

*The Economics of Land Use*



## Draft Report

# Housing Policy and Inclusionary Zoning Feasibility Study

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## 1.0 EXECUTIVE SUMMARY

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The Planning Department of the Metro Government of Nashville-Davidson County contracted with Economic & Planning Systems (EPS) to complete a housing policy and inclusionary zoning feasibility study in August 2015. The contents of this report reflect not only the research and analysis specified in the city's request for proposal, but also analysis of specific relevant concerns, data, and issues that arose throughout the process of stakeholder involvement. In terms of involvement, this process included: three meetings with stakeholders (a group of 50 industry representatives, elected officials, developers, and advocates); two meetings with the Planning Commission, which were open to the public; a public open house; individual and group interviews with stakeholders; as well as targeted subject focus groups.

### 1.1 Summary of Findings

The findings of this study illustrate Nashville's underlying economic and demographic growth, the resulting escalation of housing costs as well as in surrounding communities, rates of local housing inventory turnover, rates of poverty, and household displacement. They also detail the current local and state regulatory context, as well as the issues that arise from them.

Because of the complexity and diversity of issues, the recommendations that follow are multi-faceted. They would require adjustments among multiple stakeholders (public and private). Some are geared toward remedying the escalation of land values over time, but in general, they are intended not only to enable the production of new ownership and rental housing, but they are also intended to facilitate land banking and acquisition, rehab/preservation, down payment assistance, and supportive services programs, all of which are deemed essential to remedying the problems the city is experiencing.

#### **1. *The city has experienced higher than average employment and population growth in recent past.***

Between 2000 and 2010, Nashville's population grew by an average of 5,500 people per year. Since 2010, however, the city's population grew by nearly double that rate at 10,700 people per year. Moreover, the growth in population of the Nashville-Davidson-Murfreesboro-Franklin CBSA accounted for one-third of the entire state's growth between 2000 and 2012.

A part of this demographic growth has been fueled by economic development and employment growth. Although the CBSA lost a considerable number of jobs during the recession of 2007-2009, the area gained an average of 12,300 jobs per year. From 2010 to 2015, however, the CBSA gained an average of 26,000 jobs per year. The City itself added an average of 9,600 jobs per year during this time, more than a third of the CBSA's job gains.

#### **2. *Household purchasing power today is lower than it was in 2000.***

While household incomes have grown (in constant dollars) at 1.3 percent per year on average, inflation has increased at 2.3 percent per year. Adjusted for inflation, this means that household incomes have actually declined by 1.0 percent per year since 2000, and that means that median income households have lower buying power than they did 14 years ago.

**3. Fifty percent of residential construction activity since 2011 has been multifamily.**

Total building permit volume peaked predictably in 2007 and fell more than 60 percent to 2010. A sign of the market's strength, however, total residential construction activity exceeded 2007 levels by 2014, and reports of current activity suggest that activity is well in excess of those levels. During this time, there has been a change in the market. Up through 2007, an average of 80 percent of building permits were for single-family residences. Since 2011, single-family permits have accounted for an average of just 50 percent. Concentrations of single-family permits are clearly seen in areas of East Nashville, Germantown, the West End, Sylvan Park, Green Hills, and scattered throughout the county.

**4. Limited demolition permit data indicates concentration in areas of high demand.**

Based on a geographic analysis of the location of these permits, approximately 29 percent were in the area of East Nashville. Approximately 18 percent were in the Edgehill & 12th Avenue area, 17 percent in North Nashville, 28 percent in Green Hills and West Nashville, and 9 percent collectively in Downtown, Midtown, Nolensville Road, Airport/Opryland. In 2013, there were 413 permits to demolish single-family residences, and in 2014 and 2015, there have been approximately 1,150 permits each year to demolish single-family residences.

Furthermore, an analysis was completed to identify the extent to which this was occurring. All available data on demolition permits from the City's Codes Department were used (spanning 2013 through 2015, totaling 3,824 records). The data were geo-coded, of which 83 percent matched with addresses in the permit record. These were referenced against all 139,623 records of housing unit sales collected for the project (spanning 2000 through 2015). Using parcel boundaries data, and factoring in a spatial buffer to account for units being demolished and replaced by newer ones that are set in different places on the same lot, the results were modest, i.e. fewer than 40 sales and demolition records matched and the records were insufficient to ascertain the value of the demolished property and the value of the subsequent sale.

**5. Demand for living in Nashville has contributed to high cost escalation in its own neighborhoods as well as in surrounding communities.**

Overall, housing prices have escalated at an average of 4.7 percent per year; newer homes have escalated at 5.1 percent per year since 2000. In 2000, the average home sold for approximately \$156,000. By 2015 (based on through the beginning of September), the average home sold for more than \$312,000. Newer homes in 2000 were selling for an average of approximately \$198,000, an estimated 19 percent above the overall average. By September 2015, newer homes were selling for an average of approximately \$418,000, an estimated 22 percent above the overall average.

Indicative of the commuting and housing pressure in the southern I-65 commuting corridor, prices from Brentwood to Spring Hill increased by considerable magnitudes. Brentwood's average price increased 80 percent from an already high \$384,000. Franklin's average price increased 87 percent from \$256,000. But Thompson's Station and Spring Hill, which in 2000 were relatively affordable compared to other communities and Nashville itself, increased as a result of growing housing demand (seen also through the increase in volumes). The average price in Thompson's Station increased 93 percent from \$178,000 to more than \$345,000. And the average price in Spring Hill increased 69 percent from \$149,000 to \$253,000.

The time period is 2000 through 2015, where the average rate of annual price appreciation was 4.7 percent, as demonstrated earlier in this section. Among neighborhoods in the central parts of the city, East Nashville experienced higher than average rates of growth, as well as areas within the inner loop of the CBD, including the Gulch and SoBro, which experienced growth rates of approximately 9 percent. Germantown experienced price appreciation of 11.3 percent, and to the west of downtown, neighborhoods experienced annual price appreciation between 11 and 19 percent per year since 2000.

**6. *Some components of high demand can be quantified by sales volume and existing stock turnover.***

In terms of sales volume, the average between 2000 and 2015 was approximately 7,500 sales per year, 1,600 of which were newer homes and 5,900 were older homes. During the housing bubble, newer homes sales reached volumes of 2,700 and older homes reached volumes of 7,300. During the years following the recession (2009 through 2011), a time when markets throughout the country were generally “correcting”, total volumes averaged approximately 5,200 per year, 1,100 of which were newer homes and 4,100 of which were older homes. Nashville’s market began picking up in 2012 and has since returned to the pre-recession high of nearly 9,100 sales in 2015 (based on the seasonality of sales, EPS estimates that 2015 will have slightly higher volume of sales than 2014).

In 2013, turnover for the city was approximately 5.4 percent. For many of the outlying areas, though, turnover was insignificant, but for most of the central tracts, turnover ranged between roughly 7 and 37 percent. Areas of East Nashville saw turnover ranging generally between 11 and 15 percent (with one area at 21 percent), while turnover downtown, the Gulch, West End, and Midtown ranged between 17 and 21 percent.

**7. *Under current lending conditions, a large portion of Nashville’s ownership housing inventory remains affordable to households earning median income.***

The analysis finds that in 2013, approximately 55 percent of Nashville’s ownership inventory was affordable to a household earning the local median income (\$45,542), and that 64 percent of the inventory would have been affordable to a household earning the regional median income (\$52,831). By comparison, in 2000, an estimated 50 percent of inventory was affordable to a household with the local median income (\$39,232) and 51 percent was affordable to a household with the regional median income (\$42,698).

It is important to note that the findings of this analysis are sensitive to the mortgage interest rate. In 2000, average fixed-rate mortgages were approximately 8 percent, whereas fixed-rate mortgages in 2013 were approximately 5 percent. That is, because a household can afford to purchase a home for a higher price with a lower interest rate, if mortgage interest rates rise in the future, it will decrease the overall portion of housing inventory affordable to households earning median income.

**8. A growing portion of Nashville's households are spending more on housing as a percent of their income than they did in the past.**

In 2014, approximately 38 percent of all households in Nashville were cost-burdened. Among owner households, 26 percent were cost-burdened, an increase from 25 percent the year before. Among renter households, approximately 53 percent were cost-burdened, an increase from 48 percent the year before. Compared to the U.S., Nashville has higher cost burden proportions. Nationwide, 34 percent of all households are cost-burdened. Approximately 25 percent of owners and 52 percent of renters are cost-burdened.

**9. The difference between how much a household can afford to pay for a house and the average price in Nashville more than doubled between 2000 and 2015.**

In 2000, a household earning the regional median income (estimated \$42,700) could afford a home of \$125,700. Where the average home price in Nashville was \$156,000, a household earning the regional median income had an affordability gap of approximately \$42,000. By 2015, a household earning the regional median income (an estimated \$54,400) could afford a home for approximately \$223,400. With the average price of a home increasing to approximately \$312,000, this means that the gap between what a household earning the regional median income could afford and the average price, i.e. the affordability gap had widened from approximately \$30,000 to \$89,000. As for the surrounding commute shed communities, whereas 6 of the surrounding 12 communities were more affordable than Nashville to a household earning the regional median income in 2000, by 2015, eight communities were more affordable – implying that Nashville had become proportionally less affordable over time.

**10. Based on feasibility modeling, the market would respond differently to inclusionary zoning applied to for-sale versus rental developments.**

In general, the results measured by the internal rate of return (IRR) demonstrate that for-sale projects with a density bonus, except for the lower density (single-family and townhome) prototypes, do not perform as well as those with base entitlement. First, the additional density, while a positive if the units can be absorbed in a similar time with strong market support, simply means that there is more product to sell, and this takes more time, directly impacting the IRR. Second, as housing markets become more expensive (as Nashville's has) and the gap widens between what a household earning median income can afford and the median sales price in the market (conditions increasingly present in Nashville), it becomes increasingly difficult for a city to offer a meaningful financial incentive to a developer.

On the other hand, inclusionary zoning in Nashville could be much more effectively and appropriately applied to rental developments, even though Tennessee long ago established a prohibition against rent control. That is, the use of property tax abatements, payments in lieu of taxes, or housing grants could be especially powerful in environments with relatively substantial property tax levels. Such a tool may actually be substantial enough to motivate developers even to voluntarily comply with an inclusionary zoning requirement.

The primary metric of financial performance shown in this table is the return on cost (ROC). The ROC is measured as the net operating income (NOI) in a stabilized year, typically year 4 or 5 after construction begins, divided by the total development costs. The ROC in prototypical developments under base entitlement were described in an earlier section and are repeated below. The density bonus, by both measures of ROC and NOI, creates value over the base entitlement scenarios. But, unlike the for-sale versions of these prototypical scales, the value of the incentive (the results here reflect the impact that a grant approximately equal to 50 percent of property taxes) is accretive to the project.

## 1.2 Recommendations

The recommendations are first of all based on an analysis of market trends and conditions at the Census tract level using the most current data available at the time of collection. They are also based on review and analysis of best practices (policy options) for addressing housing affordability issues and problems. A development feasibility model was also used to analyze the financial feasibility of various prototypes under an inclusionary zoning structure, as well as to complete a sensitivity analysis of financial performance of those development prototypes with varied policy requirements, incentives, and land costs.

These recommendations have been oriented toward both the short and long-term. They seek to address both the immediate needs to the extent possible, as well as seek to anticipate that broader tools will be needed over the long-term if the City is to more directly and effectively address the pressing needs apparent now, which are likely not to diminish in the future.

The recommendations have also been crafted to be feasible within the current regulatory environment, such as: the State of Tennessee's prohibition of rent control, which prohibits a municipality from dictating rents in a residential development; and the City's recently-granted authority to employ housing grants, as related to affordable and workforce housing development.

To the extent possible, they have been structured to achieve results and avoid unintended consequences by motivating development with incentives, addressing the supply side, and employing tools that will work in the current and foreseeable environment, and by reflecting the existing legal constraints, and avoiding tools that will clearly exacerbate affordability problems instead of remedy them.

### **1. *Establish a recurring and consistent dedicated funding source.***

Because of the breadth of housing affordability issues facing the City and because of the complexity of the problems, a more flexible, locally-driven dedicated funding source is the City's best chance for addressing local issues. It should be in the magnitude of \$10 million per year or more.

This recommendation stems from the reality that in the context of inclusionary zoning requirements (as a primary affordable or workforce housing development mechanism) typically do not generate as many units as in-lieu contributions. It is also recognized that affordability needs are much more complex and diverse than these uniform policies are intended to address. A dedicated local funding source broadens the responsibility to the entire community and can be used more flexibly to address housing construction and supportive service needs than a regulatory approach or federal funding.

It is envisioned that Nashville could use a dedicated fund to address the following current needs: rehabilitation and maintenance needs to target displacement concerns; down payment assistance to target general affordability for working households; supportive services, including counseling and homelessness prevention, to address concerns for the population under 30 percent AMI; subsidies and buy-downs for new production to increase the affordable inventory; and strategic land acquisition to be used also as a leverage tool.

**2. Consider the augmentation of the Barnes Fund authority.**

The City established the Barnes Fund to make competitive grants available to nonprofit housing developers for the renovation or construction of affordable homeownership and rental opportunities. In its current form, however, the Fund is generally limited to addressing affordability issues for households earning 80 percent AMI or less. It also lacks other powers that might be valuable in the City's broader efforts to address many of the more complex affordability issues it is facing, such as displacement of low-income and minority residents in close-in neighborhoods.

And because the inclusionary zoning structures are not suited to directly (or even indirectly) addressing such complex issues, it is recommended that the Barnes Fund's authority be expanded to accommodate such need. Where and to the extent appropriate, existing entities and housing partners should be utilized such that overlap in responsibilities is not created. Rather, such an expansion should seek to add and serve to expand the capacity of existing housing providers.

It is also recommended that Barnes Fund be the recipient of a new dedicated funding source. Because of the variety of functions that the Barnes Fund should be expanded to perform, including administering down payment assistance programs, and because the City is not authorized to lend its credit (i.e. make loans such as down payment assistance programs), and because it is in the City's interest to place such funds in an entity that has use of the resource that is not restricted by the comingling of federal or other restricted funds. As indicated under the dedicated funding source recommendation, the Barnes Fund would be responsible for ensuring that the prioritization of funding to various community affordable or workforce housing needs is discussed by planners, elected officials, and practitioners.

**3. Adopt an incentives-based inclusionary zoning ordinance.**

Based on the pros and cons of each option, feasibility testing, and a consideration for Nashville's existing regulatory and zoning context, EPS recommends a countywide inclusionary zoning ordinance that affects both the rental and ownership markets and where the highest incentives are offered within the UZO. The policy would be triggered when a project requests entitlements beyond by-right zoning or receives public financing (e.g. TIF).

When the ordinance is triggered, depending on the construction type as shown in the table below, residential projects would provide between 10 and 35 percent affordable or workforce housing depending also on the AMI level. The recommendations are based, for the most part, on the financial performance results of the for-sale and rental development prototypes. As applied to a rental project, the City should require that a portion of rental units in the development remain affordable for at least 15 years.

As applied to a for-sale project, the findings are not as supportive. That is, market data used to calibrate the feasibility model are based in large part on the analysis of existing and new home sales. Under current market conditions (i.e. a strong rental market), there are an insufficient number of sales of for-sale condominiums, flats, or other higher-density housing as data points. On the other hand, as discussed in the sensitivity analysis of the previous chapter, the City cannot possibly fund the full gap between the market-rate and deed-restricted housing prices. The gaps are too large, requiring millions of dollars in subsidy for a single project. The City should therefore require that various portions of the for-sale units in a development remain affordable (i.e. deed-restricted) for at least 30 years.

**4. *Reconsider the number and type of bonus options in the Downtown Code.***

It is recommended that the City take a closer look into the values (i.e. costs) associated with each of the bonus options. The City should entertain the elimination of some of the lower-priority options, and/or incorporate them into basic requirements, or the City should evaluate the costs associated with each option and recalibrate them so as to make the choice for a developer more economically indifferent, at a minimum.

**5. *Consider other zoning code modifications.***

The following series of recommendations are offered with the intent to preserve the City's ability to use one of its largest resources of leverage, i.e. additional entitlement, for affordable or workforce housing purposes. They stem from a review of the current usage of these sections of the zoning code, an understanding of the current practice regarding the granting of additional entitlements (density), and where there are no limits on density or additional entitlement. Some of these recommendations are farther reaching in terms of public policy objectives, but are offered and suggested to begin conversations of the priority the City should place with regard to affordable and workforce housing.

**6. *Explore the development of a community land trust.***

Specifically, it is recommended that the city explore the development of a Community Land Trust (CLT) and/or opportunities for land acquisition. While the Barnes Fund is already functioning as the recipient of parcels acquired through back-taxes, a CLT would be the extension of that function. A CLT would be granted authority currently not held by the city or the Barnes Fund, for example, to acquire land strategically and use as leverage in particularly appropriate locations for the development, ownership and/or operation of affordable or workforce housing. Such a goal could be achieved on its own or in partnership with others, as with the authority to facilitate the maintenance of existing affordable homes.

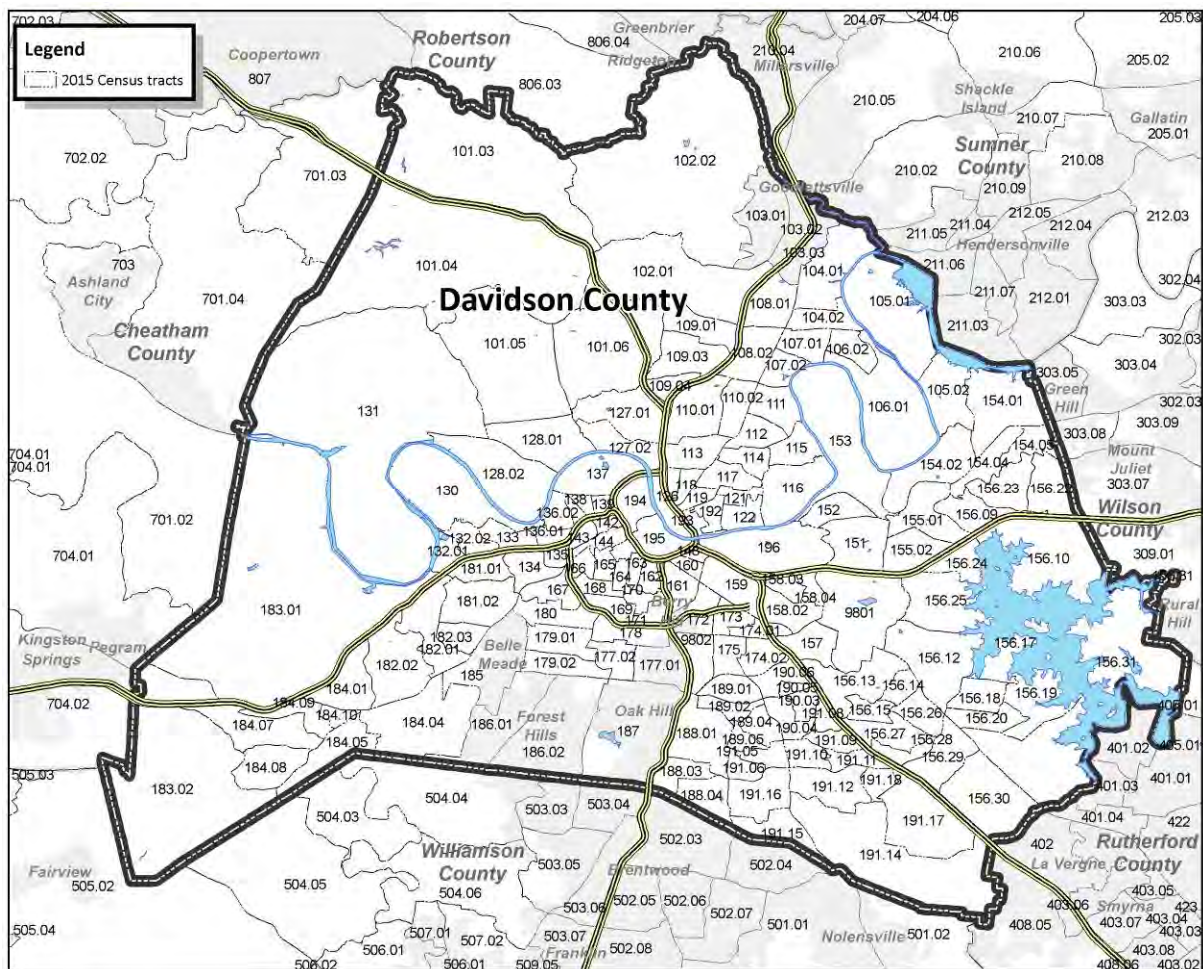
To address the need for more socially-oriented housing services, it should also be able to fund and/or partner with other non-profits to administer supportive services programs, including programs such as: down payment assistance; homebuyer counseling; foreclosure prevention; tenant rights education, or homelessness prevention.

## 2.0 ECONOMIC AND DEMOGRAPHIC CONDITIONS

This chapter details the analysis of market trends relevant to housing policy and feasibility evaluation. Some data contained within may be duplicative of other city study documents, such as Nashville Next, while some may be presented here alone. It is this study's objective, however, to provide findings and conclusions based on analysis of relevant economic and demographic conditions and that those trends be documented here.

A first consideration is the selection of subareas. The purpose of analyses at this level is to look for and document where and to what extent conditions may differ from overall averages. Neighborhoods that are contiguous and of a reasonable number can be suitable subarea distinctions, but in Nashville, neither is the case. Census tracts, as illustrated in **Figure 1**, have therefore been chosen, and where possible, analysis has been completed at this level throughout this and the following chapter.

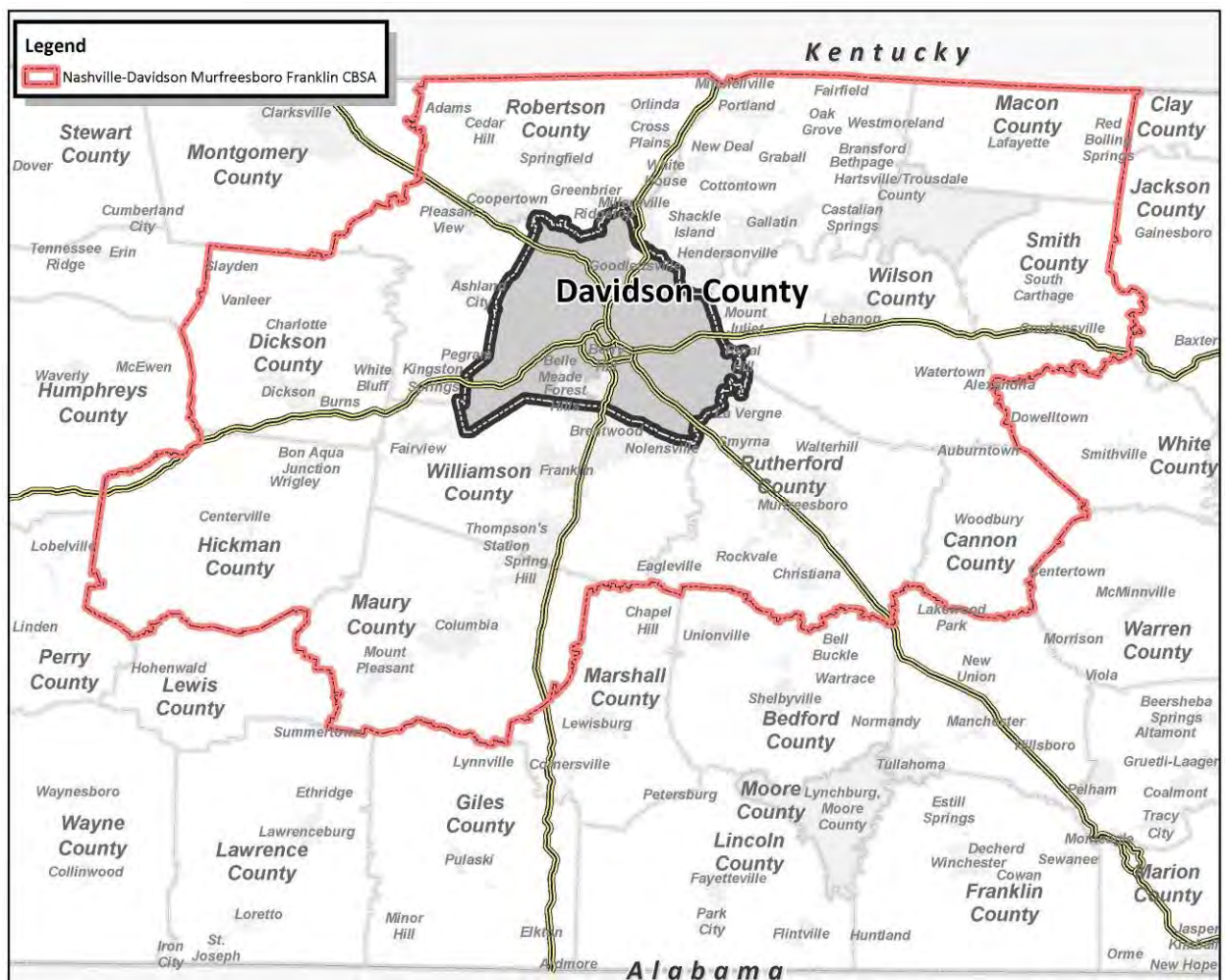
**Figure 1**  
**Components of Sub-Geographic Analysis**



## 2.1 Baseline Demand Conditions

This section describes some of the baseline conditions fundamental to housing demand. Two primary components of this demand are population and employment growth. Anecdotes and media stories point to Nashville's population and employment base increasing by greater and greater numbers, particularly in the recent past. As well as documenting these basic trends, this section also provides quantifications of wage and household income trends, also critical to characterizing the level of housing demand in the area. The section also provides an analysis of the commuting patterns in the Nashville-Davidson-Murfreesboro-Franklin Core-Based Statistical Area (CBSA), a federal designation describing an area that functions economically and socially as one.<sup>1</sup>

Figure 2  
Nashville-Davidson Murfreesboro Franklin CBSA



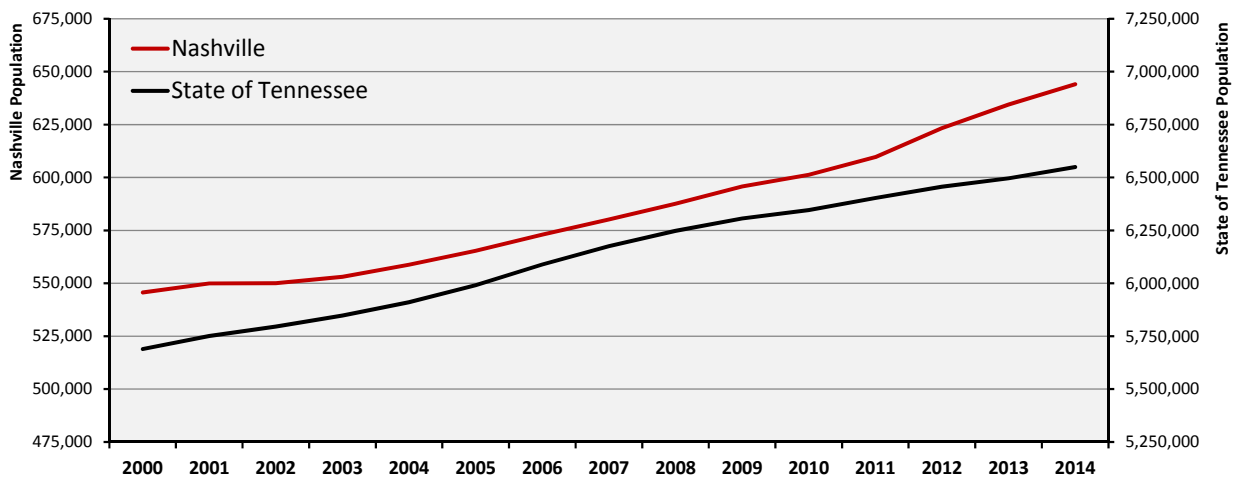
<sup>1</sup> A CBSA is defined by the Office of Management and Budget as a "geographic entity associated with at least one core of 10,000 or more population, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties."

### 2.1.1 Population

Between 2000 and 2014, the City of Nashville's (defined as the Nashville-Davidson County Metropolitan Government) population grew from approximately 546,000 to 644,000, an average of a little more than 7,000 persons per year (on average, 1.2 percent per year). Half of that population growth, however, has occurred since the recession (ending in 2009)<sup>2</sup>. Population gains since 2010 have ranged between 8,400 and 13,600, with the more recent years seeing highest rates of growth. By comparison, the state's population grew from approximately 5.7 million to 6.5 million between 2000 and 2014, an average of 63,900 persons per year (1.0 percent growth per year).

Including surrounding areas (excluding unincorporated county areas), defined as the CBSA, this commute shed area accounted for 15 percent of the state's population in 2000. By 2012, the commute shed accounted for 17 percent of the state's population. Of the 766,000 more people in Tennessee in 2012 than 2000, one third of them had moved to this area within Nashville's commute shed.

**Figure 3**  
**Nashville Population Trends, 2000-2014**



Source: U.S. Census Intercensal Estimates, American Community Survey; Economic & Planning Systems  
 H:\153043-Nashville TN Inclusionary Housing\Data\153043-Census-Population.xlsx\TABLE 1 - Population

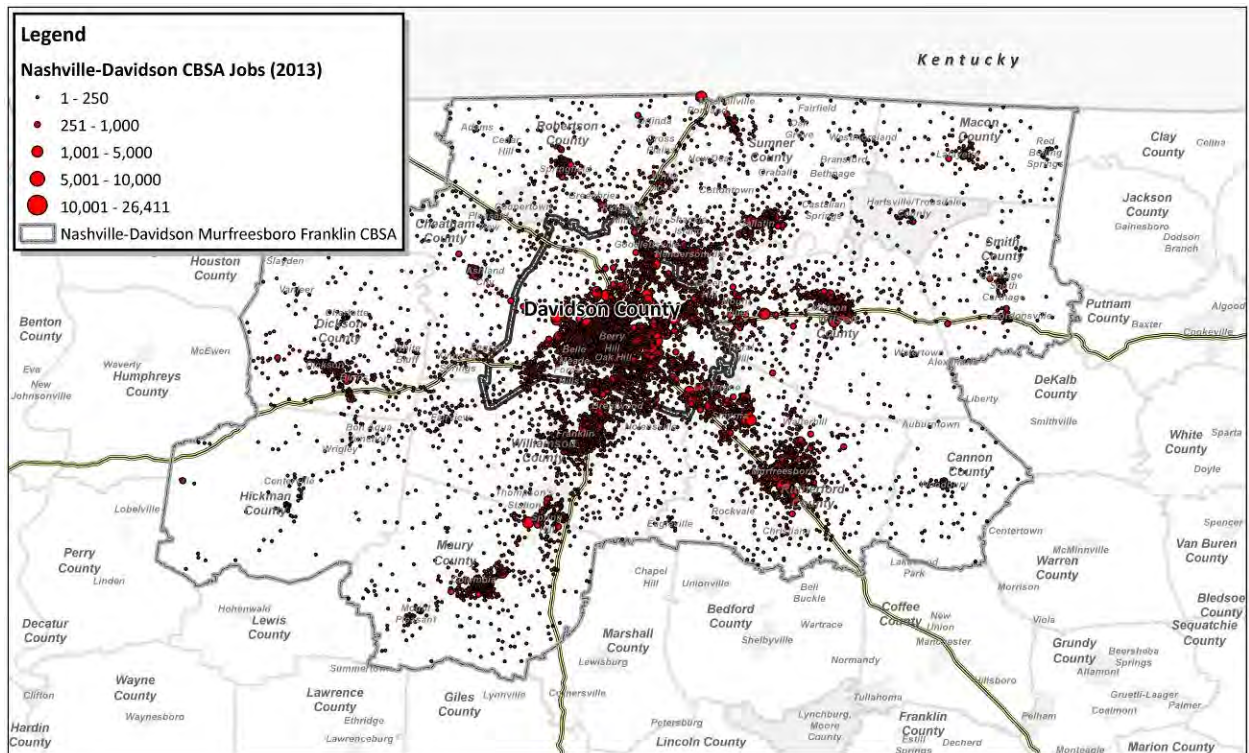
<sup>2</sup> According to the National Bureau of Economic Research, the official arbiter of U.S. recessions, the Great Recession as it has been called, began in December 2007 and ended in June 2009.

### 2.1.2 Employment

Population growth is largely fueled by employment and income growth. This section provides details on the growth in wage and salary jobs in Nashville, median household incomes as defined by the Bureau of Labor Statistics, the Department of Housing and Urban Development, and commuting patterns between Nashville and surrounding communities.

**Figure 3** illustrates the distribution of jobs in 2013 throughout the Nashville-Davidson Metro Government Core-Based Statistical Area (CBSA)<sup>3</sup>. As this area is linked economically and socially through commuting patterns, there is roughly the same magnitude of job-holders as there are jobs within CBSA boundary. According to analysis of the U.S. Census data, between 2002 and 2013, the number of jobs grew from approximately 733,000 to more than 841,000, an increase of 809,000 jobs (or 9,800 per year). To a similar degree, the number of job-holders (i.e. workers living within the CBSA) grew from approximately 673,000 to 782,000, also an increase of 109,000 jobs (or 9,900 per year).

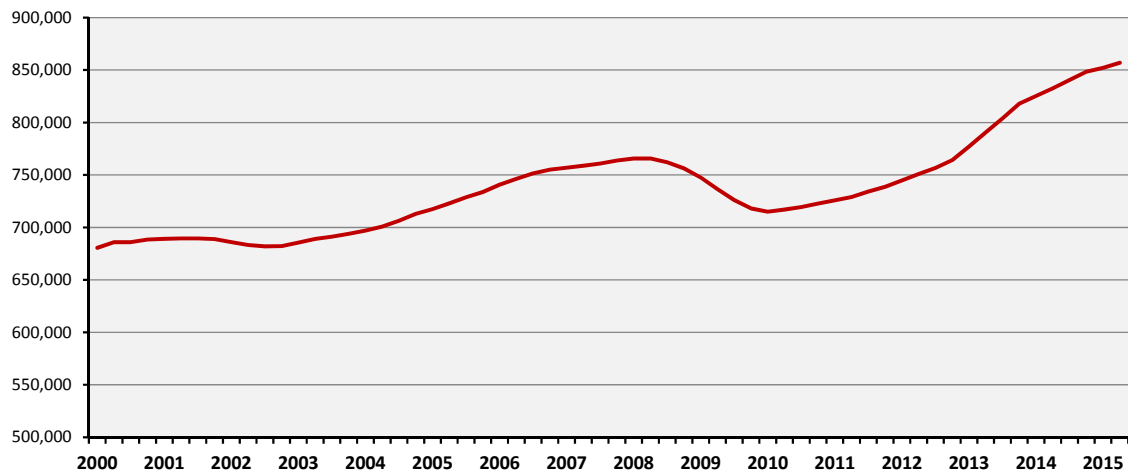
**Figure 4**  
**Nashville-Davidson CBSA Jobs in 2013**



<sup>3</sup> Geospatial data for this analysis was limited to U.S. Census Longitudinal Employer-Household Dynamics data, available through the Census's OntheMap web tool. Efforts were unsuccessful to acquire data from the Tennessee Department of Labor and Workforce Development. As such, the 2013 geospatial jobs data from the U.S. Census used in the analysis is the most up-to-date information available.

**Figure 5** illustrates total wage and salary employment data for the CBSA pulled from the Bureau of Labor Statistics. After minor losses of a little more than 11,000 jobs between 2001 and 2002, the CBSA gained an average of approximately 14,500 jobs per year from 2003 to 2005, followed by a single-year gain in 2006 of 27,000 jobs. Employment levels only increased at the CBSA level by approximately 7,000 jobs each year in 2007 and 2008. At the height of the recession, and between 2008 and 2009, nearly 48,000 jobs were lost, erasing nearly all job gains from the previous six years. Since 2010, however, the economy of the CBSA has picked up considerable employment gains. Annual employment gains have averaged approximately 26,000 jobs between 2010 and 2015, with 2013 increasing by more than 52,000 jobs.

**Figure 5**  
**Nashville-Davidson CBSA Jobs, 2000-2015**

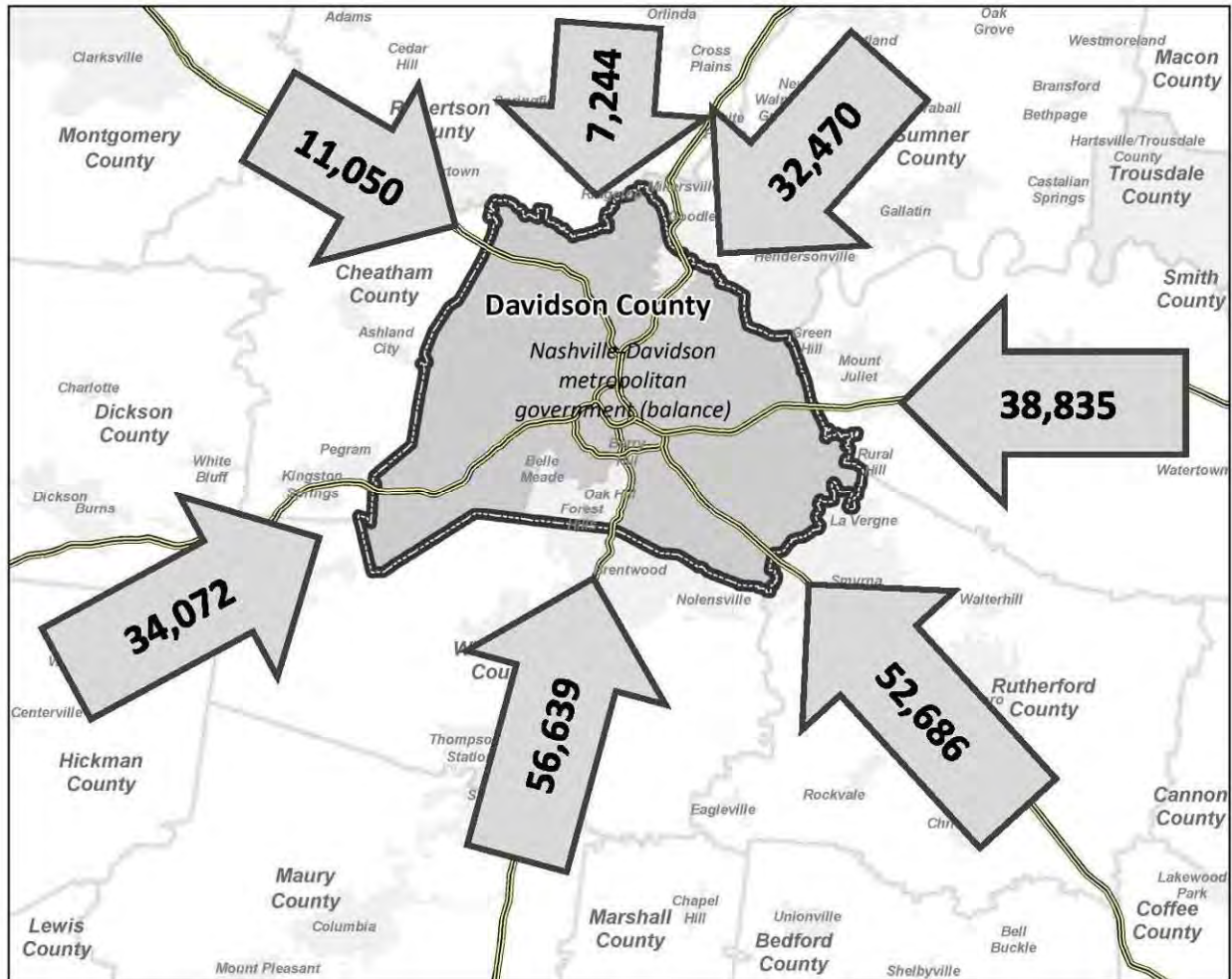


Source: Bureau of Labor Statistics; Economic & Planning Systems  
H:\153043-Nashville TN Inclusionary Housing\Data\BLS\153043-Employment MSA-03-04-2016.xlsmJT-FC-Emp



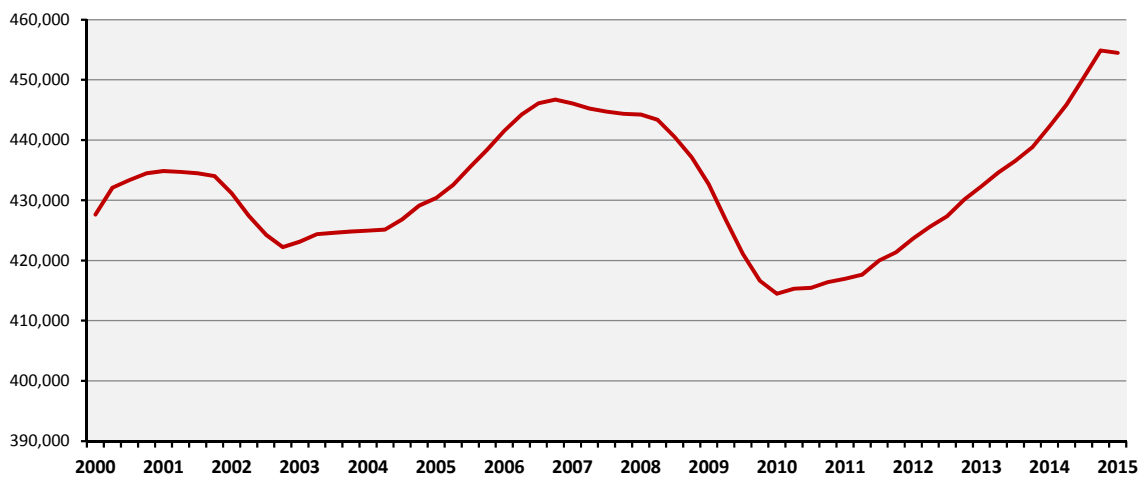
**Figure 7** illustrates the magnitude of in-commuting from different directions within the CBSA. As the data show, a substantial portion of in-commuting comes from the south and southeast, and sizable magnitudes come from the southwest, east, and northeast.

**Figure 7**  
**Nashville-Davidson In-Commuting Patterns, 2013**



**Figure 8** depicts Davidson County employment alone from 2000, illustrating its experience through the short recession beginning mid-2001 as well as the Great Recession, between 2007 and 2009. At the beginning of the decade, Davidson County had approximately 434,000 jobs. During the first recession, the County lost more than 12,000, and in the subsequent four years, employment increased to approximately 447,000 jobs, averaging approximately 6,100 new jobs per year (compared to the CBSA gaining an average of 16,000 jobs per year). The County sustained employment losses of more than 30,000 jobs between 2007 and 2010, decreasing employment to pre-2000 levels. From 2010 through 2015, however, employment increased by approximately 38,500 jobs, averaging 9,600 per year (out of the average new 25,000 jobs per year in the CBSA).

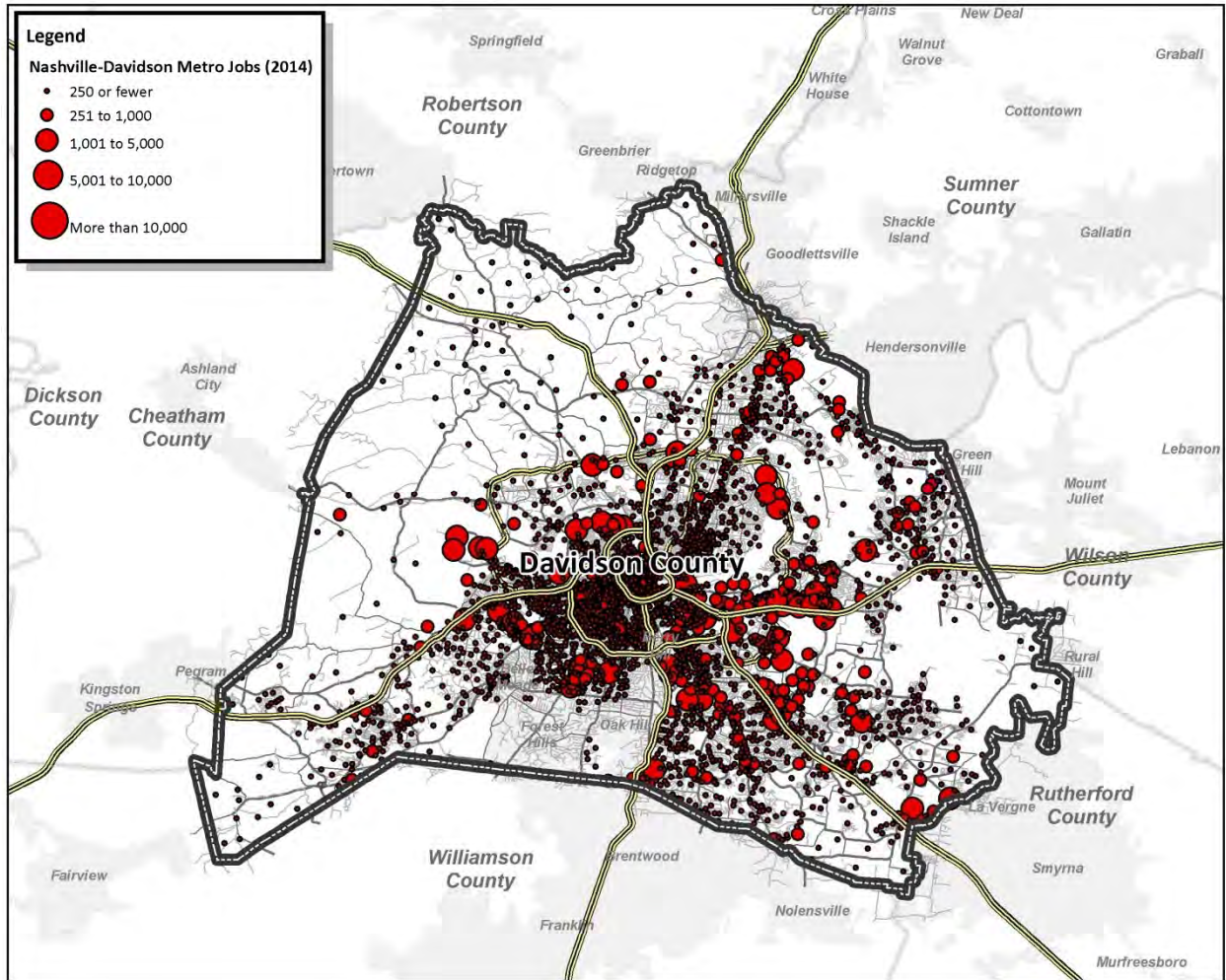
**Figure 8**  
**Quarterly Employment Trends, 2000-2015**



Source: Bureau of Labor Statistics, Quarterly Census of Employment & Wages; Economic & Planning Systems  
H:\153043-Nashville TN Inclusionary Housing\Data\153043-BLS-Davidson Co Employment Trends.xlsx\TABLE 2 - All Industries

**Figure 9** depicts the concentration of jobs throughout Davidson County in 2014. The data shown represent the location and magnitude of jobs at the Census block level. In 2014, there were nearly 430,000 jobs in the Nashville-Davidson Metro area, concentrated around the central parts of the County and along major transportation corridors.

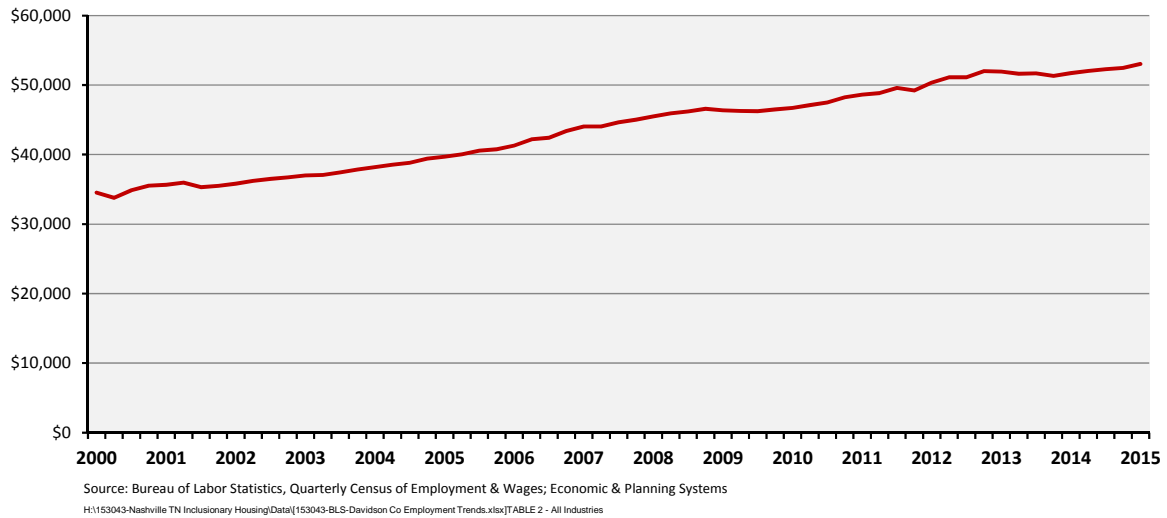
**Figure 9**  
**Jobs in 2014**



### 2.1.4 Wages

Between 2000 and 2015, average county wages increased from approximately \$35,000 to more than \$52,000 per year, reflecting a 2.8 percent annual average increase. The cost of living, measured by the Consumer Price Index for all South urban consumers, increased by 2.3 percent during the same time. Adjusted for inflation, average wages still increased by 0.4 percent per year, suggesting that the purchasing power of average worker wages increased very slightly – compared to average worker and household income of most Americans, purchasing power has dropped.

