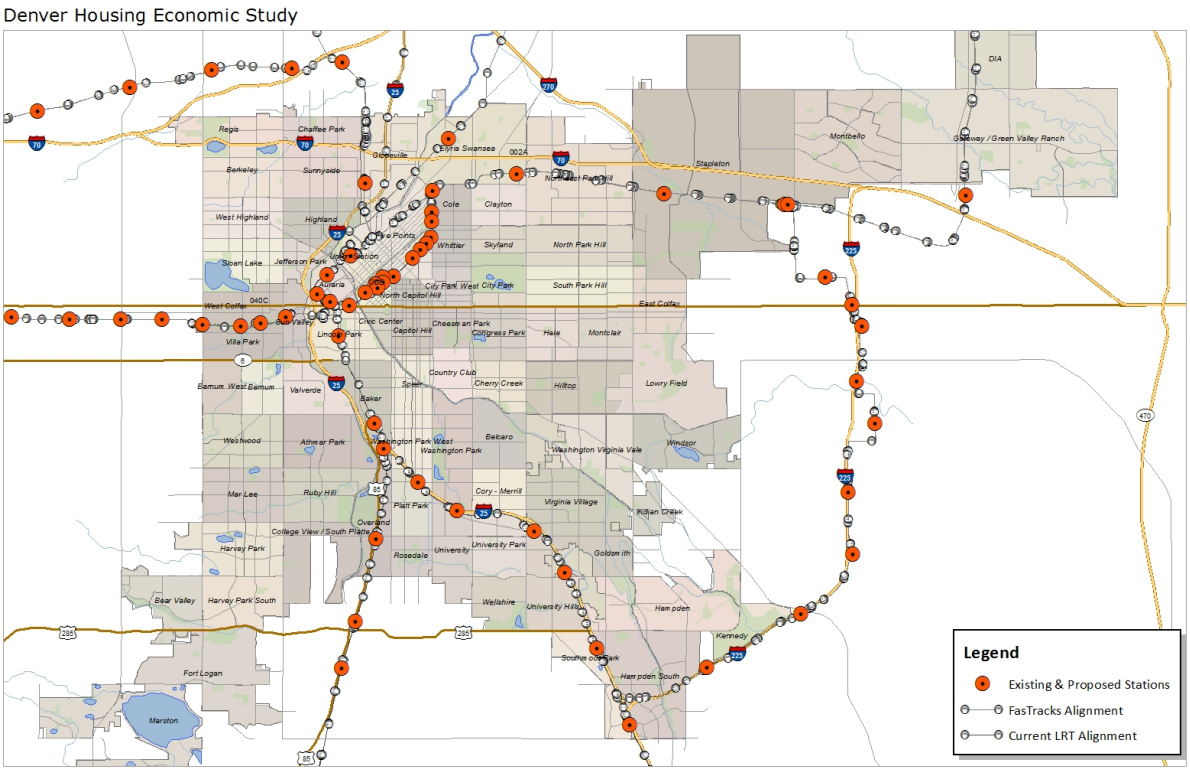


Figure A2
Predominance of Households at 80% AMI or Below, 2000

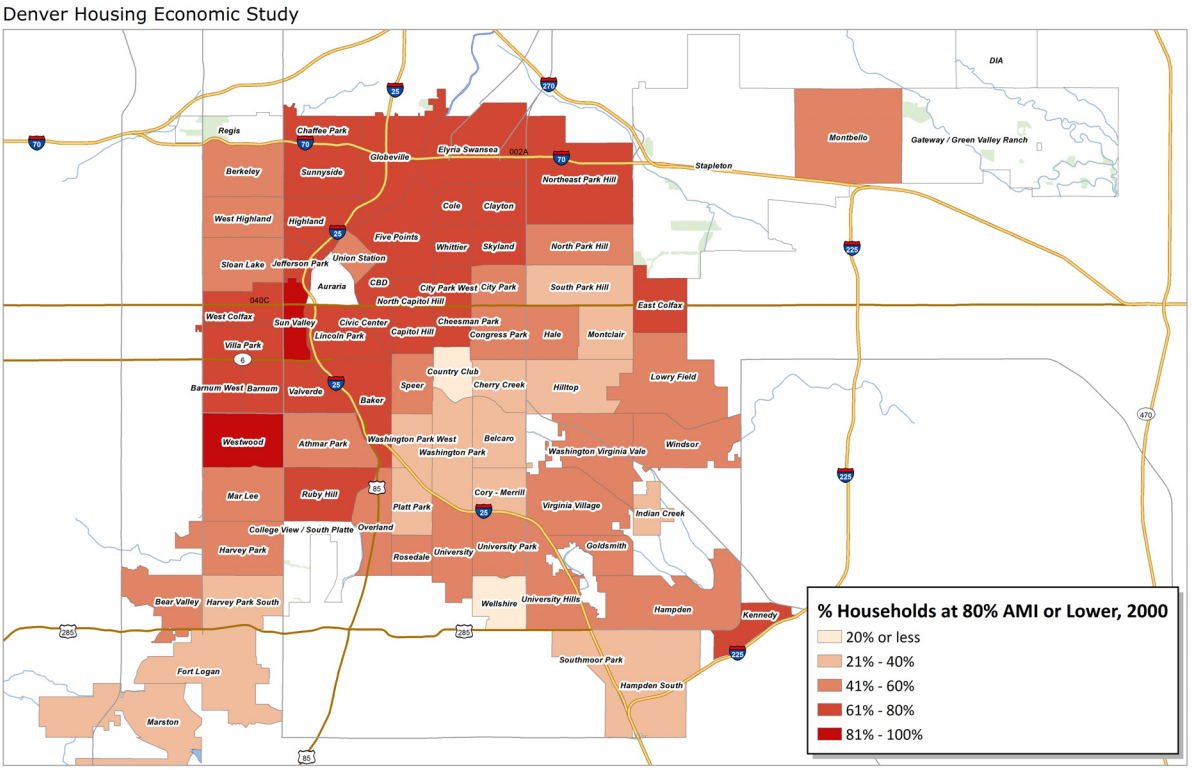


