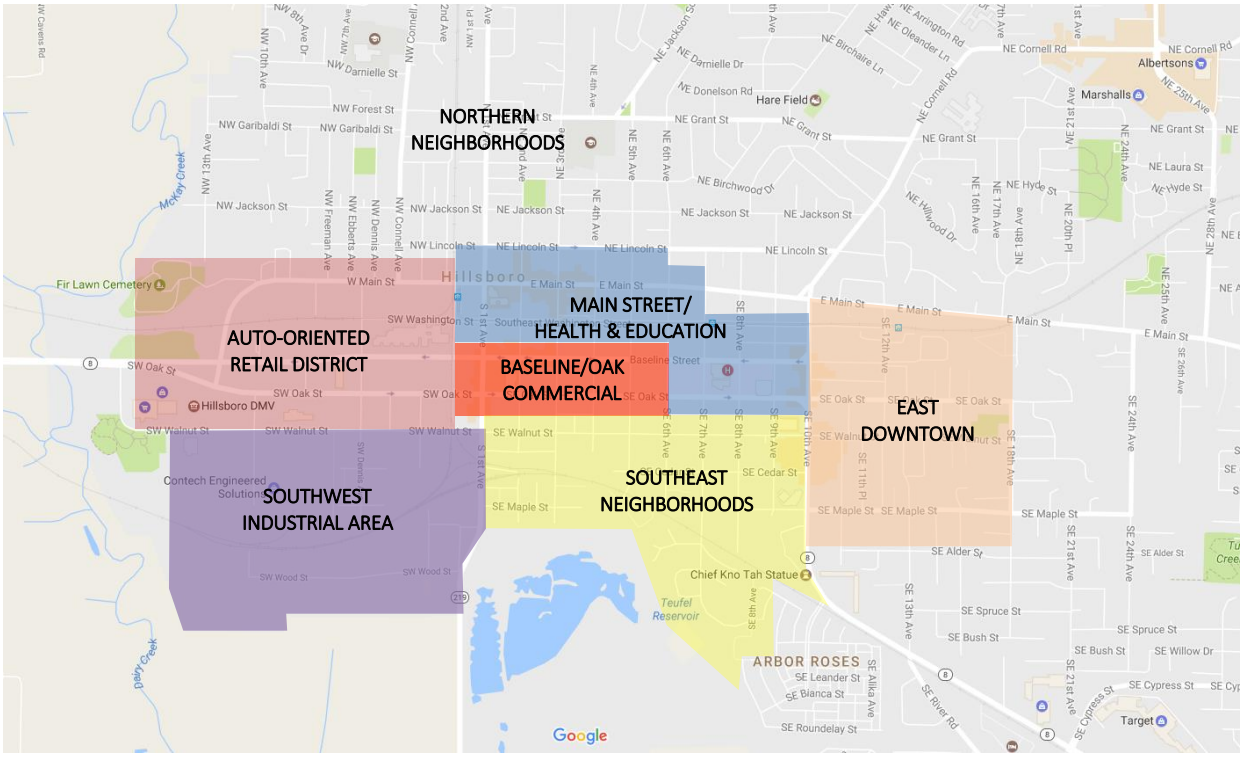
JOHNSON ECONOMICS

RESIDENTIAL MARKET ANALYSIS FOR DOWNTOWN HILLSBORO, OREGON

JUNE 30, 2017



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I. INTRODUCTION

This report summarizes the demand for future housing development within the City of Hillsboro's downtown core. The analysis includes an assessment of projected demand by product type and price range, as well as an assessment of market context and achievable pricing. The analysis is segmented into five major housing types:

- Market rate rental apartments;
- Affordable rental apartments;
- Ownership housing;
- Student housing; and
- Senior housing

In addition to product type, specific submarkets within the broader study area are evaluated in terms of their suitability for alternative housing types.

Residential demand is projected based on local and regional economic and demographic trends, including the age and income composition of current and projected households. Achievable pricing for new product is derived from current pricing at comparable projects, adjusted for locations within the downtown core. In addition, the financial viability of alternative development forms is evaluated considering the findings of the study.