**Figure 10**  
**Quarterly Average Davidson County Wages, 2000-2015**

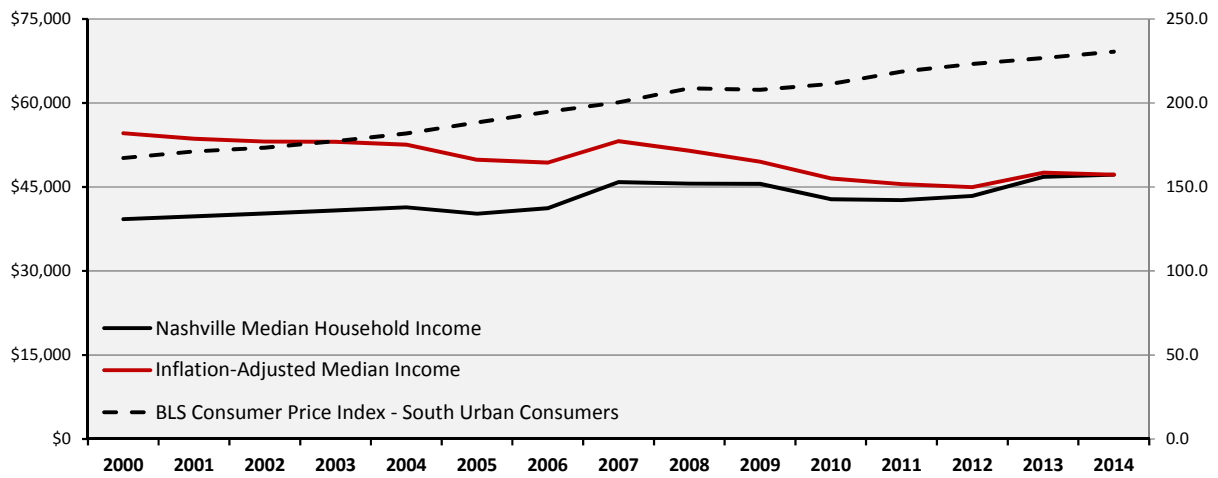


### 2.1.5 Household Incomes

While the engine of employment growth in the Nashville-Davidson-Murfreesboro-Franklin CBSA is strong, household incomes have not kept pace with the cost of living. **Figure 11** illustrates a 14-year trend in the Nashville-Davidson Metro Government household median incomes in constant and inflation-adjusted dollars, using data from the U.S. Census.

While household incomes have grown (in constant dollars) at 1.3 percent per year on average, inflation has increased at 2.3 percent per year.<sup>4</sup> With an adjustment for cost of living, household incomes have actually declined by 1.0 percent per year since 2000, which implies that households with the median income have lower buying power than they did 14 years ago.

**Figure 11**  
**Household Median Incomes, 2000-2014**



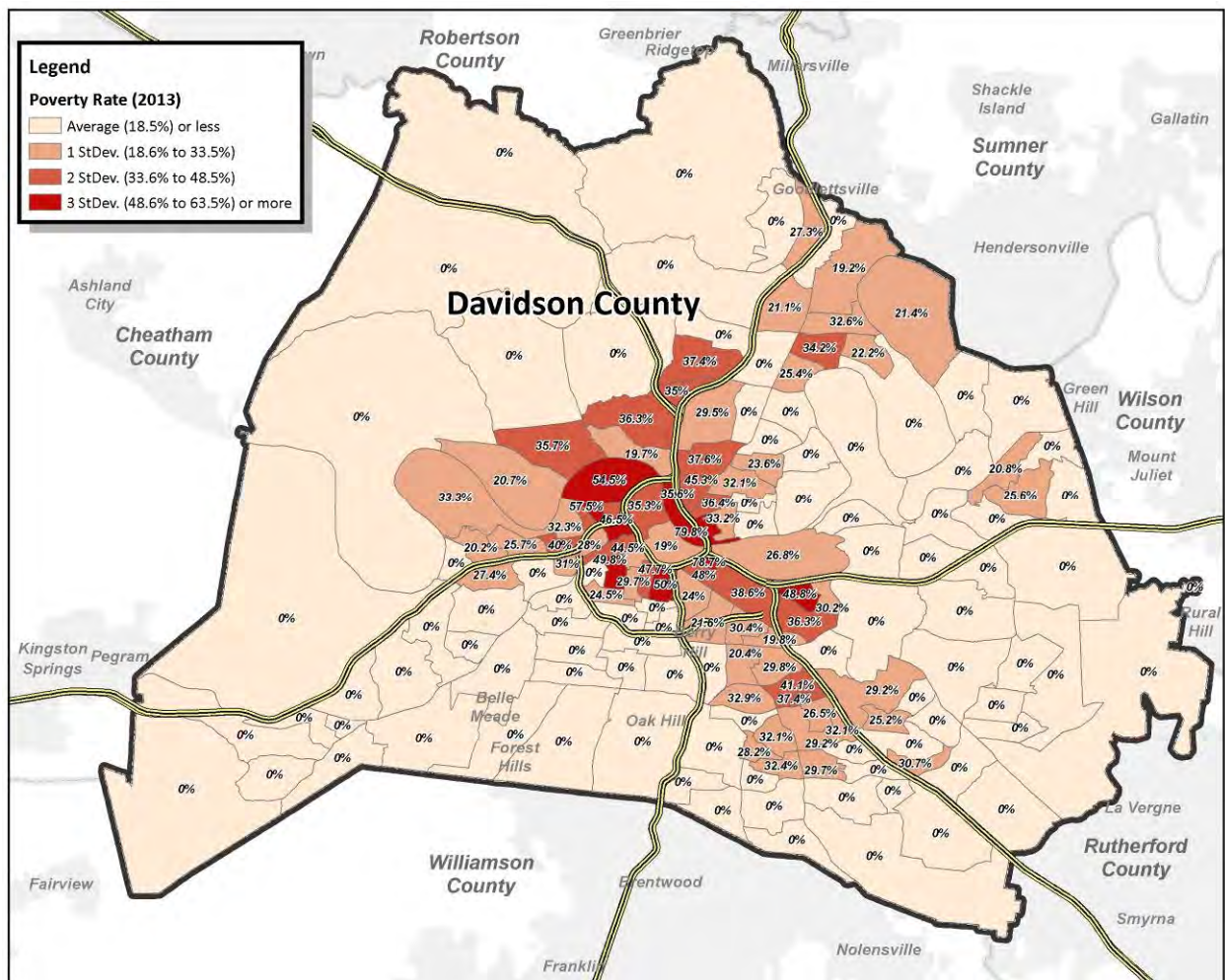
Source: U.S. Census, Bureau of Labor Statistics; Economic & Planning Systems  
 H:\153043-Nashville TN Inclusionary Housing\Data\153043-Census-Citywide Affordability Data.xlsx\TABLE i - Incomes

<sup>4</sup> Using the Bureau of Labor Statistics consumer price index for western southern consumers.



**Figure 13** depicts the percent of Nashville-Davidson Metro Government households by Census tract living at or below the federal poverty level. The federal poverty threshold in 2013 was defined as \$28,834 according to the U.S. Census. Poverty thresholds were first defined in 1963 using U.S. Department of Agriculture food budgets designed for families under economic stress, and data about what portion of their income families spent on food. Since that time, this formula has simply been updated with inflation and other factors. According to the Office of Management and Budget, the Census Bureau defines a family whose total income is less than this threshold as a family and every individual in it in poverty. Official poverty thresholds do not vary geographically, but are updated for inflation using CPI. The highest concentrations of poverty are shown in the darkest shades of red.

**Figure 13**  
**Poverty Rate, 2013**



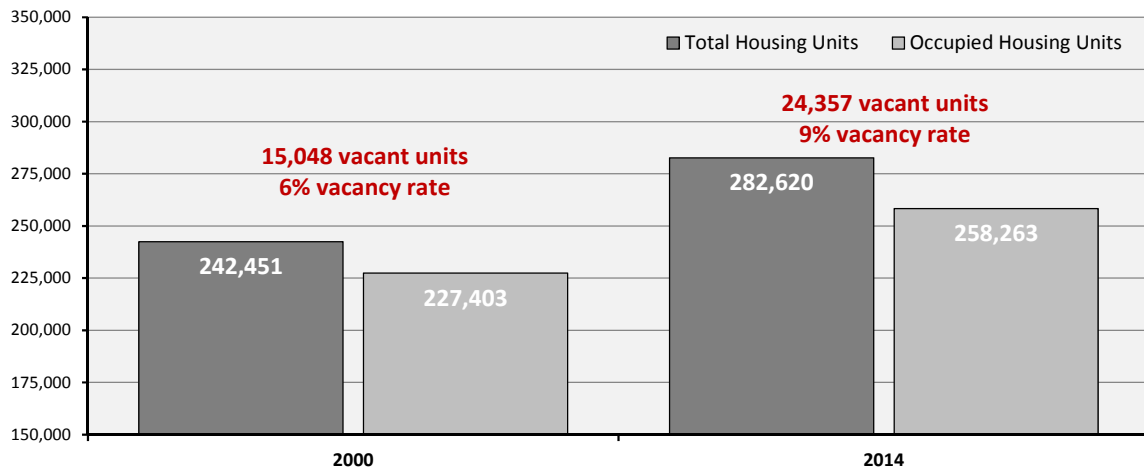
## 3.0 HOUSING MARKET CONDITIONS

### 3.1 Residential Inventory and Building Activity

#### 3.1.1 Housing Inventory

**Figure 14** illustrates that the housing inventory of the Nashville-Davidson Metro Government increased from approximately 242,000 units in 2000 to more than 282,000 units in 2014, according to data from the U.S. Census, reflecting an increase of just 2,900 housing units per year. The number of occupied housing units (equivalent to households) increased by nearly 31,000, or 2,200 per year. The number of vacant housing units increased during this time, however, by nearly 10,000 units, raising the vacancy rate from 6 to 9 percent. The U.S. Census definition contains a variety of classifications, including: for rent; rented, not occupied; for sale only; sold, not occupied; for seasonal, recreational, or occasional use; for migrant workers; and other vacant. The inconsistency of trends, however, in these data do not make a reliable conclusion possible with regard to vacant housing units being used for short-term rental or seasonal use, such as Airbnb, for example.

**Figure 14**  
**Housing Inventory, 2000 and 2014**



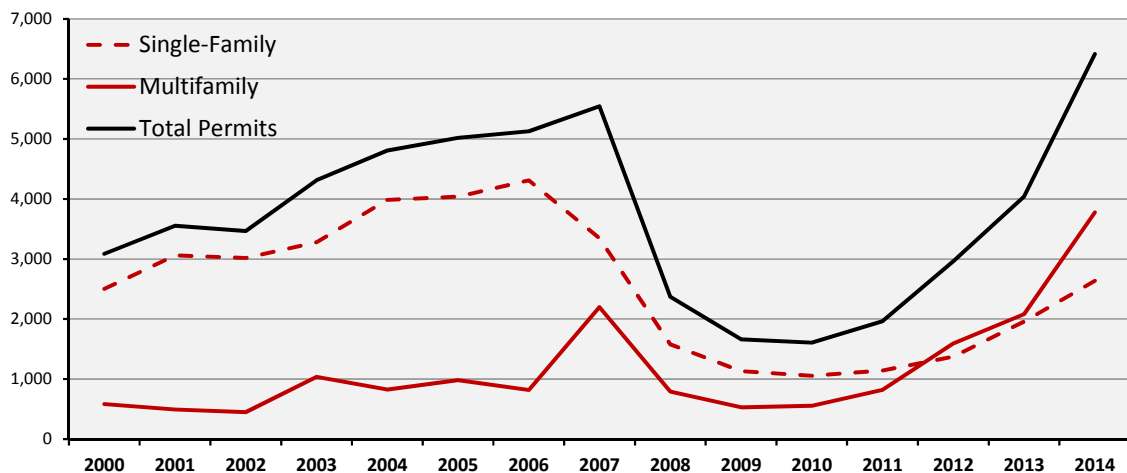
Source: U.S. Census; Economic & Planning Systems  
H:\153043-Nashville TN Inclusionary Housing\Data\153043-vacancy.xlsx\TABLE 1 - Units

In terms of construction activity, between 2000 and 2014, there was nearly \$8 billion in the Nashville-Davidson Metro Government, according to analysis of valuation data from the City's Codes Department, one-third of which has occurred since 2011. In the areas of the CBD, Germantown, and the Gulch, residential construction accounted for just four percent of total building activity between 2000 and 2007, but nearly 40 percent between 2011 and 2014. According to information from the City regarding projects in various permitting stages, there was another \$340 million in residential and commercial valuation that would soon be under construction, 47 percent of which were residential projects in those same three central neighborhoods.

### 3.1.2 New Residential Construction

EPS attempted to utilize Metro's Codes Department data to analyze building permits for trending, but given the nature of data entry, only information on value was extractable. As such, EPS utilized building permit data reported to the U.S. Census for Davidson County. While only available through 2014, **Figure 15** illustrates that total building permit volume peaked predictably in 2007 and fell more than 60 percent to 2010. A sign of the market's strength, however, total residential construction activity exceeded 2007 levels by 2014, and reports of current activity suggest that activity is well in excess of those levels. During this time, there has been a change in the market. Up through 2007, an average of 80 percent of building permits were for single-family residences. Since 2011, single-family permits have accounted for an average of just 50 percent.

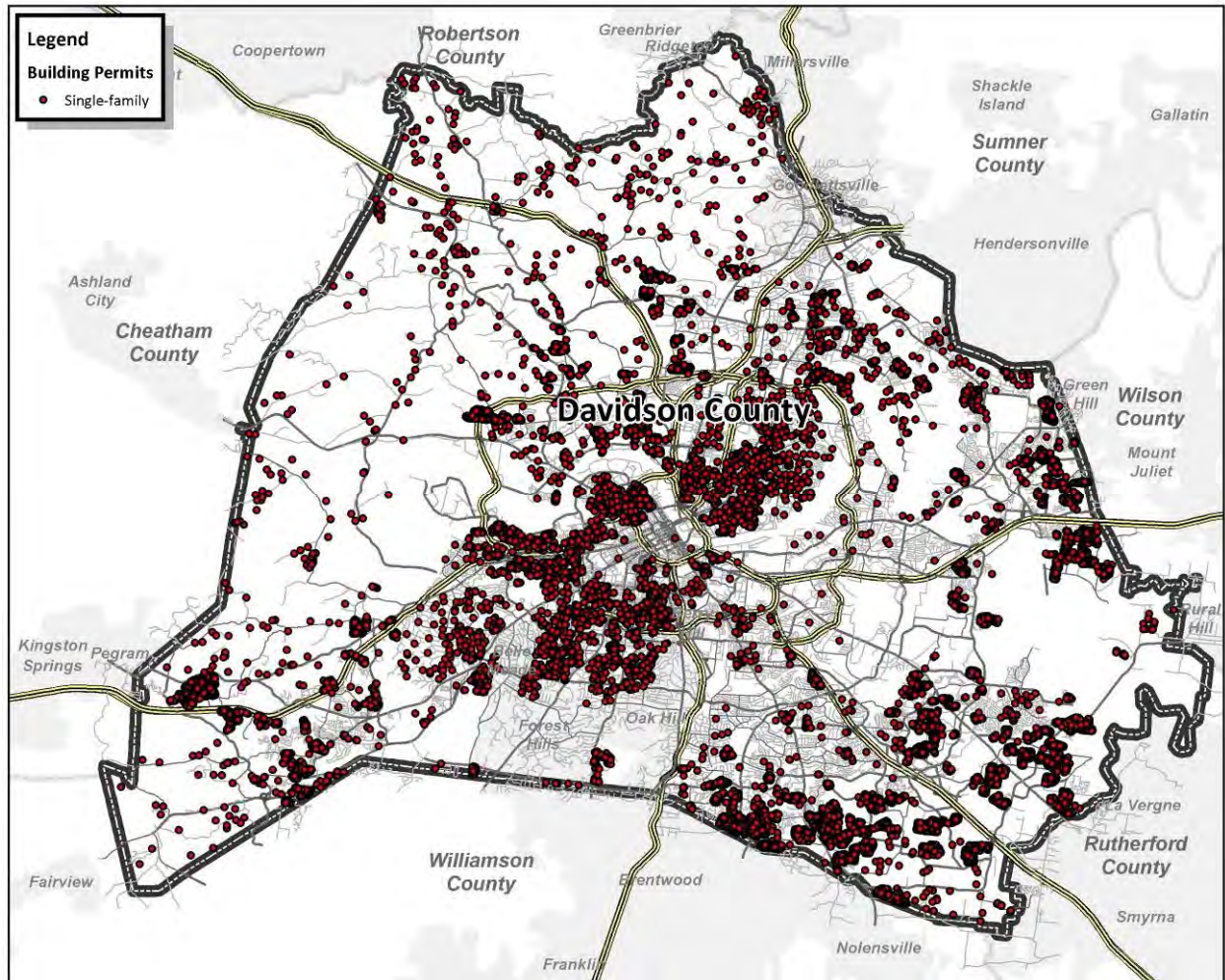
**Figure 15**  
**Residential Construction Activity, 2000-2014**



Source: U.S. Census; Economic & Planning Systems  
 H:\153043-Nashville TN Inclusionary Housing\Data\153043-Residential Permits-C40.xlsx\TABLE 1 - Summary & Inputs

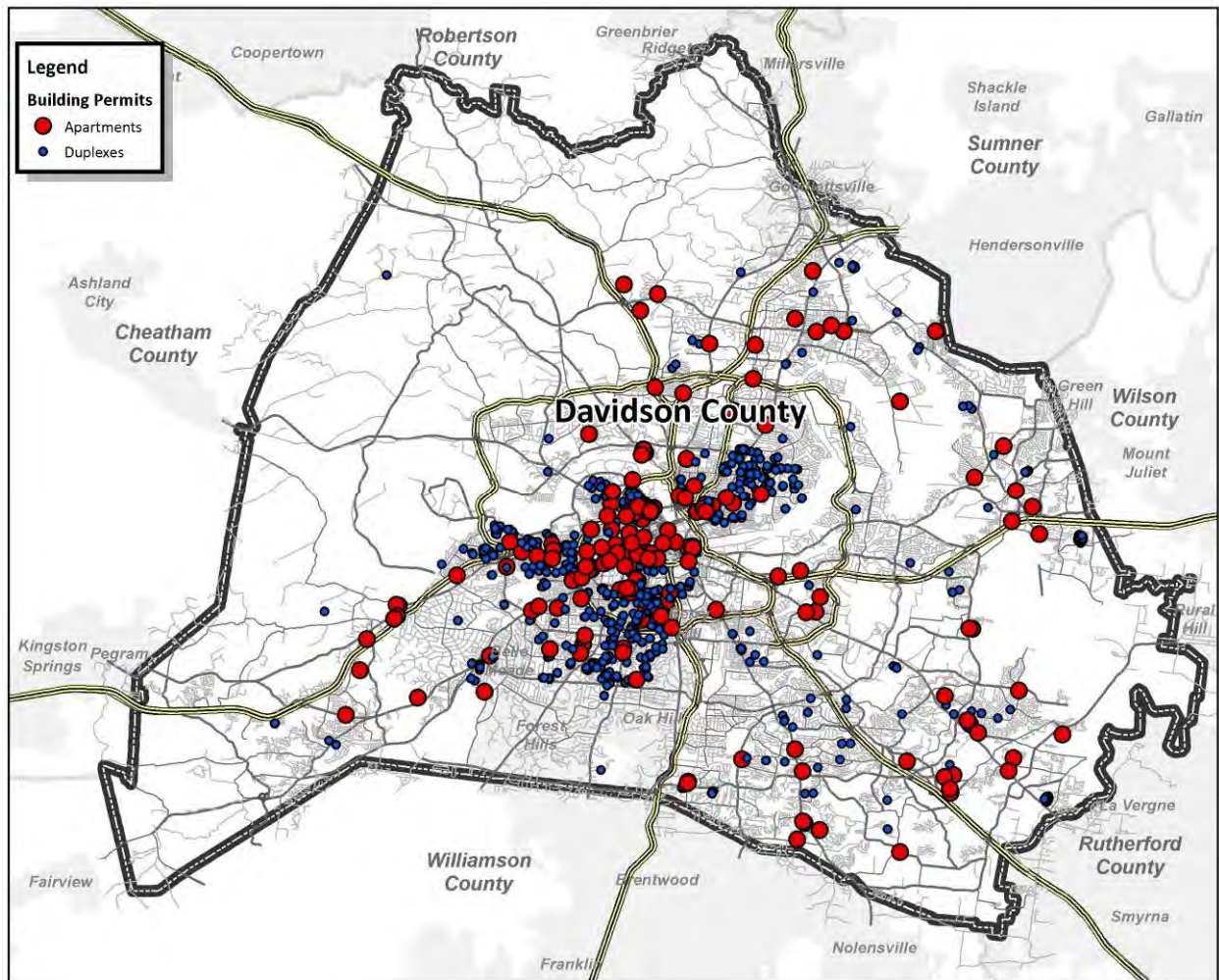
**Figure 16** illustrates permit data from Metro's Codes Department. Concentrations of single-family permits are clearly see in areas of East Nashville, Germantown, the West End, Sylvan Park, Green Hills, and scattered throughout the county. There is an expected absence of permits from the CBD and the Gulch, as these areas have seen considerable multifamily construction activity.

**Figure 16**  
**Single-Family Construction Activity, 2000-2014**



**Figure 17** illustrates geocoded multifamily construction activity, including permits for multifamily buildings (rental apartments) and duplexes. The data show a generally higher concentration of multifamily construction activity in the central CBD to southwest central CBD, including downtown, the Gulch, Germantown, West End, 12 South, and the corridor extending to Tennessee State University. East Nashville also contains a high concentration of multifamily construction activity, particularly duplexes.

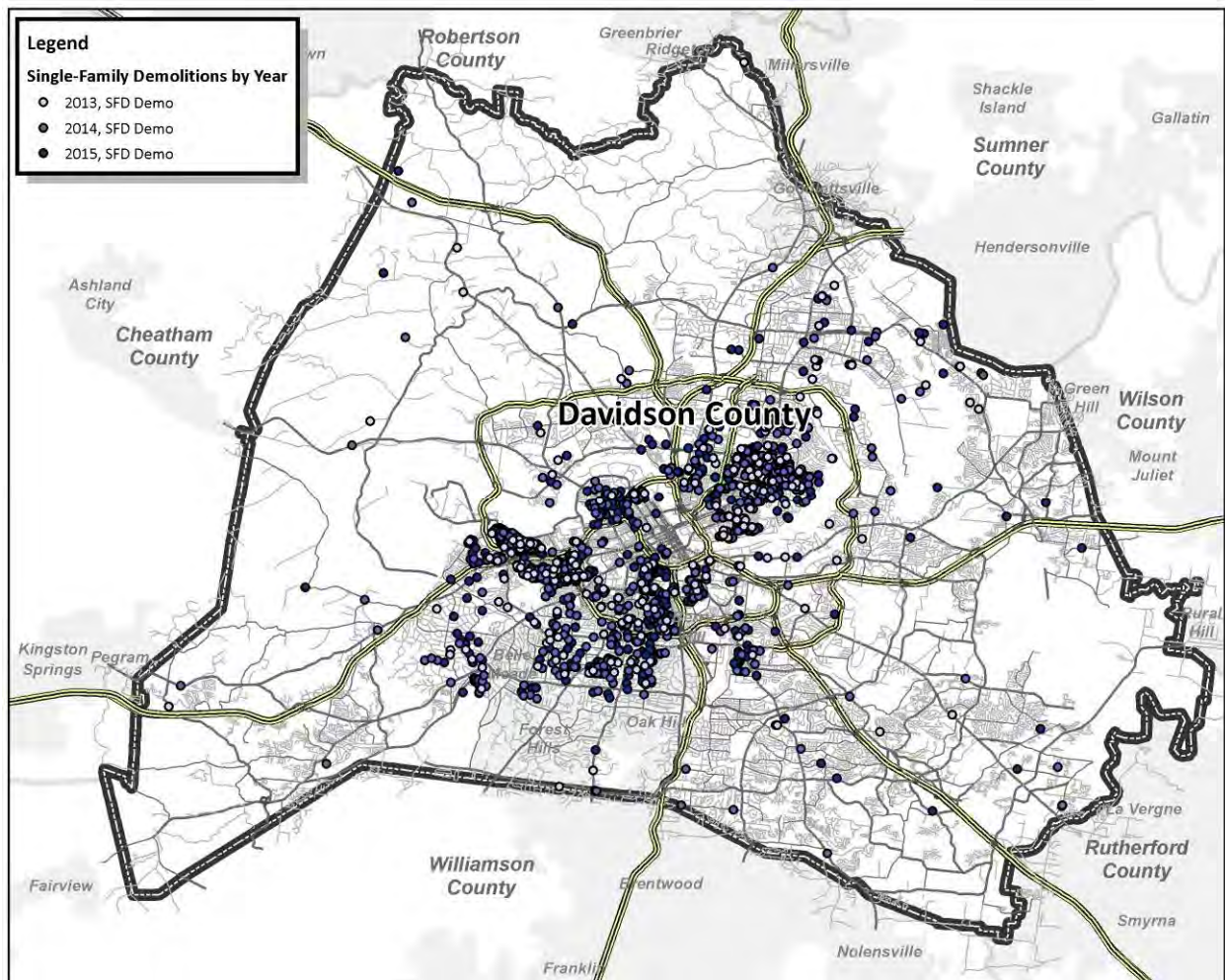
**Figure 17**  
**Multifamily Construction Activity, 2000-2014**



### 3.1.3 Demolitions

**Figure 18** illustrates the location of 2,700 demolition permits for single-family residences in the past three years. Based on a geographic analysis of the location of these permits, approximately 29 percent were in the area of East Nashville. Approximately 18 percent were in the Edgehill & 12<sup>th</sup> Avenue area, 17 percent in North Nashville, 28 percent in Green Hills and West Nashville, and 9 percent collectively in Downtown, Midtown, Nolensville Road, Airport/Opryland. In 2013, there were 413 permits to demolish single-family residences, and in 2014 and 2015, there have been approximately 1,150 permits each year to demolish single-family residences. Furthermore, an analysis was completed to identify the extent to which this was occurring. All available data on demolition permits from the City's Codes Department were used (spanning 2013 through 2015, totaling 3,824 records). The data were geo-coded, of which 83 percent matched with addresses in the permit record. These were referenced against all 139,623 records of housing unit sales collected for the project (spanning 2000 through 2015). Even after factoring in a spatial buffer to account for units being demolished and replaced by newer ones that are set in different places on the same lot, the results were inconclusive – i.e. fewer than a handful of records matched.

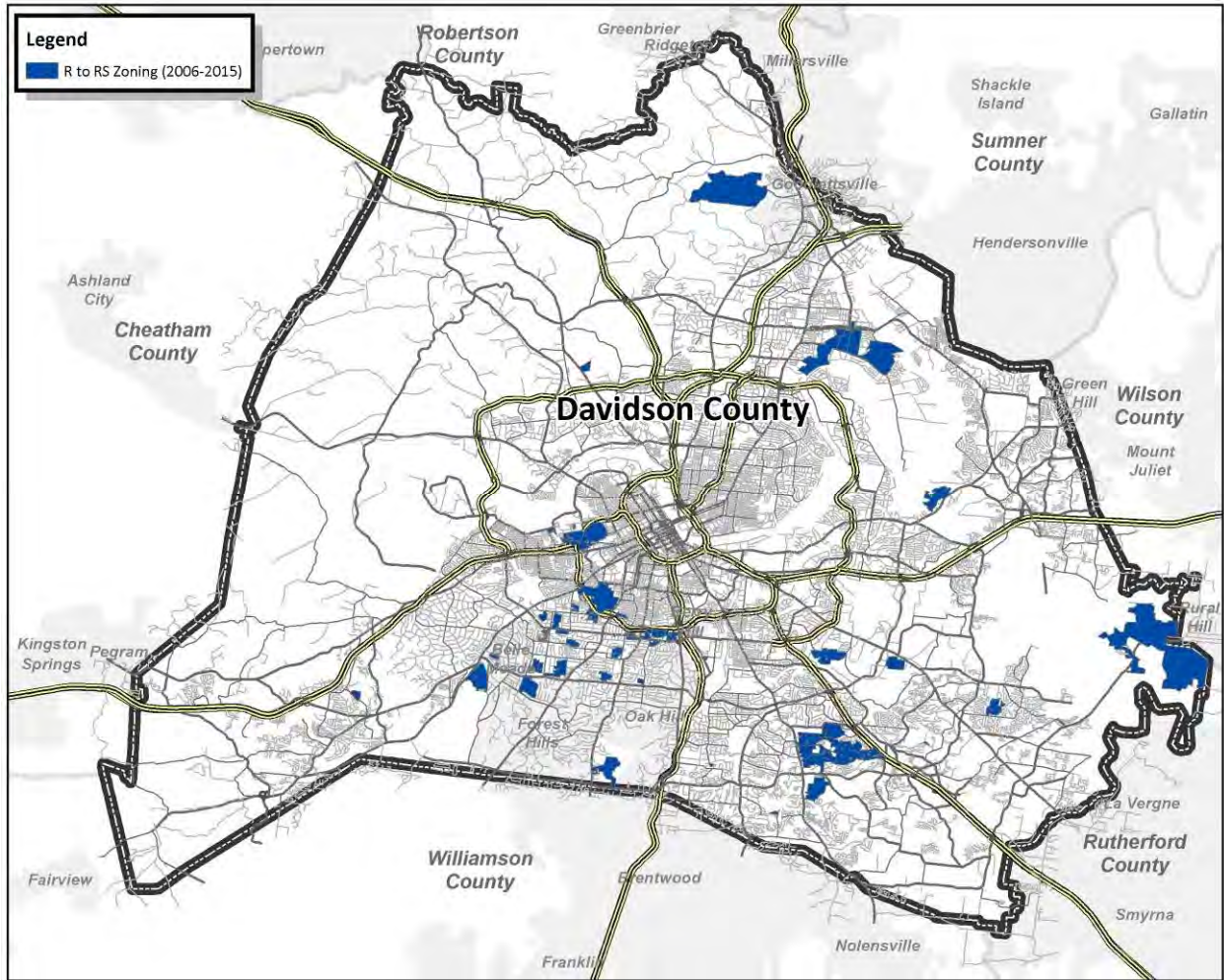
**Figure 18**  
**Single-Family Demolitions, 2013-2015**



### 3.1.4 Zoning Changes

Figure 19 illustrates a scattering of areas that have been downzoned from R to RS. Whereas R zoning permitted duplexes by-right, RS zoning is exclusively a single-family zoning district.

Figure 19  
R to RS Zoning Changes, 2006-2015



### 3.2 Housing Prices and Conditions

Data contained in this section originates from Nashville’s multiple listing service (MLS), a record of home sales. Data were collected for the time frame 2000 through 2015 (pulled originally for analysis at the beginning of September 2015). Records were collected for the communities contained within the Nashville CBSA commute shed, including: Brentwood, Fairview, Franklin, Gallatin, Hendersonville, La Vergne, Mount Juliet, Murfreesboro, Nolensville, Smyrna, Spring Hill, and Thompson’s Station.

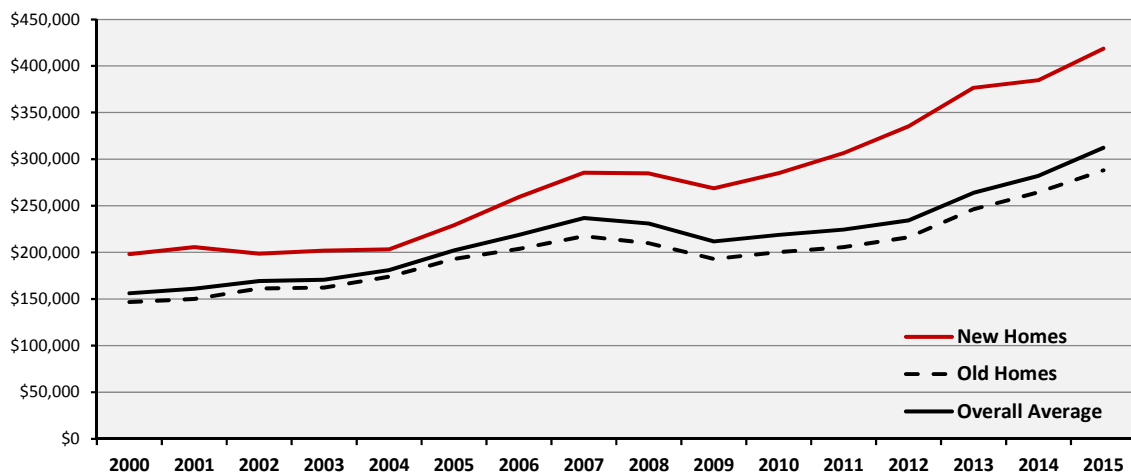
The findings report an analysis of data that have been evaluated for completeness and reliability. For example, records with missing pieces of critical information (e.g. sales price, date, total floor area) have been excluded; and records where the resulting metric (such as sales price per square foot or sales price) are clearly outliers (i.e. a sales price per square foot of \$100,000 or a sales price of \$3.00) have also been excluded.

#### 3.2.1 For-Sale Prices and Volume

**Figure 20** illustrates trends in average sales prices for all types of housing in Nashville (i.e. single-family, duplexes, townhomes, condominiums) from 2000 to 2015. Trends are reported for three age categories, including the overall average, new housing (defined as a house that was no more than 5 years old at the time of sale), and old housing (defined as a house that was more than 5 years old at the time of sale).

Overall, housing prices have escalated at an average of 4.7 percent per year; newer homes on the other hand have escalated at 5.1 percent per year since 2000. In 2000, the average home sold for approximately \$156,000. By 2015 (based on through the beginning of September), the average home sold for more than \$312,000. Newer homes in 2000 were selling for an average of approximately \$198,000, an estimated 19 percent above the overall average. By 2015, newer homes were selling for an average of approximately \$418,000, an estimated 22 percent above the overall average.

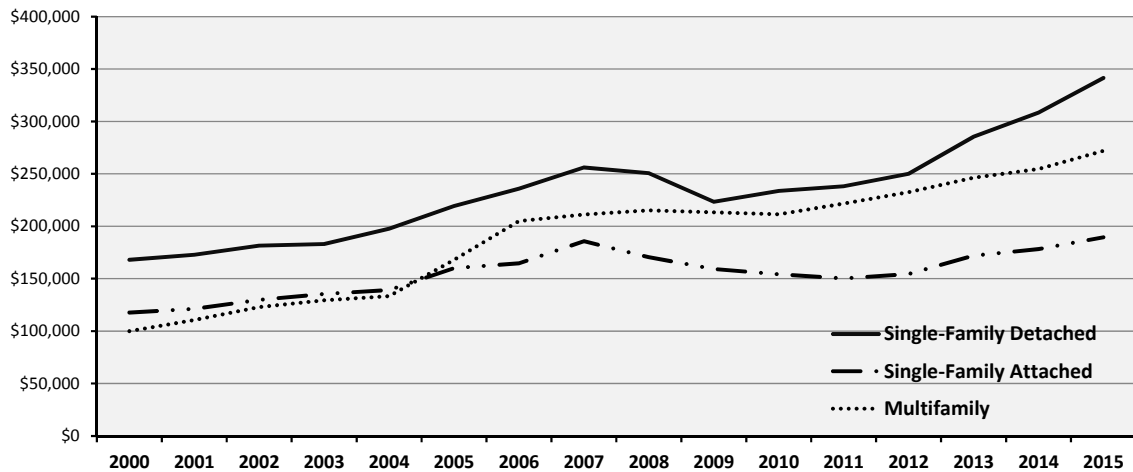
**Figure 20**  
**Average Housing Sales Prices, 2000-2015**



Source: MLS; Economic & Planning Systems  
 H:\153043-Nashville TN Inclusionary Housing\Data\153043-Commuting-LEHD-CBSA.xlsx\TABLE 1 - Summary

**Figure 21** illustrates overall average price trends by housing unit type, including single-family detached, single-family attached (including townhomes, duplexes, triplexes, and quadplexes), and multifamily (including condominiums, flats, and high-rise units). The average single-family home price increased from approximately \$168,000 to more than \$341,000 between 2000 and 2015, a 4.8 percent average annual increase. The average single-family attached house increased from nearly \$118,000 to more than \$189,000, a rate of 3.2 percent increase annually. But, the largest rates of increase were among multifamily housing, which sold for an average of \$100,000 in 2000 and increased to \$272,000 by 2015, a 6.8 percent average rate of increase.

**Figure 21**  
**Average Housing Sales Prices by Unit Type, 2000-2015**

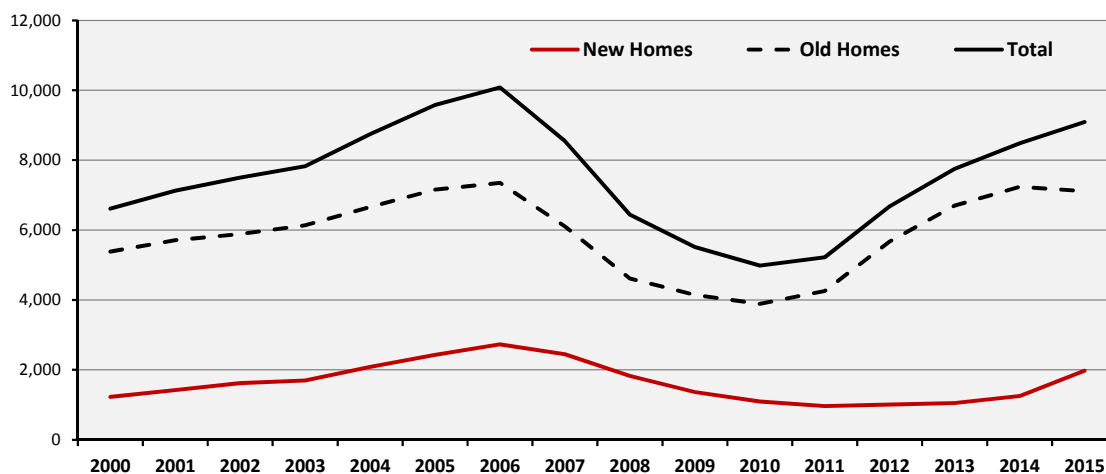


Source: MLS; Economic & Planning Systems  
 H:\153043-Nashville TN Inclusionary Housing\Data\153043-Commuting-LEHD-CBSA.xlsx\TABLE 1 - Summary

Home sales volumes are illustrated in **Figure 22**. Between 2000 and 2015, the sale of new homes has accounted for 17 percent of all home sales, and older home sales have accounted for 83 percent. This proportion has neither changed significantly during the time, nor did it change during the housing bubble and subsequent recession. In terms of sales volume, the average between 2000 and 2015 was approximately 7,500 sales per year, 1,600 of which were newer homes and 5,900 were older homes.

During the housing bubble, newer homes sales reached volumes of 2,700 and older homes reached volumes of 7,300. During the years following the recession (2009 through 2011), a time when markets throughout the country were generally “correcting”, total volumes averaged approximately 5,200 per year, 1,100 of which were newer homes and 4,100 of which were older homes. Nashville’s market began picking up in 2012 and has since returned to the pre-recession high of nearly 9,100 sales in 2015 (based on the seasonality of sales, EPS estimates that 2015 will have slightly higher volume of sales than 2014).

**Figure 22**  
**Average Housing Sales Volumes, 2000-2015**

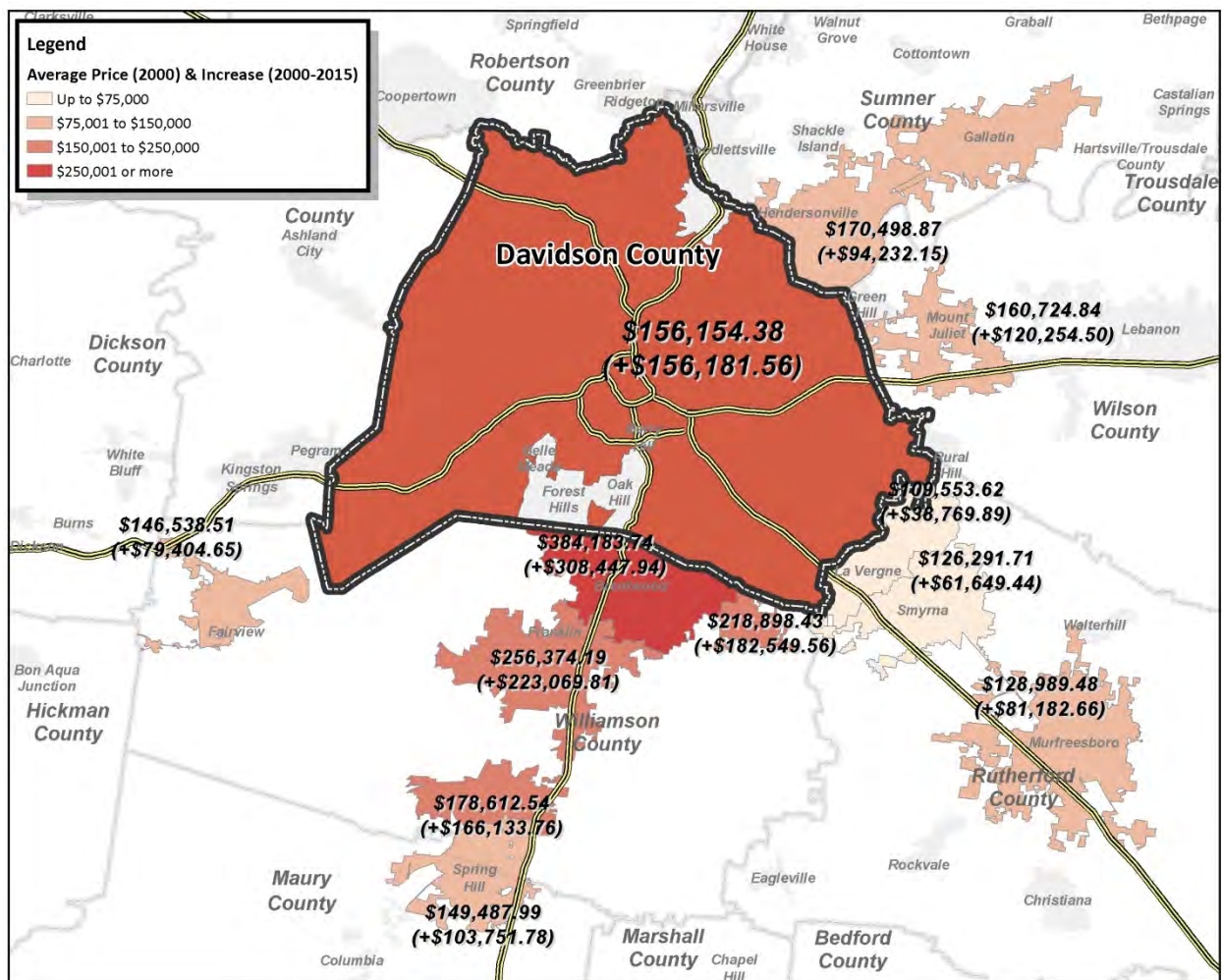


[Note 1]: 2015 total volumes are estimated.  
 Source: MLS; Economic & Planning Systems  
 H:\153043-Nashville TN Inclusionary Housing\Data\153043-Commuting-LEHD-CBSA.xlsx\TABLE 1 - Summary

An analysis of the commute shed communities sales prices and sales volumes suggests that growth pressures from employment and population increase have placed pressures on the housing markets of these communities. Most notable are the price and sales volume increases in outlying commute shed communities, such as Fairview, Gallatin, Mount Juliet, Murfreesboro, Nolensville, Spring Hill, and Thompson’s Station, each of which had average price appreciation of 3.5 percent per year or more between 2000 and 2015.

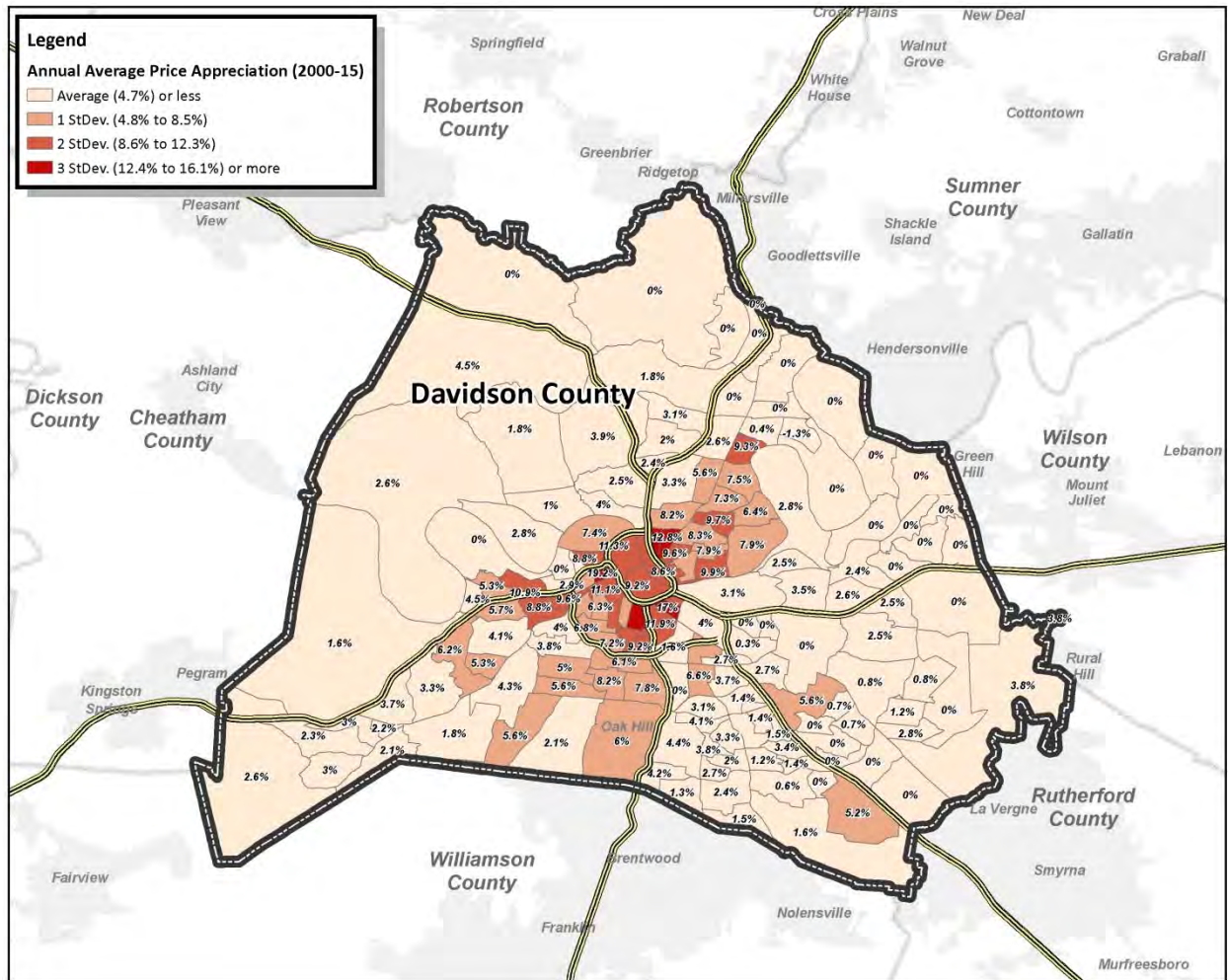
**Figure 23** illustrates average home sales prices in 2000 and their subsequent increases to 2015. Nashville’s average price doubled during this time. Indicative of the commuting and housing pressure in the southern I-65 commuting corridor, prices from Brentwood to Spring Hill increased by considerable magnitudes. Brentwood’s average price increased 80 percent from an already high \$384,000. Franklin’s average price increased 87 percent from \$256,000. But Thompson’s Station and Spring Hill, which in 2000 were relatively affordable compared to other communities and Nashville itself, increased as a result of growing housing demand (seen also through the increase in volumes). The average price in Thompson’s Station increased 93 percent from \$178,000 to more than \$345,000. And the average price in Spring Hill increased 69 percent from \$149,000 to \$253,000.

**Figure 23**  
**Commute Shed Prices (2000) and Increase (2000-2015)**



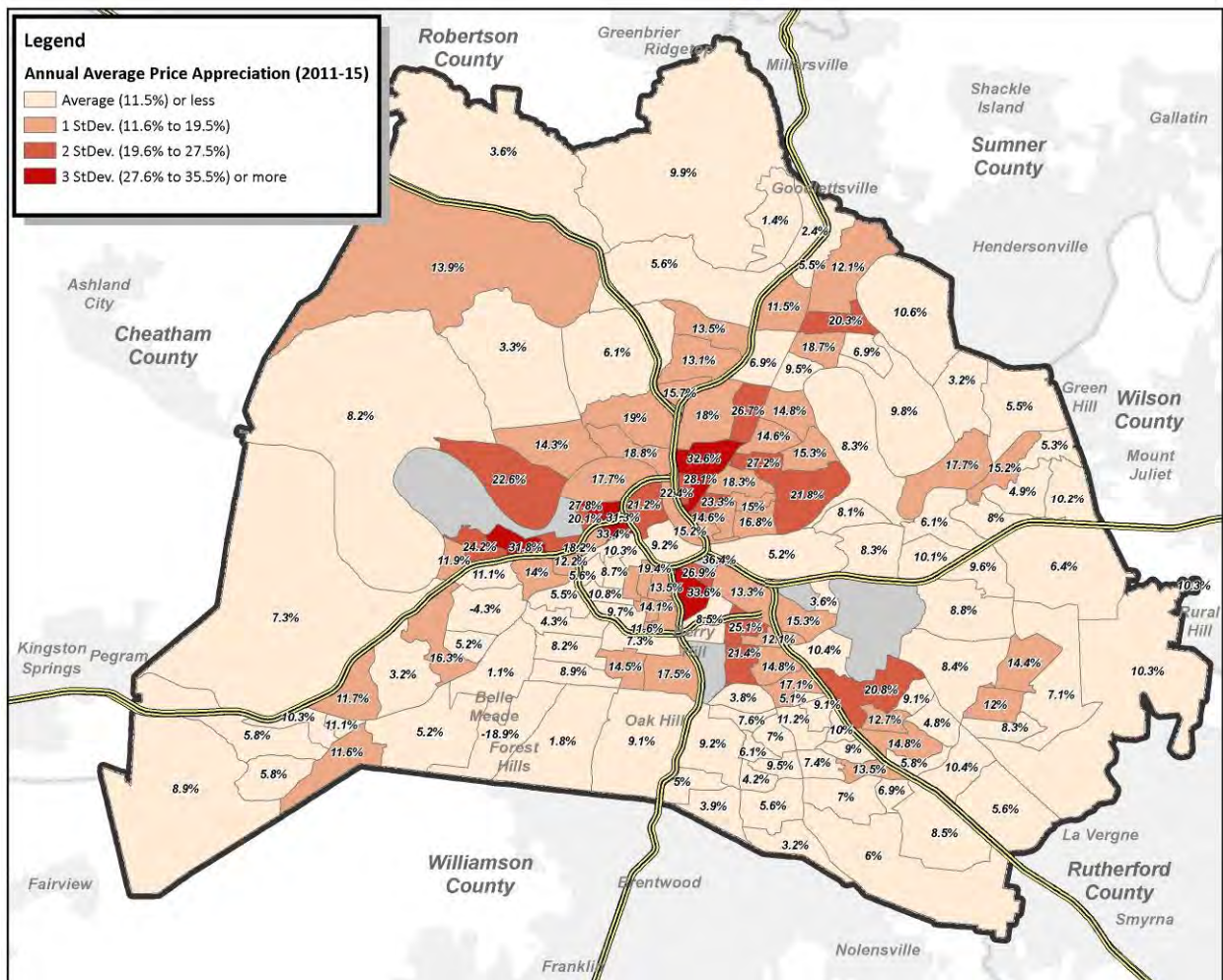
**Figure 24** depicts average rates of sales price appreciation by Census Tract. The time period is 2000 through 2015, where the average rate of annual price appreciation was 4.7 percent, as demonstrated earlier in this section. Differentiated by standard deviations from the mean (average), this map illustrates that many of the more central neighborhoods in Nashville have experienced the highest overall rates of price appreciation. This is not unexpected, as Nashville's downtown has experienced tremendous redevelopment and investment. As shown, most Census tracts within East Nashville have experienced higher than average rates of growth. Two of the tracts within the inner loop of the CBD, including the Gulch and SoBro, experienced growth rates of approximately 9 percent, and Germantown experienced price appreciation of 11.3 percent. To the west of downtown, neighborhoods have experienced annual price appreciation between 11 and 19 percent per year since 2000. To the southeast, two tracts along Nolensville Road (Berry Hill) also experienced annual average growth in excess of 12 and 17 percent.