Figure A3
Predominance of Households at 80% AMI or Below, 2010

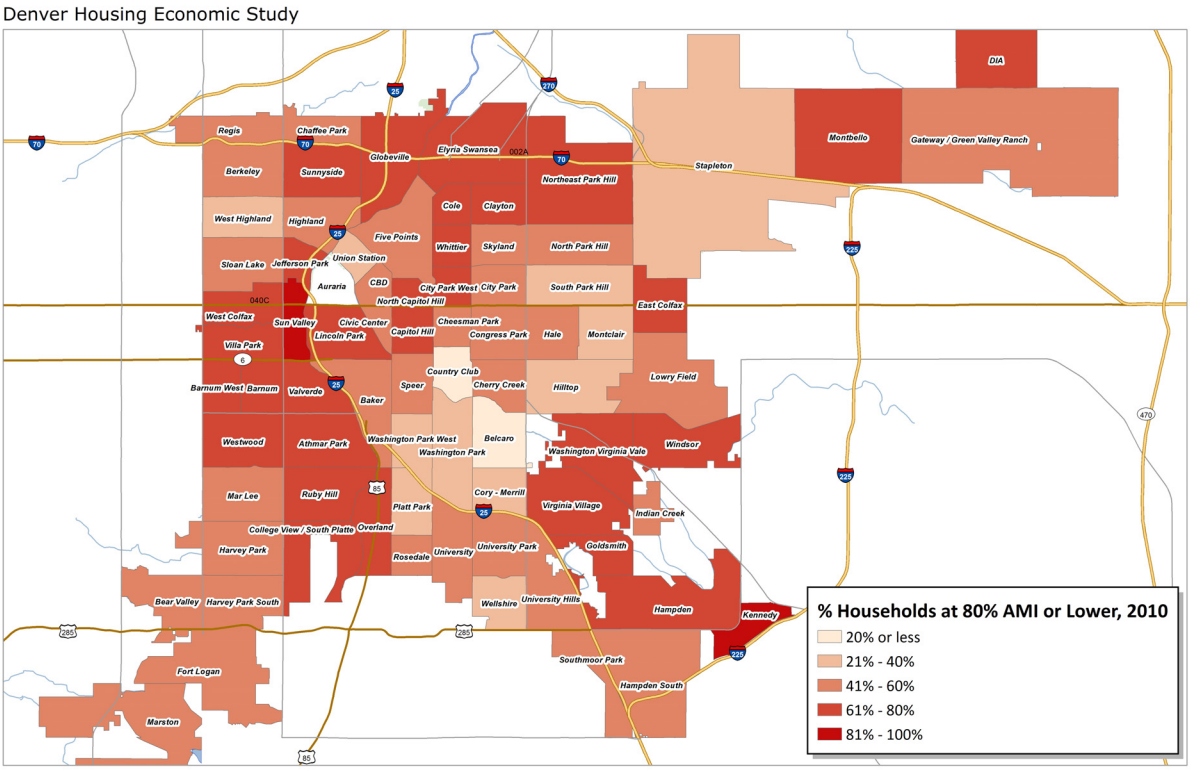


Figure A4