II. EXECUTIVE SUMMARY

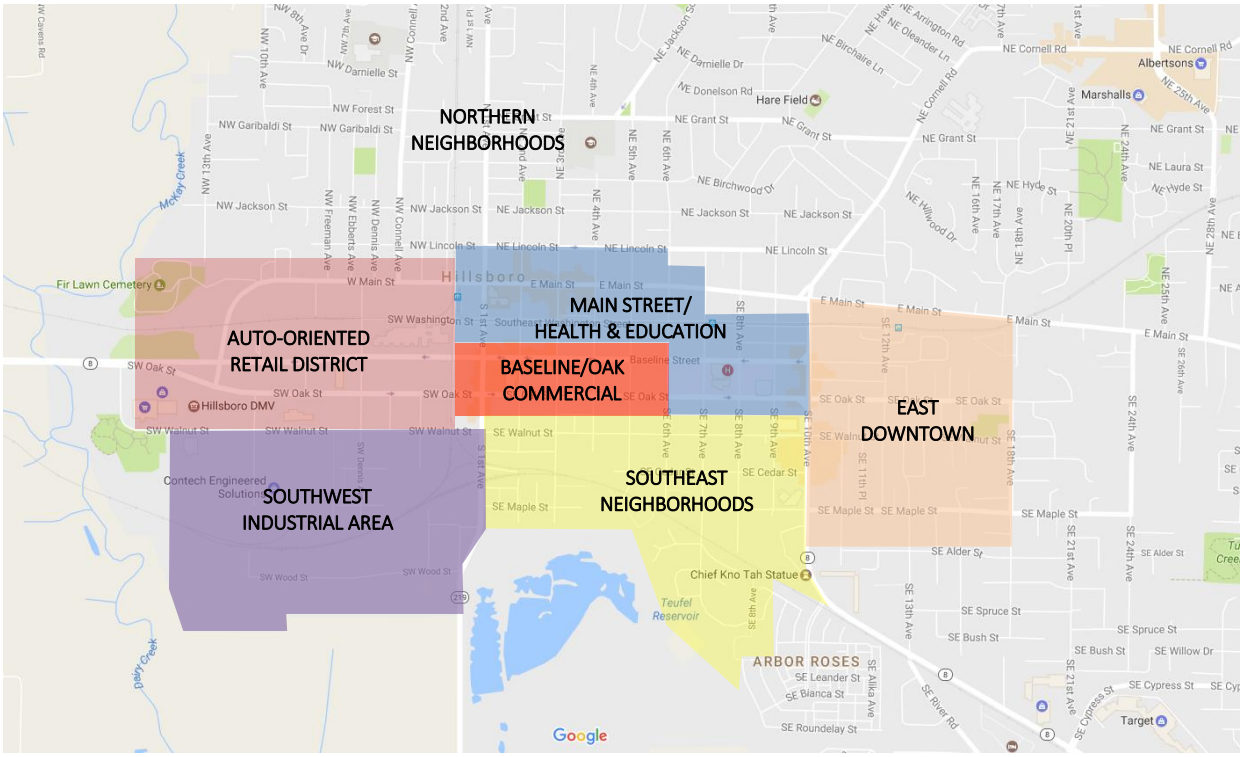
CONTEXT

The City of Hillsboro has completed a significant level of work that addresses downtown housing, including the Downtown Framework Plan, Urban Renewal Plan, and an Urban Land Institute Technical Advisory Panel recommendations. The findings of these reports are supportive of policies and actions to encourage urban housing developments in the downtown area. The following is a summary of key recommendations from these studies:

- Support and encourage new higher-density mixed-use growth near the Tuality/Pacific Health and Education campus.
- Support revitalization of the downtown commercial district, with a stated objective to encourage new investment and quality development on vacant and underutilized parcels.
- Promote and support stable and sustainable residential neighborhoods for a range of household income. This goal includes assisting development of new housing units supporting the provision of housing choices that address needs of area employees and students, as well as attracting new households. Short-term actions should encourage new market rate housing.
- The City should place a short-term focus on the its core, most notably the former site of Hank's Thriftway as a short-term opportunity. The city should encourage redevelopment on catalyst sites, and bring a range of tools to bear to meet its goals in the area. Parking management and the vertical housing development zone were identified as key tools.

This focus of this analysis is on a geographic area defined as the Downtown Hillsboro Study area. The area has been broken into five distinct subareas, each of which has distinct characteristics that impact its suitability for alternative residential development forms.

OVERVIEW OF DOWNTOWN HILLSBORO SUB-DISTRICTS.



The study area is a significant employment center, with an estimated 9,562 persons employed in the study area in 2014. Over 9,100 employees are estimated to commute into the area for their primary employment, while an additional 4,300 live in the study area and commute elsewhere. Only 400 employees were estimated to both live and work in the study area as of 2014.[1] Employees working in the study area are typically a primary source of demand, as these residents would benefit the most from proximity to employment and savings in commute time. The broader regional workforce, as well as senior households, are other key target markets.