**Figure 24**  
**Rates of Price Appreciation, 2000-2015**



The previous map illustrates which areas have experienced high rates of average price appreciation since 2000. But because both recessions factor into that analysis, **Figure 25** is included to illustrate where prices have escalated and by what magnitude since the market stabilized in 2011. The results reveal more widespread price appreciation by area, although many of the same areas are highlighted. It should be noted that the color scale on this map reflects very different ranges of price appreciation. The average rate of price appreciation in this map is 11.5 percent. The highest ranges of price appreciation are symbolized by the darkest shade of red, indicating that sales prices in the tract have escalated at a rate ranging between 27.6 and 35.5 percent per year since 2011. As for the areas that have experienced the highest rates of growth, most parts of East Nashville have experienced high growth, ranging from 15 to 33 percent annual sales price appreciation. Germantown sales prices have increased by 21 percent per year since 2011. South of Sobro, prices have appreciated at rates of 27 to 37 percent per year. West of the city and along the north and south sides of I-40 to Tennessee State University and Charlotte Park, prices have escalated at rates ranging from 12 to 32 percent per year.

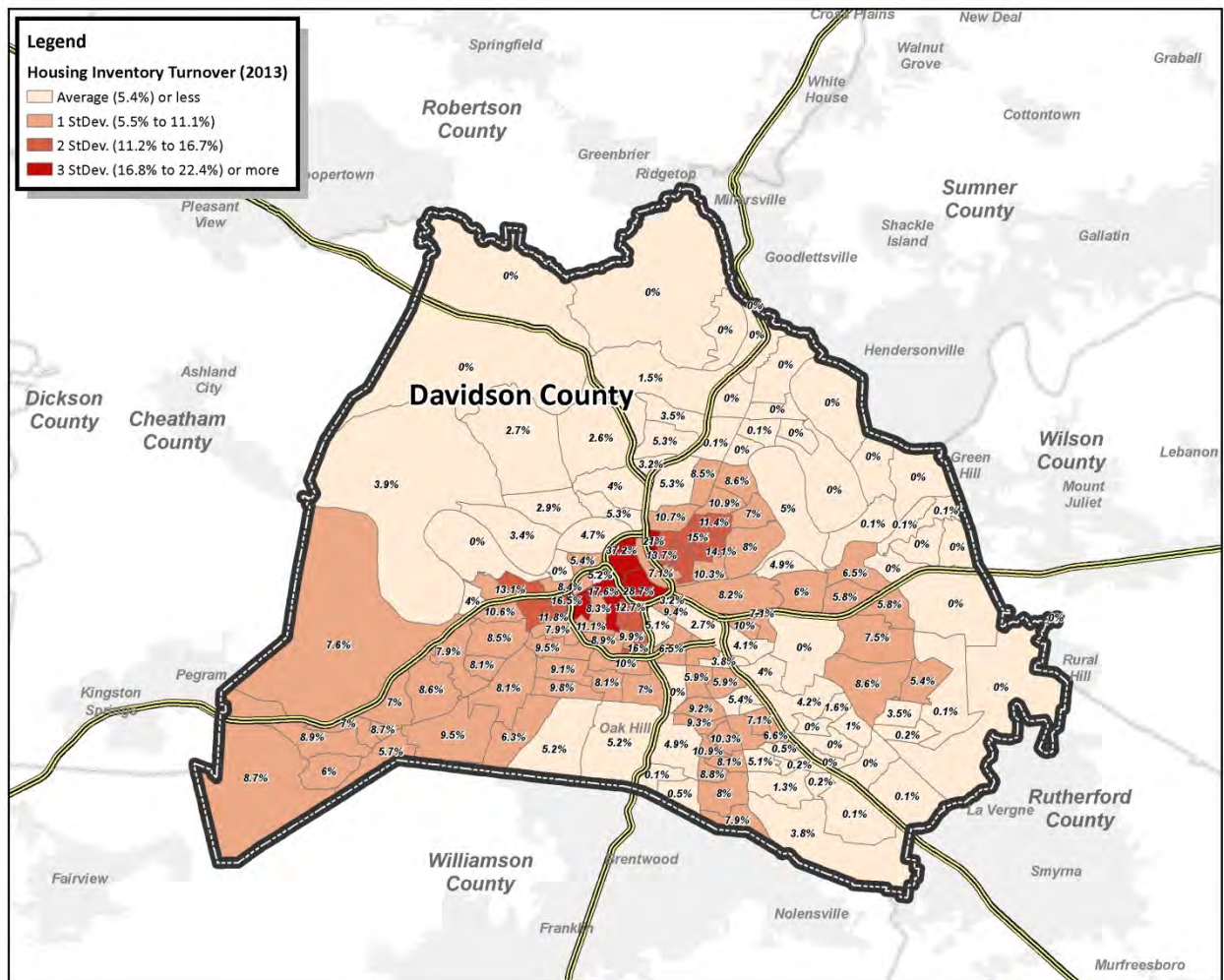
**Figure 25**  
**Rates of Price Appreciation, 2011-2015**



### 3.2.2 Housing Inventory Turnover

The following illustration reflects an analysis of U.S. Census ownership housing inventory data from 2013 (the most up to date information available at the time of production) and the volume of sales data from the MLS system. Average turnover is defined as the portion of an area's inventory that sells in a given year. In 2013, turnover for the city was approximately 5.4 percent. For many of the outlying areas, though, turnover was insignificant, but for most of the central tracts, turnover ranged between roughly 7 and 37 percent. Areas of East Nashville saw turnover ranging generally between 11 and 15 percent (with one area at 21 percent), while turnover downtown, the Gulch, West End, and Midtown ranged between 17 and 21 percent.

**Figure 26**  
**Housing Inventory Turnover, 2013**

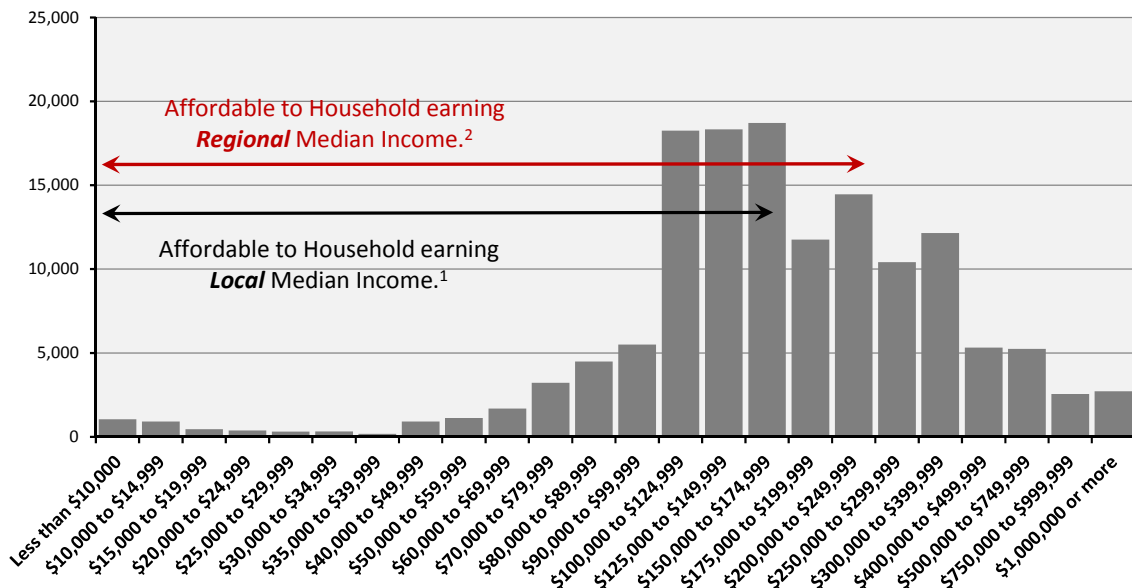


### 3.3 Housing Affordability

The definition of housing affordability lies at the intersection of housing costs and household incomes.<sup>5</sup> This section provides a juxtaposition of the housing purchase price that is affordable to a household earning the area median income (AMI) against median housing price levels for Nashville and the surrounding communities. The following is an analysis of ownership housing inventory from 2000 and 2013, household incomes and affordable home purchase prices, and home sales data, when information were available from the U.S. Census and the MLS.

**Figure 27** depicts the distribution of ownership housing units in Nashville in 2013 by home value range. The red and black lines illustrate the portion of housing that would have been affordable to a household earning local or regional median household income at the time. The analysis finds that in 2013, approximately 55 percent of Nashville's ownership inventory was affordable to a household earning the local median income (\$45,542), and that 64 percent of the inventory would have been affordable to a household earning the regional median income (\$52,831).

**Figure 27**  
**Distribution of Ownership Inventory, 2013**



[Note 1]: Local median household income in 2013 was \$45,542, according to the U.S. Census. Assuming a household spends no more than 30 percent of its income on housing, qualifies for a 30-year fixed rate mortgage at the current rate of approximately 5.0 percent, and places a 5.0 percent down payment toward a purchase, the household's affordable purchase price is \$177,200.

[Note 2]: Regional median household income in 2013 was \$52,831, according to the U.S. Census. Assuming a household spends no more than 30 percent of its income on housing, qualifies for a 30-year fixed rate mortgage at the current rate of approximately 5.0 percent, and places a 5.0 percent down payment toward a purchase, the household's affordable purchase price is \$207,700.

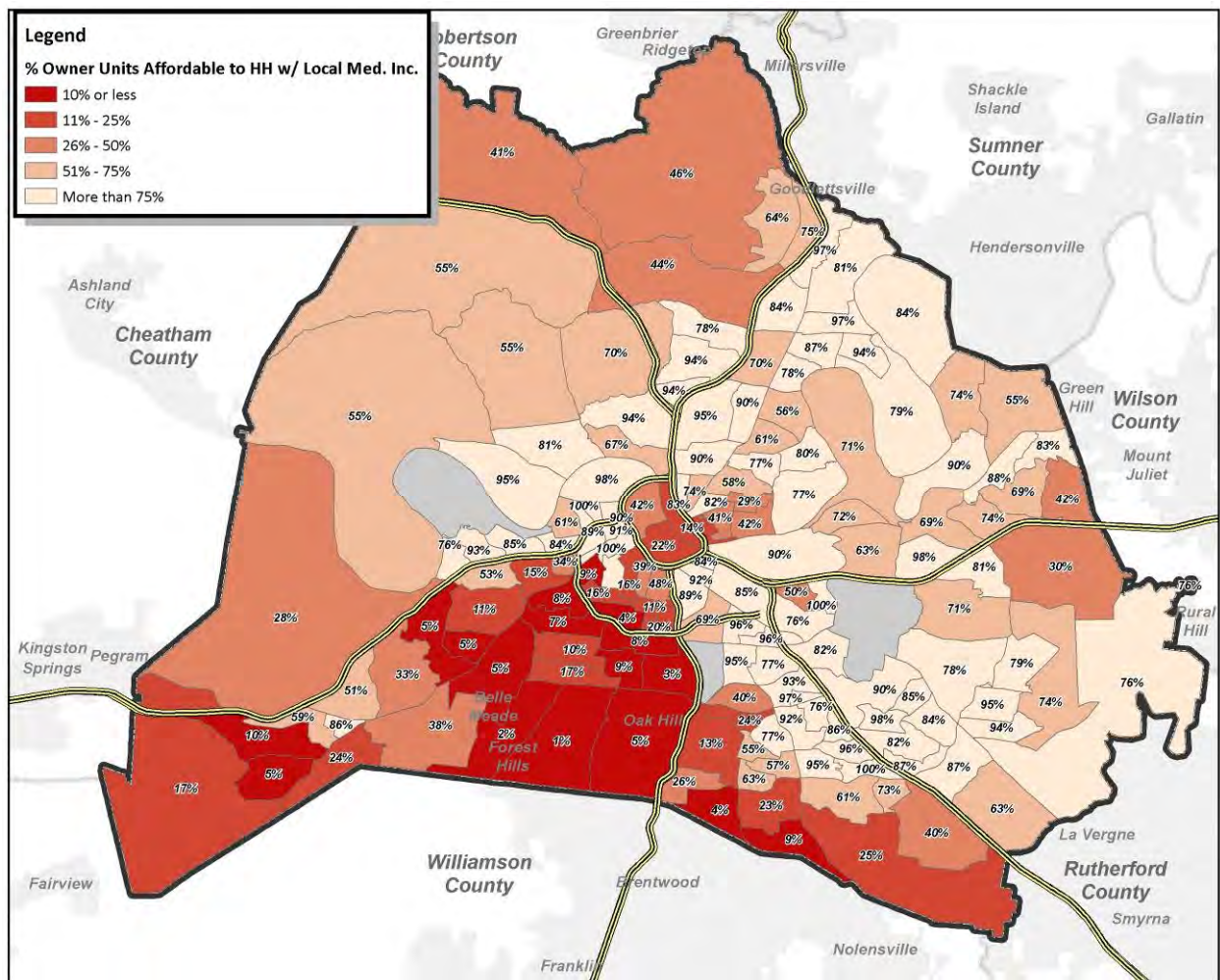
Source: U.S. Census; MLS; Economic & Planning Systems  
 H:\153043-Nashville TN Inclusionary Housing\Data\153043-value.xlsx\TABLE 1 - Summary

<sup>5</sup> Affordability is defined as a household spending no more than 30 percent of its income on housing, including payments on principal, interest, taxes, and insurance. EPS has calibrated affordability metrics for this project assuming the Urban Services District taxing rate. Further assumptions used in this analysis reflect average lending terms and conditions for each time period evaluated, 2000 and 2013. For 2000, the assumptions are: 8 percent mortgage interest rate; 30-year fixed rate mortgage, 5 percent downpayment; property taxes, insurance, and a factor for HOA dues collectively total approximately \$180 per month. For 2013, the assumptions are: 5 percent mortgage interest rate; 30-year fixed rate mortgage, 5 percent downpayment; property taxes, insurance, and a factor for HOA dues collectively total approximately \$230 per month.

An analysis of similar data from 2000 was also completed (not illustrated), which showed that approximately 50 percent of the local ownership housing supply was affordable to a household earning the local median income (\$39,232), and that 51 percent of the inventory would have been affordable to a household earning the regional median income (\$42,698).

The darker shades of red in **Figure 28** indicate where there is less ownership inventory affordable to a household earning median income. The analysis in the map below illustrates to what degree ownership housing is affordable to a household earning the median local income. Downtown, the Gulch, West End, 12 South, as well as much of the southwest has little affordable ownership housing. While illustrating a mixed market, East Nashville has a few tracts with less than 50 percent of housing affordable to median income. Most of the north east, east, and southeast remain largely affordable with the exception of the area near Brentwood to the south and southeast.

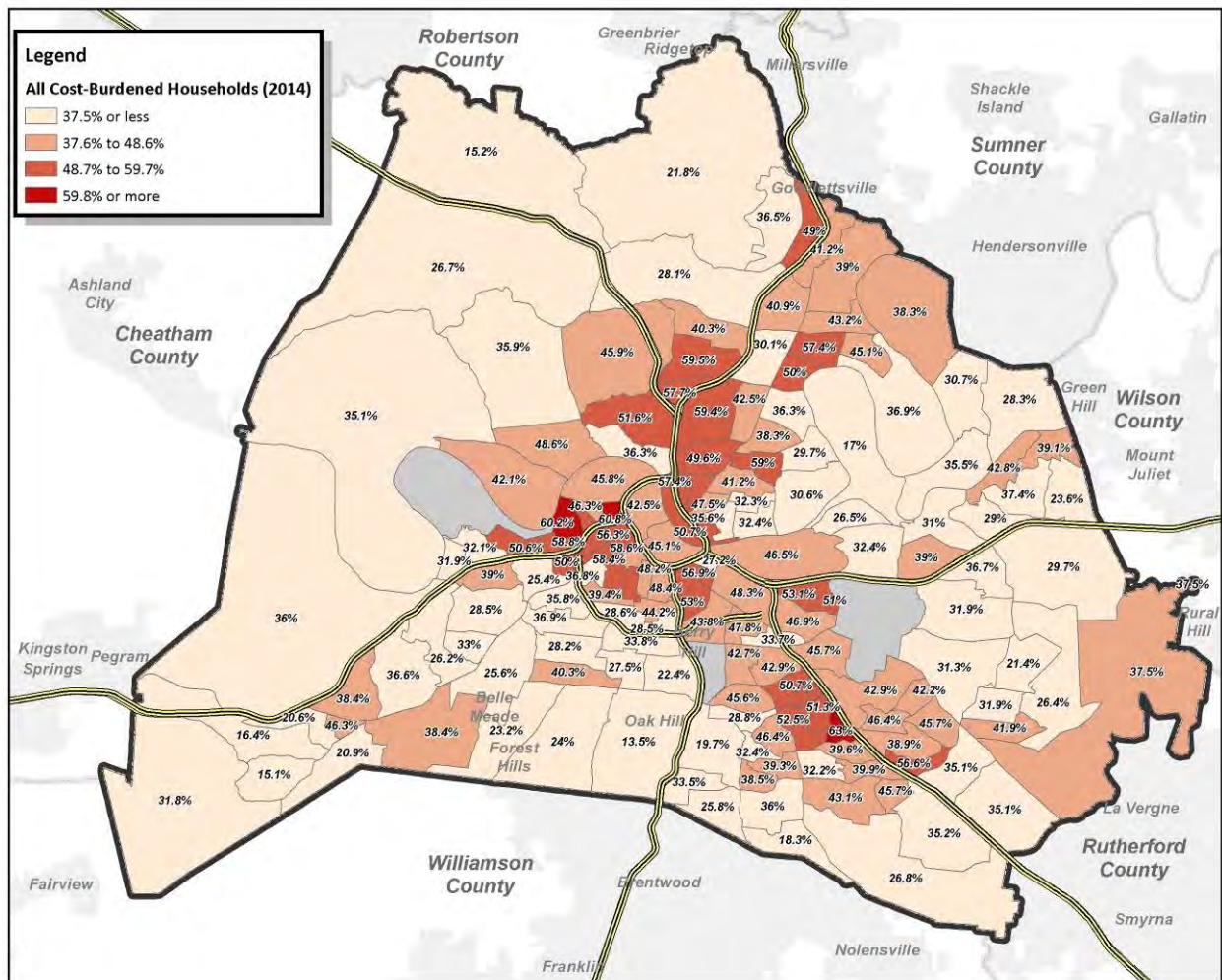
**Figure 28**  
**Ownership Inventory Affordable to Local Median Income, 2013**



### 3.3.1 Cost-Burdened Households

Cost burden is a condition in which a household spends more than 30% of its pretax income on housing. In 2014, approximately 38 percent of all households in Nashville were cost-burdened. Among owner households, 26 percent were cost-burdened, an increase from 25 percent the year before. Among renter households, approximately 53 percent were cost-burdened, an increase from 48 percent the year before. Compared to the U.S., Nashville has higher cost burden proportions. Nationwide, 34 percent of all households are cost-burdened. Approximately 25 percent of owners and 52 percent of renters are cost-burdened. Parts of East Nashville, areas around I-65 and I-24 north have high proportions of cost-burdened households. Areas around Tennessee State University have the highest cost burden levels, as well as the West End, Midtown, and 12 South areas.

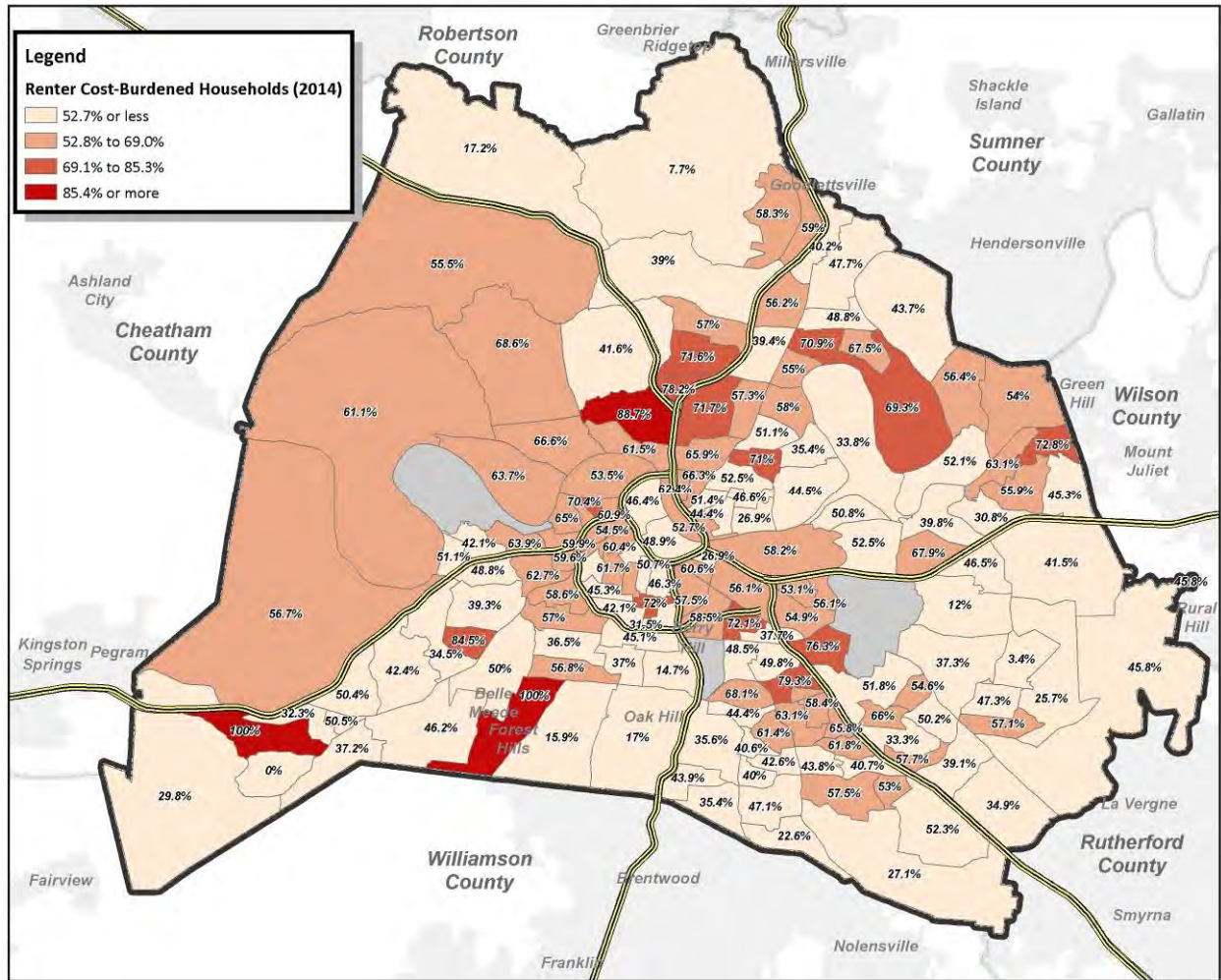
Figure 29  
 All Cost-Burdened Households, 2014





As mentioned previously, 52.7 percent of renter households are cost-burdened. This map illustrates where the portion of households in Census tracts is up to the average (52.7 percent), one (69.0 percent), or two or more (85.3 percent) standard deviations above the average. There are two tracts where the cost burden portion indicates 100 percent. These tracts have extremely low numbers of renter households (6 and 10 respectively), but all of them are indicated as spending more than 30 percent of their income on housing.

**Figure 31**  
**Renter Cost-Burdened Households, 2014**

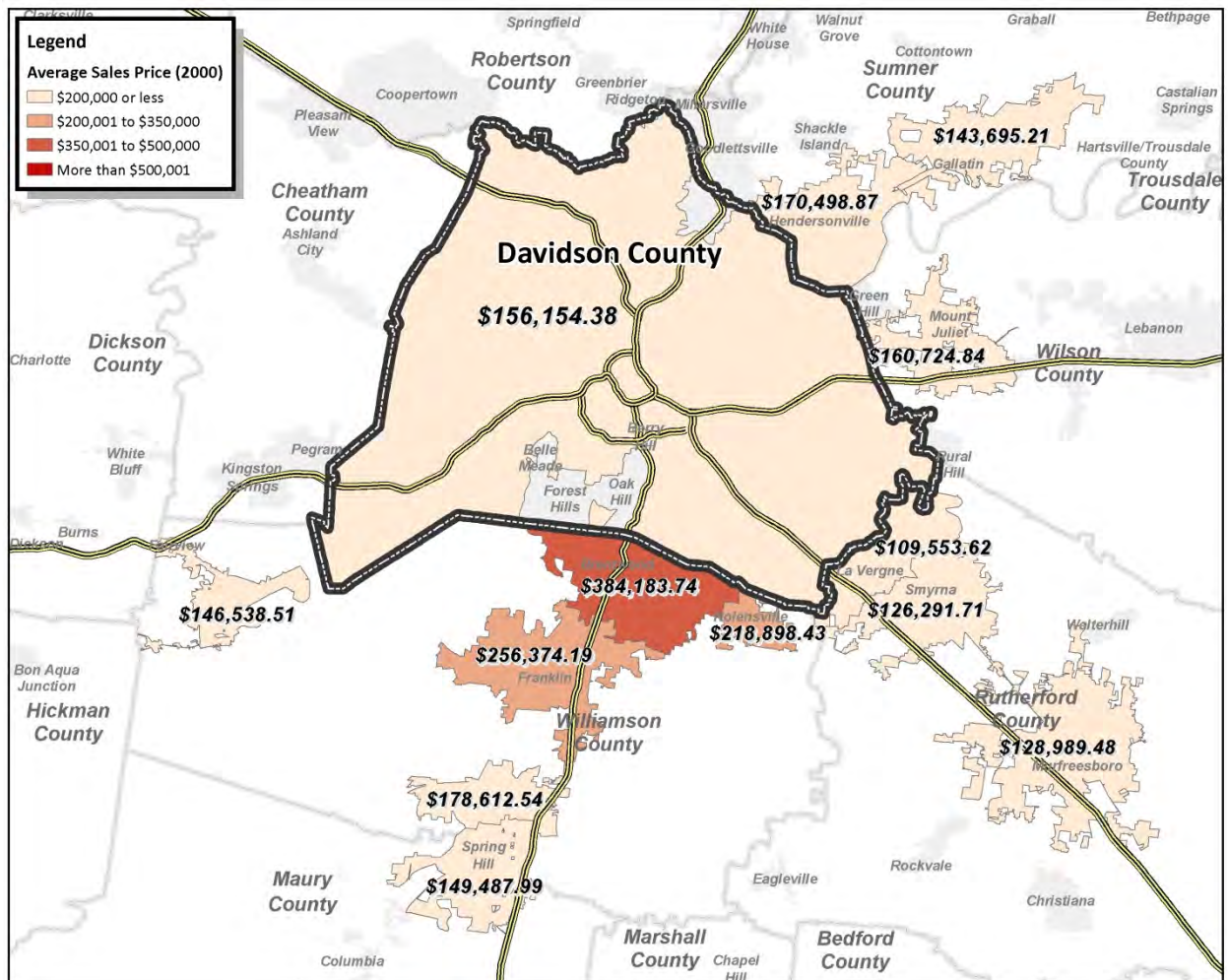


### 3.3.2 Affordability Gaps

This last section of the chapter deals with the difference between the average sales price of homes sold in Nashville and its commute shed and the price of a home that would be considered affordable to a household earning the regional median income. The first two graphics below illustrate affordability conditions in 2000, and the second two graphics depict affordability conditions in 2015.

**Figure 32** illustrates the average price of homes sold in Nashville and the surrounding commute shed communities in 2000. In Nashville, as indicated previously, the average sales price was approximately \$156,000. While Franklin and Brentwood were considerably more expensive at \$256,400 and \$384,200, respectively, nearly all of the other communities were as or more affordable as Nashville.

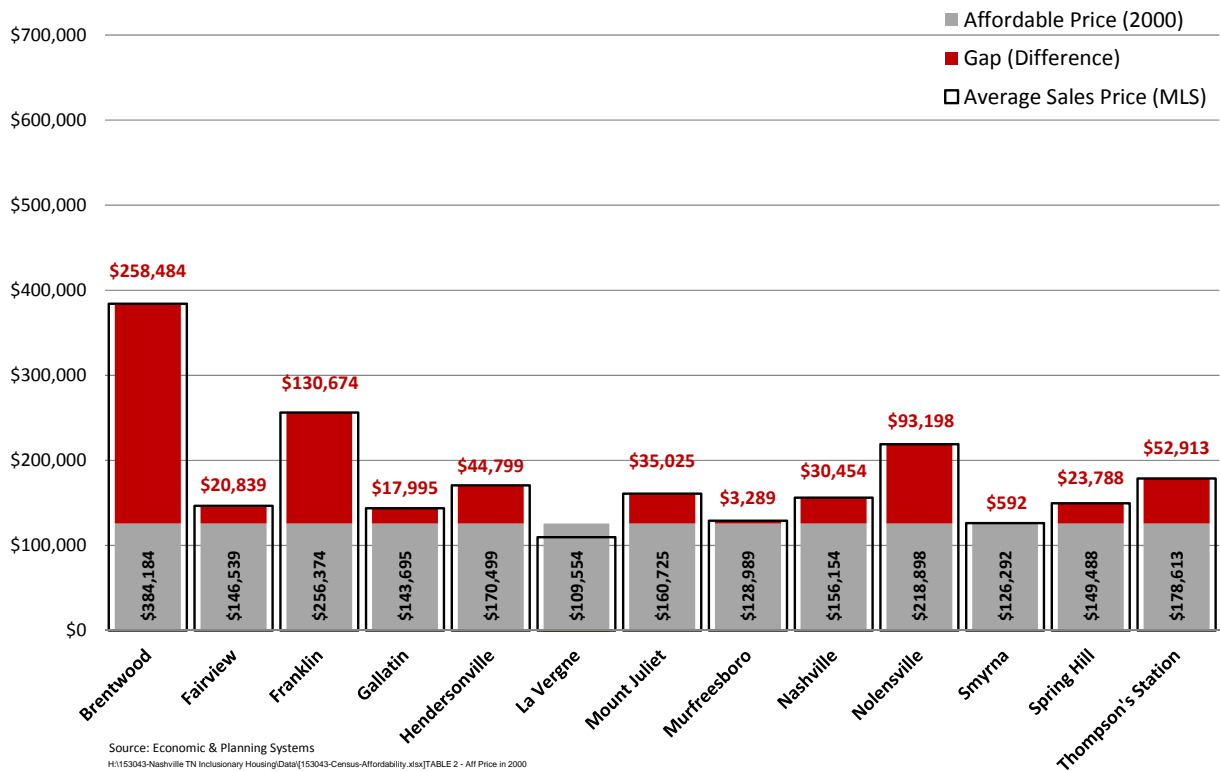
**Figure 32**  
 Average Prices in Commute Shed, 2000



**Figure 33** illustrates three pieces of information to determine the regional affordability gap among the commute shed communities in 2000. First of all, the affordability gap is defined as the difference between the average sales price of a home in a particular and what a household earning 100 percent of the regional median income can afford.<sup>6</sup> The objective of this analysis is to illustrate how affordable Nashville and other communities would have been to a household working in Nashville but deciding where to live. And while price is not the only considerations a household uses in determining where to live, it is typically the top consideration.

In 2000, a household earning the regional median income (estimated \$42,700) could afford a home of \$125,700. Where the average home price in Nashville was \$156,000, a household earning the regional median income had an affordability gap of approximately \$30,000. The average prices of homes in three communities, La Vergne, Murfreesboro, and Smyrna had prices roughly equivalent to the affordable price. Several other communities, Fairview, Gallatin, and Spring Hill were only slightly above that affordable price. Brentwood, Franklin, and Nolensville, in particular were only affordable to household with much higher incomes. Overall, 6 of the surrounding 12 communities were more affordable than Nashville.

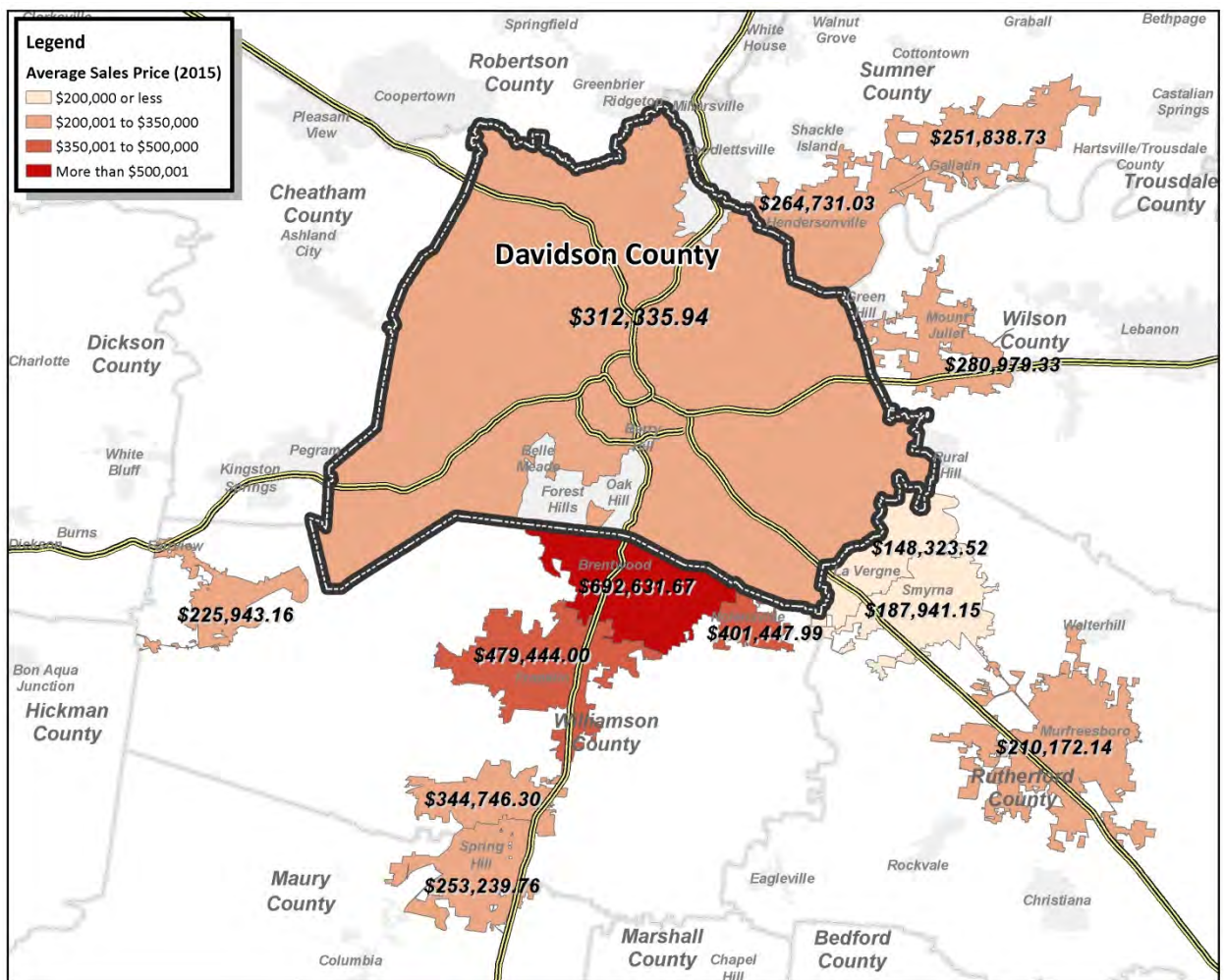
**Figure 33**  
**Commute Shed Affordability Gaps, 2000**



<sup>6</sup> Per housing industry analysis standards, and as calculated by HUD, these calculations reflect an affordable target purchase price where a household spends no more than 30 percent of its gross annual income on housing (not including utilities). Principal, interest, taxes, and insurance, as well as average annual HOA dues are factored into this estimation. Mortgage interest rates also are reflective of the respective time period.

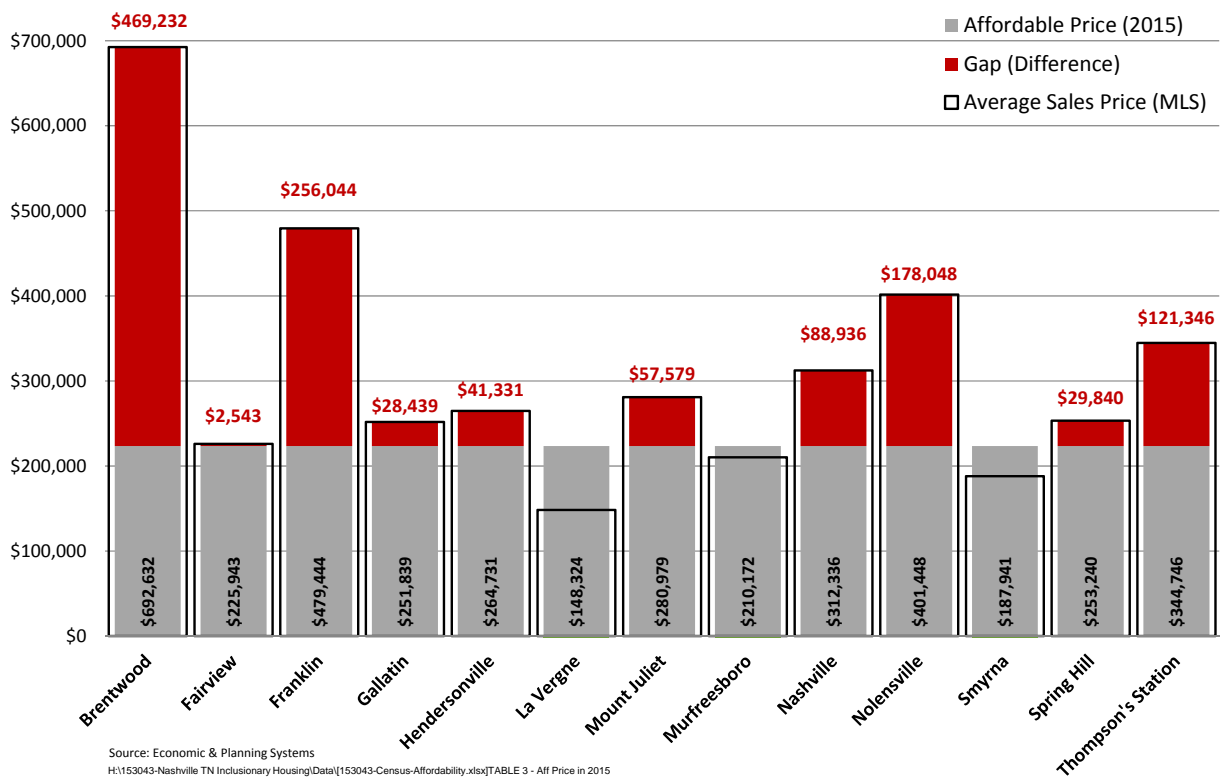
**Figure 34** illustrates the average sales prices in the same communities for 2015. The biggest difference between 2015 and 2000 was that the average price of homes in Nashville and surrounding communities was no longer roughly comparable. While Brentwood and Franklin became expectedly more expensive communities, Nashville had become a much more expensive community than it had been by comparison to other communities. For example, in 2000, Nashville's average price was less than 10 percent above Fairview's average, and by 2015 was nearly 40 percent above. Nashville's average price was less than 10 percent above Gallatin's average in 2000, but was approximately 25 percent above in 2015. Nashville's average was also more than 40 percent above La Vergne's average in 2000 but 110 percent above by 2015. Similar trends were also present in Hendersonville, Mount Juliet, Murfreesboro, and Spring Hill.

**Figure 34**  
**Average Prices in Commute Shed, 2015**



**Figure 35** illustrates the same three type of statistics as shown in Figure 33 but for the year 2015. A household earning the regional median income (an estimated \$54,400) could afford a home for approximately \$223,400. As indicated previously, the average price of a home in Nashville had increased to approximately \$312,000 by 2015, meaning that the gap between what a household earning the regional median income could afford and the average price, i.e. the affordability gap had widened from approximately \$30,000 to \$89,000. Interestingly, the average prices of homes in the same three communities, La Vergne, Murfreesboro, and Smyrna remained affordable to households earning median income. Analysis of 2015 sales volumes in these communities were considerably higher their 2000 sales volume levels. In fact, sales volumes in all of the surrounding communities was over 2000 levels, suggesting in part the increased demand on areas of greater affordability than Nashville. Overall, whereas 6 of the surrounding 12 communities were more affordable than Nashville to a household earning the regional median income in 2000, by 2015, eight communities were more affordable. That does not, however, overshadow the reality that the affordability gaps had widened in most cities, except Mount Juliet, Murfreesboro, and Smyrna.

**Figure 35**  
**Regional Affordability Gaps, 2015**



## 4.0 POLICY CONTEXT AND OPTIONS

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This chapter contains a summary of methods and techniques used to address a spectrum of housing affordability issues in the U.S. It identifies land use and regulatory techniques commonly used to accomplish narrowly defined and targeted housing objectives, and it identifies alternative funding methods used to address housing issues from a broader, more community-wide perspective.

There are a range of reasons why communities adopt affordable or workforce housing tools, such as inclusionary zoning. Many do so because local and regional housing market assessments have concluded that a significant portion of the local workforce has been priced out and forced to commute. Beyond the determination of the presence and extent of these patterns, these communities make policy determination based on quality of life considerations. For example, if a portion of the workforce, such as teachers, police, fire protection, and other municipal employees, cannot afford to live locally, then they are not readily available to address health, safety, and welfare needs. As a result, the motivation to develop programs to address affordable or workforce housing is largely based on some or all of the following conditions:

- **Housing Costs:** The sales price of locally available housing exceeds what a permanent-resident household can afford.
- **Housing Availability:** The development community is clearly oriented to building more expensive housing than is affordable to the workforce.
- **Commuting Patterns:** A large portion of the workforce cannot afford to live in the community and is forced into longer commutes from more affordable locations.
- **Employee Shortages:** Local businesses increasingly find it difficult to recruit and or retain employees.

The analysis of best practices offers policy makers a glimpse into the adopted strategies that other communities struggling to address similar situations with similar characteristics are using. The tools for providing affordable and workforce housing can be separated into two major categories: development-based, i.e. those that seek to leverage the momentum of development through land use controls; and community-based approaches, i.e. typically funding mechanisms that leverage broader-based financing capabilities.

### 4.1 Existing Regulation

Before entering into an overview of the policies of other communities, this first section outlines a few of the relevant land use regulations and programs adopted by Nashville that either relate to the use of density bonuses, one of the primary development incentives used in housing policy, and/or the provision of affordable and workforce housing.

#### 4.1.1 Downtown Code

The Bonus Height Program (BHP) is part of Nashville's Downtown Code, adopted in February 2010. The BHP grants additional height in exchange for contribution to "specified programs that provide benefits to the public." There are nine public benefit contributions through which a building can qualify for bonus height:

1. LEED certification of individual buildings (bonuses vary by subdistrict)
2. LEED ND (every property within the neighborhood can utilize the bonus height)
3. Pervious surface (includes impervious pavement, green roofs, bio-swales, landscaping, green screens – bonus is 2X square footage of pervious surface)
4. Publicly accessible open space (minimum of ¼ acre to qualify, plazas are not eligible – bonus is 4X or 7X square footage of open space)
5. Workforce housing (30 years affordability, must be at least 80% average size of market rate units; bonus varies by subdistrict (based on a percent of the maximum height); bonuses range from 10 to 40 percent increase in stories, 50 percent of additional stories must be dedicated to workforce housing with 25 percent housing for persons below 100 percent AMI and 25 percent for persons below 120 percent AMI)
6. Civil support space (must be dedicated to the use for 15 years – bonus is 2X square footage of use space)
7. Upper level garage liners (not available for ground-level liners or upper level liners required by the Downtown Code – bonus is 2X square footage of liner)
8. Underground parking (bonus is 1X square footage of parking)
9. Public parking (must be public for lifetime of building – bonus is 2X square footage of parking)

Multiple height bonuses can be compounded, so long as the total bonus height does not exceed the Bonus Height Maximum for the Subdistrict, two of which are unlimited. Development rights received through the BHP can also be transferred within the DTC, as long as the transferred height does not exceed the bonus height maximum of the receiving site.

#### 4.1.2 PUD Process

Development bonuses in planned unit developments (PUD) are available through §17.36.090 of the Metro Code (passed in 1997 and amended in 2006 to match other regulations on the period of affordability). Bonuses can be awarded when there is "an offer of public dedication and subsequent acceptance of land to satisfy or further a recognized community need or the provision of affordable housing."

There are five types of public dedication contributions that may qualify for a development bonus, and for each form of contribution, a 25 percent increase above the conventional density or FAR standard may be given. Calculation of the development bonus is limited to the land area being dedicated for public use, and all development accrued from the bonus will be assigned to suitable locations elsewhere within the same PUD master development plan. Public dedication contributions that may qualify for a bonus are:

1. Platted dedication of street right-of-way in excess of what is required, to accommodate future street widening
2. Dedication of land by title for a needed public facility (e.g. school site, park, library, fire hall)

3. Dedication of land by easement or title for draining mitigation measures exceeding those required
4. Dedication of a site by use easement or title identified as being of special historic or archaeological value
5. Dedication of land by use easement or title within a greenway overlay district to implement a greenway master plan

Density bonuses may also be awarded within a PUD district that allocates a portion of overall housing units to providing affordable or workforce housing. Ways to get this bonus are:

1. Multifamily development: in addition to the standard density in an RM district, for each affordable unit constructed for lease or sale, an additional market rate unit for lease or sale may be constructed. The combined number of bonus units will not exceed 10% of the total dwelling units otherwise constructed for lease or sale at market rate
2. Single-family and two-family development: in addition to the maximum number of subdivision lots allowed by the zoning district, for each lot created and developed for sale with an affordable housing unit(s) an additional lot may be created for development at market rate. The combined number of bonus lots will not exceed 10 percent of the total number of lots otherwise created
3. There must be restrictive covenants in place with the register of deeds identifying the affordable units to be sold or leased for a period of at least seven years

#### **4.1.3 Other Density Bonuses**

Density bonuses are also discussed in District Bulk Regulations – Special FAR Provisions (§17.12.070). Residential bonuses are available in Mixed Use, ORI and ORI-A and CF District; property in the MUI and MUI-A district or within the urban zoning overlay district in any mixed-use, ORI and ORI-A or CF district, in any building where at least 25 percent of the floor area (not including parking) is designed and constructed for residential occupancy, the floor area for residential use will not be counted in determining the FAR of the building. This uncounted floor area benefit cannot be used in combination with other bonuses in this section or the PUD section (§17.36.090). Any development that uses the uncounted floor area benefit to build 10 or more residential units must restrict a certain number of units for use as affordable housing for a period of at least 7 years. The number of affordable housing units will be equal to: 25 percent x (total residential units – 10). Density bonuses for the preservation of historic buildings are given through the TDR program (§17.12.120)

There is also the potential for development incentives to be created to “promote the inclusion of properties within an urban design overlay district for the purpose of achieving specified design objectives” (§17.36.310)

## 4.2 Development-Based Approaches

The first of two categories of housing policy can be characterized as development-based approaches. Through these approaches, a community basically seeks to increase the supply of affordable or workforce housing by leveraging the vehicle of residential development. There are few, if any, options for communities to manipulate the demand side of housing. Development-based approaches often stem from the view that, because the development community builds housing (and thus, whose housing prices are seen to be the problem), they are not only responsible, but equipped to be a part of the solution. Such is the case with the voluntary and mandatory inclusionary zoning and commercial and residential linkage programs.

### 4.2.1 Mandatory Inclusionary Zoning

#### *What is it?*

Inclusionary zoning ordinances (IZO) require developers to “set aside” a portion of new housing construction as affordable to households at specified income levels. IZ set-aside requirements generally range from 10 to 30 percent, and the affordability level generally ranges from 60 to 100 percent of area median income (AMI),<sup>7</sup> based on family size defined by HUD. In most versions of an IZO, a developer can comply with its requirements by building the units on site as a part of the overall project master plan and/or by building them in an off-site location. Alternatively, many IZ programs allow for all or a portion of the housing requirement to be met by cash-in-lieu (CIL) payments – i.e. the payment of a fee in-lieu of building units.

IZ ordinances are generally enacted by home rule cities or counties as land use regulations under the health, safety, and welfare provisions. In most states, statutory cities or counties do not have the ability to adopt such ordinances.

#### *Where is it used?*

Nationally, according to recent research by the Lincoln Land Institute (Jacobus, 2015) more than 500 communities have adopted some form of inclusionary zoning. Montgomery County, Maryland was one of the earliest to adopt an IZO and has built over 10,000 affordable or workforce housing units. All cities and towns in Massachusetts, for example, are subject to General Law Chapter 40B which 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.