Neighborhood Average Sale Prices, 2000

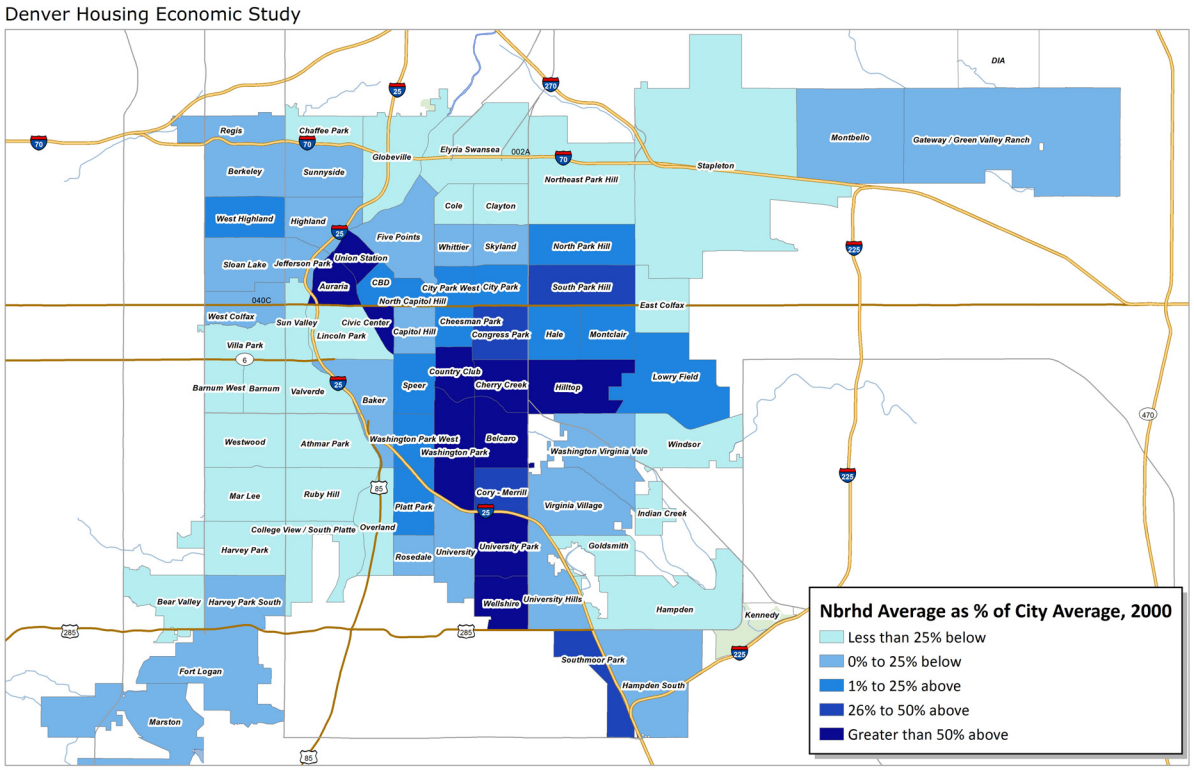


Figure A5
Neighborhood Average Sale Prices, 2010