The social, demographic, and ethnic composition of households in Hillsboro is quite urban, with households that have similar profiles consistently showing a preference for more urban housing options. In other words, the socioeconomic characteristics of the market is consistent with what would be typically found in more urban settings nationally. This is unusual, in that housing product in the Hillsboro area remains largely suburban in nature. The local household mix likely reflects the local high-tech employment sector, which employs a well-educated labor force that is more typically viewed as favoring more urban locations.

[1] US Census Bureau, Longitudinal Employer-Household Dynamics Program

MARKET TRENDS

Rental Apartment Market

At a regional level, the rental apartment market has experienced an extended period of low vacancy rates accompanied by significant rent escalation. These conditions have attracted a considerable amount of new construction activity, which is beginning to correct the supply/demand imbalance and reduce pressure on rent levels. New construction activity has been concentrated in more urban locations, with suburban markets now seeing increasing interest.

The Hillsboro rental apartment market has generally outperformed the overall metropolitan area market, with an estimated overall vacancy rate of 2.8%. Average rent levels in the market, including older product, were $1.40 per square foot, representing the highest per square foot rents outside of the City of Portland. Vacancy rates in the Hillsboro area have fluctuated between 2% and 8% over the last decade, and are currently well below the Portland metro area average. In the current expansion cycle, the City of Hillsboro has seen rent escalation largely consistent with the metro area average, and above that experienced in the overall suburban markets. In Hillsboro, the average rent level is currently 77% higher than it was prior to the recession in 2008, consistent with the metro area and well above the 63% increase in the overall suburban markets.

Downtown Hillsboro represents a strong rental apartment location, although currently less attractive than alternative areas in the City such as Orenco Station and AmberGlen. Access to the light rail line is a key amenity, as is proximity to major employers such as Tuality Hospital and Pacific University. Based on current planned and proposed construction activity, the Hillsboro area is expected to outperform the metro area in terms of occupancy rates over the next several years. While the current market for new rental apartment development is positive in the downtown area, we are late in the current production cycle and the window of opportunity for new product is likely limited.

Rental apartments in the downtown Hillsboro area currently lease at a discount vis-à-vis projects in the Orenco Station area, with average pricing for an assumed 850 square foot unit at 78% for the same unit at Orenco Station. With no current vacancy in the downtown projects, the actual achievable pricing in this area is likely higher than currently being asked. The level of discount may decline and even reverse over time as the local amenity base in downtown Hillsboro improves, but developers underwriting projects in the current market will likely assume achievable pricing at a 10% to 20% discount from the Orenco Station area.

Affordable Housing

New construction of affordable housing is typically done with the support of programs such as Low-Income Housing Tax Credits (LIHTC) and bond financing. Developers considering the development of affordable housing (defined in this case as income-restricted) do not typically evaluate the depth of demand for this product type, as the market is typically assumed to be underserved. While this applies to new construction, it is important to recognize that a substantial portion of affordable housing is provided by non-regulated older units in the market.

While the need for affordable units is typically always present, the recent escalation trends in the Portland metropolitan and Hillsboro areas have increased the need for affordable units through a decrease in available market rate units affordable to lower income households. Over the last five years, the cumulative

growth in average rental apartment rents was 43% in the Hillsboro area. While significant, this level of increase was not unusual, and the local market was in the bottom third of submarkets tracked by Multifamily NW in the Portland metro area in terms of rent escalation.

Current affordable housing projects in the study area target households with incomes ranging from 30% to 80% of MFI. The pricing at each of these projects will be significantly below what is achievable in the general market, and as a result, the projects typically stay fully occupied. The projects were developed and are maintained by both non-profit as well as for-profit firms. Within the study area, existing affordable housing product is concentrated in the East Downtown area, except for the City Center immediately south of the Civic Center.

There are several options to address affordable housing needs. While direct construction of income-restricted projects using tax credits and other programs and provide for an assured level of affordable units for a set time-period, increasing the supply of residential options overall can positively impact the availability of affordable units to the market. New projects that do not receive tax credits will typically target more affluent renters, due to construction costs and return requirements. The introduction of new units decreases the price pressure on the market overall though, and affordable units are available to the market through a filtering effect. In other words, increasing the supply of units is generally supportive of affordable housing objectives, as it reduces the pricing power of existing projects. This broader impact on the market is consistent with policies to provide more mid-level rental units and increase the overall supply of units available in the study area.