In general, most policies in the U.S. apply only to new residential construction, and there is generally a threshold of applicability. Most programs set a threshold where the policy applies only to projects at a scale of 5 to 10 or more units. There are a few outlier policies, though. On one end of the spectrum, there are a small handful of policies that have no threshold, i.e. that apply to all projects and thus assess a fraction of an affordable housing requirement. On the other hand, there are programs with much larger thresholds, e.g. 30 units, where the intent is to apply the policy only to mid- to larger-scale projects.

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<sup>7</sup> 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) and HOME funding.

The selection of cities chosen for research here fall in the middle of the range with thresholds of 5 to 30 units and with set-aside requirements of generally 10 percent. The following selection includes the average sales prices of houses in each market as of 2015: San Francisco (average sales price is approximately \$1.2 million; the policy's set-aside requirement is 12 percent, and the affordability term is defined as "in perpetuity"); Montgomery Co. (where the average sales price is approximately \$450,000, the set-aside requirement is 15 percent applied to rental and for-sale projects, and the affordability term, which has been changed multiple times since the original policy's adoption stands currently at 99 years for for-sale projects and 30 years for rental projects); Denver (where the average sales price was \$440,000, the policy's set-aside requirement is 10 percent applied only to for-sale construction, and the affordability term is 30 years); Cambridge (where the average sales price is \$877,000, the policy's set-aside requirement is 15 percent for for-sale and rental projects, and the affordability term is also defined as perpetuity for both tenures); Chapel Hill (where the average sales price is \$375,000, the policy's set-aside requirement is 15 percent for for-sale only, and the affordability term is 99 years); Chicago (where the average sales price is \$230,000, the policy's set-aside requirement is 10 percent, and the affordability term is 10 percent or 20 percent if a project receives financial assistance from the city); and Davidson, NC (where the average sales price is \$340,000, the policy's set-aside requirement is 12 percent, and the affordability term is also 99 years). There are also countless examples of policies throughout the country that have experienced various degrees of success.

There are many different measures of success, but the most quantifiable is production. As such, the following is a summary of the average annual production of for-sale inventory for the researched cities with mandatory and voluntary inclusionary zoning policies: San Francisco, 77 units per year; Montgomery Co., 239 units per year (produced more than 14,000 units through the program, but 9,400 of them have reverted to market rates because of expiring affordability control period – as a result, the County has increased the affordability term twice since original passage); Denver, 7 units per year, excluding several hundred units that were approved through developer agreements; Cambridge, 12 units per year; Chapel Hill, 12 units per year; Chicago, less than one unit per year; and Davidson, 4 units per year.

#### **4.2.2 Voluntary Inclusionary Zoning**

##### ***What is it?***

Voluntary inclusionary zoning differs from mandatory inclusionary zoning in that it does not require a development or redevelopment to set aside a certain percentage of units as affordable (typically between 10 and 20 percent). Rather, when a condition is met, such as a request for a major change in land use, a parking reduction, an upzoning or change to the height restriction or density, an affordable or workforce housing set-aside is triggered.

Another difference between this and the inclusionary zoning ordinance is its breadth of applicability. Whereas mandatory inclusionary zoning places the burden of producing new affordable housing inventory on new residential developments, the incentive zoning ordinance is often more broadly written as to apply to new (residential and/or non-residential) development and redevelopment. Communities with this type of ordinance can require that a developer build affordable or workforce housing, pay a fee in-lieu, dedicate land to the city, or dedicate existing housing stock as permanently affordable.

***Where is it used?***

For many communities, the incentive zoning ordinance functions as a component of a larger strategy. Used in conjunction with inclusionary housing requirements and other alternative housing funding mechanisms, it can be a very effective complementary strategy. In many of the communities with such policies, local and regional housing affordability challenges and issues have resulted in unique combinations of regulatory and non-regulatory (i.e. funding or partnership) strategies.

As with the mandatory inclusionary zoning policies, voluntary inclusionary zoning policies have all the same attributes, with the exception of the trigger point. Because the policy is voluntary, some programs have structured its applicability purely as a mechanism available to those that request to meet its requirements. Other policies, however, have been structured to take advantage of the quid pro quo nature of the development and entitlements process. On one hand, communities recognize the economic value of their entitlements, particularly in markets where the entitlements do hold economic value. And they recognize that this value can be leveraged to achieve community goals, such as provision of affordable or workforce housing.

According to other national housing policy researchers, the number of voluntary inclusionary policies has always been smaller than mandatory programs for a reason. The primary reason has been that communities have simply made political, not necessarily economic, decisions to adopt mandatory policies. But there is a growing number of voluntary policies throughout the country. For example, in Anaheim, where the average sales price is \$540,000, the policy's set-aside requirement is 33 percent for rental projects (note: this is within the context of the state's rent control prohibition); Arlington County, where the average sales price is approximately \$582,500, the county's voluntary policy has a 5 percent set-aside and is more a quasi-mandatory policy, applying to all projects over 1.0 FAR; Austin, where the average sales price is approximately \$408,000, and the city's multiple policies apply voluntarily to different subareas throughout the city with set-aside requirements and incentives that also vary; Boston, where the average sales price is approximately \$599,000, and the city's policy applies to both for-sale and rental projects with a 13 percent set-aside; and Seattle, where the average sales price is approximately \$500,000, and the city's incentive program applies to specific areas in the city.

Among these programs, Anaheim has produced approximately 120 units per year since 2005; Arlington County has produced 37 per year; Austin has produced 55 per year; Boston, 106 per year; Charlotte has not produced any units; and Seattle has produced 8 units per year.

***Consideration of Local Application***

Two of the primary considerations for applying one of these versions of inclusionary zoning in Nashville are the state-level prohibition of rent control, as in the cases of California and Colorado. The other consideration is one of production potential.

### State Rent Control

Among the most relevant of regulatory frameworks the study is being conducted concerns Tennessee Code Annotated (TCA) §66-35-102, which states, “a local governmental unit shall not enact, maintain or enforce an ordinance or resolution that would have the effect of controlling the amount of rent charged for leasing private residential or commercial property.” §66-35-103 clarifies that this part of the TCA “does not impair the right of a local governmental unit to manage and control residential or commercial property in which such local governmental unit has a property interest.”

It does not appear that provisions in Tennessee law would prevent the owner of a multifamily property from voluntarily providing affordable rental units. Metro’s legal department has issued an opinion regarding this matter, and it does not appear that a court would invalidate a law under which a developer is not required to provide affordable units, but has the option to obtain certain benefits from the government if they chose to provide such units. There are many such laws already in use, such as the use of tax increment finance, density bonuses, etc.

There are a number of states with rent-control prohibitions or limitations which have placed restrictions on the use of IHOs for rental housing. California invalidated inclusionary zoning provisions for rental housing in 2009 when its courts found that such regulation 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 were also a form of rent control in violation of state statutes. As a result, the Telluride Decision, as it is referred to, bars communities from enacting mandatory inclusionary zoning ordinances for rental housing. The legislature, however, recently made limited provisions for housing authorities or similar entities to own and manage deed-restricted affordable housing under HB10-1017, which has left room for rental housing to be provided in the context of an inclusionary zoning ordinance through voluntary developer agreements. Aspen and Boulder, two of the more prominent examples of communities with such policies, continue to apply their IHO to rental housing projects, although the processes by which these agreements are accomplished are complex and not easily replicable.

### Production Consideration

Based on our analysis of building permit data between 2000 and 2015, we’ve identified how the current market, which favors rental housing, differs from a more typical market where rental housing accounts for a smaller portion of overall construction. In the analysis, the estimates of a mandatory policy are based on its applicability to the for-sale market only. The estimates of a voluntary policy are based on its applicability to the whole market. The assumptions we’ve made relate to the portion of the construction that chooses to build under the mandatory option, based on our research, and the portion that choose to build under the voluntary option. Research indicates that no more than 50% of projects choose to build units under a mandatory policy with the remainder paying a fee in-lieu and under a typical voluntary policy, we would anticipate that 25% of all projects choose to build units and another 25% choose to pay a fee in-lieu. In Nashville’s market, we would anticipate a higher portion of rental projects to comply, because of the nature of incentives that we’re recommending. But we would not anticipate total revenues from in-lieu fees to be so high. In general revenues from in-lieu fees are dependent on the market cycle, unpredictable, and unstable.

**Table 1**  
**Estimated Annual Production from Inclusionary Zoning**

Inclusionary Policy	Current Market (60% Rental)		Typical Market (30% Rental)	
	Mandatory	Voluntary	Mandatory	Voluntary
<b>Average Annual Residential Construction (Units)</b>	<b>3,500</b>	<b>3,500</b>	<b>3,500</b>	<b>3,500</b>
For-Sale (includes multifamily)	40%	40%	70%	70%
Rental	60%	60%	30%	30%
For-Sale (includes multifamily)	1,400	1,400	2,450	2,450
Rental	2,100	2,100	1,050	1,050
<b>Applicable to Policy</b>	<b>1,400</b>	<b>3,500</b>	<b>2,450</b>	<b>3,500</b>
% Projects w/ 5+ Units	60%	70%	60%	80%
<b>Units in Projects Above Trigger Point</b>	<b>840</b>	<b>2,450</b>	<b>1,470</b>	<b>2,800</b>
% Projects Opting to Build Affordable	50%	25%	50%	25%
% Projects Paying Fee in-Lieu	50%	25%	50%	25%
<b>Units in Projects Contributing Affordable Units</b>	<b>420</b>	<b>613</b>	<b>735</b>	<b>700</b>
Set-Aside Requirement	15%	15%	15%	15%
<b>Estimate of Affordable Units Built</b>	<b>63</b>	<b>92</b>	<b>110</b>	<b>105</b>
<b>Projects Contributing Fee in-Lieu</b>				
Fee in-Lieu (per for-sale unit)	\$75,000	\$75,000	\$75,000	\$75,000
Estimated Fees in-Lieu	\$4,725,000	\$6,890,625	\$8,268,750	\$7,875,000

### 4.2.3 Commercial Linkage

#### *What is it?*

Commercial linkage fees are a form of impact fee assessed on new commercial developments or major employers. They are designed to mitigate the need for workforce housing generated by new or expanding commercial business or development. In some cases, commercial linkage programs require the construction of employee housing (as is commonly the case in resort settings), but typically revenues are used to fund the development of affordable or workforce housing.

Because linkage fees are a type of impact fee, they require a nexus study. Such a study provides a quantitative basis for the connection (i.e. the nexus) between the affordable or workforce housing demand generated and the amount of space being developed or redeveloped. Fees are often calculated on a per 1,000 square-foot basis of commercial space and based on the number of employees generated by a particular type of land use. Because employee generation rates differ widely among land uses, communities with a commercial linkage program (or similar) distinguish between retail, restaurant, office, hotel, and industrial space, for example. It is important to note that commercial linkage fees, like development impact fees and as they are a variation on exactions, can only be used to pay for the impact of the new development and may not be used to address existing deficiencies.

#### *Where is it used?*

As is the case in many other communities, commercial linkage programs are often just one component of the community's housing strategy. In conjunction with an inclusionary zoning ordinance of either type, for example, a community is able to address the demands for affordable or workforce housing generated by both new residential and commercial development.

Such policies have been adopted in Boston (fees are approximately \$8 per 1,000 square feet), Boulder (adopted fees will range from approximately \$1 to \$8), Cambridge (recommended increase of fees from \$4 to \$12), San Francisco (fees range from \$16 to \$24 per square foot), and Seattle (fees range from \$5 to \$17 per square foot). Currently, a few other cities have been evaluating how to structure a commercial linkage program including Denver and Portland.

#### **4.2.4 Residential Linkage**

A less common practice, and more prevalent in higher-end or resort markets, are residential linkage programs. These fees are assessed against residential development (also on a per-square foot basis) to mitigate the housing needs of new employment the expenditure of new households are estimated to generate. In Teton County/Jackson, WY, for example, 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 service 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 employment such as waiters, maids, and other service workers.

#### **4.2.5 Excise Tax**

An excise tax is a tax paid on units of production (e.g. construction materials) by the developer that becomes a part of the cost of the final product purchased by end user. It differs from the sales tax, which is applied to the final purchase price and paid directly by the end-user. A number of communities (e.g. Boulder and Snowmass Village) have excise taxes on construction materials and designate their revenues to the development of affordable or workforce housing. Boulder's excise tax, for example, is \$160 per 1,000 square feet of residential development and \$340 per 1,000 square feet of commercial development. Snowmass Village's excise tax is calculated on a complex formula and only applies to residential expansions over 550 square feet. In practice, because larger residential expansions often pay as much as \$150,000 to \$200,000, the tax has generated more than \$3.4 million in the last six years. One advantage the excise tax has over a linkage fee is that it does not require a nexus study and does not require funds collected to be allocated to a specified set of improvements.

### **4.3 Community-Based Approaches**

The second type of housing policy approach is the broader, community-based approach. In this category of approaches, for a growing number of communities, strong leadership and political will are translating into the recognition that a policy that broadens the responsibility of addressing complicated challenges across the community not only lowers the financial burden placed on any one portion of the community, but, because it is locally generated, results in greater flexibility of its use. There are a range of examples described below that have been implemented in both urban and resort settings.

### **4.3.2 Dedicated Sales Tax**

Some communities use a dedicated sales tax to fund affordable or workforce housing. In tourism-oriented markets, this can be an attractive funding option because a majority of the taxes are often paid by visitors. For example, Aspen, CO has a 0.45 percent tax that currently generates about \$2.75 million per year in revenues. In other markets, small portions of sales taxes have also been used to fund affordable or workforce housing efforts. In the late 1980s, Montgomery County, OH (Dayton) adopted a 0.50 percent sales tax that was allocated to a few community efforts including affordable housing. In St. Paul, MN, the city's Sales Tax Revitalization (STAR) Program has provided loans and grants for capital improvement projects since the early 1990s (the state legislature initially authorized the city to levy an additional 0.50 percent sales tax for such purposes). Improvements can include commercial and housing rehabilitation, parks, streetscape projects, and economic development activities, but cannot be used for deferred maintenance.

Nashville's sales tax in 2014, according to the Tax Foundation, was tied for the 3<sup>rd</sup> highest rate in the country at 9.25 percent (9.60 percent was the highest at the time in Seattle).

### **4.3.3 Occupational Privilege Tax**

An occupational privilege tax ("head tax") is a tax calculated on a per-worker basis that can be assessed on the employer, employee or both. It has most often been used by larger cities for general fund revenues or for designated services. The City and County of Denver, for example, has a \$9.75 per month head tax, \$5.75 of which is paid by the employer and \$4.00 by the employee. Its revenues are split 50/50 to the general fund and the capital improvement fund. Aurora and Greenwood Village also have a head tax. Kansas City, Chicago and Seattle (though it was recently repealed) also have head taxes.

EPS is not aware of any communities that have implemented a head tax dedicated to affordable or workforce housing; however, the City of Boulder recently contemplated the establishment of a head tax for affordable or workforce housing, but the effort was unsuccessful for a variety of reasons. The City of Fort Collins also investigated a head tax in the past, but encountered opposition from the Chamber of Commerce as it is seen by some as anti-business with the potential to affect economic development efforts.

It is however one of the more appropriate taxes because of its relationship to general wage levels and affordability issues. A disadvantage is that it is a flat tax and does not increase with inflation or appreciation as a sales or property tax does.

### **4.3.4 Lodging Tax**

A dedicated lodging tax can also be used to fund affordable or workforce housing, but using lodging tax revenues for such purposes is less common. Lodging taxes in larger cities can be as high as 15 or 20 percent, but for the most part, a majority of revenues generated are dedicated to tourism, marketing, and promotions, as well as supportive facilities, such as convention centers. In Nashville, a substantial portion of the lodging tax is used to fund the Convention & Visitors Bureau and cultural events, and dedicated to debt service for the new convention center. Outside of this core funding purpose, while a nexus between tourism and the demand for service level jobs (i.e. affordable or workforce housing) can be made, it is difficult to build a case to use these funds for activities that do not directly benefit visitation.

For example, revenues from Snowmass Village's 2.4 percent lodging tax (in addition to its overall rate of 10.4 percent, which is restricted to the marketing and promotion of special events and the development of tourism, are used to fund housing programs. San Francisco, CA, and Columbus, OH, for example, also dedicate a portion of lodging tax revenues to affordable or workforce housing. In Columbus, for example, the Columbus/Franklin County Housing Trust Fund receives approximately 8.37 percent of lodging tax revenues, which results in the generation of approximately \$1 million per year for the Trust Fund. Funds are dedicated to the Housing Trust, the Greater Columbus Arts Council, and Human Services.

### ***Local Relevancy***

#### **Short-Term Rental Tax**

As a point of comparison, a short term rental tax has been adopted. Owners of short term rental properties (formerly known as Vacation Rentals by Owner) have to pay the same Hotel Occupancy Taxes required of Davidson County traditional hotels, that is, six percent on revenues, in addition to \$2.50/nightly stay. Part of this tax revenue is earmarked for the Barnes Fund (Ordinance BL2015-1056, approved in April 2015). Owners of short term rental properties are also required to obtain an operating permit and collect and remit sales tax. In addition, owners may need a Business Tax License (depends on annual gross income).

#### **BL2014-909**

Amending Title 17 (Zoning) of the Metropolitan Code, Zoning Regulations, the ordinance mentions that hotel taxes from short term rentals are being used to support the local tourism industry". A "Short Term Rental Property" is defined as "a residential dwelling unit containing not more than four sleeping rooms that is used and/or advertised for rent for transient occupancy by guests as those terms are defined in §5.12.010 of the Metropolitan Code. Dwelling units rented to the same occupant for more than 30 continuous days, Bed and Breakfast establishments, boarding house, hotels, and motels shall not be considered Short Term Rental Property." §17.08.030 of the Metropolitan Code, District Land Use Tables, is amended by adding "Short Term Rental Property" as an accessory use in all zoning districts that allow residential use, and §17.16.250 of the Metropolitan Code ("Residential Accessory Uses") is amended by adding the following provision: that a "Short Term Rental Property (STRP) is permitted as an accessory use in all zoning districts that allow residential use provided a permit has been issued for operation of the property as a STRP pursuant to §6.28.030 of the Metropolitan Code."

### **4.3.5 Document Recording Fee**

A document recording fee is a fee applied to the sale of real estate at the time of closing. These fees are generally applied at the state and/or county level and vary greatly in rate. It is similar in nature to an excise tax in that it is calculated as a fee per value of construction. A number of cities have imposed an additional document recording fees specifically dedicated to affordable or workforce housing, including St. Louis, MO, and Bucks County, PA. Nashville does have a document recording fee, but it is prohibited from setting the fee higher than an amount necessarily to recuperate the costs associated with the service itself.

#### **4.3.6 Real Estate Transfer Tax**

Real estate transfer taxes (RETTs) are taxes imposed by states, counties, and cities on the transfer of title within the jurisdiction. RETTs are often enacted as a general revenue source but can also be designated for specific purposes such as affordable or workforce housing. In most cases, it is an ad valorem (property) tax based on the value of the property transferred. A total of 37 states and the District of Columbia provide for this tax. The rates vary greatly from 0.01 percent to as high as 4.0 percent in Pittsburgh, PA.

On the other hand, some states have established prohibitions on such taxes by amending their state constitutions or enabling legislation, although existing programs can be grandfathered. As a work-around, some communities have negotiated real estate transfer assessments (RETAs) with major developers. Different from a RETT, a RETA is a voluntary negotiated agreement between a municipality and a developer that becomes a deed restriction on the sale. The disadvantage of a RETA is that it only applies to a new housing development where the developer agrees to the restriction; it does not apply more uniformly to sales or re-sales community-wide. In Denver, for example, the Stapleton redevelopment project assesses a 0.25 percent RETA on the sale of housing in excess of \$100,000.

#### **4.3.7 Dedicated Property Tax**

Similar to the dedicated sales tax, a number of communities have approved an additional property tax levy dedicated to affordable or workforce housing. Although Boulder has a small mill levy that generates funding for affordable or workforce housing, more successful examples are found in Cambridge, MA where significant funds via a property tax surcharge are generated. The Cambridge Affordable Housing Trust was established in 1988 in response to escalating housing prices and a severe shortage of affordable or workforce housing for many low- and moderate-income residents. With the mission of creating and preserving affordable or workforce housing opportunities, the Trust has continued to be active in responding to the increasing need for affordable or workforce housing in the years since the end of rent control in the mid-1990s. The Trust's nine members include experts in housing policy, real estate finance, development, planning, and design. The Trust provides funding to assist non-profit housing organizations and the Cambridge Housing Authority in creating new affordable or workforce housing, preserving the affordability of existing housing, and rehabilitating multifamily housing. The Trust also offers financial assistance to first-time homebuyers and provides housing policy advice to City staff.

The Cambridge Affordable Housing Trust receives significant financial support through the Community Preservation Act (CPA). Adopted by the Cambridge City Council and Cambridge voters in 2001, the CPA is a financing tool for Massachusetts communities to expand the supply of affordable or workforce housing, protect historic sites, and preserve open space. Under the CPA, local funds that are dedicated to these uses are eligible for matching funds from the state. In FY06, the City Council appropriated \$9.6 million generated from the CPA to the Trust to support affordable or workforce housing in the city. It should be noted here that while Colorado does not have a comparable statewide funding tool for addressing affordable or workforce housing issues, it does have a Housing Investment Trust Fund, which was modified in the previous legislative year (2013-14).

A frequently-cited success story in the adoption of a local funding source is Seattle. Since 1981, city voters have passed one housing bond and four housing levies, which have collectively

produced more than 10,000 affordable apartments, provided first-time homebuyer loans and rental assistance to more than 4,000 households. In 2009, the most recent seven-year levy, a dedicated property tax (limited to \$0.17 per \$1,000 of assessed valuation) was adopted to generate \$145 million for a variety of affordable or workforce housing goals, including supportive services. According to the city's 2014 Housing Levy Annual Report, this levy has produced nearly 2,000 rental units (exceeding its 1,700-unit goal), provided funding for acquisition, operations and maintenance, and homebuyer assistance affecting nearly 600 households, and provide rental assistance and homelessness prevention to approximately 1,900 households. As for its cost to the city's property tax payers, the levy is estimated to cost the typical homeowner with a house of median value (\$473,000 in 2014) approximately \$80 per year.

#### **4.3.8 General Obligation Bonds**

A different sort of one-time funds is the use of General Obligation bonds. The city of Austin, for example, has issued several general obligation bonds to support affordable or workforce housing. In 2006, the City issued an affordable or workforce housing bond for \$55 million, all of which was utilized by 2011, producing more than 2,400 affordable units. Also funded through a time-limited property tax, this GO bond was estimated to have cost the average homeowner less than \$9 annually. Austin passed its most recent bond in 2013, a \$65 million bond to address a broader variety of production and service needs.

### **4.4 Organizational Infrastructure**

#### **4.4.1 Housing Development Programs**

There are a number of programmatic structures for building, operating, and managing affordable or workforce housing including housing authorities and community land trusts as summarized below.

##### ***Community Land Trusts***

Another organizational model, the community land trust (CLT), is a non-profit that provides permanently affordable or workforce housing units by acquiring land and removing it from the speculative for-profit real estate market. CLTs hold the land they own "in trust" in perpetuity for the benefit of the community by ensuring that it will always remain affordable for homebuyers. CLTs were enabled under Section 213 of the Housing and Community Development Act of 1992. There are currently over 250 CLTs.

A CLT typically acquires land for affordable or workforce housing in its designated community. The land is transferred to a developer and ultimately a homeowner under a long term land lease. The CLT generally leases the land to a qualified homeowner at a reduced rate to subsidize the housing unit price. It retains the option to repurchase the housing unit upon sale and the resale price is set by formula to give the homeowner a fair return on its investment but also to maintain affordability for future homeowners.

- **Colorado Community Land Trust** - The Colorado Community Land Trust (CCLT) is a 501(c)(3) nonprofit organization founded in 2002 with the mission of creating, and preserving in perpetuity, affordable home ownership opportunities for moderate income individuals and families. Originally called the Lowry Community Land Trust, CCLT initially

focused on the redevelopment of the former Lowry Air Force Base. In 2006, the service area was expanded to include the entire Denver metro area. In general, CCLT ensures long-term affordability by maintaining and owning the land and by limiting the resale price of the home, allowing the seller to benefit from some appreciation (25 percent return of equity) while still keeping the resale price affordable. It has a total of 189 properties, including two projects at Lowry – e.g. Maple Park, a 68 home development built in 2004 and Falcon Point, a 72 unit townhouse development built in 2007. To date, none of the homeowners have lost their homes through foreclosure.

- **The Housing Trust** - The Housing Trust is an independent community development 501(c)3 non-profit corporation based in Santa Fe and serving the northern New Mexico counties. The Trust was formed in 1992 by the City of Santa Fe, Enterprise Community Partners, and existing housing non-profit groups to provide an umbrella housing organization that could directly assist potential homeowners and work to obtain land, project financing, and other resources needed to accelerate affordable or workforce housing efforts in Santa Fe. The Housing Trust has produced 500 units of housing in Santa Fe and provided hands-on training and individual counseling for nearly 5,000 potential homeowners. To date, none of the 1,200 homeowners assisted through the Trust have lost their homes through foreclosure.

#### 4.4.2 Barnes Fund

The Barnes Fund, established in 2013, makes competitive grants to nonprofit housing developers. It was initially capitalized with \$2.27 million in repayments from developers who received loans under the Urban Development Action Grant program, and \$1 million in HOME Investment Partnerships Program funds provided by MDHA.

Grants include funding for renovation or construction of affordable homeownership and rental opportunities and other supportive efforts to encourage affordability. Funds can be leveraged with other existing tax credit and funding programs. The Metro Government contracts with The Housing Fund, Inc. (a private non-profit that finances affordable or workforce housing and neighborhood revitalization projects) to manage and administer the Fund, which targets low-income households making less than 80 percent AMI, adjusted for family size.

The authorizing legislation for the Barnes Fund allows the commission to change the eligibility criteria for each funding round. Rental projects were the focus of the first round of funding, but eligibility for the second round was to be expanded to include homeownership projects. Also as part of the second round, 16 government-owned, surplus properties were made available to nonprofits seeking to develop affordable or workforce housing and 13 were awarded.

In 2014, the initial funding round created 40 affordable rental units for persons with incomes at or below 60 percent AMI (\$33,450). The \$2 million Barnes investment leveraged an additional \$2,517,345 in federal and private funds for a total of \$4,517,345 invested in affordable or workforce housing. One half of the units were for special needs persons with incomes below 30 percent of the median family income (\$24,250) which required a substantial grant subsidy to ensure the units were affordable. In the second round of funding, the Metro Council approved \$500,000 from the General Fund budget be appropriated to the Barnes Fund (the first time general fund revenues have been proposed for/transferred to the Barnes Fund).

## **Legislation**

### Ordinance BL2013-487

Established the Barnes Fund for Affordable Housing to assist in providing quality affordable or workforce housing to residents of Davidson County with limited means, appropriating an initial sum to such fund, and establishing the Metropolitan Housing Trust Fund Commission to oversee the fund and assist in providing good quality affordable or workforce housing.

The ordinance also established the Metropolitan Housing Trust Fund Commission, the purpose of which was to promote the study and development of good quality affordable or workforce housing; support education about and creation and development of good quality affordable or workforce housing, both rental and ownership; help create rental housing, housing for the disabled, and long-term affordable homeownership opportunities for citizens of Davidson County; and oversee the management and operation of the Barnes Fund. The Commission can also make recommendations to the Metro Council about the awarding of grants from the Barnes Fund, including funds appropriated yearly by council through the operating budget ordinance, to deserving nonprofit organizations and nonprofit civic organizations, or as otherwise authorized by state law, supporting the purposes of the commission. Criteria for the awarding of such funds are established by the commission.

### Ordinance BL2015-1056

Amends chapter 5.12 of the Metropolitan Code to dedicate a portion of the transient occupancy privilege taxes generated by short term rental properties to the Barnes Fund. One-sixth of proceeds from hotel taxes go to the general fund – under this ordinance, that portion of tax from short-term rentals is dedicated for the Barnes Fund.

### **4.4.3 Housing Fund**

Established in 1996 as a trust fund, the Housing Fund was initially capitalized through a four-bank investment of \$1 million. The Housing Fund became a Community Development Financial Institution (CDFI) in 2000 with now 18 investors. Today, it has more than \$20 million in total assets, and since 1996, has assisted more than 3,000 first-time homebuyers with more than \$19 million in down payment assistance loans, and provided over than \$40 million in financing to assist individuals and organizations purchase, rehabilitate, or construct homes for low and moderate income families. In total, the Housing Fund has loaned more than \$66 million and leveraged \$400 million in private financing to build and/or rehabilitate more than 4,300 units.

On an annual basis, the down payment assistance program accounts for between \$500,000 and \$700,000 in funding activity. Development lending, i.e. to non-profit and for-profit developers, accounts for the bulk of the Housing Funds' activity, ranging between \$5 million and \$8 million annually.

### **4.4.4 University/City Partnerships**

A number of colleges and universities have formalized their commitments to affordable or workforce housing through partnerships with the local municipality. Such partnerships are typically funded through an initial endowment from the university and/or funded through ongoing donations or local or state contributions as briefly summarized in the examples below:

- **University of Chicago:** The University of Chicago subsidizes housing for low-income residents in surrounding neighborhoods with projects in Woodlawn and Jackson Park Terrace. It owns and maintains 2,000 rental units on the south side of Chicago for student and faculty housing. Currently, it is estimated that 65 percent of the University's faculty and 3,000 staff members live in the neighborhoods surrounding campus.<sup>8</sup>
- **Duke University:** The Duke-Durham Neighborhood Partnership was founded in 1996 and has raised more than \$12 million to invest in partner neighborhoods, including a \$4 million investment in Self-Help, a community development lender to support development of affordable or workforce housing.<sup>9</sup>
- **University of Iowa:** The Neighborhood Partnership is an effort with the City of Iowa City focusing on neighborhoods near the University campus that have a single-family character but also have a large renter population. The program is dedicated to ensuring that the University of Iowa Campus and surrounding neighborhoods remain vital, safe, affordable, and attractive places to live and work for both renters and homeowners.<sup>10</sup>
- **Harvard University:** In 2000, Harvard University launched the Harvard University 20/20/2000 Initiative, under which the University committed \$20 million of low-interest financing to support affordable or workforce housing in both Cambridge and Boston. This initiative has helped to fund about 17 percent of built and renovated affordable or workforce housing since the program's inception. It also administers a \$6,000,000 revolving loan fund.

#### 4.4.5 Grants Authority

In 2015, the state legislature passed a grants authority bill, which enables cities like Nashville to use grants to building projects that provide affordable or workforce housing. Because of this authority's similarity to programs elsewhere around the county that grant relief from property tax assessments or abatements for the provision of affordable or workforce housing, the following section outlines research of several cities that use similar programs, such as payment in-lieu of taxes (PILOT), to incent the construction of specifically affordable rental housing.

##### ***Chattanooga***

The city uses this mechanism for redevelopment (residential or mixed-use) projects within its Downtown, where building renovations, site improvements, or new construction must be 50 percent or greater residential to be eligible for a housing grant. The PILOT program here freezes property taxes at the predevelopment level for the residential portion of the project for 10 years (or for 14 years for the renovation of an existing historic building). To receive the housing grant, at least 20 percent of the residential floor area must be rentals affordable to a household earning 80 percent AMI.

##### ***Memphis***

This city also uses this mechanism for redevelopment (includes mixed-use) projects of 51 or more units within its CBD and for "high-impact" projects located outside the CBD. To qualify for this program, the value of the proposed building renovations, site improvements or new

<sup>8</sup> Refer to this website for more information: [http://www.uchicago.edu/community/development\\_housing/](http://www.uchicago.edu/community/development_housing/)

<sup>9</sup> Refer to this website for more information: <http://community.duke.edu/>

<sup>10</sup> Refer to this website for more information: <http://www.icgov.org/?id=1995>

construction must be equal to or greater than at least 60 percent of the total project cost. The PILOT program here freezes property taxes at the predevelopment level (plus 25 percent of the increased assessment) for the entire project for a maximum of 15 years. To receive the housing grant, at least 20 percent of the residential floor area must be rentals affordable to a household earning 80 percent AMI.

### ***Jersey City***

The city recently established a PILOT program to incent the construction of affordable rental projects (includes mixed-use). The program is tiered by geography, where the fullest incentives are available in the core of the City followed by lower levels of incentive in concentric rings around that area. There is no minimum scale of building structure or number of units to qualify for this program.

The PILOT program here freezes property taxes at the predevelopment level (but pays a “service charge” equal to either the project’s gross revenue or total project cost) for the entire project for 10 to 30 years, depending on the project’s location. Five to 10 year extensions of the PILOT are available but only under the condition that more affordable or workforce housing is provided at that time (i.e. that an additional portion of the market units be converted to affordable units).

To receive the housing grant, a project is required to provide between 10 and 100 percent of the residential floor area as affordable to a household earning 80 percent AMI. As an alternative, however, Jersey City allows projects to make a contribution to their Affordable Housing Trust Fund in-lieu of providing affordable or workforce housing.

### ***Portland (OR)***

This city uses this mechanism, called Multiple-Unit Limited Tax Exemption (MULTE) for projects (including mixed-use) within specific areas of the City. To qualify for this program, residential projects must have at least 10 units with a minimum density of 35 dwelling units per net acre of site. Mixed-use projects with ground floor commercial must have at least 10 units with a minimum density of 20 units per net acre of site and there must be at least twice the amount of residential floor area as non-residential floor area.

The PILOT program here freezes property taxes at the predevelopment level for the residential portion of the project for 10 years, but offers a potential extension for projects subject to low-income housing assistance contracts with an agency or subdivision of the state of Oregon or the United States, and the extensions are only granted for those units meeting the affordability requirements). Another limitation of Portland’s MULTE is that the property tax exemption applies to the improvements, and where the structure was converted from another use, only the increase in value attributable to the conversion is eligible for the exemption.

To receive the MULTE, at least 20 percent of the residential floor area must be rentals affordable to a household earning 60 percent AMI or 80 percent AMI in projects where market rents are at or above 120 percent AMI.

Because Portland has also limited the total value of MULTE granted on an annual basis, projects eligible for the MULTE are also selected on a competitive basis, i.e. giving preference to those projects with deeper affordability, those with accessibility features for seniors and people with disabilities, those with partnerships with organizations reaching vulnerable or disadvantaged communities, and those achieving minority contracting goals.

**Application in Nashville**

Given the grants authority, and given that rental developments are assessed at the commercial rate in Nashville, this mechanism would be a highly effective tool offered (voluntarily) to rental projects providing affordable units. A grant from the city would offset the payment of property taxes and significantly reduce operations and maintenance expenses for a rental project.

To understand what value these housing grants could have for a rental development, EPS collected information from existing, new, and proposed projects. Information was collected regarding the value of improvements and land (either appraised value, construction value, or sales value where data were complete and available), as well as the appropriate taxing rate (the General Services District or Urban Services District rates).

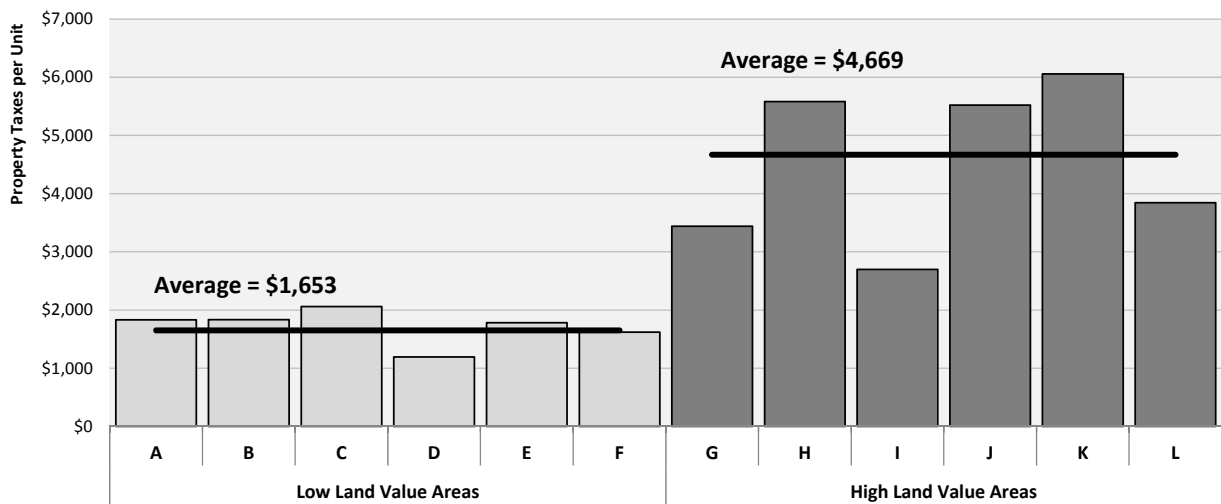
Property Tax Estimation for Actual/Proposed Rental Developments

The first six rental developments are located in lower land value areas such as Antioch, Bellevue, and Madison. The development scales range from 70 to 350 units and from 6 to 34 units per acre. Improvement values range from approximately \$83,000 to \$110,000 per unit, and land values range from less than \$1.00 to \$4.50 per square foot. After estimating total property taxes for each development, it was determined that these rental developments pay an average of \$1,653 per unit per year, ranging from approximately \$1,200 to \$2,000 per unit.

The second six were located in higher land value areas such as Downtown and the Gulch. The development scales range from approximately 30 to 380 units and from 20 to 500 units per acre. Improvement values range from approximately \$140,000 to \$313,000 per unit, and land values range from less than \$30 to \$255 per square foot.

After estimating total property taxes for each development, it was determined that these rental developments pay an average of \$4,669 per unit per year, ranging from approximately \$2,700 to \$6,000 per unit.

**Figure 36**  
**Average Property Taxes per Unit**



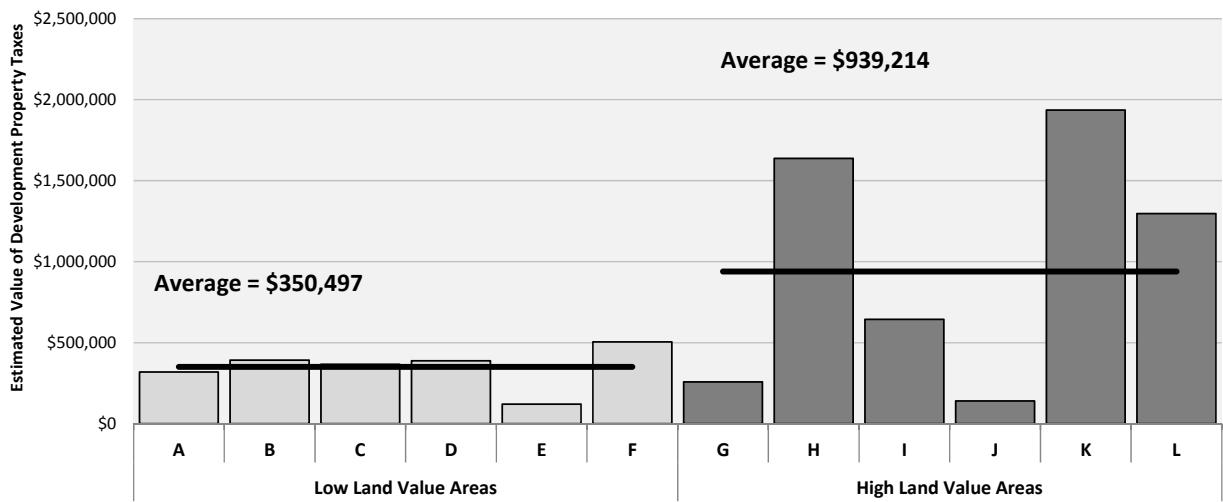
Source: Economic & Planning Systems

Housing Grants Estimation

Predevelopment level valuations were also researched to the extent possible so to identify the value of the property tax reduction. As shown in the following chart, if the City were to adopt a housing grant program that required rental developments complying with an affordability commitment, the value of those reductions would be an average of \$1,540 per unit in lower land value areas and an average of \$4,295 per unit in higher land value areas.

From a budgetary perspective, these housing grants for a 200 unit project (applying the per unit averages) would range from \$308,000 per year in a lower land value area to \$859,000 per year in a higher land value area.

**Figure 37**  
**Estimated Housing Grants**



Source: Economic & Planning Systems

## 5.0 INCLUSIONARY ZONING FEASIBILITY

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### 5.1 Approach

The general purpose of the financial feasibility model is to test the impacts that an inclusionary zoning policy might have on prototypical developments in the City. Using the structures of best practices regarding this type of land use regulation from around the country, the model is built to evaluate numerous development prototypes with different combination of policy requirements and incentives, as well as scenarios to test prototypes' feasibility when major programmatic assumptions (e.g. set-asides or AMI levels) are changed, or when major cost or revenue-generating assumptions are changed. The findings serve as the basis for a recommended inclusionary zoning policy structure.

### 5.2 Feasibility Model Structure

#### 5.2.1 Prototypes

EPS incorporated the following prototypes into its model based on guidance from Metro Planning and are based on generalizations of actual recent or current projects of developers. The purpose of selecting prototypes is to ensure that the implications of this analysis are relevant to the types of development that are likely to move forward in the near- and mid-term.

- **Single-Family:** the project is developed on 70 acres at approximately 4 units per acre, with a total of 252 units; the average unit size is 2,100 square-feet
- **Townhomes:** the project is developed on 2 acres at approximately 36 units per acre, with a total of 72 units; the average unit size is 1,500 square-feet
- **5-Story:** the project is developed on a 7.4-acre site (residential uses wrapped around internal concrete structured parking) at approximately 37 units per acre, with a total of 276 units; the average unit size is 825 square-feet for a for-sale project or an average of 775 square-feet if the project is rental; the building type is five floors of wood-frame construction wrapped around a concrete parking structure; the gross building floor area is estimated to be 267,900 square feet, not including parking, based on the site with net leasable/saleable floor area at approximately 85 percent of the gross floor area.
- **10-Story:** the project is developed on a 0.9-acre site at approximately 194 units per acre, with a total of 175 units; the average unit size is 825 square-feet for a for-sale project or an average of 725 square-feet if the project is rental; the building type is 10 floors of steel and/or concrete construction with structured parking; the gross building floor area is estimated to be 169,900 square feet, not including parking, based on the site with net leasable/saleable floor area at approximately 85 percent of the gross floor area
- **20-Story:** the project is developed on a 1.1-acre site at approximately 265 units per acre, with a total of 300 units; the average unit size is 825 square-feet for a for-sale project or an average of 725 square-feet if the project is rental; the building type is ten floors of steel and/or concrete construction with structured parking; the gross building floor area is

estimated to be 291,200 square feet, not including parking, based on the site with net leasable/saleable floor area at approximately 85 percent of the gross floor area

### 5.2.2 Inputs and Assumptions

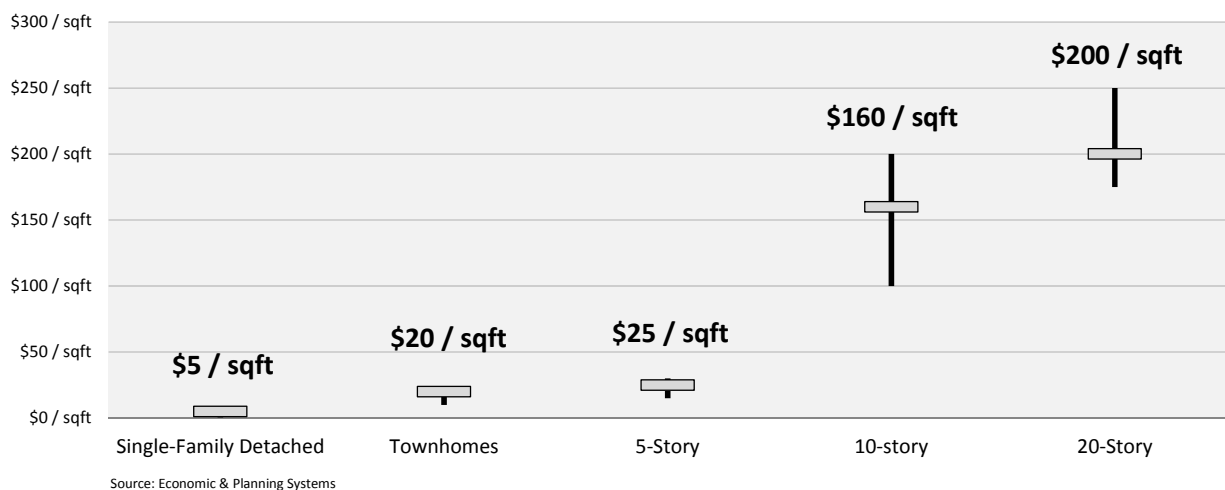
The following section provides an overview of a few of the major and critical assumptions to the model and how they differ across the spectrum of development prototypes used.

#### Land Value

Land values throughout the City vary considerably. Information collected from the City and through development industry stakeholders and developers indicates that land sales prices can be as low as \$1 per square-foot in the suburban geographies of Davidson County while as much as \$250 per square-foot or more in Downtown or the Gulch. While not exactly correlated to allowable density (i.e. base entitlement), land value generally increases in the more densely-development parts of the City core. **Figure 38** illustrates the assumptions used across the spectrum of prototypes.

EPS's feasibility model assumes the following average land acquisition costs per square-foot: a prototypical single-family project occurs at \$5 per square-foot in suburban geographies where the price of land ranges from approximately \$1 to \$5 per square-foot; an entry-level townhome project occurs in a slightly more urban location with land acquisition costs of \$20 per square-foot, where price range between \$10 and \$20 per square-foot; a 5-story project occurs in a slightly more urban location at \$25 per square-foot, where prices range between \$15 and \$25; a 10-story project in an urban location with land costs of \$160 per square-foot, where they range between \$100 and \$200; and a 20-story project with land acquisition costs of \$200 per square-foot, where they can range between \$175 and \$250 per square-foot<sup>11</sup>.

**Figure 38**  
**Modeled Land Acquisition Costs per Square-Foot**



<sup>11</sup> It should be noted that in today's market, actual land acquisition costs for the purposes of a for-sale project or rental project may differ, given that these markets possess different supply and demand contexts. For the purposes of simplifying this analysis and its results, it is assumed that land acquisition costs are uniform with the respective prototypical development scales.

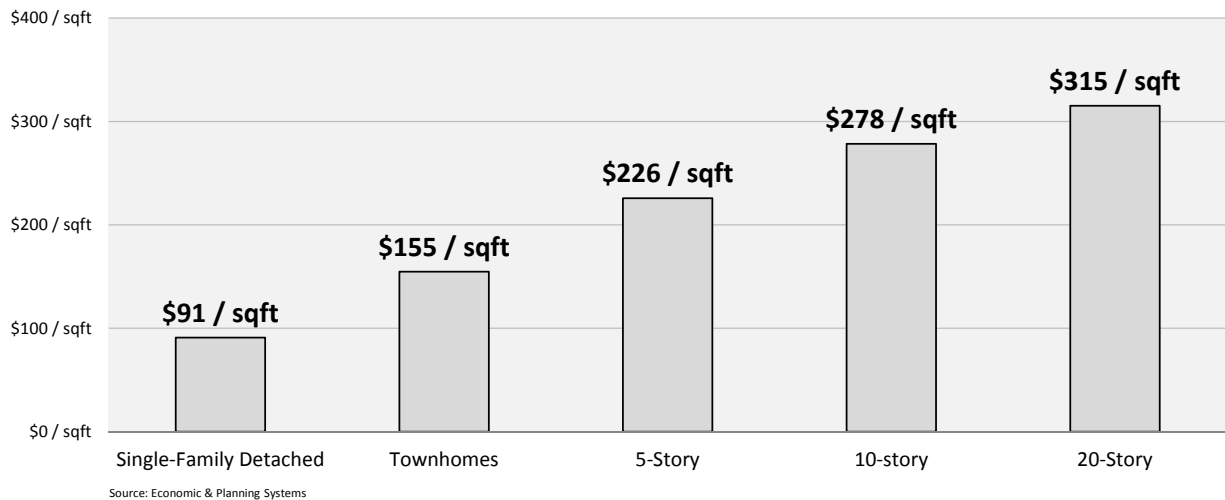
### Vertical Development Costs

Among the critical inputs and assumptions are the vertical development costs. **Figure 39** illustrates the total development (hard and soft) costs per square foot. To calibrate these values, EPS interviewed a group of developers to calibrate the magnitude of hard and soft costs associated with the different scales of development in the Nashville market. These cost factors include both hard (materials and labor) and soft (architecture, engineering, insurance, finance carrying costs, legal, etc.) costs.

As a result, development costs range from \$156 per square-foot (\$110 per square foot for hard costs plus \$46 per square foot for soft costs) for prototypes under 6 floors (i.e. under the 6:1 entitlement zone), increase 18 percent to \$184 per square-foot (\$130 per square foot for hard costs plus \$54 per square foot for soft costs) for developments that exceed the 6-floor threshold, and increase again another 12 percent for prototypes that cross over the 10<sup>th</sup> floor threshold (i.e. the 8:1 entitlement zone).

As noted by developers and architects, the 10<sup>th</sup> floor threshold, often approximately 100 feet pushes a project into new building code requirements for fire suppression and core structural requirements that increase the cost of the building. In general, the findings begin to point in the direction of the possibility that scale with positive residual value could be achieved so long as the additional density offered a project does not force a structure into a higher construction type and cost category.

**Figure 39**  
Total Development Cost Assumptions



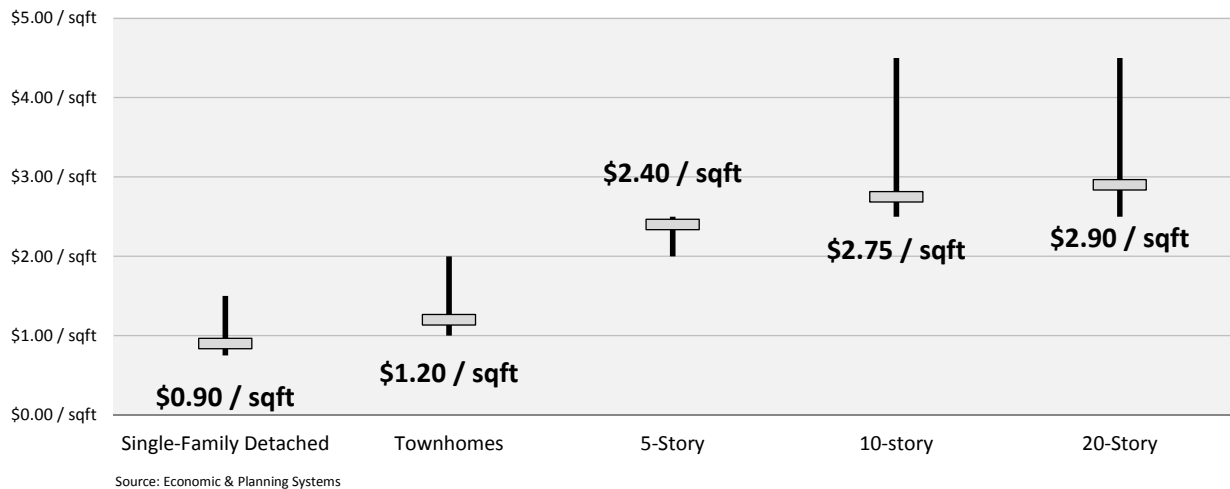
### Market Rate Rental Assumptions

Among the critical revenue factors, **Figure 40** illustrates one of the major assumptions for the development of rental residential projects. Rental rates throughout the City and County vary greatly, depending on the prototype, location, and other supply and demand factors. These assumptions were vetted through interviews and conversations with developers and, as shown, reflect conservative assumptions regarding rental rates, given that current projects are pushing the \$3.00 per square-foot threshold.

Some in the local development community voiced skepticism as to the longevity of such high rental rates, not just from an affordability stand-point, but from the perspective that these markets always run the risk of over-building, at which point rental rates, lease rates, and sales prices begin to level off or even drop.

As a result, rental rents used in the model are: \$0.90 per square-foot for single-family projects that may develop as rental (with a range of \$0.75 to \$1.50 depending on location and other supply/demand factors); \$1.20 per square-foot for townhome projects that may develop as rental (with a range of \$1.00 to \$2.00 depending on location and other supply/demand factors); \$2.40 per square-foot for 5-story projects (with a narrow range of \$2.00 to \$2.50 depending on location and other supply/demand factors); \$2.75 per square-foot for a 10-story project and \$2.90 per square-foot for a 20-story project (both prototypes with ranges falling between \$2.50 and \$4.50 per square-foot depending on location, scale of development, and other supply/demand factors).

**Figure 40**  
**Modeled Rental Rate Assumptions**

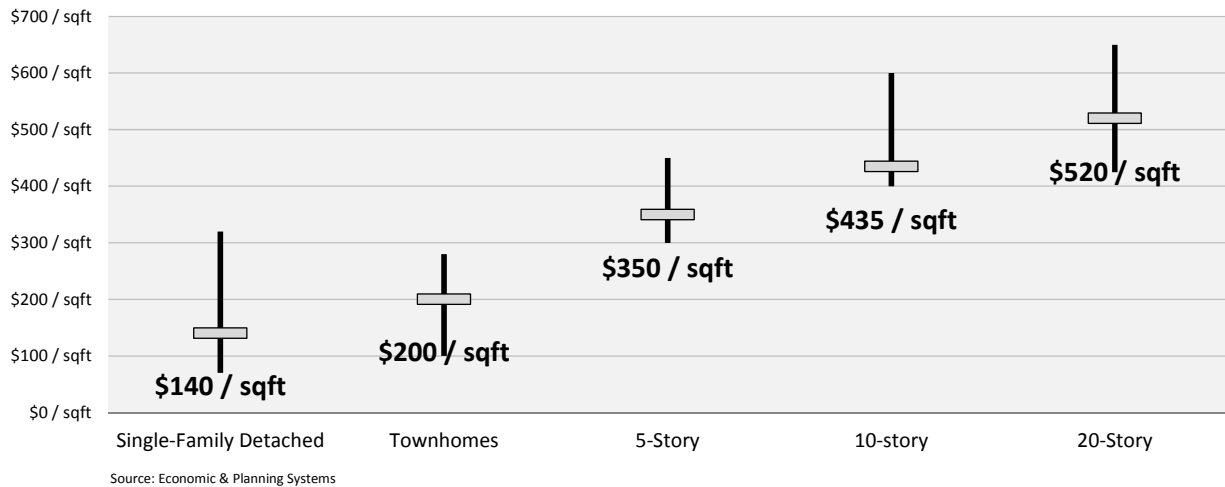


**Market Rate Sales Price Assumptions**

EPS also conducted analysis of for-sale residential projects to incorporate in the feasibility model. As with rental rates, for-sale sales prices per square-foot vary greatly throughout the City and County, depending on the prototype, location, and other supply/demand factors. These assumptions were vetted through interviews and conversations with developers. Because the development community is currently not engaged in for-sale multi-family projects at five or more floors as predominately as with rental projects, EPS utilized sales data for 2015 from the MLS representative of recently built high-rise and flat units.

Sales price points used in the model are: \$140 per square-foot for single-family projects (average sales prices of \$294,000, vetted against 2015 sales of recently-built units); \$145 per square-foot for townhome projects (average sales prices of \$217,500, vetted against 2015 sales of recently-built townhomes); \$350 per square-foot for units in a 5-story project (average sales prices of \$288,750, also vetted against 2015 sales); \$435 per square-foot for units in a 10-story project (average sales prices of \$288,750, also vetted against 2015 MLS sales); and \$520 per square-foot for units in a 20-story project (average sales prices of \$429,000, also vetted against 2015 MLS sales).

**Figure 41**  
**Market Rate For-Sale Assumptions**



***Bonus Density***

Density bonuses are the single most valuable point of economic leverage a city can offer a developer to offset the “costs” of setting aside some portion of developments as affordable or workforce housing (or another community benefit).

The value of the density bonus can be quantified in a number of ways. In such an analysis, the value of land remains constant, additional entitlement is granted assuming there is sufficient market demand for the additional supply, revenue-generators remain constant, and the cost associated with the additional structure is that of the vertical construction (hard and soft costs). The residual (or remaining) value of the density bonus is quantified as the value of the additional revenues generated from the additional structure uses minus the marginal cost of building the additional floor area.

It is important to note that many if not most regulatory policies around the country, such as incentive or inclusionary zoning ordinances, seek to leverage density bonuses as a way to offset the costs of providing a community benefit. The shortcoming of most of these policies is that they seem to prescribe the amount of density bonus granted. What results is an unsatisfactorily low incentive to either offset or incent the provision of a community benefit.<sup>12</sup>

But there are limitations to the magnitude of density bonus that should be offered, and it is important to acknowledge them. EPS's modeling tool functions in multiple ways – not only to identify levels of financial performance, but to use those measures as benchmarks to calibrate “predictable” levels of density that are economical for different prototypical development forms. The different development prototypes were chosen not merely because they represent the variety of project types occurring or likely to occur in Nashville, they were selected also because they reflect the different construction types and costs that are associated with different scales. These points at which development scale increases and construction types and costs increase or change can be called inflection points. As an example of the situation at these inflection points, too much density bonus offered to a project in a base entitlement zone allowing up to five stories is that the additional costs a project confronts are not just the cost of building a sixth floor, but the costs associated with building the entire structure in concrete or steel (versus wood frame). Costs at other inflection points are associated with increased fire suppression and general building core requirements.

As such, EPS has modeled a uniform density bonus of 20 percent to produce the following financial feasibility results. This density bonus is a minimum that is supportable, reasonable, and feasible in reasonably offsetting some of the “costs” associated with providing affordable or workforce housing. The 20 percent assumption is not intended to be interpreted as a recommendation on a density bonus limitation, but rather an example for understanding the performance of different development scenarios.

Some of these development prototypes can support more density bonus within their respective building types. In those cases, a density bonus in excess of 20 percent, when possible with the same construction type and supportable in the market, can yield higher financial returns to a project. That is, EPS does not feel it necessary to establish a maximum density bonus that can be granted to a site. The question of how much additional density is supportable is one that can only be answered with more specific information on the location, timing, and market supply/demand conditions.

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<sup>12</sup> Only in less than a handful of cases, communities have conducted an economic study or made a reasonable effort to calibrate the amount of density bonus to the community benefit requirement, such that a developer would be economically indifferent to the hypothetical development alternatives, i.e. providing the community benefit and receiving the density bonus versus simply by-right development.

## 5.3 Financial Performance

### 5.3.1 Base Entitlement

The feasibility model is built to identify the financial performance of prototypical development projects, such as the internal rate of return on for-sale projects and return on cost at stabilization for rental projects. The following are the financial performance results of the prototypical projects under base (i.e. by-right) entitlement, for-sale and rental projects respectively:

#### ***For-Sale Projects***

The current market is heavily tilted toward rental development. As such, conditions in the for-sale market are predominantly reflective of lower-density residential developments such as single-family detached and townhomes. EPS assumed for-sale price points utilizing as much information from the MLS data analyzed, and used absorption sales rates representative of reasonable capture rates of the current market for single-family and townhome developments. Although EPS was able to utilize price point inputs relevant to the Nashville market for for-sale developments of 5 or more floors, the lack of this product in the current market means that insufficient data exist to establish reasonable absorption rates for these for-sale prototypes. As such, EPS applied lower absorption rates based on our market analysis experience with similar development feasibility assessments. The base entitlement prototype results are shown in **Figure 5**.

- **Single-Family:** At \$5 per square foot, total land costs for this 252-unit project are estimated at \$15.2 million and total development costs (excluding land) are estimated at approximately \$48.1 million. The average unit is priced conservatively at \$294,000 and unescalated over time (i.e. this is a conservative assumption intended to temper the financial performance metrics). The rate of absorption is factored into the model at 12 units per month, which reflects a 7 percent capture rate of the current for-sale market in Nashville. Under these assumptions, the project would be anticipated to have an unleveraged IRR (internal rate of return) of 11.6 percent.
- **Townhomes:** At \$20 per square foot, total land costs for this 72-unit project are estimated at \$1.1 million and total development costs (excluding land) are estimated at approximately \$13.2 million. The average unit is priced at \$300,000 and unescalated over time. The rate of absorption is factored into the model at 10 units per month, which reflects a 60 percent capture rate of the current for-sale market at that price point in Nashville. Under these assumptions, the project would also be anticipated to achieve an unleveraged IRR of 11.6 percent.
- **5-Story:** At \$25 per square foot, total land costs for this 276-unit project are estimated at \$8.1 million and total development costs (excluding land) are estimated at approximately \$60.4 million. The average unit is priced at \$288,750 and unescalated over time. The rate of absorption is factored into the model at 6 units per month, which reflects a 160 percent capture rate of the current new for-sale market at that price point in Nashville. As mentioned above, the current for-sale market does not have product of this type – as such, a reasonable absorption rate was selected. Under these assumptions, the project would be anticipated to achieve an unleveraged IRR of 6.5 percent, an indication that the project

under these market conditions would not be built unless more favorable market conditions existed in terms of development costs, price points, and absorption rates.

- **10-Story:** At \$160 per square foot, total land costs for this 175-unit project are estimated at \$6.3 million and total development costs (excluding land) are estimated at approximately \$47.3 million. The average unit is priced at \$358,875 and unescalated over time. The rate of absorption is factored into the model at 4 units per month, which reflects a capture rate of more than 4.5 times the current new for-sale market at that price point in Nashville. Again, the current for-sale market does not have product of this type – as such, a reasonable absorption rate was selected. Under these assumptions, the project would be anticipated to achieve an unleveraged IRR of 7.4 percent, an indication that the project under these market conditions would not be built unless more favorable market conditions existed in terms of development costs, price points, and absorption rates.
- **20-Story:** At \$200 per square foot, total land costs for this 175-unit project are estimated at \$9.8 million and total development costs (excluding land) are estimated at approximately \$91.7 million. The average unit is priced at \$429,000 and unescalated over time. The rate of absorption is factored into the model at 4 units per month, which also reflects a capture rate of more than 4.5 times the current new for-sale market at that price point in Nashville. Again, the current for-sale market does not have product of this type – as such, a reasonable absorption rate was selected. Under these assumptions, the project would be anticipated to achieve an unleveraged IRR of 7.2 percent, an indication that the project under these market conditions would not be built unless more favorable market conditions existed in terms of development costs, price points, and absorption rates.

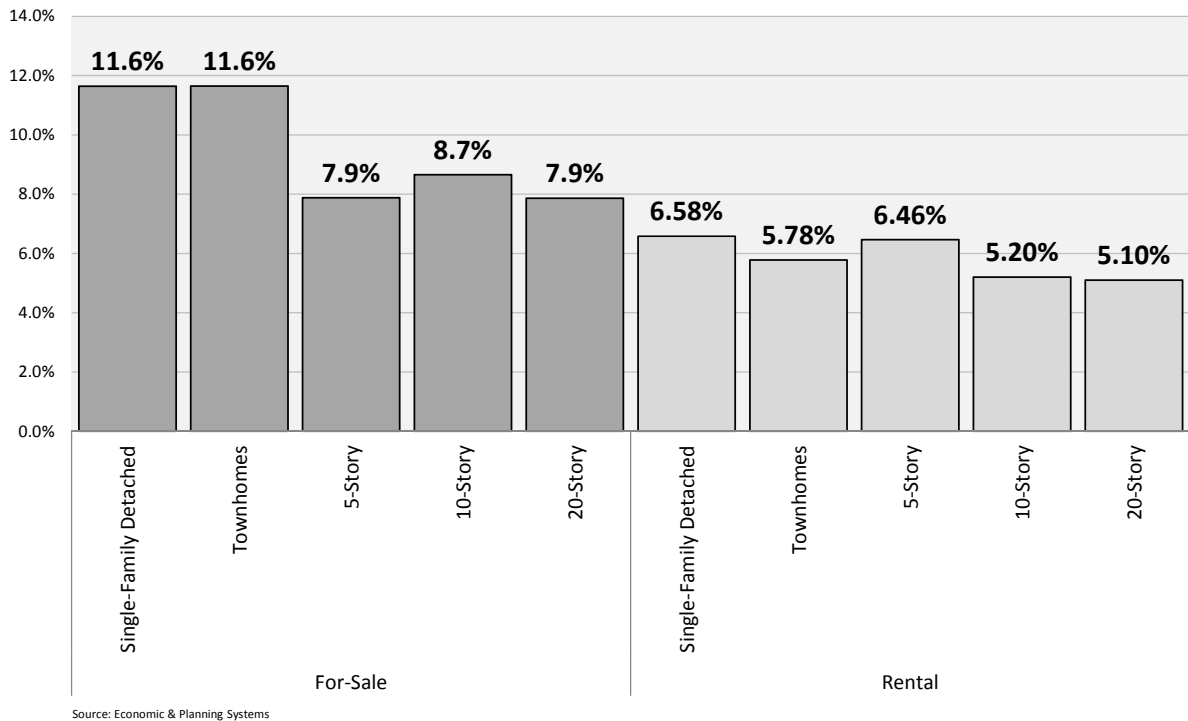
### **Rental Projects**

The following financial return measures are more highly relevant given the state of today's development market. There are numerous examples of recently-completed projects of these prototypical scales for which this feasibility model is capable of testing. These project use the same assumptions of land value and total development cost as with the for-sale projects, but look at rental rates and return on cost rather than price points and an IRR.

- **Single-Family:** The average unit in this project rents for \$0.90 per square-foot (or an average of \$1,890 per month for a 2,100 square-foot unit). Operations and maintenance (O&M) are assumed to be 30 percent of gross revenues. Under these assumptions, the project would be anticipated to have a return on cost of 6.6 percent.
- **Townhomes:** The average unit in this project rents for \$1.20 per square-foot (or an average of \$1,800 per month for a 1,500 square-foot unit). Operations and maintenance (O&M) are assumed to be 30 percent of gross revenues. Under these assumptions, the project would be anticipated to have a return on cost of 5.8 percent.
- **5-Story:** The average unit in this project rents for \$2.40 per square-foot (or an average of \$1,860 per month for a 775 square-foot unit). Operations and maintenance (O&M) are assumed to be 30 percent of gross revenues. Under these assumptions, the project would be anticipated to have a return on cost of 6.5 percent.

- 10-Story:** The average unit in this project rents for \$2.75 per square-foot (or approximately \$2,000 per month for a 725 square-foot unit). Operations and maintenance (O&M) are assumed to be 30 percent of gross revenues. Under these assumptions, the project would be anticipated to have a return on cost of 5.2 percent.
- 20-Story:** The average unit in this project rents for \$2.90 per square-foot (or approximately \$2,100 per month for a 725 square-foot unit). Operations and maintenance (O&M) are assumed to be 30 percent of gross revenues. Under these assumptions, the project would be anticipated to have a return on cost of 5.1 percent.

**Figure 42**  
**Financial Performance (IRR and ROC)**



### 5.3.2 Development of Inclusionary Zoning Scenarios

The objectives of this part of the analysis are: 1) to establish levels of affordability requirements (set-asides, AMI levels) that create development scenarios that are in line with best practices for other communities with inclusionary zoning requirements; and 2) to assess whether or not these requirements present developments with economically indifferent alternatives, in the context of a voluntary policy, or to what extent the development alternatives differ from the financial performance of the base entitlement scenario.

Under for-sale developments, the primary elements of the development that concern the inclusionary zoning structure are: the amount of density bonus; establishing a reasonable set-aside; establishing an AMI level that is appropriate practically and with regard to the market; and establishing an incentive, such as a cash incentive that is in line with best practices, fiscally realistic, and substantial to the project.

Under rental developments, the primary elements of the development that concern the inclusionary zoning structure are: the amount of density bonus; establishing a reasonable set-aside; establishing an AMI level that is appropriate practically and with regard to the market; and establishing an incentive, such as a housing grant on some portion of the project is in line with best practices (where used), fiscally realistic, and substantial to the project.

### **Main Structural Components**

There are three major components of the inclusionary zoning ordinance that need to be tested, including the density bonus element (i.e. the trigger point and the evaluation of what scale density bonus); the set-aside requirement; and the affordability levels.

- **Density bonus:** As explained earlier in the report, more density can be accommodated at lower densities and well within specific building structure types. The modeled density bonus is also chosen according to some level that may be realistically requested by a developer. A 20 percent density bonus was established to illustrate its effects.
- **Set-Aside:** It is most common for cities to establish a set-aside that is uniform not only across construction types, but across building tenures. A very few cities have adopted set-aside structures that vary by construction type or building scale, but even fewer have adopted set-aside structures that vary by the type of development (i.e. for-sale versus rental developments). In fact, most often, the set-asides established in cities' inclusionary zoning ordinances are more often the product of policy decisions than they are of economic analysis. While policy considerations and objectives have and will continue to play a role in the crafting of a policy for Nashville, EPS has established a set-aside structure that is tiered according to the scale of development (i.e. lower set-aside requirements for higher scales of development) and lowered the set-aside requirements for for-sale developments to a point reasonably below the rental development requirements. As such, the following table has been established through an iterative modeling process to understand at what point the financial performance is roughly equivalent for different development scenarios and at different AMI levels.
- **AMI levels:** As for AMI levels, there are also a few cities in the country that have structured their inclusionary zoning requirements such that they either respond to the geography (e.g. higher AMI requirements in central business districts or high-cost areas) or they respond to the type of development. Some of the rationale behind structuring appropriate AMI levels can involve: 1) consideration of where the largest gaps in inventory lie for a community; 2) consideration of where other regulatory or financing tools, such as federal funding, are being placed; and 3) consideration of the community's general goals and perceptions of greatest need. Because the analysis conducted in this project illustrated needs for housing along a spectrum of AMI levels, and because of the practical limitations of developing housing at lower AMI levels, the base AMI levels chosen for evaluation are affordable rental housing at 60 percent AMI and affordable ownership housing at 80 percent AMI. In the following series of charts, EPS demonstrates, as with the different set-aside amounts, what levels of affordability might be reasonably required in line with other communities' inclusionary zoning practices, and what their financial performance implications are.

### 5.3.3 Development Scenarios and Density Bonus Value Capture

This section defines the differences in financial performance between a prototypical development under base (by-right) entitlement versus three other scenarios: 1) the development with a density bonus and no affordability requirement or incentives; 2) the development with a density bonus, with an on-site affordability requirement (that will be varied in the sensitivity analysis described later), and with additional financial incentives; and 3) the development with a density bonus and a financial contribution in-lieu of the on-site affordability requirement, but no financial incentives given.

#### *For-Sale Development Scenarios*

**Table 2** illustrates multiple points of financial returns to compare the performance of the base entitlement scenario with scenarios utilizing a density bonus, with or without an on-site affordable requirement and financial incentives. The points of comparison are: 1) the IRR under each scenario assuming the same underlying cost and revenue assumptions; 2) a static measure of project profit, calculated as revenues minus costs; and 3) the difference between profit under the three alternative development scenarios versus the estimated profit of the base entitlement program.

Under this scenario, 20 percent additional density is granted to a project. A single-family project under base entitlement builds at 3.6 units per acre, for example, but is capable of building the project at 4.3 units per acre on the same 70 acres under the density bonus. The marginal cost of building at this higher density is the cost of infrastructure and vertical construction, not land. In each of the other cases, the costs of the density bonus do not include more land, rather the additional costs of vertical construction.<sup>13</sup>

While the additional cost of construction plays a role in the financial performance of the development with a density bonus, the other major influence is the reality that, while there may be more revenue-generating uses built, as for-sale housing, the increased number requires increased time. That is, the same rate of absorption is applied to this scenario as the base entitlement scenario. The effect of this is most noticeable in the measurements of IRR in the table below.

In general, the results measured by the primary metric, the IRR, demonstrate that for-sale projects with a density bonus, except for the lower density (single-family and townhome) prototypes, do not perform as well as those with base entitlement. First, the additional density, while a positive if the units can be absorbed in a similar time with strong market support, simply means that there is more product to sell, and this takes more time, directly impacting the IRR. Second, as housing markets become more expensive (as Nashville's has) and the gap widens between what a household earning median income can afford and the median sales price in the market (conditions increasingly present in Nashville), it becomes increasingly difficult for a city to offer a meaningful financial incentive to a developer.

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<sup>13</sup> It is important to note that additional density beyond certain points for some development prototypes, such as mid- and high-rise buildings can not only trigger additional costs, but also the requirement to build the entire project with a different building technique – e.g. a 5-story wood frame building granted density to the point that it must now build the entire structure out of steel or concrete.

Under such circumstances, an appropriate financial incentive would be closing the financial gap between the sales price of deed-restricted affordable units and the market rate units. The amount of the per-unit incentive would then be multiplied by the number of affordable units required, but there is no best practice in the country that has or can offer such a robust financial incentive. It should be noted, however, that these results are not unique to Nashville. They are characteristic of the effects of an inclusionary zoning requirement on for-sale developments throughout the country.

**Table 2**  
**Financial Performance of For-Sale Prototypes**

	For-Sale				
	Single-Family Detached	Townhomes	5-Story	10-Story	20-Story
<b>Internal Rate of Return</b>					
Base Entitlement	11.64%	11.65%	7.87%	8.66%	7.86%
w/ Density Bonus	13.64%	13.44%	7.54%	8.30%	5.42%
IZ + Onsite Affordability + Incentive	9.59%	6.70%	5.75%	6.31%	3.87%
IZ + CIL	7.63%	5.08%	4.64%	6.59%	4.45%
<b>Profit</b>					
Base Entitlement	\$10,692,695	\$2,253,408	\$11,200,741	\$9,600,426	\$27,117,366
w/ Density Bonus	\$16,162,862	\$3,250,448	\$15,382,783	\$12,431,485	\$34,620,977
IZ + Onsite Affordability + Incentive	\$11,252,689	\$1,998,145	\$11,642,157	\$9,372,385	\$26,878,727
IZ + CIL	\$9,805,049	\$1,734,096	\$10,071,716	\$10,186,317	\$30,771,804
<b>Profit Above / Below "Base Entitlement"</b>					
w/ Density Bonus	\$5,470,168	\$997,040	\$4,182,042	\$2,831,059	\$7,503,611
IZ + Onsite Affordability + Incentive	\$559,994	-\$255,263	\$441,416	-\$228,041	-\$238,639
IZ + CIL	-\$887,646	-\$519,312	-\$1,129,025	\$585,892	\$3,654,437

Source: Economic & Planning Systems

\\EPSPDC02\Proj\153043-Nashville TN Inclusionary Housing\Models\153043-Model-01516-Mixed AML.xlsm\Table 5.a - For-Sale Perf

### **Rental Development Scenarios**

On the other hand, inclusionary zoning in Nashville could be much more effectively and appropriately applied to rental developments, even though Tennessee long ago established a prohibition against rent control. That is, the use of property tax abatements, payments in lieu of taxes, or "housing grants" (as in Tennessee) are especially powerful in environments with relatively substantial property tax levels. Such a tool, as the following **Table 3** shows, make actually be substantial enough to motivate developers even to voluntarily comply with an inclusionary zoning requirement.

The primary metric of financial performance shown in this table is the return on cost (ROC). The ROC is measured as the net operating income (NOI) in a stabilized year, typically year 4 or 5 after construction begins, divided by the total development costs. The ROC in prototypical developments under base entitlement were described in an earlier section and are repeated below. The density bonus, by both measures of ROC and NOI, creates value over the base entitlement scenarios. But, unlike the for-sale versions of these prototypical scales, the value of the incentive (the results here reflect the impact that a grant approximately equal to 50 percent of property taxes) is accretive to the project.

For example, a 5-story prototype is estimated to have a 6.30 percent ROC under base entitlement, equating to a \$4.5 million NOI. The density bonus alone shows value even with the increase in construction costs to a ROC of 6.46 percent and NOI of \$5.4 million. With an on-site affordability requirement and the housing grant (set to the value of approximately 50 percent of the property taxes associated with development's units), the ROC increases to 6.54 percent and the NOI increases. An additional point of comparison shows that this 5-story prototype with the density bonus has an NOI of nearly \$900,000 above the base entitlement scenario and in the scenario with on-site affordable rentals and the incentive, the NOI is approximately \$960,000 above the base. In general, the development scenarios with on-site affordable and workforce rental housing and housing grant incentives perform *better* than prototypes under base entitlement.

**Table 3**  
**Financial Performance of Rental Prototypes**

	Rental				
	Single-Family Detached	Townhomes	5-Story	10-Story	20-Story
<b>Return on Cost</b>					
Base Entitlement	6.58%	5.78%	6.30%	5.20%	5.10%
w/ Density Bonus	6.88%	5.91%	6.46%	5.26%	5.14%
IZ + Onsite Affordability + Incentive	6.55%	5.87%	6.54%	5.50%	5.40%
IZ + CIL	6.52%	5.70%	6.20%	5.14%	5.04%
<b>Net Operating Income</b>					
Base Entitlement	\$4,169,592	\$1,117,440	\$4,469,976	\$2,845,750	\$5,290,227
w/ Density Bonus	\$5,013,438	\$1,350,240	\$5,367,012	\$3,130,325	\$5,816,156
IZ + Onsite Affordability + Incentive	\$4,774,136	\$1,342,133	\$5,429,763	\$3,273,799	\$6,108,672
IZ + CIL	\$5,013,438	\$1,365,760	\$5,367,012	\$3,130,325	\$5,831,625
<b>NOI Above / Below "Base Entitlement"</b>					
w/ Density Bonus	\$843,846	\$232,800	\$897,036	\$284,575	\$525,929
IZ + Onsite Affordability + Incentive	\$604,544	\$224,693	\$959,787	\$428,049	\$818,445
IZ + CIL	\$843,846	\$248,320	\$897,036	\$284,575	\$541,398

Source: Economic & Planning Systems

H:\153043-Nashville TN Inclusionary Housing\Models\153043-Model-01B16-Mixed AMI, IRR.xlsm]Table 5.b - Rental Perf

### 5.3.4 Sensitivity Analysis

#### *Set-Aside Requirements by AMI Level*

Part of the motivation for conducting a sensitivity analysis of the major programmatic assumptions is to understand the degrees to which they may be most feasible from the development's perspective. The questions driving this part of the feasibility analysis are: 1) how much affordable or workforce housing can be required (set-aside) and at what AMI levels; 2) can two different levels of affordability be included in the analysis and allow for a greater set-aside requirement; and 3) Are there substantial differences that need to be noted between the for-sale and rental projects, such that the policy should reflect these feasibility results? That is, for rental projects, how much does the portion of the housing grants affect a project's feasibility? And in for-sale projects, how much does the amount of the cash incentive affect a project's feasibility?

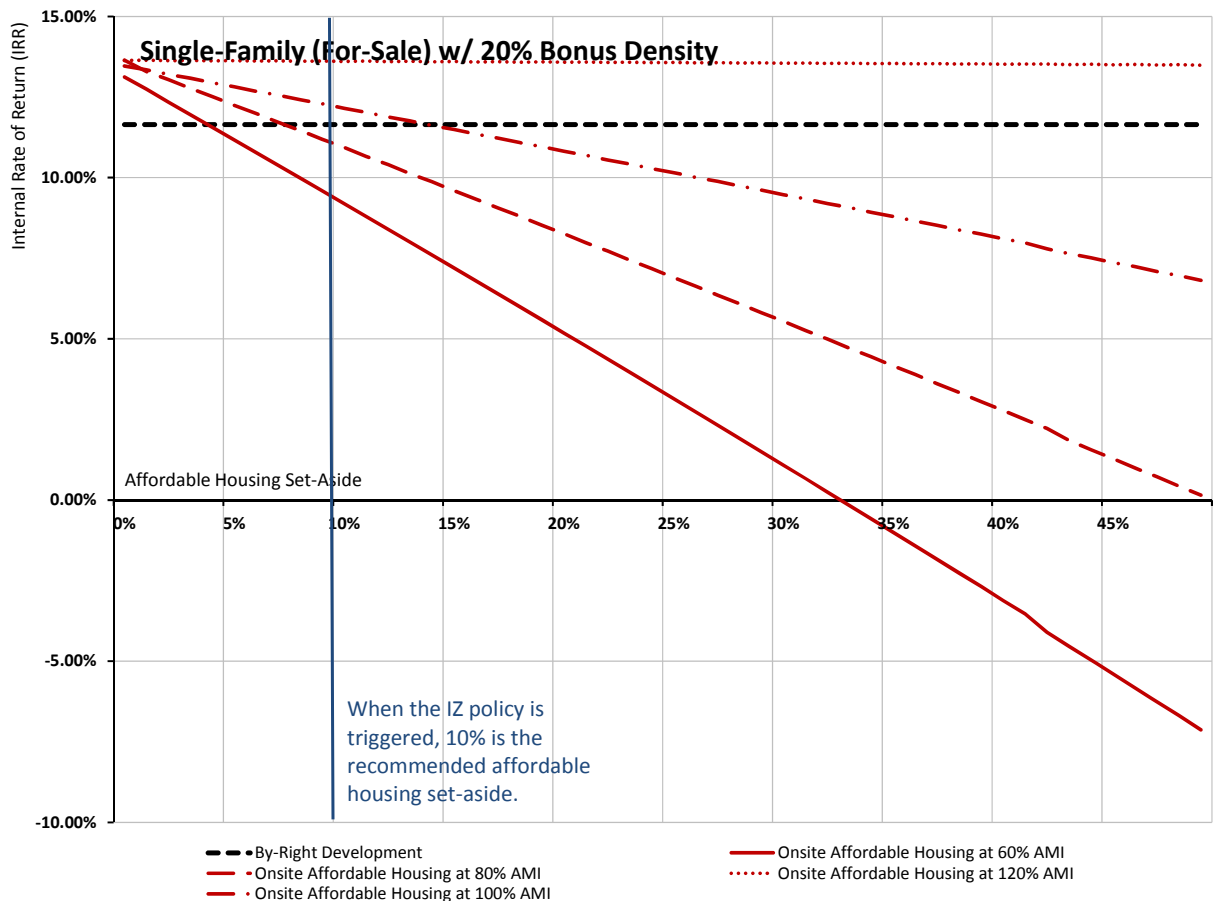
The model was used to calculate the level of financial performance (project profit with for-sale projects and ROC for rental projects) each prototype might anticipate achieving under assumptions of different on-site affordable or workforce housing set-asides and at different AMI levels. The following series of charts illustrates multiple points used iteratively in structuring the recommendations in the following chapter regarding set-asides and AMI levels. They are organized by for-sale and rental projects, and presented sequentially by development prototype.

### 5.3.5 For-Sale Prototypes

#### Single-Family Detached

The cost and revenue structures of single-family for-sale projects, according to this analysis, seem to be the only for-sale prototype capable of incorporating the largest portion of affordable or workforce housing at every AMI level. **Figure 43** illustrates that the baseline IRR for this prototype with by-right zoning is approximately 12 percent unleveraged. With \$20,000 given per affordable unit built on-site, the intersection of the 80 percent AMI line and the base IRR line in the chart occurs at a set-aside of approximately 8 percent. The IRR was also estimated for 60 percent AMI, 100 and 120 percent AMI. While 60 percent AMI is considered impractical from the practitioner’s perspective, an affordability level of 100 percent AMI would support a set aside of 15 percent.

**Figure 43**  
**Single-Family For-Sale Performance Sensitivity**

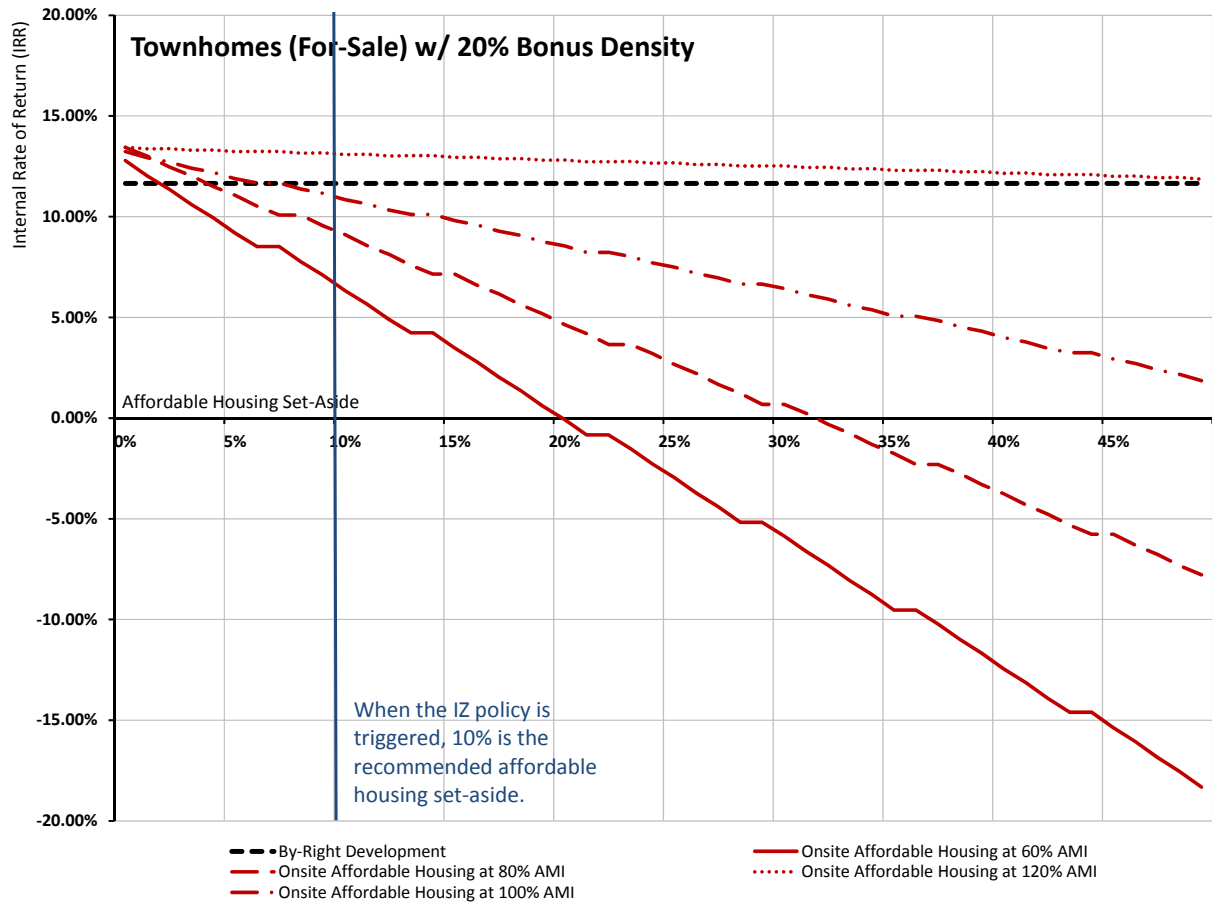


### ***Townhomes***

The townhome prototype, given the modeled assumptions, appears to support a generally lower set-aside of affordable or workforce housing at all AMI levels evaluated. The baseline IRR for this prototype with by-right zoning is also approximately 12 percent unleveraged. With \$20,000 given per affordable unit built on-site, the intersection of the 80 percent AMI line and the base IRR line in the chart occurs at a set-aside of approximately 4 percent. At 100 percent AMI, this prototype would support a set aside of 8 percent, and at 120 percent AMI, this prototype would support in excess of 50 percent.

Generally, the reason for the difference in supportable set-asides for this prototype is that the market rate units are priced at \$300,000, and the deed-restricted units at 120 percent AMI would be priced at a maximum of \$280,250. As such, the \$20,000 sales price gap would be entirely offset by the \$20,000 per unit subsidy. Thus, the nearly equivalent IRR at well over 50 percent. While this finding may seem to point toward a structure and requirement that is financially more feasible from the project's perspective, the situation creates one of the fundamental problems with deed-restricted units – that when overlap occurs between the free market pricing and deed-restricting pricing, it is unlikely that any household seeking to purchase a unit would choose to buy the one with a deed restriction.

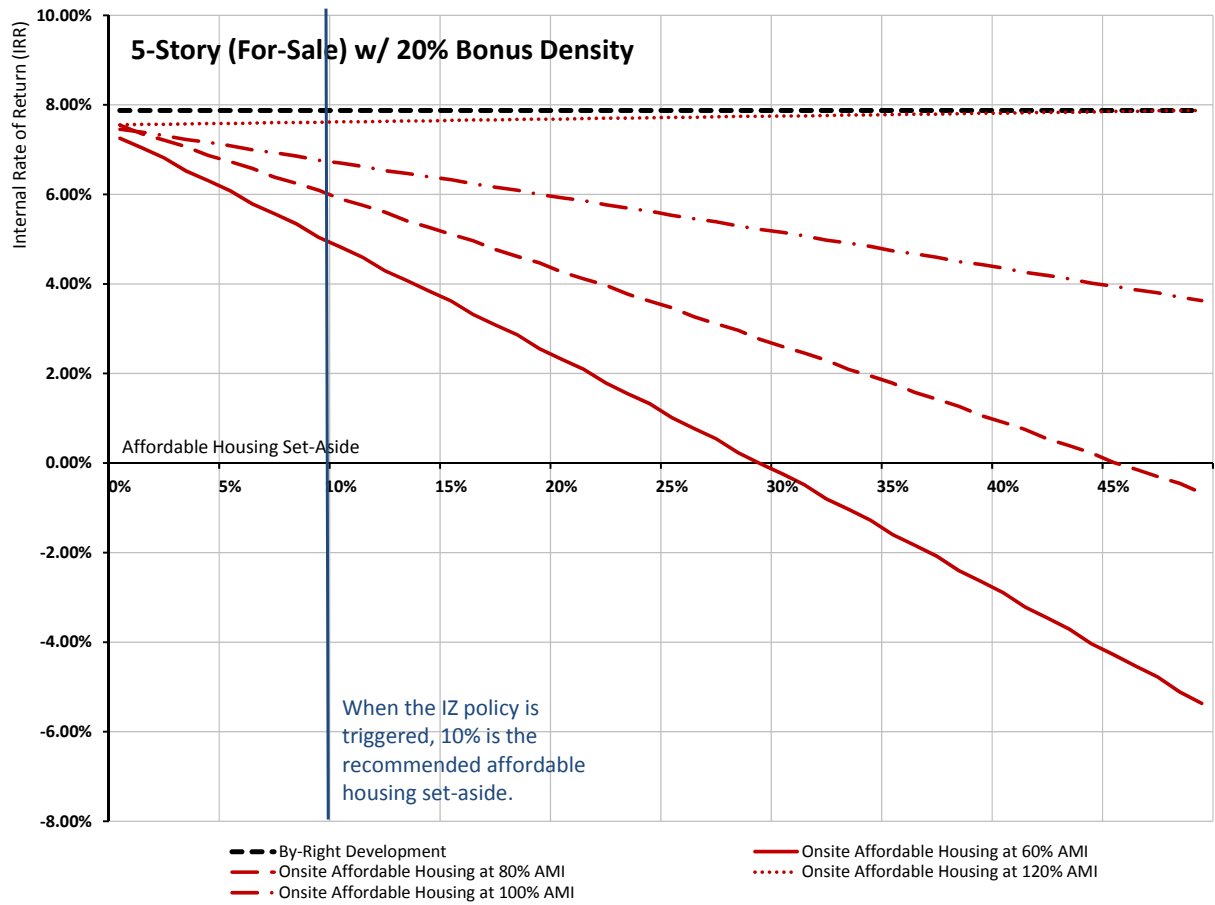
**Figure 44**  
**Townhome For-Sale Performance Sensitivity**



**5-Story project**

The baseline IRR for this prototype with by-right zoning is also approximately 8 percent unleveraged. Unlike the previous two prototypes, there is no amount of set-aside that intersects with the baseline IRR. From the standpoint of best practices, most communities adopting an inclusionary zoning ordinance will structure the set-aside uniformly across all types of development. If this were the case, as is illustrated by the vertical blue line in this chart, the IRR for a 10 percent set-aside at 80 percent AMI would be approximately 6 percent. At 100 percent AMI, the IRR is estimated to increase to close to 7 percent, and at 120 percent AMI, the IRR is estimated to align most closely with the baseline IRR of the by-right development. As in the previous example of the townhome prototype, the allowance of units at 120 percent AMI also yields a positive, if not accretive result. But here as well, the market rate units are assumed to be priced at approximately \$289,000 and this compares to the deed-restricted pricing of \$280,250, as mentioned above.

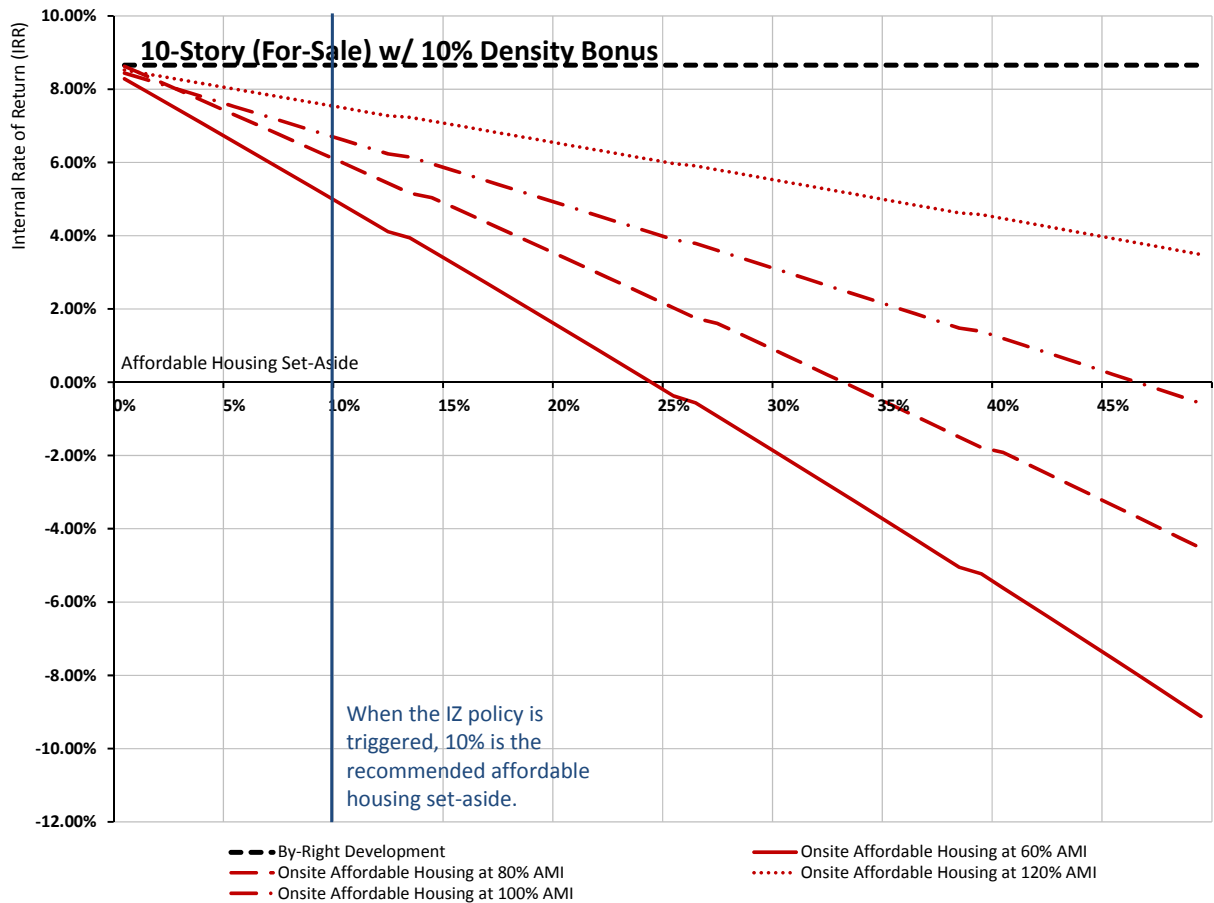
Figure 45  
 5-Story For-Sale Performance Sensitivity



### 10-Story project

The baseline IRR for this prototype with by-right zoning is also approximately 9 percent unleveraged. While the IRRs of these scenarios are closer to the baseline IRR (with lower set-asides) than the 5-story prototype, there is still no intersection between the scenarios with the by-right zoning scenario. As illustrated by the vertical blue line in this chart, the IRR for a 10 percent set-aside at 80 percent AMI would be approximately 6 percent. At 100 percent AMI, the IRR is estimated to increase to 6.6 percent, and at 120 percent AMI, the IRR is estimated to be approximately 7.5 percent.

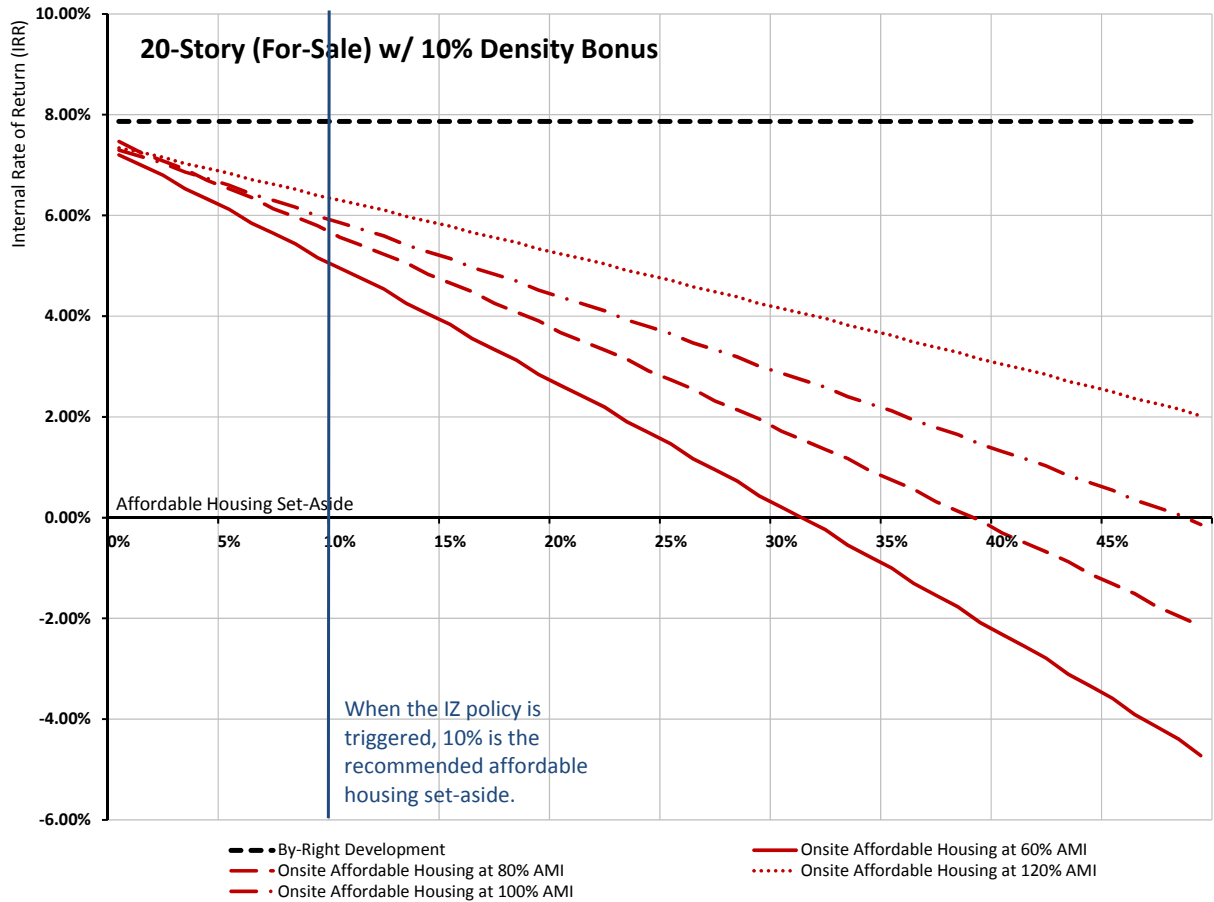
**Figure 46**  
**10-Story For-Sale Performance Sensitivity**



### 20-Story project

The baseline IRR for this prototype with by-right zoning is also approximately 8 percent unleveraged. As with the previous 3 scenarios, there is no intersection between the IRR of the by-right development and the scenarios with any amount of set-aside and AMI level. If the set-aside were set to 10 percent, for example, the IRR for on-site affordability at 80 percent AMI would be approximately 5.6 percent. At 100 percent AMI, the IRR is estimated to increase to 6 percent, and at 120 percent AMI, the IRR is estimated to be approximately 6.3 percent.

**Figure 47**  
**20-Story For-Sale Performance Sensitivity**



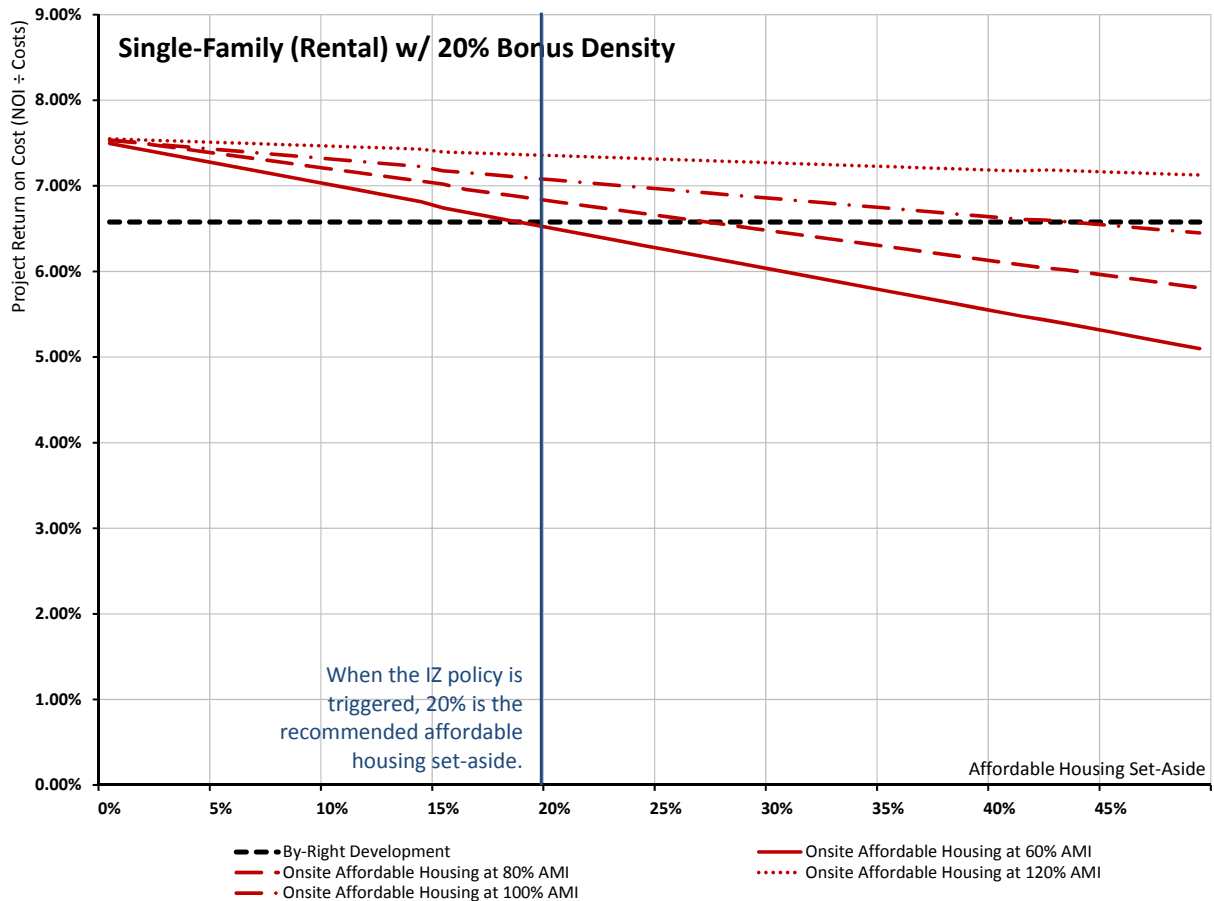
### 5.3.6 Rental Prototypes

The findings of the rental models, unlike their for-sale counterparts, suggests that the incentive structure available in Nashville (namely, the housing grants) is a tool that can be employed effectively and positively impact development feasibility.

#### *Single-family detached*

The baseline return on cost for this prototype with by-right zoning is approximately 6.6 percent. With a housing grant approximately equal to 50 percent of property taxes, the intersection of the 60 percent AMI line and the base IRR line in the chart occurs at a set-aside of approximately 20 percent. If the affordable rental level were increased to 80 percent AMI, the set-aside could feasibly be increased to approximately 30 percent while holding the ROC level. At 100 percent AMI, a set-aside well of approximately 45 percent could be supported, primarily because (like the market rate and deed-restricted price overlap issue in for-sale prototypes) the affordable rental rate comes into alignment more with the market rate levels.

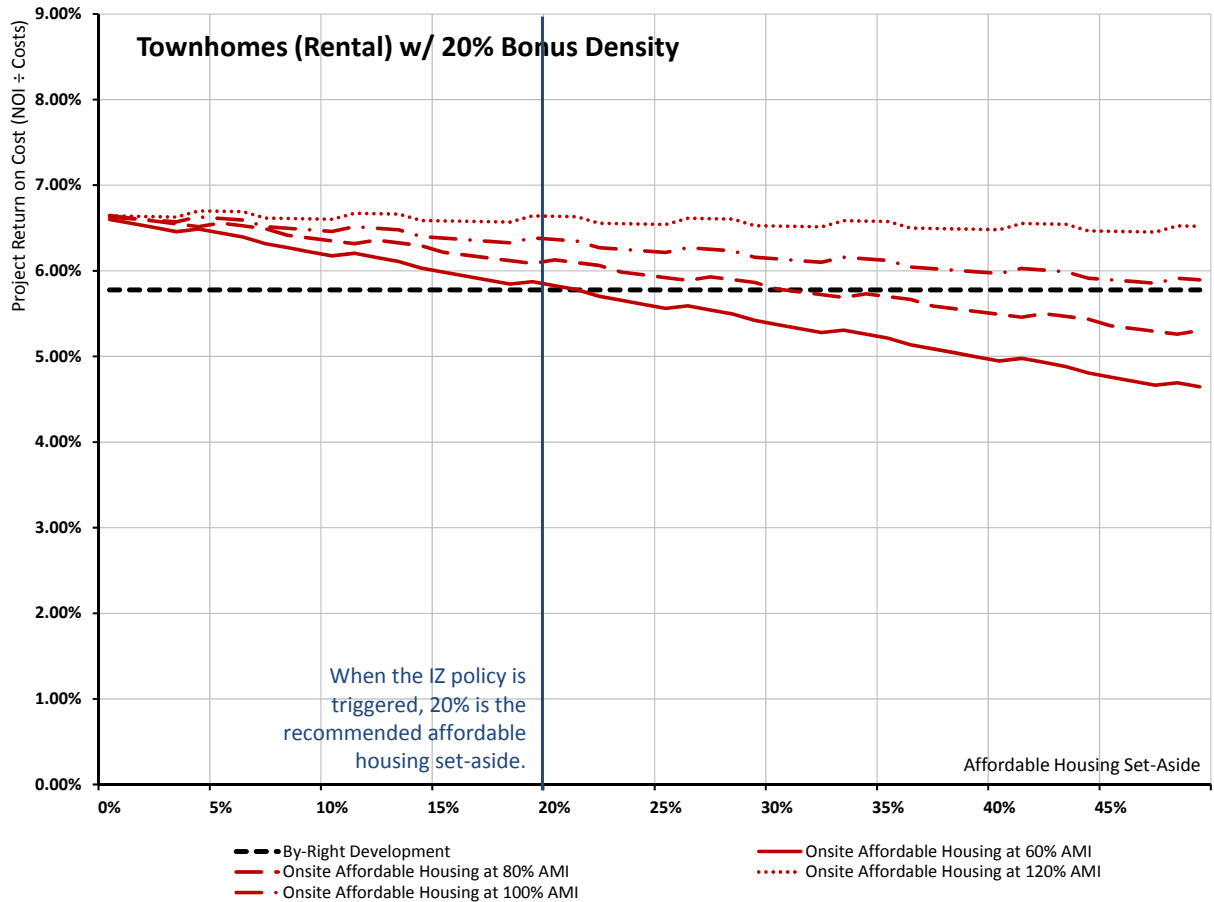
**Figure 48**  
**Single-Family Rental Performance Sensitivity**



**Townhomes**

The baseline return on cost for this prototype with by-right zoning is approximately 5.8 percent. With a 50 percent housing grant on the entire building, the intersection of the 60 percent AMI line and the base IRR line in the chart occurs at a set-aside of approximately 22 percent. If the affordable rental level were increased to 80 percent AMI, the set-aside could feasibly be increased to approximately 33 percent while holding the ROC level. At 100 percent AMI, as with the single-family prototype, a set-aside well in excess of 50 percent could be supported.

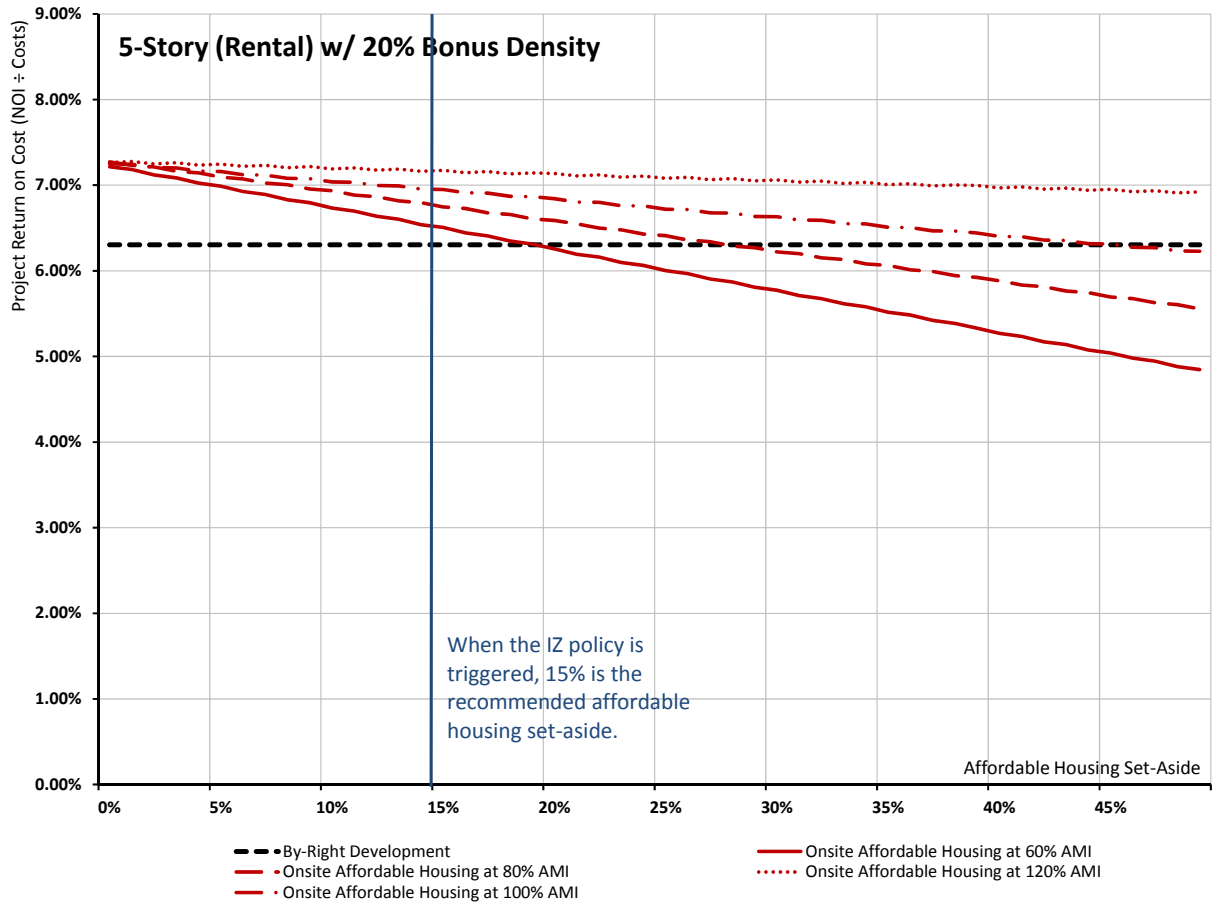
**Figure 49**  
**Townhome Rental Performance Sensitivity**



**5-Story project**

The baseline return on cost for this prototype with by-right zoning is approximately 6.5 percent. With a 50 percent housing grant on the entire building, the intersection of the 60 percent AMI line and the base IRR line in the chart occurs at a set-aside of approximately 20 percent. If the affordable rental level were increased to 80 percent AMI, the set-aside could feasibly be increased to approximately 30 percent while holding the ROC level. At 100 percent AMI, as with the single-family prototype, a set-aside of approximately 45 percent could be supported.

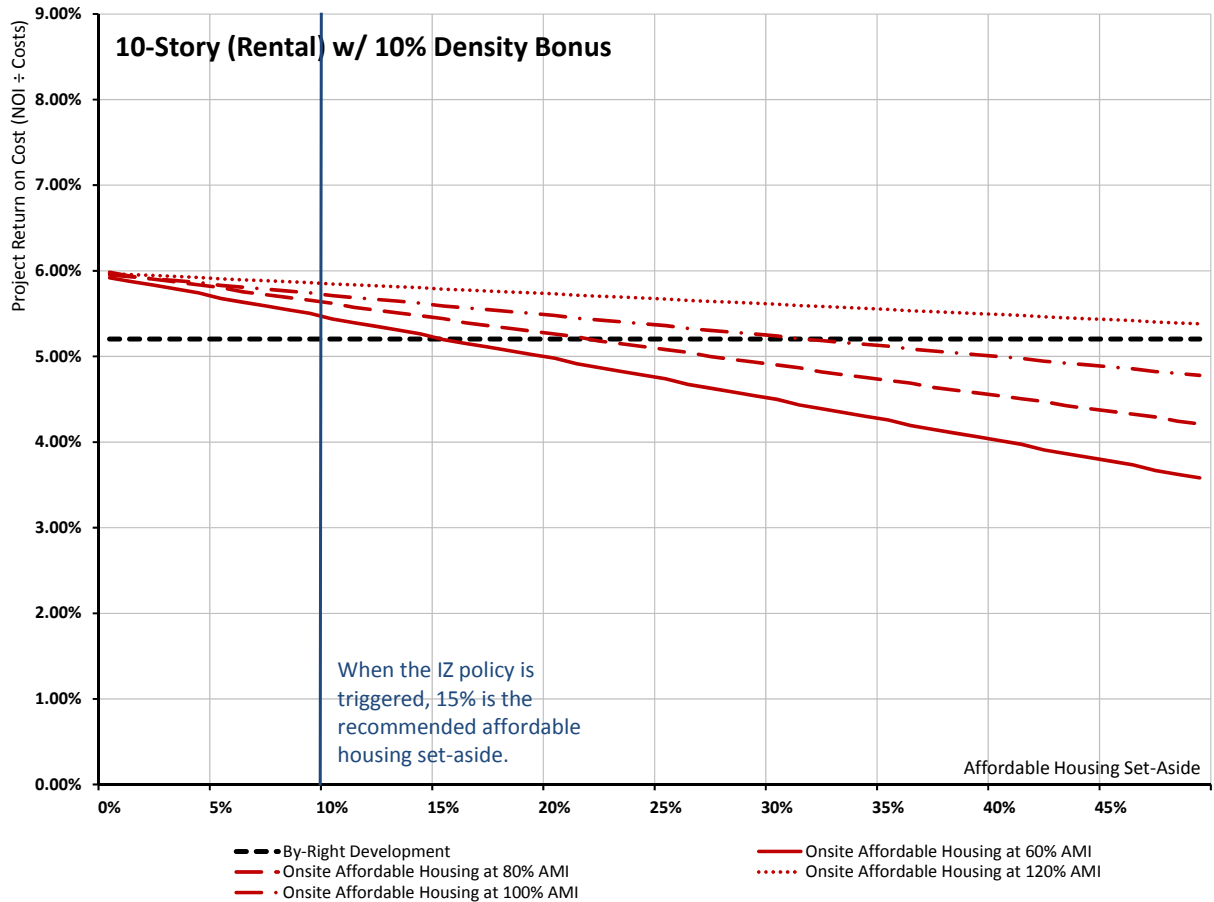
**Figure 50**  
**5-Story Rental Performance Sensitivity**



**10-Story project**

The baseline return on cost for this prototype with by-right zoning is approximately 5.2 percent. With a 50 percent housing grant on the entire building, the intersection of the 60 percent AMI line and the base IRR line in the chart occurs at a set-aside of approximately 15 percent. If the affordable rental level were increased to 80 percent AMI, the set-aside could feasibly be increased to approximately 22 percent while holding the ROC level. At 100 percent AMI, as with the single-family prototype, a set-aside of approximately 33 percent could be supported.

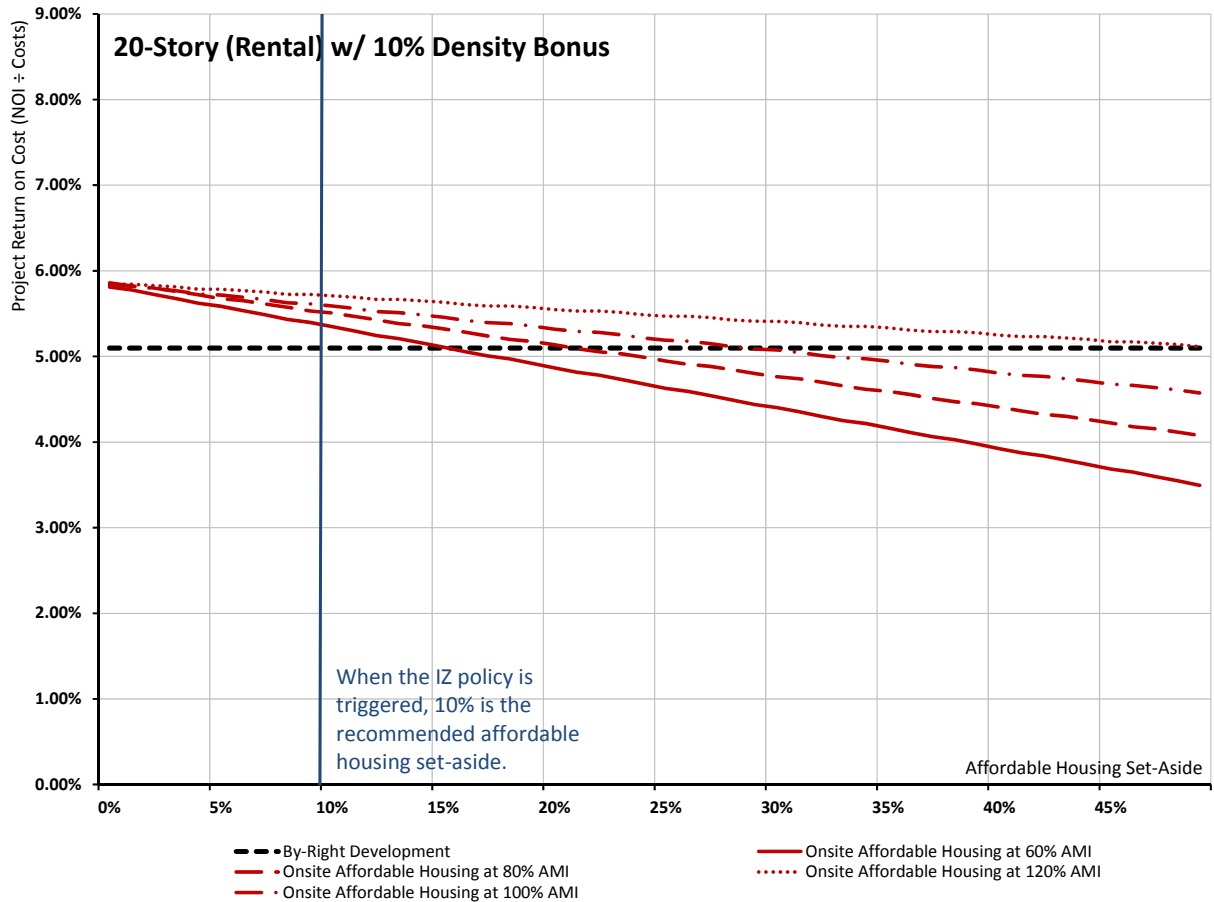
**Figure 51**  
**10-Story Rental Performance Sensitivity**



**20-Story project**

The baseline return on cost for this prototype with by-right zoning is approximately 5.1 percent. With a 50 percent housing grant on the entire building, the intersection of the 60 percent AMI line and the base IRR line in the chart occurs at a set-aside of approximately 17 percent. If the affordable rental level were increased to 80 percent AMI, the set-aside could feasibly be increased to approximately 24 percent while holding the ROC level. At 100 percent AMI, as with the single-family prototype, a set-aside of approximately 35 percent could be supported.

**Figure 52**  
**20-Story Rental Performance Sensitivity**



**Summary**

The following table summarizes the supportable set-asides by AMI level based on a sensitivity analysis of various degrees of on-site affordable or workforce housing. There are a few notable conclusions from this analysis.

### For-Sale Prototypes

According to the feasibility analysis, for-sale prototypes generally cannot support substantial deed-restricted affordable or workforce housing *and* maintain the level of profitability estimated under base entitlement. **Table 3** illustrates (on the right side) that among lower-density prototypes (single-family, townhome, and project under 3 floors) can support between 4 and 13 percent set-asides, depending on the affordability level. At 120 percent AMI, these projects could support even more. For all prototypes of greater scale, however, there is no level of affordability that could be supported and achieve the same estimated financial performance as the scenarios under base entitlement.

A variety of conditions (i.e. different from those modeled) would have to be present to support set-asides of 10 to 30 percent, as are common among cities in the best practice research. Conditions could be present on a site-by-site basis, though not predictable, and could only be incorporated in a sensitivity analysis. As an example, a developer might negotiate a lower land acquisition cost to achieve a level of financial return similar to base entitlement expectations.

### Rental Prototypes

Rental projects, on the other hand, can support more substantial set-asides than the for-sale projects. **Table 4** shows that the levels of supportable on-site affordability is supportable at substantial levels at all AMI levels. For lower-density prototypes, set-asides generally between 20 and 53 percent would be supportable (at 60 to 100 percent AMI) while achieving base entitlement ROC. In medium-density prototypes (uses between 3 and 6 floors), 20 to 50 percent set-asides are supportable (at 60 to 100 percent AMI), and for higher-density prototypes (7 or more floors), between 15 and 30 percent set-asides are supportable (at 60 to 100 percent AMI).

**Table 4**  
**Set-Aside with Base Entitlement Performance Intersection**

	Rental				For-Sale			
	at 60% AMI	at 80% AMI	at 100% AMI	at 120% AMI	at 60% AMI	at 80% AMI	at 100% AMI	at 120% AMI
<b><u>Single-family, Two-family, and Multi-family uses less than 3</u></b>								
Single-Family Detached	19%	27%	43%	+ 100%	4%	7%	13%	+ 100%
Townhomes	20%	31%	53%	+ 100%	2%	4%	7%	58%
<b><u>Multifamily uses (3 to 6 stories)</u></b>								
5-Story	19%	28%	45%	+ 100%	< 0%	0%	< 0%	< 0%
<b><u>Multifamily uses (≥ 7 stories)</u></b>								
10-story	15%	22%	31%	64%	< 0%	< 0%	< 0%	< 0%
20-Story	15%	21%	29%	50%	< 0%	< 0%	< 0%	< 0%

Source: Economic & Planning Systems

H:\153043-Nashville TN Inclusionary Housing\IModels\153043-Model-011816-Mixed AMI, IRR.xlsx\Table 5.b - Set-Aside Table

## **5.4 Sensitivity Analysis**

The following sections of the report outline sensitivity scenarios of for-sale and rental prototype assumptions and policy requirements to document the points of balance between measures of performance and policy requirements. The results were used iteratively in the feasibility analysis to calibrate the policy requirements shown, but also to illustrate the magnitude of impact that varying these factors would have on a prototype's performance.

### **5.4.1 Land Acquisition Costs**

In a land transaction, the developer or purchaser will consider market supply and demand conditions, market price points or rents, absorption or leasing trends, the cost of capital, and site constraints (such as development limitations, remediation costs, liens, etc.), among other things, in estimating a supportable land value. In the analysis of such a regulatory policy, the requirement to provide housing at below market price points or rents is interpreted as a reduction in achievable revenues, and thus would be expected to commensurately reduce the supportable land value.

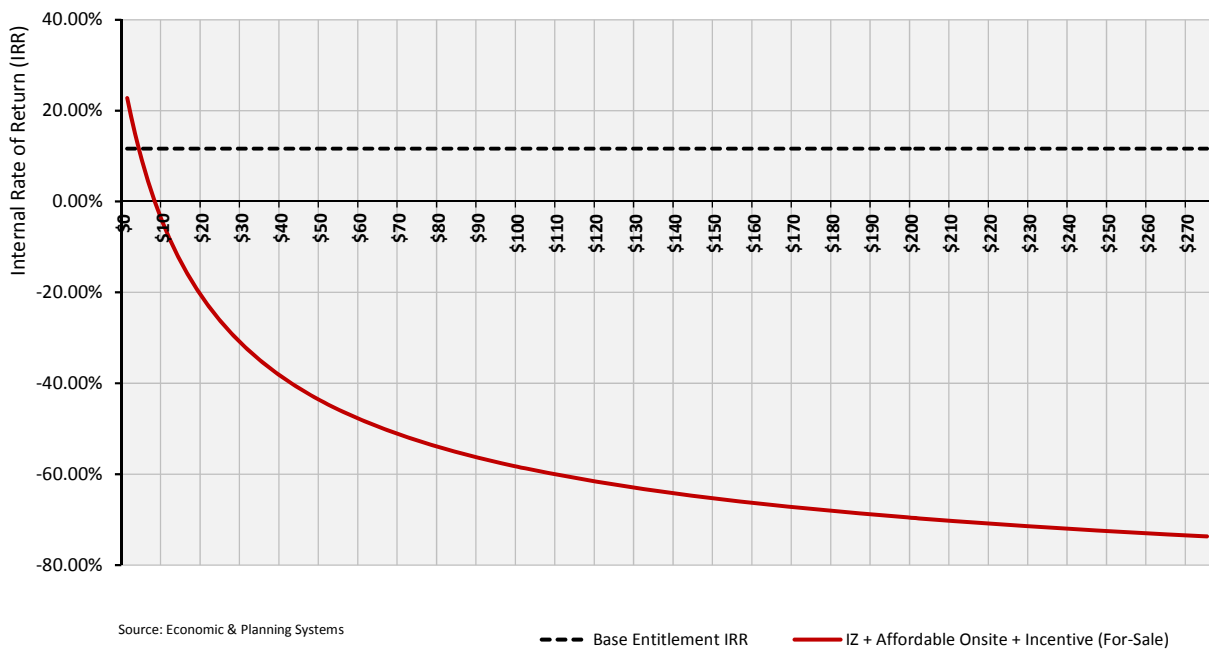
The following analysis of for-sale and rental development prototypes runs land values from \$1 to \$275 per square foot through the model, assuming that the project is being granted 20 percent additional density and meeting the baseline requirements of the inclusionary zoning ordinance (i.e. 20 percent set-aside of affordable for-sale units at 80 percent AMI, and 20 percent set-aside of affordable rental units at 60 percent AMI), along with receiving the stated incentives (i.e. \$20,000 per unit for for-sale prototypes, and a housing grant approximately equal to 50 percent of the development's annual property tax liability).

**For-Sale Prototypes**

Single-Family

The base entitlement IRR is approximately 12 percent, and assumes a land value of \$5 per square foot. Market research indicates that land values can range from about \$0.50 to \$5 per square foot for the typical single-family project. The sensitivity analysis suggests that, under the condition that the inclusionary zoning ordinance is effective, a developer would want to negotiate the land value down to \$4 per square foot in order to achieve the same level of return. That is, the analysis sought to find the intersection between the base entitlement IRR and the IRR of a project complying with the inclusionary zoning requirements.

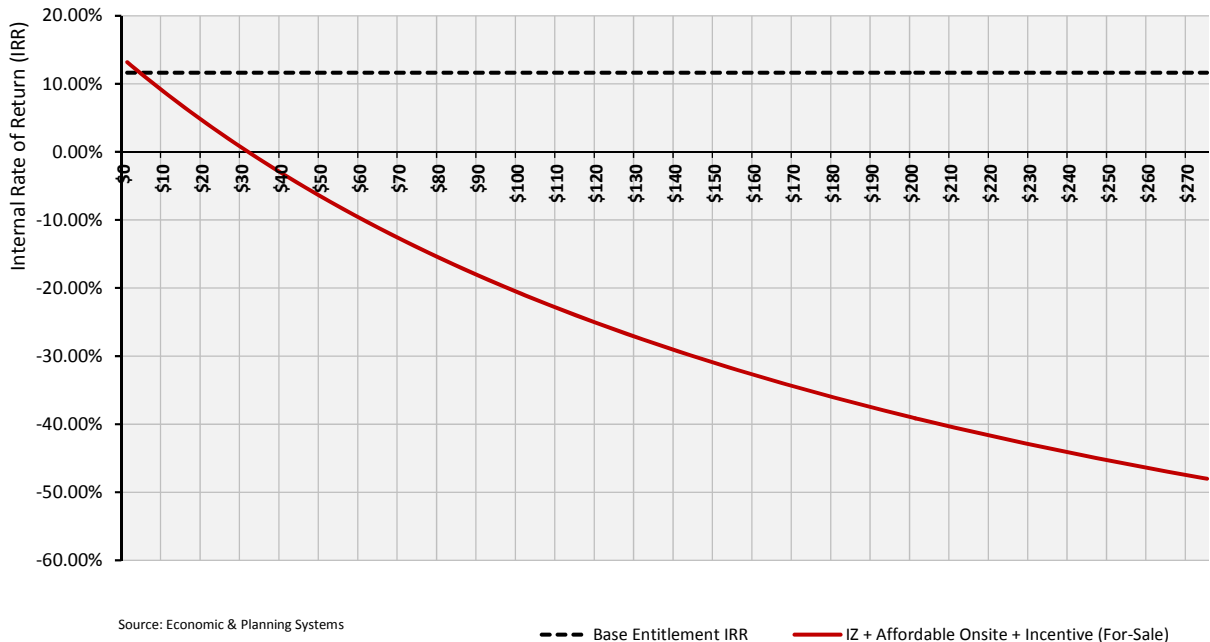
**Figure 53**  
**Single-Family For-Sale IRR and Land Value**



Townhome

The base entitlement IRR is approximately 12 percent, and assumes a land value of \$20 per square foot. Market research indicates that land values can range from about \$10 to \$20 per square foot for the typical townhome project. The sensitivity analysis suggests that, under the condition that the inclusionary zoning ordinance is effective, a developer would also want to negotiate the land value down to approximately \$4 per square foot in order to achieve the same level of return.

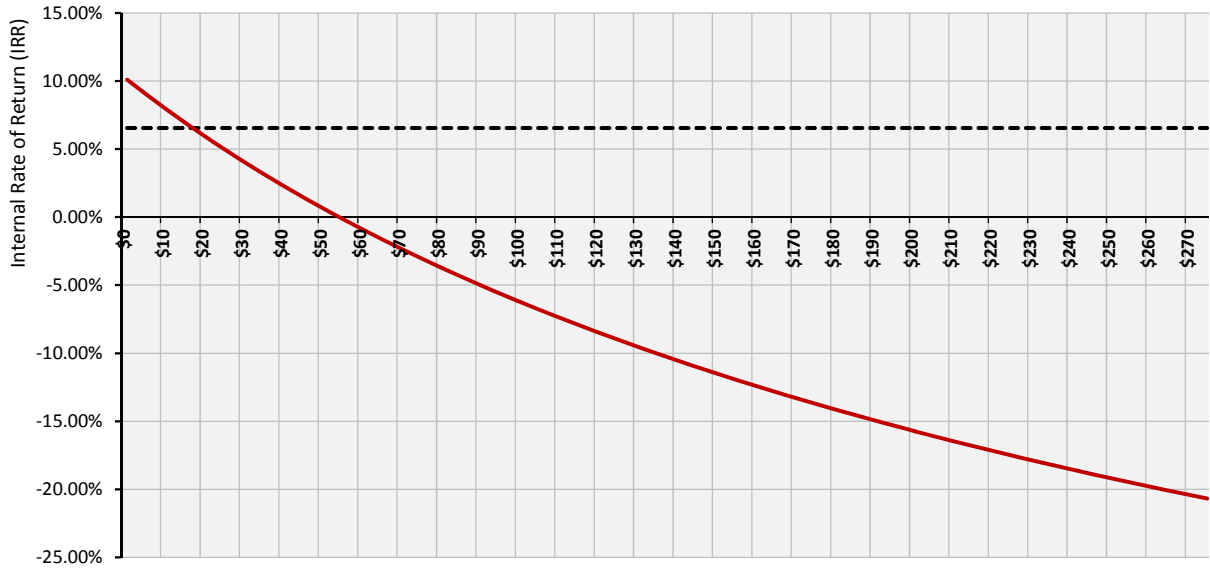
**Figure 54**  
**Townhome For-Sale IRR and Land Value**



5-Story:

The base entitlement IRR is approximately 6.5 percent, and assumes a land value of \$30 per square foot. Market research indicates that land values can range from about \$15 to \$30 per square foot for the typical 5-story project. The sensitivity analysis suggests that, under the condition that the inclusionary zoning ordinance is effective, a developer would want to negotiate the land value down to \$17 per square foot in order to achieve the same level of return.

**Figure 55**  
**5-Story For-Sale IRR and Land Value**



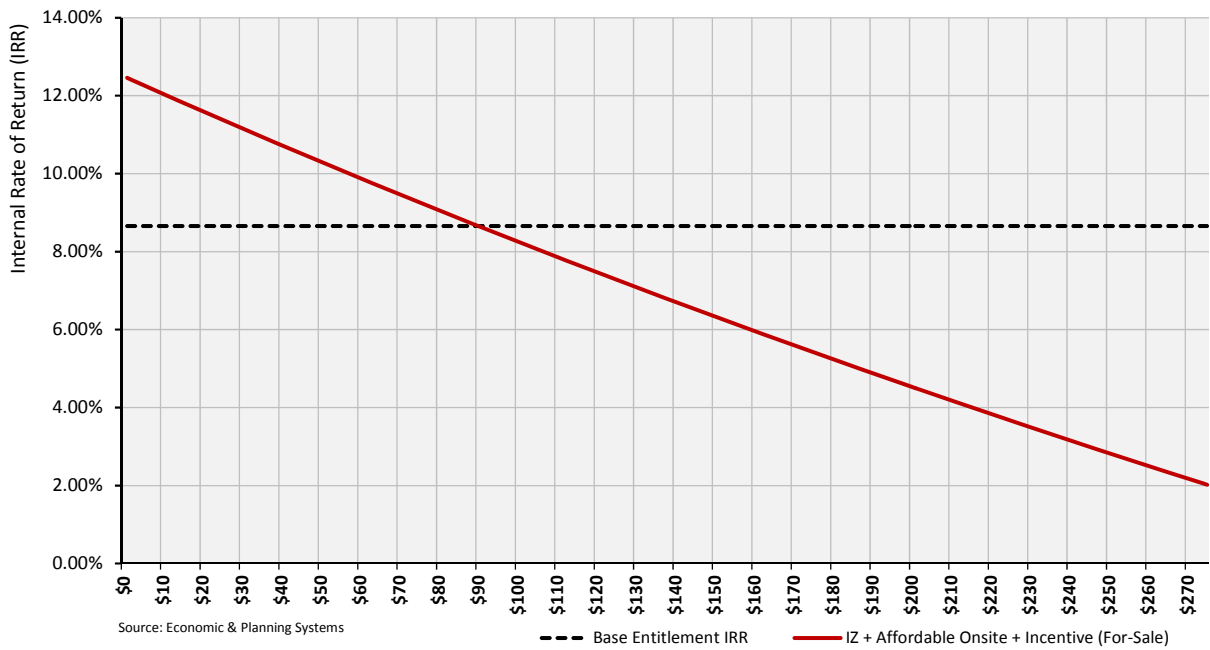
Source: Economic & Planning Systems

--- Base Entitlement IRR      — IZ + Affordable Onsite + Incentive (For-Sale)

10-Story:

The base entitlement IRR is approximately 8.7 percent, and assumes a land value of \$160 per square foot. Market research indicates that land values can range from about \$100 to \$160 per square foot for the typical 10-story project. The sensitivity analysis suggests that, under the condition that the inclusionary zoning ordinance is effective, a developer would want to negotiate the land value down to approximately \$90 per square foot in order to achieve the same level of return. This finding also supports the conclusion that in today's market, it is unlikely that a development would move forward at all under these price points.

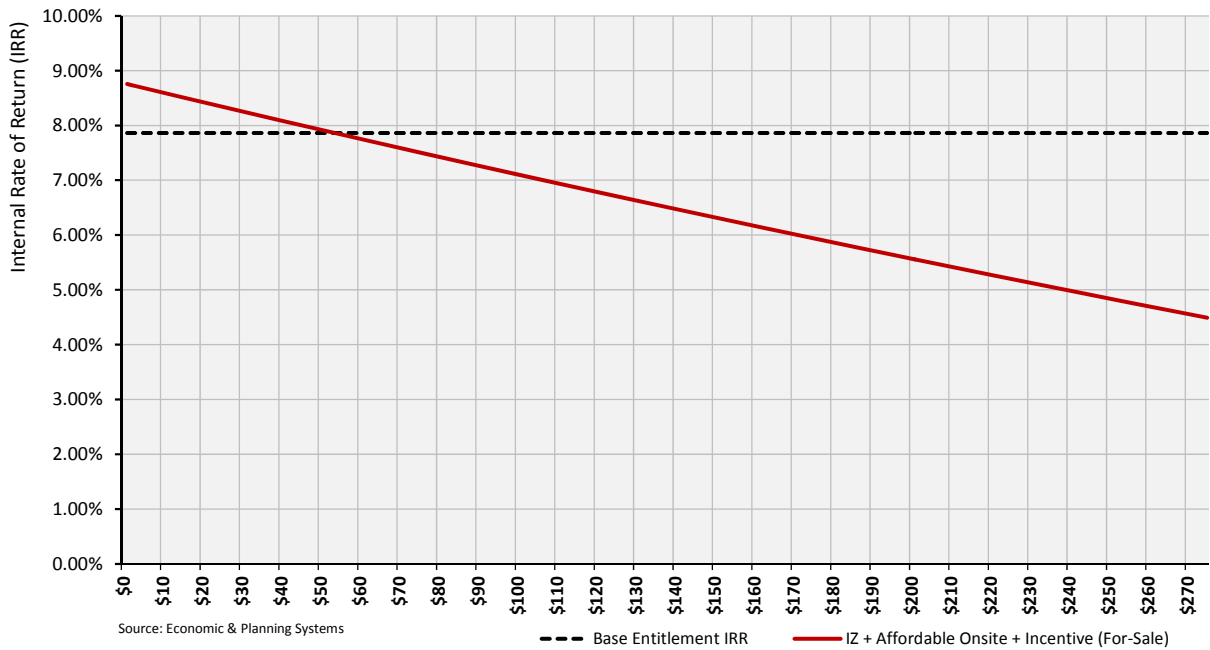
**Figure 56**  
**10-Story For-Sale IRR and Land Value**



20-Story:

The base entitlement IRR is approximately 7.9 percent, and assumes a land value of \$200 per square foot. Market research indicates that land values can range from about \$175 to \$250 per square foot for the typical 20-story project. The sensitivity analysis suggests that, under the condition that the inclusionary zoning ordinance is effective, a developer would want to negotiate the land value down to approximately \$54 per square foot in order to achieve the same level of return. This finding also supports the conclusion that in today's market, it is unlikely that a development would move forward at all under these price points.

**Figure 57**  
**20-Story For-Sale IRR and Land Value**

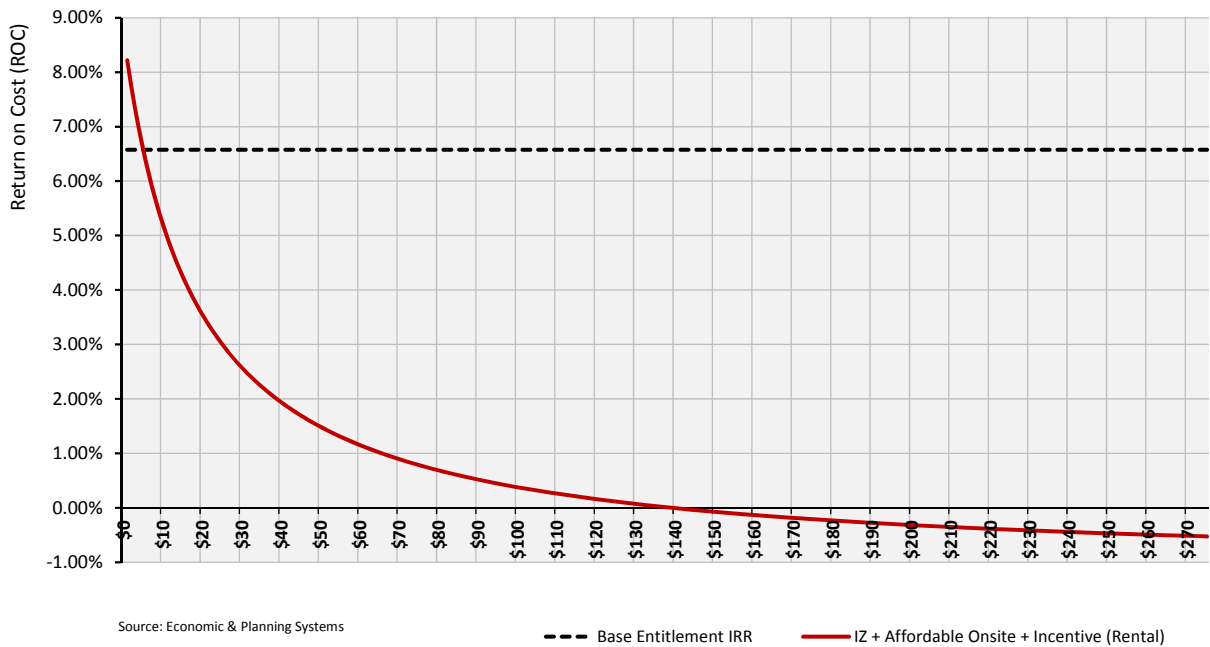


**Rental Prototypes**

Single-Family

The base entitlement ROC is approximately 6.6 percent, and assumes a land value of \$5 per square foot. Market research indicates that land values can range from about \$0.50 to \$5 per square foot for the typical single-family project. The sensitivity analysis suggests that, under the condition that the inclusionary zoning ordinance is effective, a developer would not need to negotiate the purchase price of land down in order to achieve the same level of return. That is, the analysis suggests that the intersection between the base entitlement ROC and the ROC of a project complying with the inclusionary zoning requirements are on par with each other.

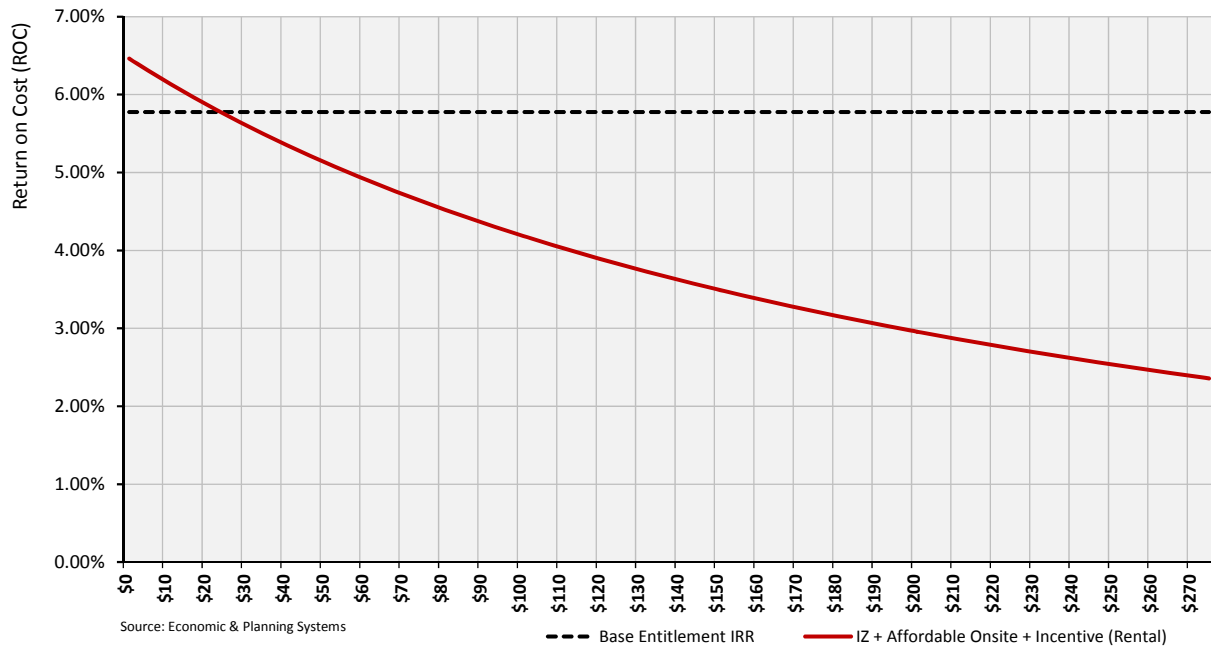
**Figure 58**  
**Single-Family Rental ROC and Land Value**



Townhome

The base entitlement ROC is approximately 6.6 percent, and assumes a land value of \$20 per square foot. Market research indicates that land values can range from about \$10 to \$20 per square foot for the typical townhome project. The sensitivity analysis suggests that, under the condition that the inclusionary zoning ordinance is effective, a developer would not need to negotiate the purchase price of land down in order to achieve the same level of return. In fact, the findings suggest that the value of the housing grant is so accretive, that a developer might be willing to pay as much as \$23 per square foot to achieve the same level of return as the ROC with base entitlement.

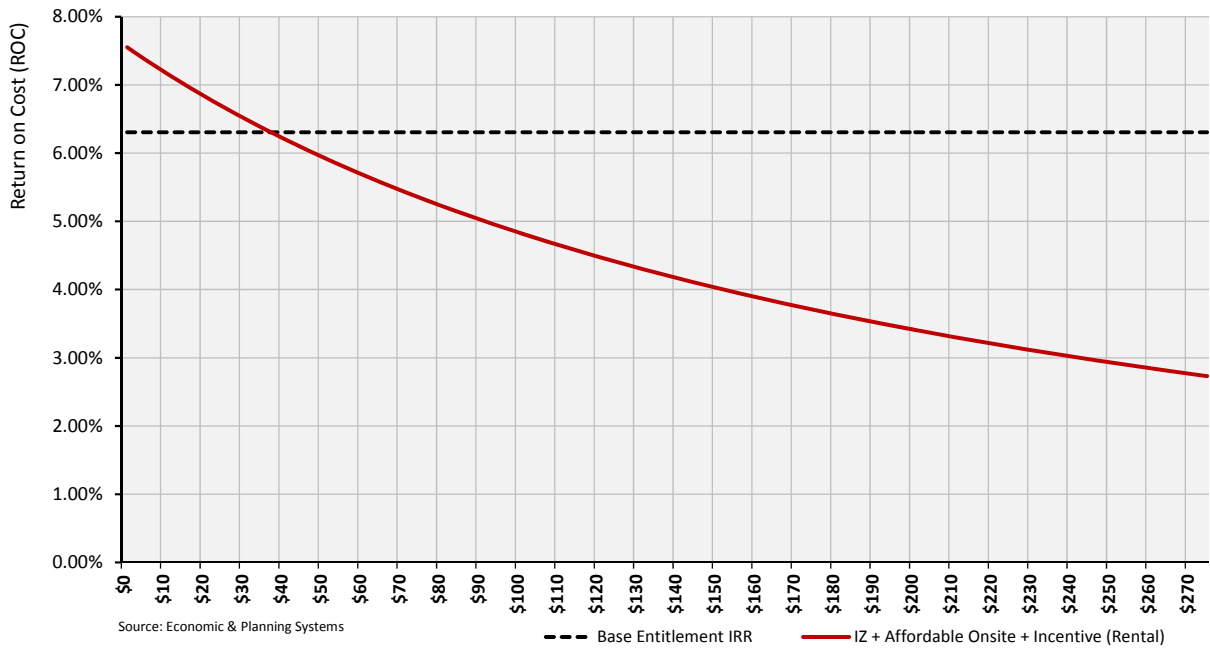
**Figure 59**  
**Townhome Rental ROC and Land Value**



**5-Story**

The base entitlement ROC is approximately 6.6 percent, and assumes a land value of \$30 per square foot. Market research indicates that land values can range from about \$15 to \$30 per square foot for the typical 5-story project. The sensitivity analysis suggests that, under the condition that the inclusionary zoning ordinance is effective, a developer would not need to negotiate the purchase price of land down in order to achieve the same level of return. In fact, the findings suggest that the value of the housing grant is so accretive, that a developer might be willing to pay as much as \$37 per square foot to achieve the same level of return as the ROC with base entitlement.

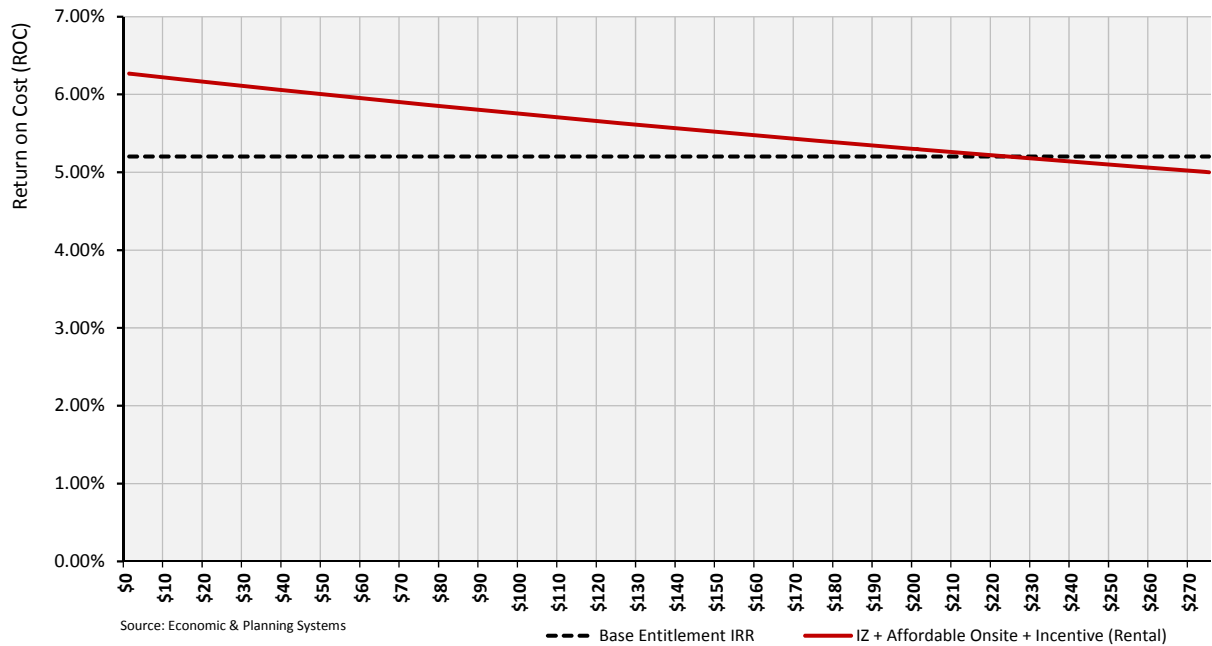
**Figure 60**  
**5-Story Rental ROC and Land Value**



10-Story

The base entitlement ROC is approximately 6.6 percent, and assumes a land value of \$160 per square foot. Market research indicates that land values can range from about \$100 to \$160 per square foot for the typical 10-story project. The sensitivity analysis suggests that, under the condition that the inclusionary zoning ordinance is effective, a developer would not need to negotiate the purchase price of land down in order to achieve the same level of return. In fact, the findings suggest that the value of the housing grant is so accretive, that a developer might be willing to pay as much as \$225 per square foot to achieve the same level of return as the ROC with base entitlement.

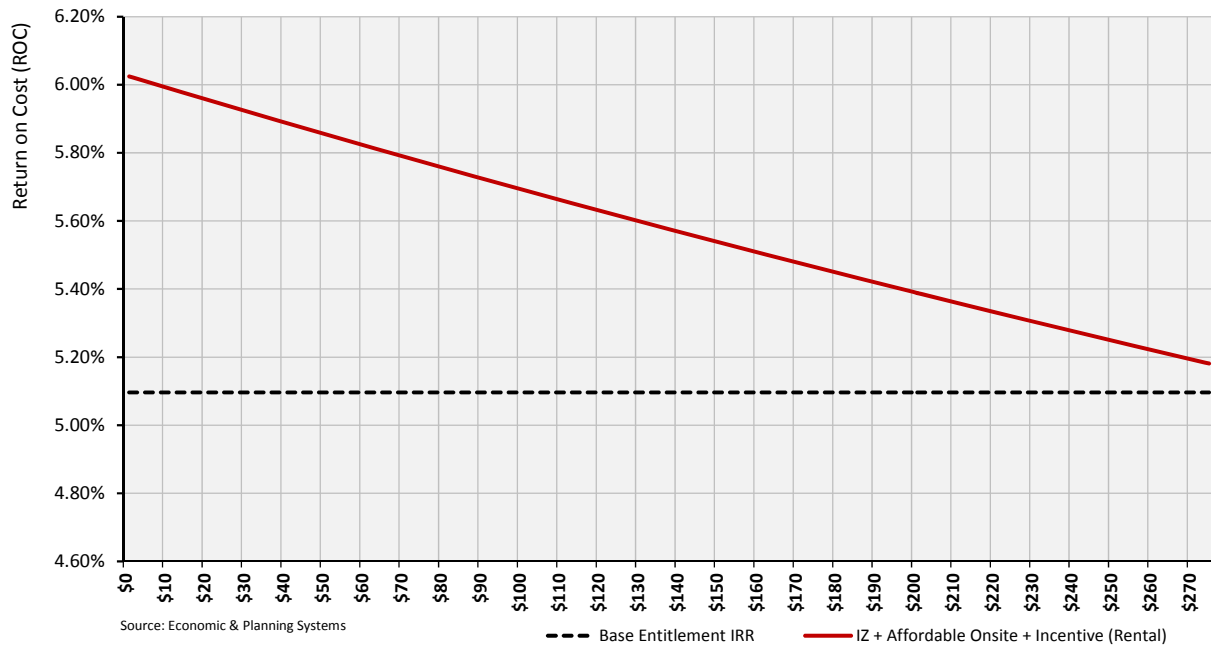
**Figure 61**  
**10-Story Rental ROC and Land Value**



20-Story

The base entitlement ROC is approximately 6.6 percent, and assumes a land value of \$200 per square foot. Market research indicates that land values can range from about \$175 to \$250 per square foot for the typical 20-story project. The sensitivity analysis suggests that, under the condition that the inclusionary zoning ordinance is effective, a developer would not need to negotiate the purchase price of land down in order to achieve the same level of return. In fact, the findings suggest that the value of the housing grant is so accretive, that a developer might be willing to pay in excess of \$275 per square foot to achieve the same level of return as the ROC with base entitlement.

**Figure 62**  
**20-Story Rental ROC and Land Value**



Summary

In general, the results suggest that developers of for-sale projects, with the proposed regulatory structure, would seek to negotiate lower land values to achieve returns on par with anticipated base (pre-regulation) entitlement. Developers of rental projects, with the proposed regulatory and incentive structure, would not seek to negotiate lower land values.

### 5.4.3 Per-Unit Cash Incentive

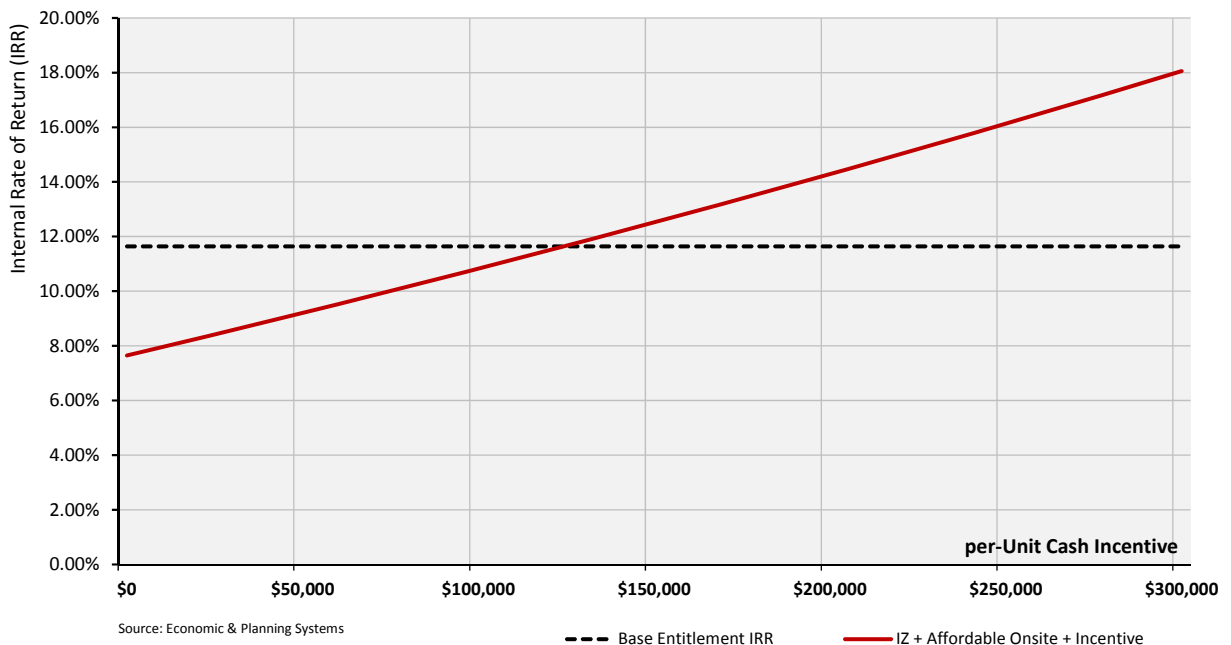
The findings of the feasibility study confirm and illustrate the reality that an inclusionary zoning structure, employing even the most substantial incentives in practice, does not work as feasibly for for-sale developments as it does applied to rental developments, especially where a powerful and seemingly compelling incentive such as a housing grant is available. The objective of including a sensitivity analysis of the per-unit cash incentive is to understand exactly how much the incentive would have to be in order to bring a the IRR of a project complying with the regulation with that of the IRR for a project under base entitlement. It is anticipated that the value of the per-unit incentive will have to be at least equal to or greater than the actual “gap” or difference between the market-rate and deed-restricted sales price.

The sensitivity analysis was run by calculating the IRR for each prototypical development with a per-unit cash incentive that ranges from \$0 to \$300,000. While it is not possible to offer such an incentive, the range was chosen to illustrate the difference between deed-restricted and market-rate units in the highest-priced prototype (i.e. the 20-Story prototype).

#### Single-Family

As mentioned previously, the IRR of a project under base entitlement zoning is estimated to be approximately 12 percent. The difference or “gap” between the market-rate and deed-restricted units is \$116,500. According to the analysis, the per-unit incentive would need to be approximately \$125,000 to increase the IRR of a project complying with the inclusionary zoning ordinance to the level of the base entitlement IRR. The per-unit incentive needs to be higher than the actual gap, because additional revenues upfront are necessary to offset the reduced present value of deed-restricted units in the future. As will be noted in the larger scale project prototypes, the more units a project contains, the larger the per-unit incentive needs to be to offset the reduction in the present value of deed-restricted units sold in the future.

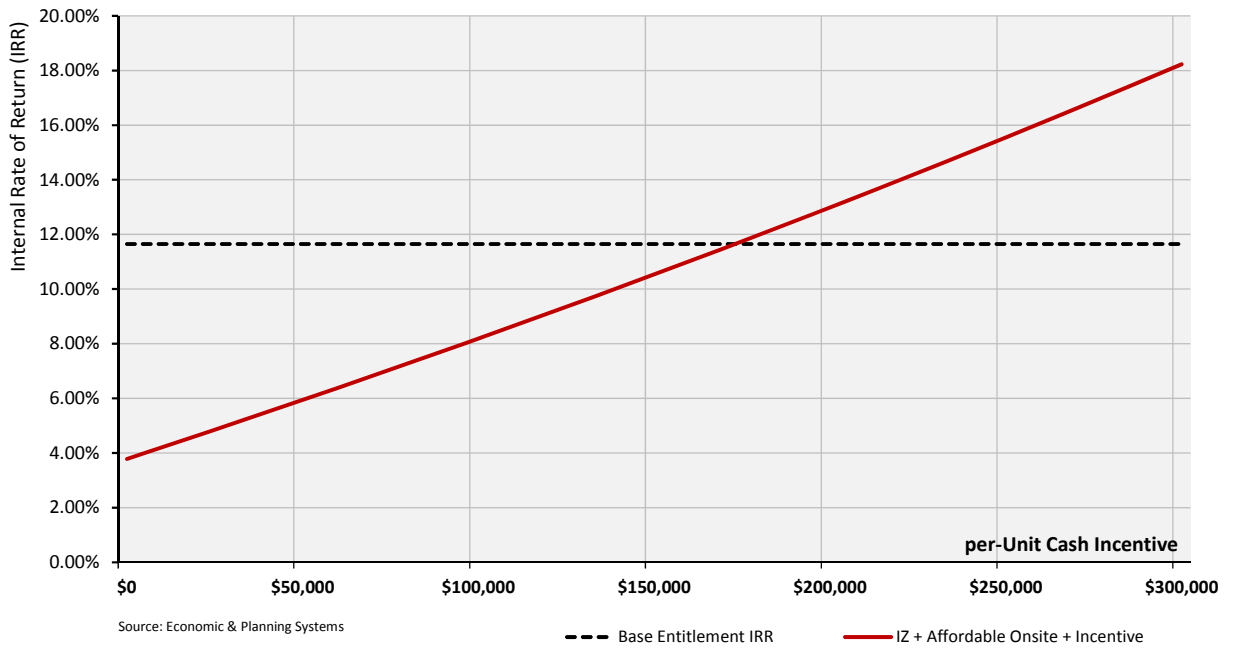
**Figure 63**  
**Single-Family IRR and Cash Incentive**



**Townhome**

As mentioned previously, the IRR of a project under base entitlement zoning is estimated to be approximately 12 percent. The difference or “gap” between the market-rate and deed-restricted units is \$122,500. According to the analysis, the per-unit incentive would need to be approximately \$175,000 to increase the IRR of a project complying with the inclusionary zoning ordinance to the level of the base entitlement IRR. As noted previously, the per-unit incentive needs to be higher than the actual gap, because additional revenues upfront are necessary to offset the reduced present value of deed-restricted units in the future.

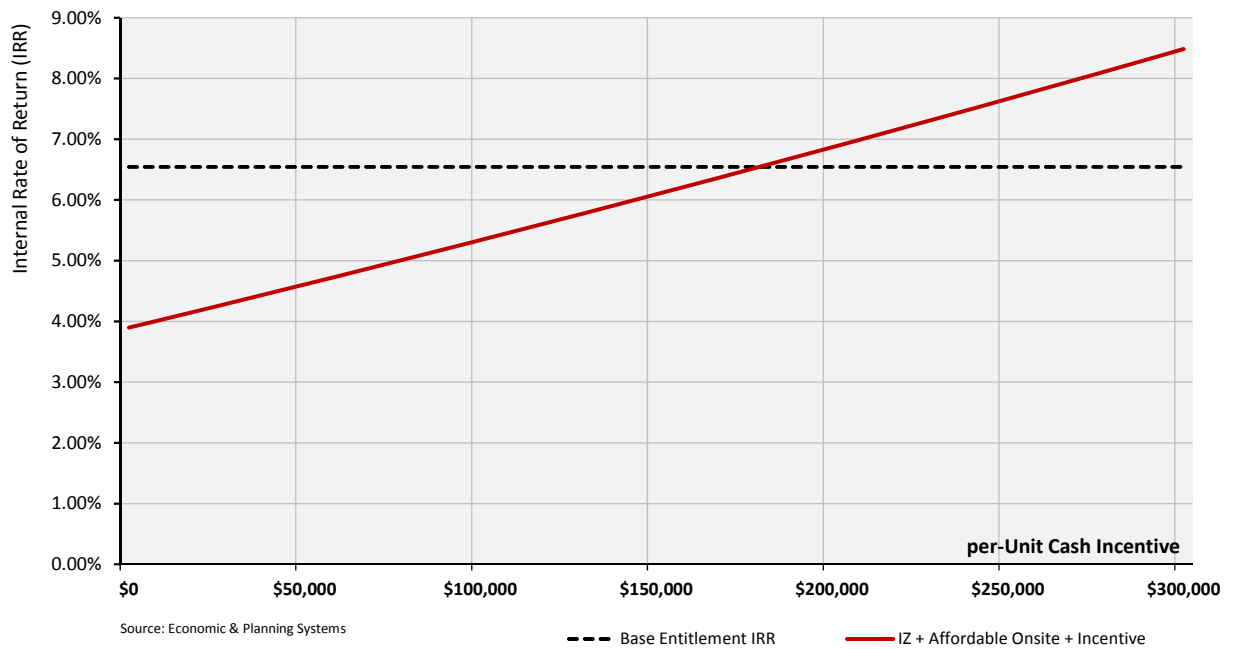
**Figure 64**  
**Townhome IRR and Cash Incentive**



**5-Story**

As mentioned previously, the IRR of a project under base entitlement zoning is estimated to be approximately 6.5 percent. The difference or “gap” between the market-rate and deed-restricted units is \$111,250. According to the analysis, the per-unit incentive would need to be approximately \$180,000 to increase the IRR of a project complying with the inclusionary zoning ordinance to the level of the base entitlement IRR. The per-unit incentive needs to be higher than the actual gap, because additional revenues upfront are necessary to offset the reduced present value of deed-restricted units in the future. It should also be noted that the increased per-unit incentive necessary in this prototype is larger than the per-unit incentive estimated for the Townhome prototype because of the larger magnitude of units in the 5-Story prototype.

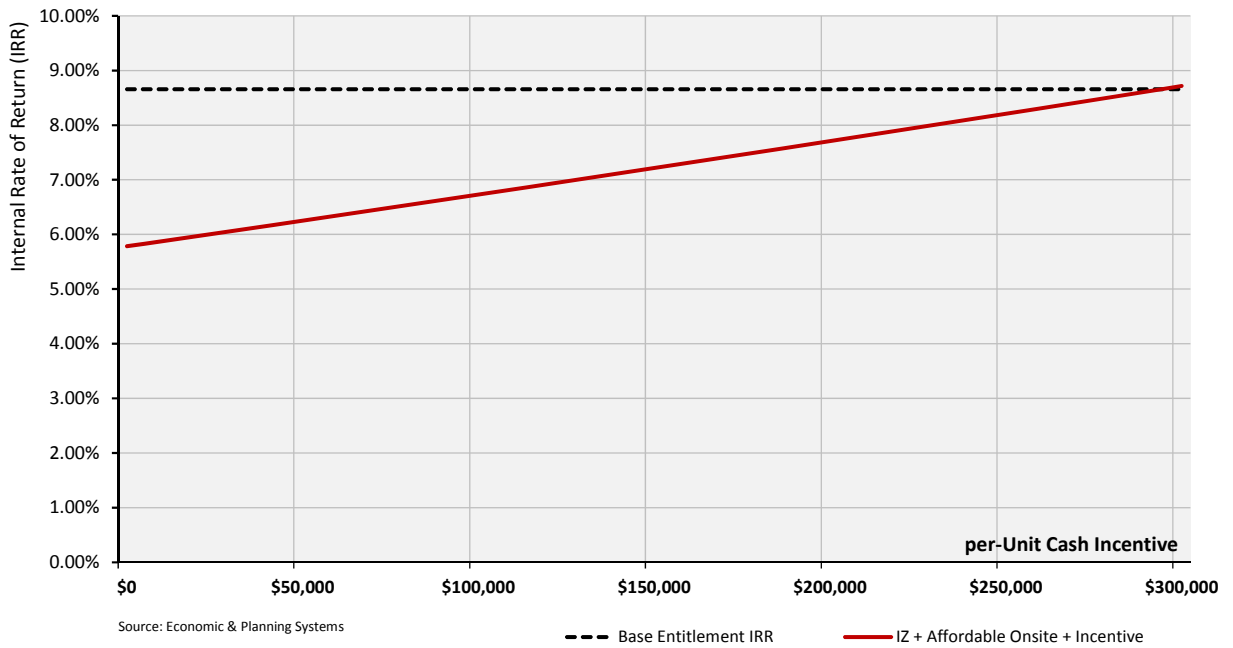
**Figure 65**  
**5-Story IRR and Cash Incentive**



### 10-Story

As mentioned previously, the IRR of a project under base entitlement zoning is estimated to be approximately 6.5 percent. The difference or “gap” between the market-rate and deed-restricted units is \$181,375. According to the analysis, the per-unit incentive would need to be approximately \$300,000 to increase the IRR of a project complying with the inclusionary zoning ordinance to the level of the base entitlement IRR. The per-unit incentive needs to be higher than the actual gap, because additional revenues upfront are necessary to offset the reduced present value of deed-restricted units in the future.

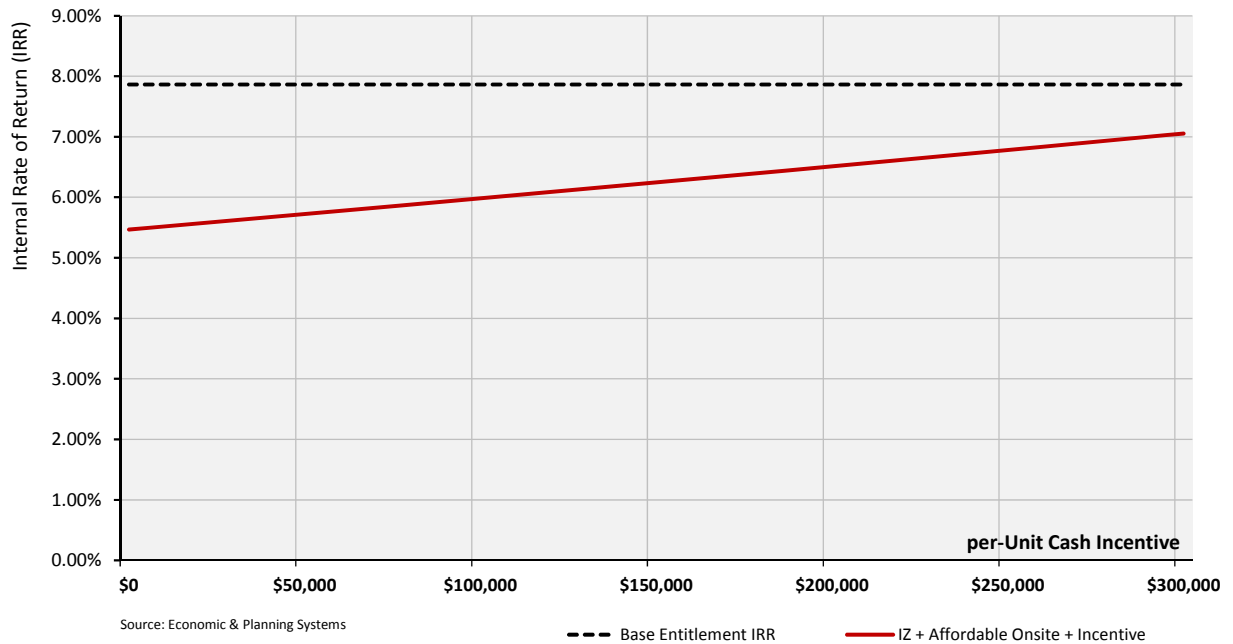
**Figure 66**  
**10-Story IRR and Cash Incentive**



## 20-Story

As mentioned previously, the IRR of a project under base entitlement zoning is estimated to be approximately 6.5 percent. The difference or “gap” between the market-rate and deed-restricted units is \$251,500. According to the analysis, the per-unit incentive would need to be in excess of \$300,000 (estimated as approximately \$453,000) to increase the IRR of a project complying with the inclusionary zoning ordinance to the level of the base entitlement IRR. The per-unit incentive needs to be higher than the actual gap, because additional revenues upfront are necessary to offset the reduced present value of deed-restricted units in the future.

**Figure 67**  
**20-Story IRR and Cash Incentive**



### 5.4.4 In-Lieu Contribution as Percent of Affordable Sales Price

As mentioned previously, the objective of an in-lieu contribution is to generate at least an amount of funds that could be used by the city to build a similar magnitude of affordable or workforce housing in a different location. While this amount could be equal to the cost of construction, it should at least be greater than or equal to the anticipated per-unit subsidy or buy-down that the city typically grants a project as gap financing. That is, the funds generated by in-lieu contributions need to be significant enough to provide gap financing to an affordable or workforce housing project that would not have been developed *but for* those funds.

Best practices research indicates that there are some programs that are structured to prefer the in-lieu contributions over the on-site construction option. In these programs, the in-lieu contribution is intentionally calibrated to a point at which it is more profitable to pay the in-lieu contribution than it is to build units. In other programs, the in-lieu contribution is intentionally calibrated so as to make the “build option” more profitable, if not just to make a developer economically indifferent to the choice.

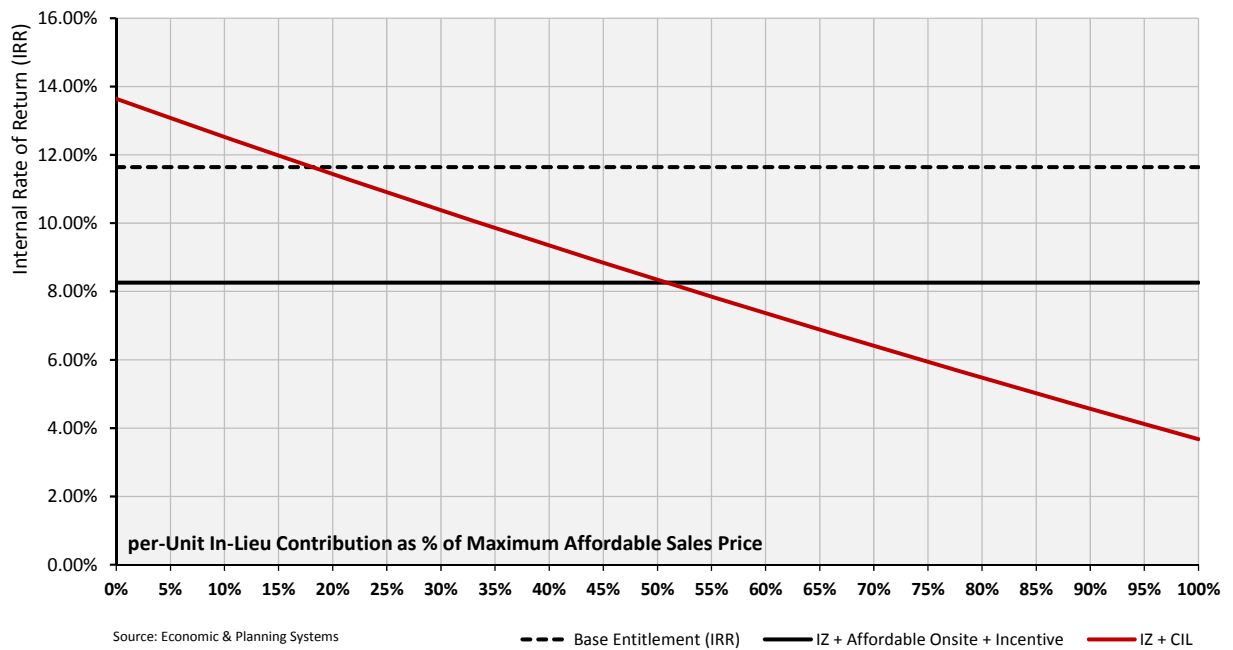
The objective of the sensitivity analysis is to identify a *minimum* in-lieu contribution, such that a developer might prefer to build affordable units on-site rather than pay the in-lieu contribution. Following are the modeling results of varying the in-lieu contribution amount from 0 to 100 percent of the maximum affordable (deed-restricted) sales price for for-sale projects at 80 percent AMI and rental projects at 60 percent AMI. (As discussed previously, the in-lieu contribution for an affordable rental unit is set equal to the in-lieu contribution of a for-sale unit at the same AMI level.)

**For-Sale Prototypes**

Single-Family

Again, the base entitlement IRR is approximately 12 percent. Under the proposed regulatory structure, the estimated IRR is 8.3 percent. The analysis suggests that the minimum in-lieu contribution should be 50 percent of the maximum affordable sales price. That is, an in-lieu contribution smaller than 50 percent would result in an IRR higher than 8.3 percent, and an in-lieu contribution greater than 50 percent would result in an IRR lower than 8.3 percent.

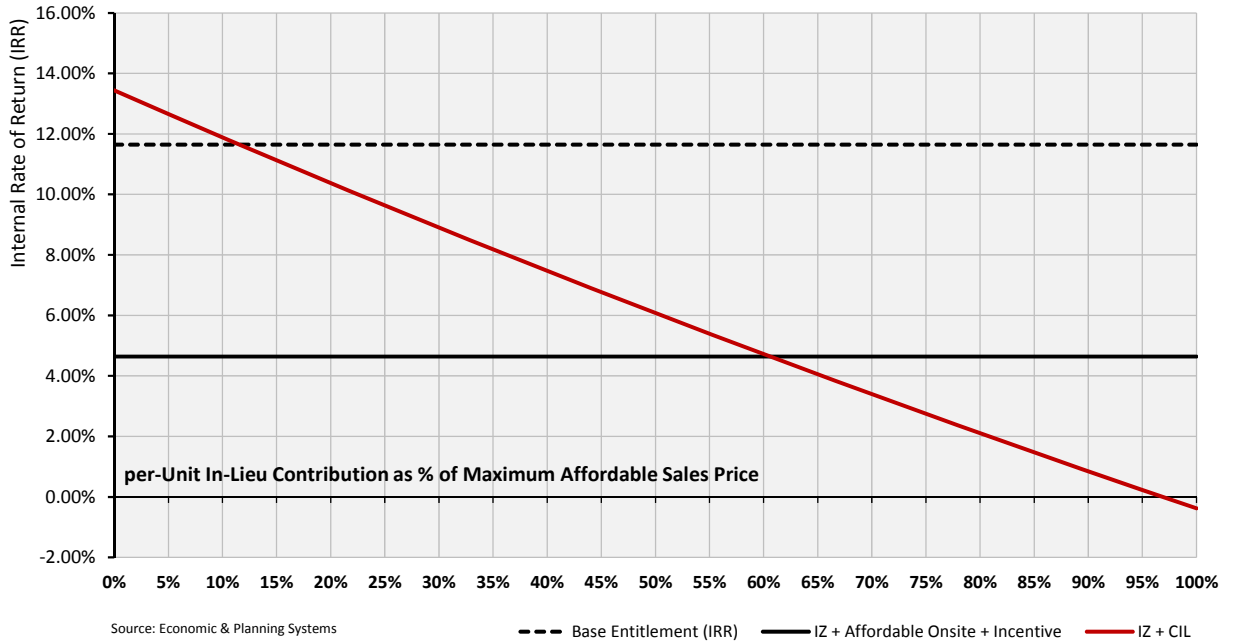
**Figure 68**  
**Single-Family For-Sale IRR vs. In-Lieu Contribution**



Townhome

The base entitlement IRR is approximately 12 percent. Under the proposed regulatory structure, the estimated IRR is 4.6 percent. The analysis suggests that the minimum in-lieu contribution should be 60 percent of the maximum affordable sales price. That is, an in-lieu contribution smaller than 60 percent would result in an IRR higher than 4.6 percent, and an in-lieu contribution greater than 60 percent would result in an IRR lower than 4.6 percent.

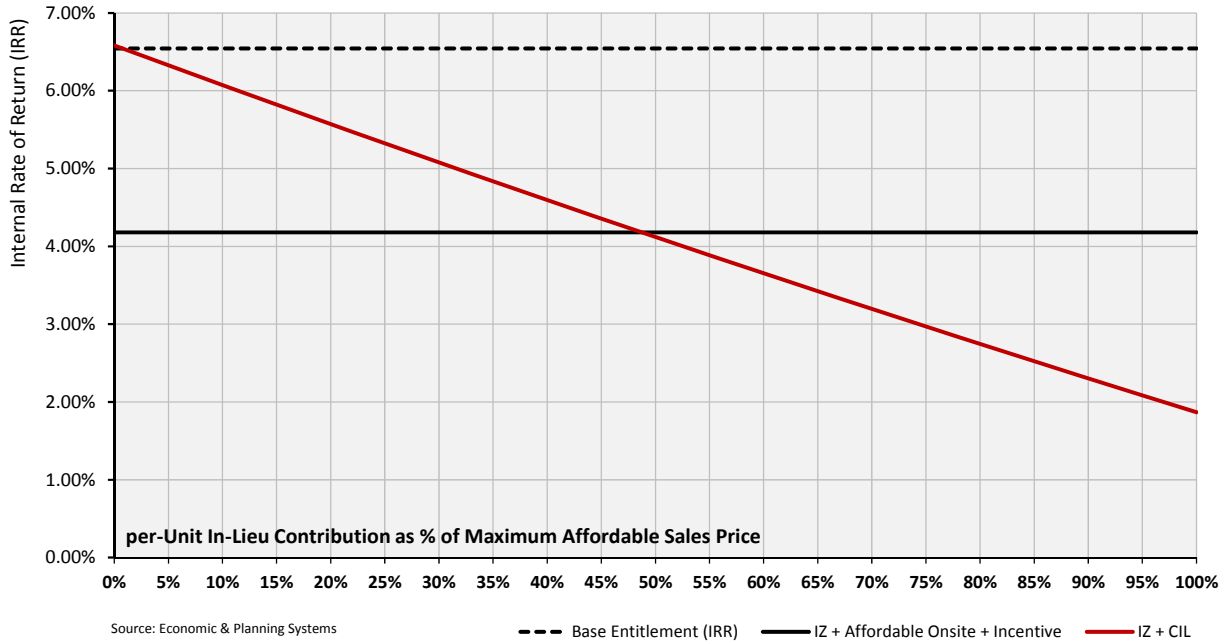
**Figure 69**  
**Townhome For-Sale IRR vs. In-Lieu Contribution**



5-Story

The base entitlement IRR is approximately 6.5 percent. Under the proposed regulatory structure, the estimated IRR is 4.2 percent. The analysis suggests that the minimum in-lieu contribution should be slightly less than 50 percent of the maximum affordable sales price. That is, an in-lieu contribution smaller than 50 percent would result in an IRR higher than 4.2 percent, and an in-lieu contribution greater than 50 percent would result in an IRR lower than 4.2 percent.

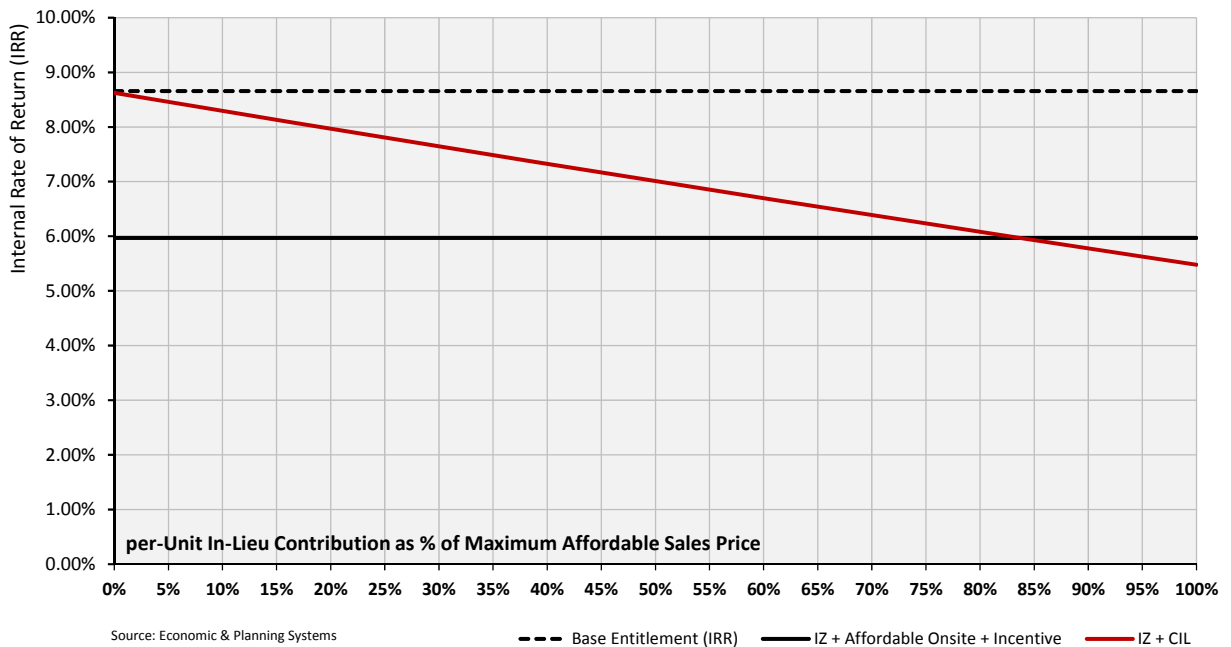
**Figure 70**  
**5-Story For-Sale IRR vs. In-Lieu Contribution**



10-Story

The base entitlement IRR is approximately 8.7 percent. Under the proposed regulatory structure, the estimated IRR is 6.0 percent. The analysis suggests that the minimum in-lieu contribution could be approximately 85 percent of the maximum affordable sales price. That is, an in-lieu contribution smaller than 85 percent would result in an IRR higher than 6.0 percent, and an in-lieu contribution greater than 85 percent would result in an IRR lower than 6.0 percent. This finding should not be interpreted as support for setting an in-lieu contribution to 85 percent of the affordable sales price. Rather, it confirms a larger reality that projects with higher price points (especially in for-sale prototypes) will generally find it more profitable to pay an in-lieu contribution than build units.

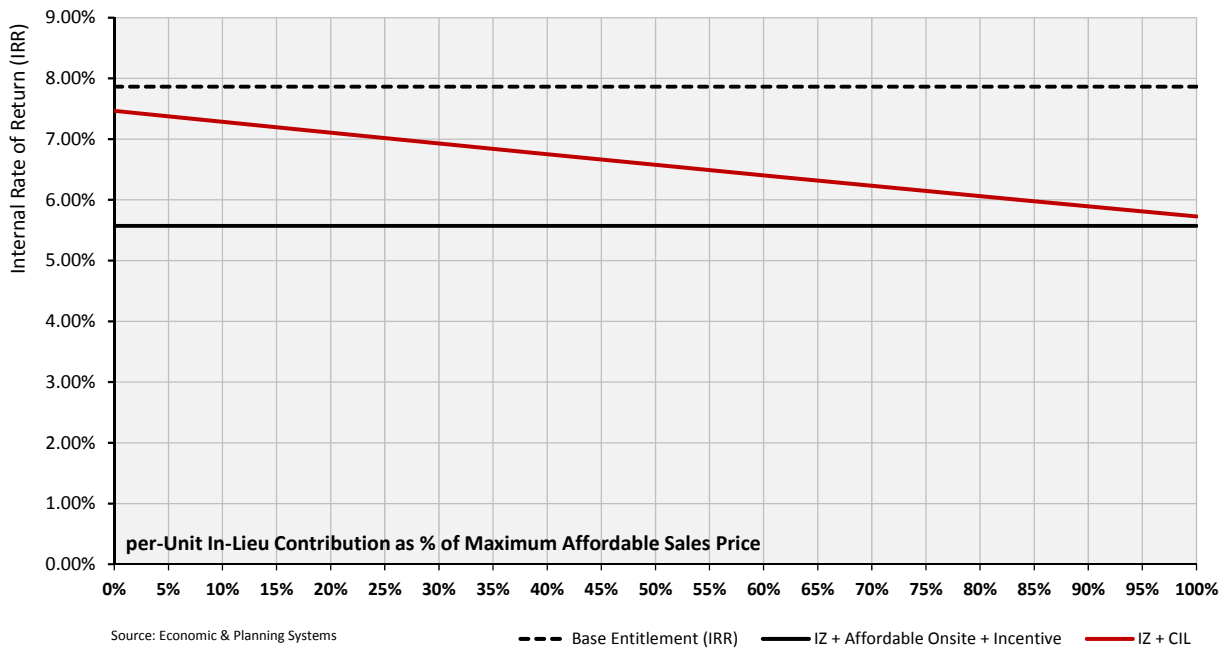
**Figure 71**  
**10-Story For-Sale IRR vs. In-Lieu Contribution**



20-Story

The base entitlement IRR is approximately 7.9 percent. Under the proposed regulatory structure, the estimated IRR is 5.6 percent. The analysis suggests that the minimum in-lieu contribution could be in excess of 100 percent of the maximum affordable sales price. That is, an in-lieu contribution smaller than 100 percent would result in an IRR higher than 5.6 percent, and an in-lieu contribution greater than 100 percent would result in an IRR lower than 5.6 percent. As with the 10-Story prototype, this finding should not be interpreted as support for setting an in-lieu contribution at or in excess of 100 percent of the affordable sales price. Rather, it confirms that projects with higher price points will find it more profitable to pay an in-lieu contribution than build units.

**Figure 72**  
**20-Story For-Sale IRR vs. In-Lieu Contribution**

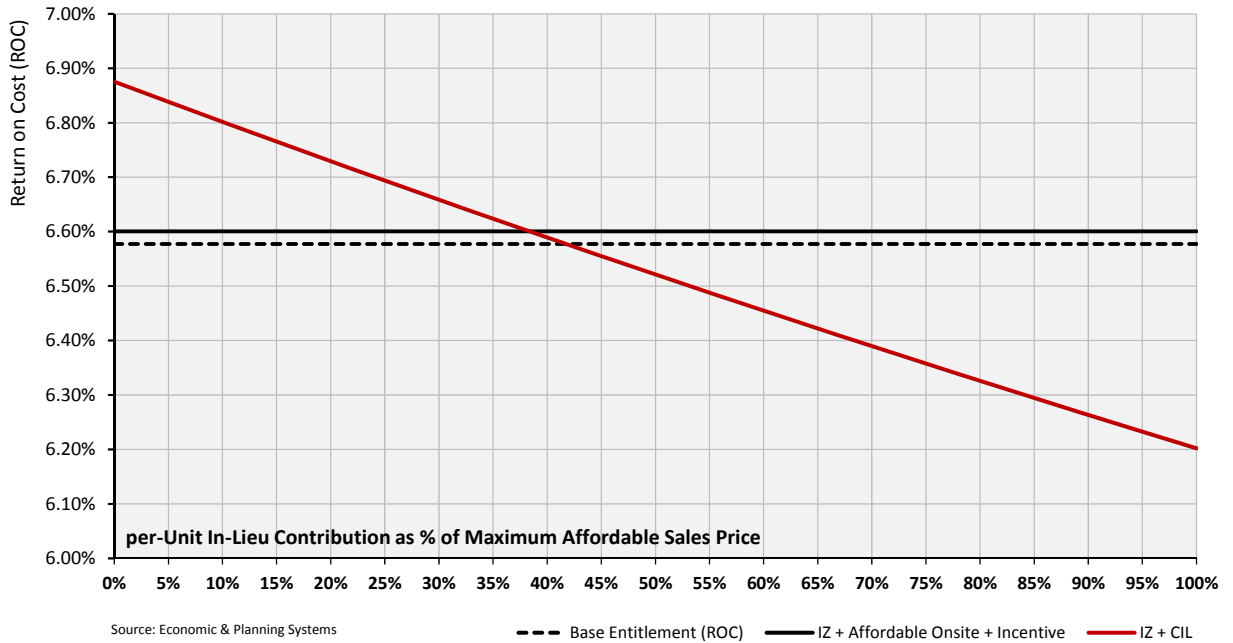


**Rental Prototypes**

Single-Family

The base entitlement ROC is 6.58 percent, and under the proposed rental policy structure, the estimated ROC is 6.60 percent. The analysis suggests that the in-lieu contribution would need to be at least 40 percent to yield a ROC lower than a project complying with the proposed regulatory structure (with incentives). This finding also illustrates that the ROC of a project complying with the proposed regulatory structure is higher than a project with base entitlement.

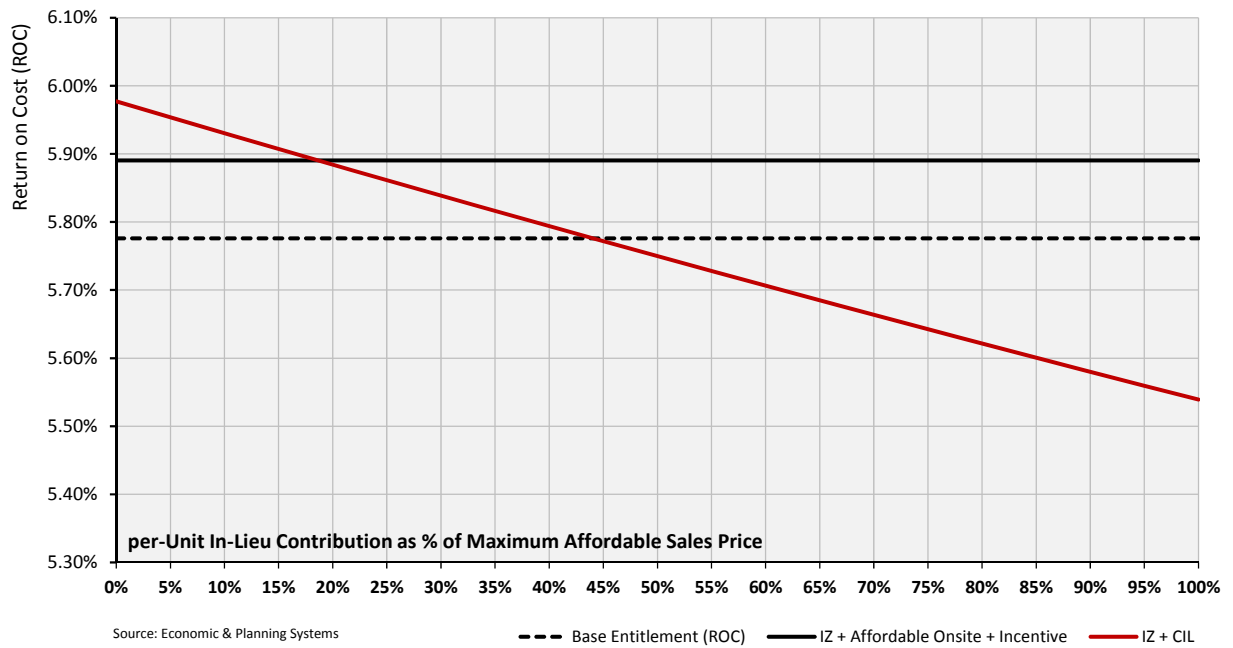
**Figure 73**  
**Single-Family Rental IRR vs. In-Lieu Contribution**



Townhome

The base entitlement ROC is approximately 5.78 percent, and under the proposed rental policy structure, the estimated ROC is 5.89 percent. The analysis suggests that the in-lieu contribution would need to be at least 20 percent to yield a ROC lower than a project complying with the proposed regulatory structure (with incentives). This finding also illustrates that the ROC of a project complying with the proposed regulatory structure is higher than a project with base entitlement. If the in-lieu contribution is set to at least 45 percent, then it would result in a ROC approximately equal to the ROC for a project with base entitlement.

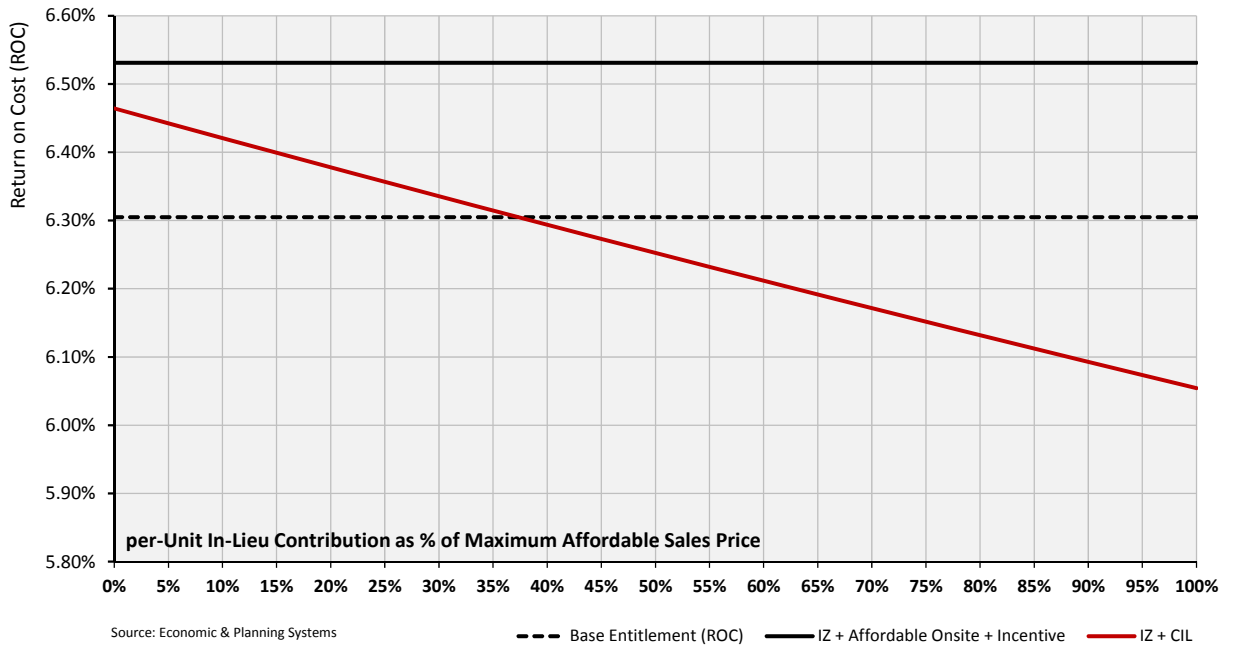
**Figure 74**  
**Townhome Rental IRR vs. In-Lieu Contribution**



**5-Story**

The base entitlement ROC is approximately 6.30 percent, and under the proposed rental policy structure, the estimated ROC is 6.53 percent. The results of this analysis suggest that there is no minimum percent of the affordable sales price that will reduce the in-lieu contribution enough to the point where this scenario's ROC is equal to the ROC of a project complying with the proposed regulatory structure (with incentives). That is, the incentives in this prototype are so valuable, that a project paying the in-lieu contribution could not achieve a ROC higher.

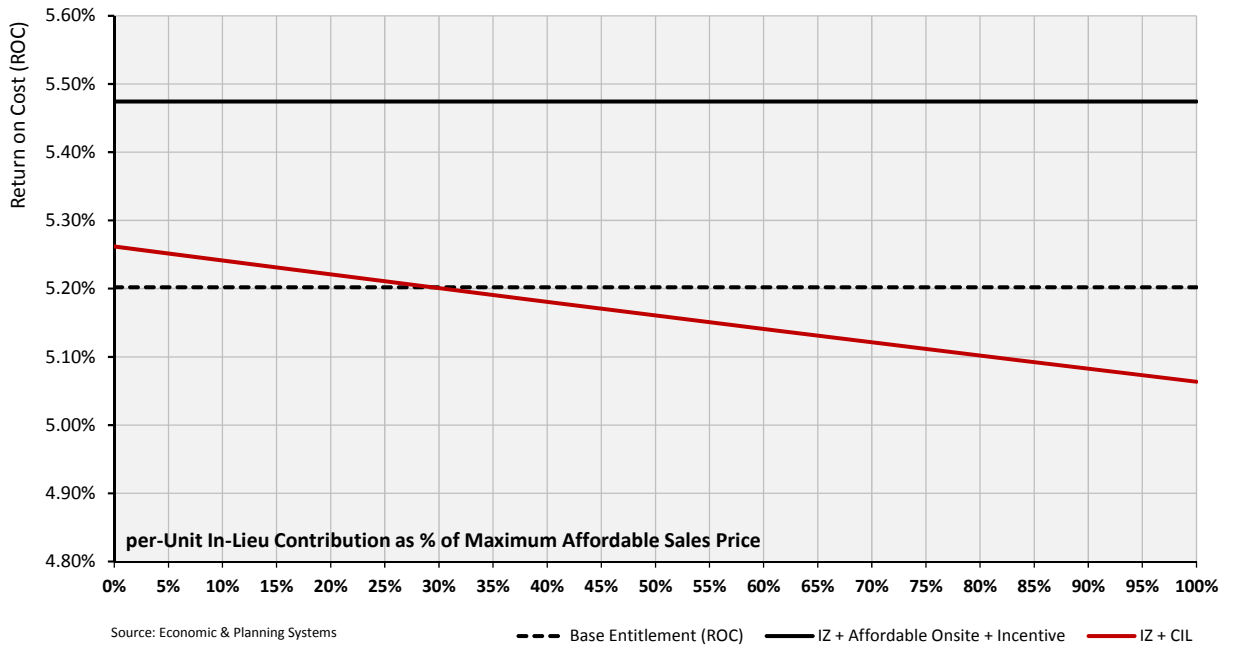
**Figure 75**  
**5-Story Rental IRR vs. In-Lieu Contribution**



10-Story

The base entitlement ROC is approximately 5.20 percent, and under the proposed rental policy structure, the estimated ROC is 5.47 percent. The results of this analysis also suggest that there is no minimum percent of the affordable sales price that will reduce the in-lieu contribution enough to the point where this scenario's ROC is equal to the ROC of a project complying with the proposed regulatory structure (with incentives). Again, the incentives in this prototype are so valuable, that a project paying the in-lieu contribution could not achieve a ROC higher.

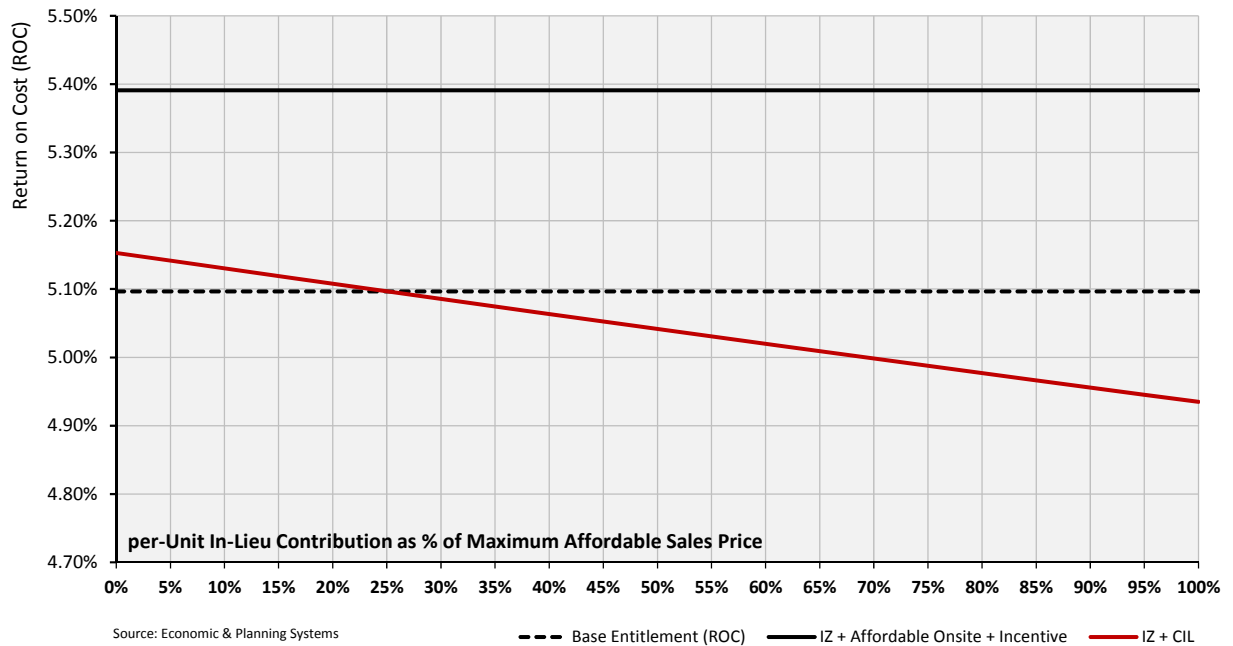
**Figure 76**  
**10-Story Rental IRR vs. In-Lieu Contribution**



**20-Story**

The base entitlement ROC is approximately 5.10 percent, and under the proposed rental policy structure, the estimated ROC is 5.39 percent. The results of this analysis also suggest that there is no minimum percent of the affordable sales price that will reduce the in-lieu contribution enough to the point where this scenario's ROC is equal to the ROC of a project complying with the proposed regulatory structure (with incentives). Again, the incentives in this prototype are so valuable, that a project paying the in-lieu contribution could not achieve a ROC higher.

**Figure 77**  
**20-Story Rental IRR vs. In-Lieu Contribution**



**Summary**

In general, the results suggest that the appropriate in-lieu contribution for for-sale prototypes should be set to no less than 50 percent, if applied uniformly. This would ensure that the IRR for a single-family project complying with the requirements (and receiving the incentives) would be higher than the IRR if the project made an in-lieu contribution.

The appropriate in-lieu contribution for rental projects does not need to be set higher than approximately 45 percent to ensure that the in-lieu contribution alternative is less profitable than the option to build affordable units on-site (and receive the housing grant incentive).

Again, this sensitivity analysis also confirms that the incentive structure of the policy as applied to rental is accretive. Specifically, for the 5-, 10-, and 20-Story prototypes, the value of the housing grant is so accretive that the amount of an in-lieu contribution cannot be reduced even to a point where the ROC of the in-lieu contribution alternative is at least equal to the ROC of a project building on-site affordable rental units and receiving a housing grant.

### 5.4.6 Housing Grant as Percent of Market Rate Units

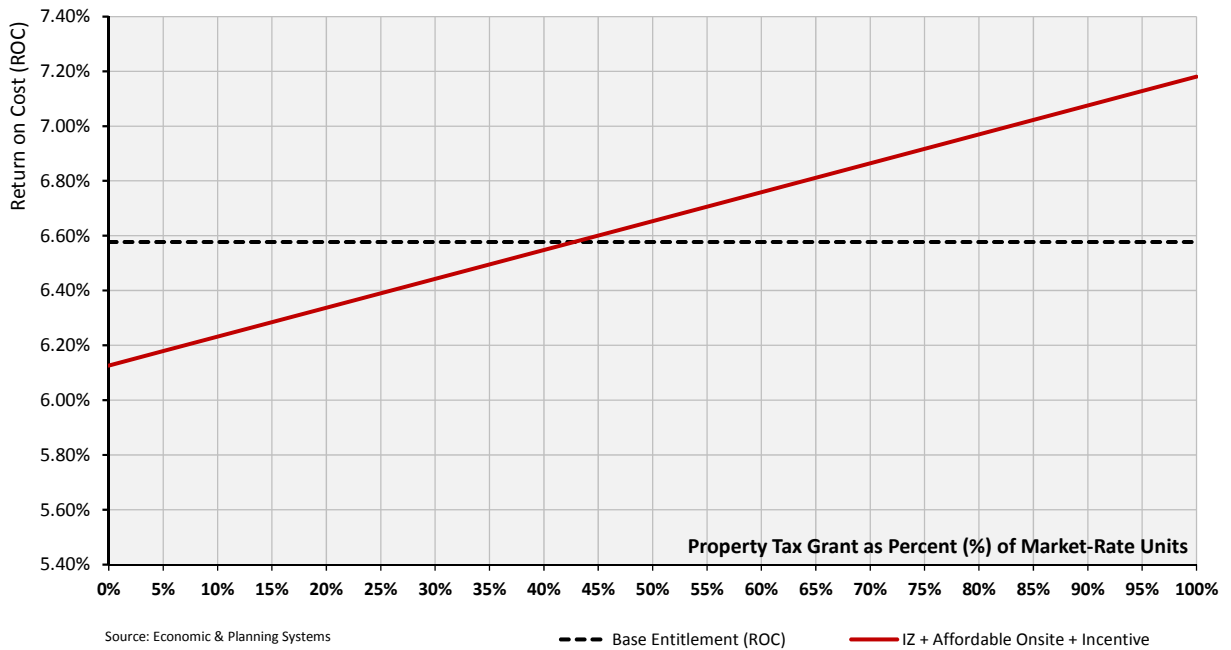
As assessed earlier in the report, the housing grant incentive is potentially a very financially substantial tool to use in the context of a rental development. The challenge here, as with any incentive that requires public resources, is that the city should balance its ability to leverage a very powerful tool against its fiscal responsibilities and obligations.

The findings of this sensitivity analysis apply directly to the calibration of the housing grant as applied to the market-rate units in a project. It is assumed that 100 percent of the affordable units are awarded housing grants. As such, the objective of this sensitivity analysis is to understand for what portion of a project's market rate units can a housing grant be awarded such that its ROC is equal to the base entitlement. It is also an objective to calibrate the housing grant awarded to the market-rate units at some point higher than the ROC under base entitlement so that a developer would be motivated to choose the on-site affordability option.

#### Single-Family

The base entitlement ROC is 6.58 percent. The analysis suggests that a housing grant of at least 43 percent could be awarded to a project achieving a ROC greater than or equal to the base entitlement scenario.

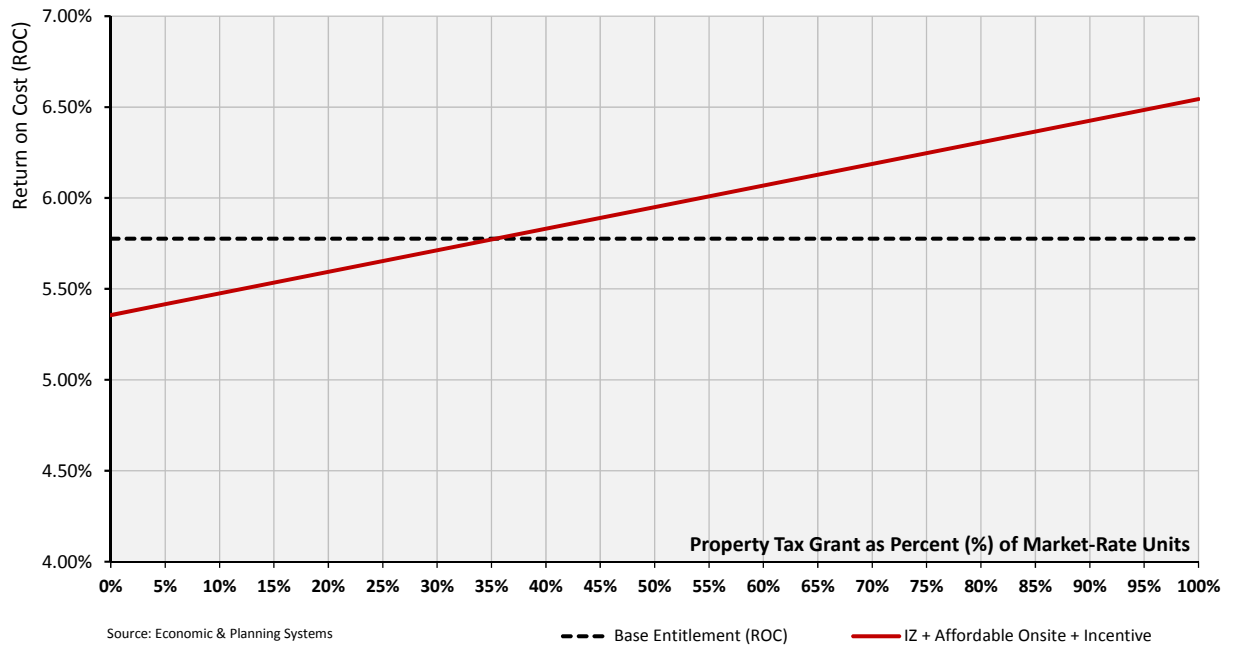
**Figure 78**  
**Single-Family ROC and Housing Grant**



### Townhome

The base entitlement ROC is approximately 5.78 percent. The analysis suggests that a housing grant of at least 35 percent could be awarded to a project achieving a ROC greater than or equal to the base entitlement scenario.

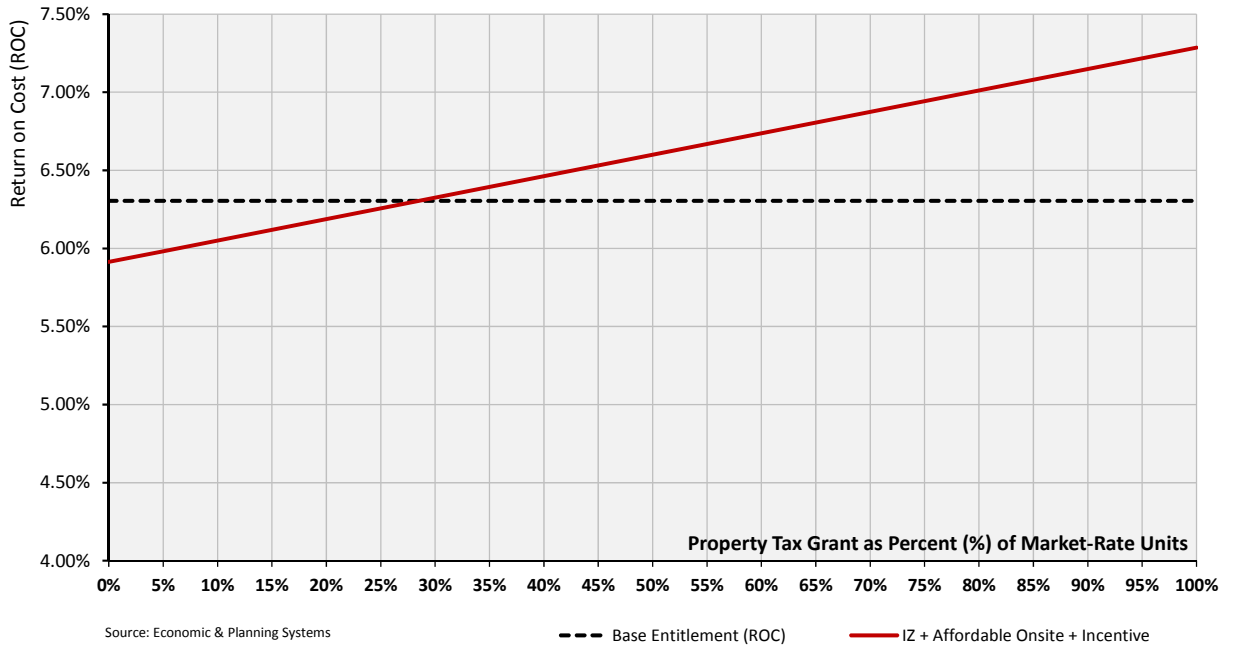
**Figure 79**  
Townhome ROC and Property Housing Grant



### 5-Story

The base entitlement ROC is approximately 6.30 percent. The analysis suggests that a housing grant of at least 30 percent could be awarded to a project achieving a ROC greater than or equal to the base entitlement scenario.

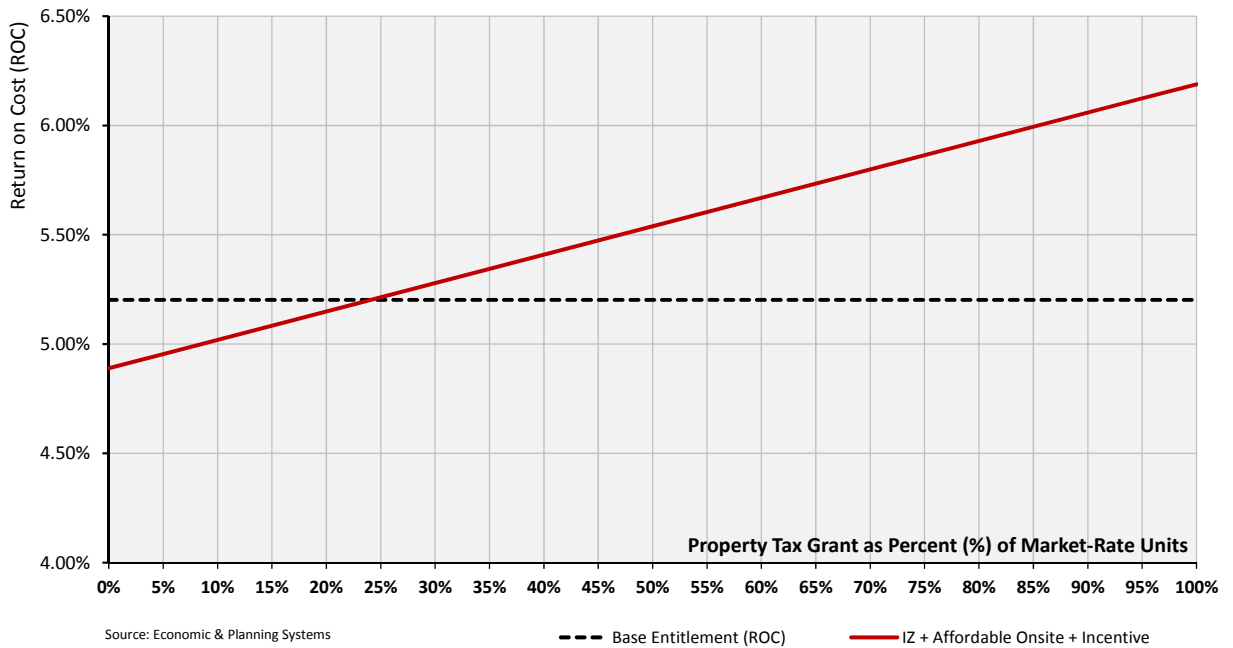
**Figure 80**  
5-Story ROC and Property Housing Grant



### 10-Story

The base entitlement ROC is approximately 5.20 percent. The analysis suggests that a housing grant of at least 25 percent could be awarded to a project achieving a ROC greater than or equal to the base entitlement scenario.

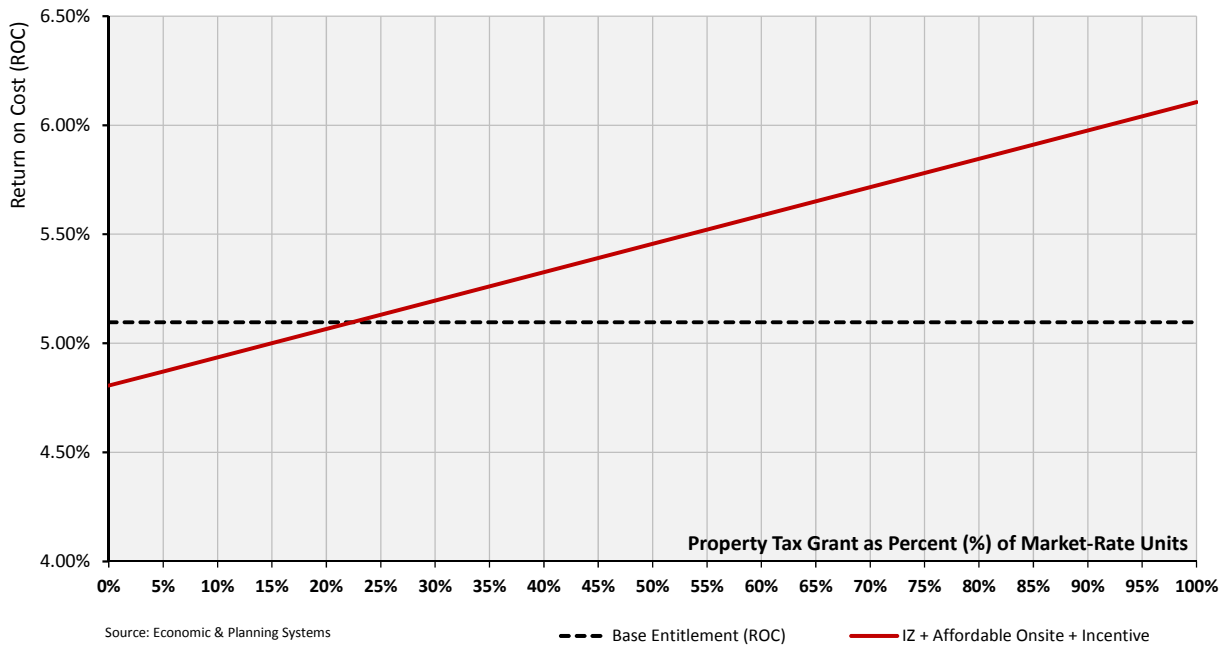
**Figure 81**  
**10-Story ROC and Property Housing Grant**



### 20-Story

The base entitlement ROC is approximately 5.10 percent. The analysis suggests that a housing grant of at least 23 percent could be awarded to a project achieving a ROC greater than or equal to the base entitlement scenario.

**Figure 82**  
20-Story ROC and Property Housing Grant



### Summary

In general, the results suggest that a housing grant awarded to 50 percent of the market-rate units in any project would result in increasingly higher ROCs for higher-scale developments. That is, the value of the incentive increases with scale. The more units, the greater the incentive.

## 6.0 RECOMMENDATIONS

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### 6.1 Basis for Recommendations

The following recommendations have been structured on the basis of multiple perspectives, stemming from the background information and data analyzed, research of the regulatory and legal contexts to the City, best practices research using a variety of policy tools, and oriented to achieve both near and long-term goals.

- **Analysis:** The recommendations are first of all based on an analysis of market trends and conditions at the Census tract level using the most current data available at the time of collection. They are also based on review and analysis of best practices (policy options) for addressing housing affordability issues and problems. A development feasibility model was also used to analyze the financial feasibility of various prototypes under an inclusionary zoning structure, as well as to complete a sensitivity analysis of financial performance of those development prototypes with varied policy requirements, incentives, and land costs.
- **Timing and Orientation:** These recommendations have also been oriented toward both the short and long-term. They seek to address both the immediate needs to the extent possible, as well as seek to anticipate that broader tools will be needed over the long-term if the City is to more directly and effectively address the pressing needs apparent now, which are likely not to diminish in the future.
- **Regulatory and Legal Context:** The recommendations have also been crafted to be feasible within the current regulatory environment, such as: the State of Tennessee's prohibition of rent control, which prohibits a municipality from dictating rents in a residential development; and the City's recently-granted authority to employ housing grants, as related to affordable or workforce housing development.
- **Avoidance of Unintended Consequences:** To the extent possible, they have been structured to achieve results and avoid unintended consequences by motivating development with incentives, addressing the supply side, and employing tools that will work in the current and foreseeable environment, and by reflecting the existing legal constraints, and avoiding tools that will clearly exacerbate affordability problems instead of remedy them.

#### 6.1.1 Overview

From an analytical perspective, the work completed to date has illustrated several points at the heart of the motivation for this study, but it has also uncovered some counterintuitive results and points that had not previously been considered. On one hand, countywide housing costs have escalated substantially and many close-in neighborhoods (identified by their Census tracts) are experiencing even greater rates, and are also experiencing high rates of housing inventory turnover (at rates 2 to 3 times the county average). These same neighborhoods also coincide with higher rates of poverty, and higher proportions of households under 60 percent AMI. As a result, low-income (predominantly renter households) are being displaced. On the other hand, analysis of countywide inventory data indicates that 55 percent of the housing stock is currently affordable to a household earning median income. Furthermore, analysis and overlap of geo-

coded demolition permits from 2013 through 2015 with sales of units sold between 2000 and 2015 (all data available) result in inconclusive results – i.e. fewer than 10 location matches were identified using this technique.

But, the situation remains: high household growth has pushed up prices, as have higher construction costs, and stagnating wages along with growth in lower-paying industries resulting in exacerbated affordability conditions. For the sake of policy formation, there is a need to examine these problems and their causes and, as mentioned in previous meetings, target approaches to address them directly.

Anecdotally, one cause of low-income household displacement has been 2, 3, and 4-unit infill projects replacing existing affordable or workforce housing. To address these specific issues, best practices point toward a very direct approach, such as income or housing subsidies, rehabilitation, maintenance and preservation funding and policies.

Another issue is that current zoning practices have granted additional entitlements very freely. This means that the city has been granting away its most valuable point of leverage. Because of the complexity and diversity of issues at hand, these recommendations are multi-faceted. They would require adjustments among multiple stakeholders (public and private). Some are even strategically geared toward remedying the escalation of land values over time, but in general, they are intended not only to enable the production of new ownership and rental housing, but they are also intended to facilitate land banking and acquisition, rehab/preservation, down payment assistance, and supportive services programs.

## **6.2 Recommendations**

### **6.2.1 Dedicated Funding**

Because of the breadth of housing affordability issues facing the City and because of the complexity of the problems, a more flexible, locally-driven dedicated funding source is the City's best chance for addressing local issues. It should be in the magnitude of \$10 million per year or more.

This recommendation stems from the reality that in the context of inclusionary zoning requirements (as a primary affordable or workforce housing development mechanism) typically do not generate as many units as in-lieu contributions. It is also recognized that affordability needs are much more complex and diverse than these uniform policies are intended to address. A dedicated local funding source broadens the responsibility to the entire community and can be used more flexibly to address housing construction and supportive service needs than a regulatory approach or federal funding.

It is envisioned that Nashville could use a dedicated fund to address the following current needs:

- Rehabilitation and maintenance needs to target displacement concerns,
- Down payment assistance to target general affordability for working households,
- Supportive services, including counseling and homelessness prevention, to address concerns for the population under 30 percent AMI,
- Subsidies and buy-downs for new production to increase the affordable inventory, and
- Strategic land acquisition to be used also as a leverage tool.

Shown below are three magnitudes of annual dedicated funding and a possible allocation scenario. In communities with dedicated funding sources, allocating the revenue means thinking comprehensively about a variety of metrics, such as:

- Magnitude of cost-burdened households by tenure and income,
- Magnitude of housing gaps by tenure and income,
- Understanding the funding gaps for supportive services, and
- Understanding to what extent land is available and located optimally.

As an example, this illustrates the impact of a \$5 million, \$10 million, and \$15 million annual fund, assuming that approximately 8 percent is used for administrative purposes, and assuming some standard per unit funding factors. A dedicated funding source would directly produce between 140 and 430 units / year, including nearly \$1 to \$2.7 million in supportive services and nearly ½ to 1.3 acres of land acquisition. As pointed out in a previous meeting, several peer communities have dedicated funding sources that have facilitated the production of thousands of units, and as considerable outside research has illustrated, these funds leverage other state and federal funds to produce even more affordable units that would never have been produced ‘but for’ this funding. Still, other policies need to be in place to facilitate this as well.

**Table 5  
 Dedicated Funding Source Revenue Generation**

		\$5,000,000 / yr	\$10,000,000 / yr	\$15,000,000 / yr
	<b>Factor</b>			
<b>Annual Funds</b>				
Less: Administration Costs	8%	\$400,000 / yr	\$800,000 / yr	\$1,200,000 / yr
<b>Net Available for Affordable Housing Goals</b>		<b>\$4,600,000 / yr</b>	<b>\$9,200,000 / yr</b>	<b>\$13,800,000 / yr</b>
<b>Possible Allocation of Funding</b>				
For-Sale (New, at 80% AMI or lower)	20%	\$920,000	\$1,840,000	\$2,760,000
Rental (New, at 60% AMI or lower)	20%	\$920,000	\$1,840,000	\$2,760,000
Supportive Services (30% AMI or below)	20%	\$920,000	\$1,840,000	\$2,760,000
Acquisition/Rehab/Preservation	10%	\$460,000	\$920,000	\$1,380,000
Land	30%	\$1,380,000	\$2,760,000	\$4,140,000
<b>Total Production Capability (via subsidies)</b>				
For-Sale (New)	\$20,000 / unit	46	92	138
Rental (New)	\$15,000 / unit	61	123	184
Acquisition/Rehab/Preservation	\$12,500 / unit	37	74	110
<b>Total Units</b>		<b>144</b>	<b>288</b>	<b>432</b>
<b>Land (acres)</b>	\$75 / sqft	<b>0.42 acres</b>	<b>0.84 acres</b>	<b>1.27 acres</b>

### 6.2.2 Inclusionary Zoning

Based on the pros and cons of each option, feasibility testing, and a consideration for Nashville’s existing regulatory and zoning context, EPS recommends a countywide inclusionary zoning ordinance that affects both the rental and ownership markets and where the highest incentives are offered within the UZO, and along all multimodal corridors designated in the Major and Collector Street Plan, excluding expressways, freeways and ramps. The policy would be triggered when a project requests entitlements beyond by-right zoning or receives public financing (e.g. TIF). Such a policy structure takes its cue from the practices of cities researched during this process: Arlington County, Austin, Asheville, Boston, Cambridge, Chicago, Portland, and Seattle. For the most part, this practice is an offshoot of an interest in leveraging the value of

entitlements for affordable or workforce housing and other high-priority community needs. Moreover, a handful also have structured the trigger point to include any project receiving public-financing, including Boston, Chicago, and New York.

***Rental: Set-Aside Requirement***

When the ordinance is triggered, depending on the construction type as shown in the table below, residential projects would provide between 10 and 35 percent affordable housing depending also on the AMI level. The recommendations are based, for the most part, on the financial performance results of the for-sale and rental development prototypes. As applied to a rental project, the City should require that a portion of rental units in the development remain affordable for at least 15 years.

Rental: Low-Density Prototypes

A low-density rental project (such as a single-family, townhome, or a multi-family project less than 3 stories) would be required to build 20 percent of its units affordable to households earning 60 percent AMI or build 30 percent of its units affordable at 80 percent AMI. The feasibility model indicates that 20 and 30 percent affordable housing at 60 and 80 percent AMI, respectively, would have approximately the same financial performance as a project under base entitlement and not receiving incentives. The option to build units at 100 percent AMI should not be granted to this type of prototype.

Rental: Medium-Density Prototypes

A medium density rental project (between 3 and 6 stories) would be required to build either 15 percent affordable units at 60 percent AMI, 25 percent affordable units at 80 percent AMI, or 35 percent affordable units at 100 percent AMI (an option available on in the UZO). The feasibility model indicates that a project receiving housing grants and providing 23, 34, and 57 percent set-asides at 60, 80, or 100 percent AMI respectively, can achieve the same level of financial return as a project under base entitlement with no incentives.

Rental: High-Density Prototypes

A higher-density rental project (7 stories or greater) would be required to build either 10 percent affordable units at 60 percent AMI, 20 percent affordable units at 80 percent AMI, or 30 percent affordable units at 100 percent AMI. The feasibility model indicates that a project receiving housing grants and providing 15, 22, and 32 percent set-asides at 60, 80, or 100 percent AMI respectively could anticipate the same financial return as the same project under base entitlement receiving no incentives.

***For-Sale: Set-Aside Requirement***

As applied to a for-sale project, the findings are not as supportive. That is, market data used to calibrate the feasibility model are based in large part on the analysis of existing and new home sales. Under current market conditions (i.e. a strong rental market), there are an insufficient number of sales of for-sale condominiums, flats, or other higher-density housing as data points. On the other hand, as discussed in the sensitivity analysis of the previous chapter, the City cannot possibly fund the full gap between the market-rate and deed-restricted housing prices. The gaps are too large, requiring millions of dollars in subsidy for a single project. The City should therefore require that various portions of the for-sale units in a development remain affordable (i.e. deed-restricted) for at least 30 years.

### AMI Levels

Research shows that most communities with for-sale inclusionary policies require affordable housing to be built at 80 percent AMI. This is generally the lowest income level practical for homeownership. Practitioners, such as housing authorities, housing and community land trusts, who develop and operate affordable deed-restricted housing, say that it is otherwise difficult to find qualified households at incomes lower than 80 percent. Specifically, the risk of default rises, and unexpected homeowner expenses can be financially crippling.

### For-Sale: Low-Density Prototypes

A low-density rental project would be required to build 10 percent of its units affordable to households earning 60 percent AMI or build 30 percent of its units affordable at 80 percent AMI. The feasibility model indicates that a project providing 4 and 7 percent affordable housing at 80 and 100 percent AMI, respectively, would have the same financial performance (IRR) as a project under base entitlement and receiving no incentives. The option to build units at 120 percent AMI should not therefore be granted to this type of prototype.

### For-Sale: Medium-Density Prototypes

A medium density rental project (between 3 and 6 stories) would be required to build either 10 percent affordable units at 80 percent AMI or 15 percent affordable units at 100 percent AMI (an option available on in the UZO. The feasibility model indicates that a project providing 6 and 12 percent affordable housing at 80 and 100 percent AMI, respectively, would have the same financial performance (IRR) as a project under base entitlement and receiving no incentives. The option to build units at 120 percent AMI should also not be granted to this prototype.

### For-Sale: High-Density Prototypes

A higher-density rental project (7 stories or greater) would be required to build either 10 percent affordable units at 80 percent AMI, or 20 percent affordable units at 80 percent AMI or 30 percent affordable units at 100 percent AMI. The feasibility model indicates that no amount of affordable housing built on-site would have yield the same or similar financial return as a project under base entitlement and receiving no incentives. As mentioned previously, it is in part because the market data used to calibrate revenue factors reflect a market that currently favors rental market development, not for-sale condominium development. It is also reflective of the large gap between the market-rate and deed-restricted affordable housing price points. The option to build units at 120 percent AMI should also not be granted to this prototype.

**Table 6**  
**Summary of Recommended Set-Asides**

	Rental				For-Sale			
	at 60% AMI	at 80% AMI	at 100% AMI	at 120% AMI	at 60% AMI	at 80% AMI	at 100% AMI	at 120% AMI
<b><u>Single-family, Two-family, and Multi-family uses less than 3 stories</u></b>								
Recommended	20%	30%	n/a	n/a	n/a	10%	15%	n/a
<b><u>Multifamily uses (3 to 6 stories)</u></b>								
Recommended	15%	25%	35%	n/a	n/a	10%	15%	n/a
<b><u>Multifamily uses (≥ 7 stories)</u></b>								
Recommended	10%	20%	30%	n/a	n/a	10%	15%	n/a

Source: Economic & Planning Systems

H:\153043-Nashville TN Inclusionary Housing\Models\153043-Model-0118 16-Mixed AMI, IRR.xlsx\Table 5.c - Set-Aside Recs

### ***In-Lieu Contribution***

A recommended alternative to building affordable or workforce housing on-site is for a development to make an in-lieu monetary contribution to the Barnes Housing Trust Fund. The recommended fees, shown in the following table, are also based on the sensitivity analysis presented in the previous chapter. The in-lieu contribution (ILC) is calibrated based on the maximum deed-restricted affordable sales price. The components of this recommendation are as follows.

#### **Metric for Establishing the Contribution**

The metrics for establishing the ILC can include: the percent of the maximum sales price; the percent difference between the market-rate and affordable units; a portion of land value; or a portion of the construction value. Here, it is recommended that the most reliable method for calculating an ILC is on the basis of the maximum affordable sales price.

While basing an ILC on the cost of construction may more accurately reflect how much the City would need to build units elsewhere, it relies too heavily on the developer for cost information. Moreover, developers typically will not have detailed cost information at such an early stage of the planning process. Basing the ILC on the gap between the market and deed-restricted units also relies on information on the average sales price of market-rate units, which are also generally not finalized or known at this stage of the planning process. An ILC can also be based on land values, but calculating such a figure requires the availability of recent and relevant comparable sales.

#### **Method for Establishing the Contribution**

The second component to the ILC calculation is determining what percentage of the maximum affordable sales price should be used. Based on the sensitivity testing, illustrated in the table below, it is recommended that the ILC be calibrated to 50 percent of the maximum affordable sales price. The results in this table indicate that the ILC could be calibrated to something in the range of 50 to over 100 percent of the maximum affordable sales price for for-sale projects.

Such an ILC would bring a project’s financial performance in alignment with the estimated financial performance of a project building affordable units on-site.

The rationale for this point of comparison is that it should be in the City’s interest that a development chose to build affordable or workforce housing on-site rather than opting to make an ILC. The results of the sensitivity testing for rental projects are lower and even dip below zero. The reason negative percentages appear is that the financial performance of a project building affordable rentals on-site (and receiving the housing grants incentive) performs so much better, a project would actually have to be granted an additional incentive.

Calibration of Method to Affordability Level

For residential projects, it is recommended that the fee be calculated as 50 percent of the maximum affordable sales price at a specified AMI level. It should be noted that the ILC for for-sale and rental projects should be based on the maximum affordable *sales* price. The valuation of rental units is effectively the same as for-sale units, but requires fewer modeling assumption than calculating the value of a rental unit.

In projects inside the UZO, the ILC should be calibrated to the following affordability requirements. In for-sale projects inside the UZO, the ILC should be based on an affordability requirement equivalent to 20 percent of the floor area affordable to 100 percent AMI for a 2.5 person household. In rental projects inside the UZO, the ILC should be calibrated to an affordability requirement equivalent to 30 percent of the floor area affordable to 100 percent AMI.

In projects outside the UZO, the ILC should be calibrated to lower affordability requirements. In for-sale projects, the ILC should be calibrated to an affordability requirement equivalent to 10 percent of the floor area affordable to 80 percent AMI for a 2.5 person household. In rental projects outside the UZO, the ILC should be calibrated to an affordability requirement equivalent to 20 percent of floor area affordable to 80 percent AMI for a 2.5 person household.

**Table 7  
 Summary of Recommended In-Lieu Contributions**

	Single-Family Detached	Townhomes	5-Story	10-Story	20-Story
<b>Feasibility Model Result</b>					
for For-Sale Development	54%	64%	51%	84%	109%
for Rental Development	49%	24%	-18%	-122%	-112%
<b>Highest</b>	<b>54%</b>	<b>64%</b>	<b>51%</b>	<b>84%</b>	<b>109%</b>
<b>Recommended</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>

Source: Economic & Planning Systems  
 H:\153043-Nashville TN Inclusionary Housing\Models\153043-Model-011816-Mixed AMI, IRR.xlsm\Table 6.a - CIL Recs

Annual Calibration of the In-Lieu Contribution

The ILC amount will need to be updated annually. It is recommended that the entity responsible for calculating the fee identify several pieces of information in the process. The maximum affordable sales price for units of different household sizes by AMI. Income limit information

should be obtained from the Department of Housing and Urban Development, which publishes these limits at [www.huduser.gov/portal/datasets/il.html](http://www.huduser.gov/portal/datasets/il.html).

The assumptions used in calculating the maximum affordable sales price should include: a maximum down payment of 5 percent; prior six-month moving average interest rate based on the Fannie Mae Yield on 30-year mortgage commitments (price at par) plus one-half point (0.5 percent) spread; 30-year fixed-rate mortgage; property taxes, calculated according to the Urban Services District (currently at 4.516 percent); and average homeowner insurance costs.

The entity responsible for calculating this should also be responsible for estimating an average unit size for rental and for-sale projects. This factor will be used in applying the per-square foot ILC to project that choose not to build units on-site.

### ***Incentives***

There should be additional incentives that grant value to a development that triggers the inclusionary zoning requirements. To the extent possible, these recommended incentives are structured so that a project complying with the inclusionary zoning requirements has better financial performance than a project under base entitlement and not receiving incentives.

### **For-Sale Projects**

A cash incentive should be made available to for-sale projects that trigger the inclusionary zoning requirements. Such an incentive should be valued at \$20,000 per unit per affordable unit built when a project is inside the UZO, and along all multimodal corridors designated in the Major and Collector Street Plan, excluding expressways, freeways and ramps, and \$10,000 per unit per affordable unit built when a project is built outside the UZO. This incentive should also be made available to a project that is willing to comply voluntarily with the inclusionary zoning requirements.

### **Rental Projects**

For rental projects, the housing grants authority should be utilized and be granted to some portion of the project with market-rate units, as well. The table below illustrates the results of the sensitivity modeling, and indicates that a housing grant set to, for example, 27 percent of the market-rate units in a 20-story rental project would perform on par with a rental project not opting to meet the inclusionary zoning requirements. It is recommended that the housing grant be applied to 50 percent of the market-rate units, resulting in higher financial performance (measured by the ROC) than a project under base entitlement.

**Table 8**  
**Summary of Recommended Incentives**

	Single-Family Detached	Townhomes	5-Story	10-Story	20-Story
<b>Per-Unit Incentive for For-Sale Development</b>					
Feasibility Model Result: Actual Gap	\$116,500	\$122,500	\$111,250	\$181,375	\$251,500
Feasibility Model Result: Per-Unit Incentive Necessary	\$115,396	\$163,565	\$173,113	\$293,761	\$453,081
Recommendation	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
<b>Property Tax Grant on Market-Rate Rental Units</b>					
Feasibility Model Result	53%	46%	36%	29%	27%
Recommendation	50%	50%	50%	50%	50%

Source: Economic & Planning Systems

H:\153043-Nashville TN Inclusionary Housing\Models\153043-Model-011816-Mixed AMI, IRR.xlsm] Table 6.a - Incentive Recs

### **Exemptions**

The issue of market-rate and deed-restricted pricing overlap is still a reality for Nashville, and one that needs to be addressed in this policy. While an exemption from the inclusionary zoning requirement needs to be worked out for those projects that are already effectively building new housing in already affordable neighborhoods, there are some shortcomings of this mechanism that need to be acknowledged. There are a few communities with both mandatory and voluntary programs that have such exception or exemption clauses, but there is sometimes considerable risk of abuse anytime a community grants an exception to a rule that is in the applicant's interest to avoid. The primary reason for approaching exemptions with caution is that they're difficult to administer. Only one or two communities around the county have policies based on market-rate pricing (Burlington and Tallahassee), but one of them while an established program is a small community, and the other is too new to assess for effectiveness.

A project's affordable requirement would be set at the time of development review, when there may be some idea of what the market-rate pricing will be. But if the market-rate units end up selling for more than that estimated price point, the City needs some mechanism to ensure that it can either recalculate the affordability requirement or in-lieu contribution and has the power to enforce such a change. Some possible options might be:

- City enters into a legal contract with the developer,
- City puts a lien on the last unit sold, or
- Hires more staff to monitor the sales and pricepoints of all the projects under development.

Whatever the mechanism, something needs to be put in place to enforce the exemption and any changes that may result from a development being built not as expected.

### **Not Mandatory**

We are not recommending a fully mandatory policy for a variety of reasons. First, such a policy would not apply to rental developments. Second, research illustrates a few commonalities among cities with mandatory inclusionary zoning, which are not shared with Nashville: 1) extremely high housing costs, such that the buyers' demand for housing is relatively inelastic to further increases in price points; 2) there is geographic consistency in average housing costs

(whereas there is a great range in housing costs in Nashville); 3) high and geographically consistent land costs (versus relatively low land costs outside the City's core); and 4) that mandatory policies are applied throughout their geography, as opposed to applied piecemeal by sub-geographies within a city (e.g. unlike Charlotte, NC).

Furthermore, the research also illustrates that the distribution of sales of existing and new homes has little to no overlap with deed-restricted affordable or workforce housing prices. In Nashville in 2015, it is estimated that approximately 30 percent of existing and new home sales were affordable to household earning 80 percent AMI or lower.

#### Housing Price Overlap

There is considerable concern today around the unintended consequences of mandatory inclusionary zoning. Among the many debated points, as illustrated earlier in the report by the supply and demand graphics, there are unintended and counterproductive consequences to such a policy. Many recent economists and researchers have documented the reality that such a policy actually raises housing costs somewhere between 3 and 5 percent.

As an example, in a 100-unit project where market rate units are priced at \$250,000 and 10 percent are required to be priced at 80 percent AMI (\$177,500 for Nashville), a developer would be likely to pass along the "lost revenues" from the deed-restricted units (i.e.  $\$250,000 - \$177,500 = \$72,500 \times 10 \text{ units} = \$725,000 \div 90 \text{ units} = \text{approximately } \$8,055$ ), raising the price of the other units to \$258,000, or 3.2 percent. If the market-rate price point is higher or the deed-restricted price lower, the higher the price increase would be.

Research also indicates that a mandatory policy does not provide a community with assurances that units will actually get built in high-opportunity, high-growth, high-value areas. In reality, it was most common for projects in these high opportunity areas to pay the fee in-lieu, an illustration of how the economics of a for-sale prototype rarely if ever work such that a developer builds on-site affordable or workforce housing (i.e. where the difference between the market-rate and deed-restricted unit is larger than the fee in-lieu, a project will pay the fee in-lieu).

#### Displacement Concerns

One of the core problems raised earlier in this process was the displacement of low-income renter households from historically affordable neighborhoods that are close to the City core. The trend is affecting specific close-in neighborhoods and resulting in the demolition of smaller, affordable homes with larger single-family homes or duplexes (detached duplexes in most cases). Securing a dedicated funding source and the enhancement of the Barnes Fund, described later in the recommendations, are critical to addressing this concern. The response needs to be targeted more directly to those needs as it is outside the parameters of what an inclusionary zoning policy can address.

Specifically, an inclusionary zoning ordinance typically applies to projects of scale (5 or 10 units or more); these infill projects are 1, 2, and sometimes 4-unit projects. And if it did apply to projects of such a small scale, it would have to apply uniformly to all smaller scale projects throughout Davidson County. As such, it would also produce only a fraction of a fee and not provide any assurance that the low-income households wouldn't get displaced. As an example, a 10 percent set-aside applied to 2 units is 0.2 affordable units multiplied by the in-lieu contribution – e.g. 50 percent of \$177,500 = \$88,750 multiplied by 0.2 = \$17,750. Such a fee

would not even suffice for gap financing for a single unit in a low-income housing tax credit project.

### **6.2.3 Zoning Code Modifications**

The following series of recommendations are offered with the intent to preserve the City's ability to use one of its largest resources of leverage, i.e. additional entitlement, for affordable or workforce housing purposes. They stem from a review of the current usage of these sections of the zoning code, an understanding of the current practice regarding the granting of additional entitlements (density), and where there are no limits on density or additional entitlement. Some of these recommendations are farther reaching in terms of public policy objectives, but are offered and suggested to begin conversations of the priority the City should place with regard to affordable and workforce housing.

#### ***Downtown Code***

Based on the review and documentation of the few instances that developments have taken advantage of the DTC height bonus, it is clear that projects are opting for the least costly options. This recommendation concerns a prioritization of public benefit. That is, if the City is going to prioritize housing affordability, than it needs to re-evaluate its incorporation into the DTC's bonus height program. As it appears in this list of options, and because it has never been used to obtain additional height, such a policy implies that other public goods (such as LEED certification, structured parking, or parking garage liners) are more important to the City.

Also, recognizing that there would have been considerable discussion and involvement from stakeholders in the crafting of these bonus height options, it is recommended that the City re-evaluate these bonus height options and reprioritize the affordable or workforce housing bonus height option. At the moment, there appears to be a disparity between the costs (though analysis into the differences has not been completed) associated with each of the options. It appears that workforce housing as a means to obtaining additional height in the DTC would be the costliest option, and it is not likely that a developer would ever take advantage of it, absent some changes to either the bonus height options generally or the workforce housing option specifically.

It is recommended that the City take a closer look into the values (i.e. costs) associated with each of the bonus options. The City should entertain the elimination of some of the lower-priority options, and/or incorporate them into basic requirements, or the City should evaluate the costs associated with each option and recalibrate them so as to make the choice for a developer more economically indifferent, at a minimum.

#### ***§17.12.070***

Under §17.12.070, concerning special floor area ratio (FAR) provisions, it is recommended that most other options for obtaining additional entitlement be removed and replaced with an affordable or workforce housing bonus.

**§17.12.035(B)**

The next recommendation concerns §17.12.035(B), street setbacks within the UZO, and under 17.12.060(F), concerning special height regulations for all uses (excluding single-family and two-family dwellings) within the UZO. This section currently requires BZA approval for a special exception to setback or additional height. To incent the development of affordable or workforce housing under this circumstance, it is recommended that a project be allowed to come closer to the ROW or obtain additional height without BZA approval if it provides affordable or workforce housing.

***Adaptive Residential***

Concerning the Commercial zoning districts, i.e. Adaptive Residential projects, which currently allow unlimited residential development, it is recommended that a limit be placed on the amount of additional development, and that the FAR limits be in accordance with non-residential uses. The effect of this recommendation is to preserve the value associated with additional entitlements (such as density) and leverage it for the provision of affordable or workforce housing, as such developments would apply to the inclusionary zoning policy.

***Amendments to the Zoning Code***

In §17.40 Article III, concerning amendments to the zoning code or official zoning map, it is recommended that any amendment that adds entitlements, including new uses, to the zoning code or official zoning map be accompanied by the provision of affordable or workforce housing in accordance with the inclusionary zoning policy.

***Specific Plan Districts***

In §17.40.100-106, concerning Specific Plan (SP) districts, which currently allow project to specify uses, bulk site plan, standards, etc., it is recommended that a subsection be added that clarifies a project must provide affordable or workforce housing in accordance with the inclusionary zoning policy.

***Urban Design Overlays***

It is also recommended the City review its existing urban design overlays and evaluate the removal of various bonuses that do not achieve affordable or workforce housing objectives.

**6.2.4 Barnes Fund Authority Expansion**

***Basis for Recommendation***

As summarized earlier in the report, the City established the Barnes Fund to make competitive grants available to nonprofit housing developers for the renovation or construction of affordable homeownership and rental opportunities. In its current form, however, the Fund is limited to addressing affordability issues for households earning 80 percent AMI or less. It also lacks other powers that might be valuable in the City's broader efforts to address many of the more complex affordability issues it is facing, such as displacement of low-income and minority residents in close-in neighborhoods.

And because the inclusionary zoning structures are not suited to directly (or even indirectly) addressing such complex issues, it is recommended that the Barnes Fund's authority be expanded to accommodate such need. Where and to the extent appropriate, existing entities and housing partners should be utilized such that overlap in responsibilities is not created. Rather, such an expansion should seek to add and serve to expand the capacity of existing housing providers.

***Community Land Trust Purview***

Specifically, it is recommended that the city explore the development of a Community Land Trust (CLT) and/or opportunities for land acquisition. While the Barnes Fund is already functioning as the recipient of parcels acquired through back-taxes, a CLT would be the extension of that function. A CLT would be granted authority currently not held by the city or the Barnes Fund, for example, to acquire land strategically and use as leverage in particularly appropriate locations for the development, ownership and/or operation of affordable or workforce housing. Such a goal could be achieved on its own or in partnership with others, as with the authority to facilitate the maintenance of existing affordable homes.

To address the need for more socially-oriented housing services, it should also be able to fund and/or partner with other non-profits to administer supportive services programs, including programs such as: down payment assistance; homebuyer counseling; foreclosure prevention; tenant rights education, or homelessness prevention.

***Recipient of Dedicated Funding***

It is also recommended that Barnes Fund be the recipient of a new dedicated funding source. Because of the variety of functions that the Barnes Fund should be expanded to perform, including administering down payment assistance programs, and because the City is not authorized to lend its credit (i.e. make loans such as down payment assistance programs), and because it is in the City's interest to place such funds in an entity that has use of the resource that is not restricted by the comingling of federal or other restricted funds. As indicated under the dedicated funding source recommendation, the Barnes Fund would be responsible for ensuring that the prioritization of funding to various community affordable or workforce housing needs is discussed by planners, elected officials, and practitioners.