Ownership Residential

The study area is currently largely urban, and new development is in the subareas outlined will likely be limited to higher density forms of development. New residential ownership construction in the study area is expected to include a mix of townhomes, multi-family duplexes and condominiums.

The ownership housing market in the Portland metropolitan area has largely recovered from the housing crash, with pricing largely back to pre-crash levels. Home price trends have been robust over the last several years, with double digit price escalation common since 2013 at the regional level. The average housing price in the City of Hillsboro is estimated at $339,400 as of April 2017, well above the pre-recession peak of just over $280,000. The rise in pricing is function of sustained demand for housing and a sharply declining inventory of homes for-sale. While the City of Hillsboro has seen an increase in available inventory over the last year, the standing inventory is still close to historic lows.

Affordability is much better than during the previous peak despite rising prices, as incomes have grown and mortgage rates have dropped. As a result, housing prices are now largely in line with what market fundamentals support. While we have seen strong escalation in pricing, the current market pricing is not considered to reflect a pricing bubble.

Sales volumes in both the townhome and condo markets have increased notably over the past several years in the Hillsboro area, and is now back to prerecession levels, despite very limited supply of new units. The townhome market has more than doubled in terms of sales velocity since 2011, while condo units have seen an increase of 153%. Sales recorded with RMLS, which represent most but not all transactions, indicate nearly 300 townhome transactions and around 200 condo transactions currently taking place annually in the market. The level of transactions in the market area has been limited by new supply, which

is reflected in the current low inventory of product. The market currently has a 1.3-month supply of townhome units, and a 2.0-month supply of condominium units.

As the standing inventory has declined and demand has picked up, the pricing for townhome and condo units has also recovered. New attached for-sale residential inventory is currently quite limited in the study area, with only three new projects currently actively marketing units. The projects are in more suburban areas east of the study area, and provide limited information with respect to achievable pricing for a more urban product in the study area. As the South Hillsboro development enters the market, we expect the supply of active for-sale product to increase significantly, and for those projects to be successfully received in the market.

There is expected to be considerable demand for ownership residential housing as a potential development form in the study area. The development market is currently reticent to construct condominium units, dissuaded by difficulty in obtaining financing for these types of projects as well as legal issues associated with construction defect litigation. Condominium development will likely be a viable use in the area in the mid- to long-term, with less short-term interest. Townhome development with fee simple ownership of the land is highly viable, but the yield in terms of density for this type of development is more limited.

Senior Housing

The senior housing market is a growing residential sector, driven by the aging of population. Key locational criteria for these users is proximity to services, family, current friend networks, and local amenities. Projects are typically categorized based on level of care. Independent senior living is merely rental apartments with greater common areas and age restrictions, while assisted living, memory care, and full nursing care facilities provide progressively higher levels of service for residents.

According to the National Investment Center for Seniors Housing & Care (NIC), 2016 set a record for absorption of senior housing units in the Portland Metro Area. The region is among the stronger senior housing markets in the nation, with occupancy rates for independent and assisted living 230 basis points above the national metro average, as of 4Q16.[2]

Occupancy appears to be very high within the local market area – above the average levels for Washington County and the Portland Metro Area. At stabilized properties, the overall occupancy rates were 99% for Independent Living Units (ILUs), 96% for Assisted Living Units (ALUs), and 92% for Memory Care Units (MCUs). Most of the surveyed properties are typical suburban mid-market projects, featuring amenities and finishes that represented a high – but not luxury – standard at the time of their completion.

We regard the study area to represent a strong mid-market location. It is easily accessed from a large part of the Portland Metro's west side, and provides visibility from an important commercial and commute corridor. We expect many adult children of prospective senior residents to find the location convenient, as visits can be combined with their commute. The site also benefits from proximity to medical services at Tuality hospital, as well as the new OHSU clinics, which is an important consideration for many seniors. Easy pedestrian access to the light rail line and transit is highly valued by seniors.

[2] NIC tracks 200+ private-pay senior facilities in the Portland Metro Area, representing an estimated 90-95% of the market.

Features associated with very high-end senior communities are somewhat limited in the study area. All else being equal, we therefore do not expect the site to compete strongly with luxury properties that offer a naturally scenic setting, extensive views, or a situation within a well-designed and upscale residential area.

Student Housing

While student housing is identified as a distinct market product, students at Pacific University's Hillsboro Campus are expected to largely find their housing products within the context of the general rental apartment market. The study area includes Pacific University's Hillsboro Campus (housing the College of Health Professions) as well as Portland Community College's Hillsboro Center (an extension of the Rock Creek Campus). Both facilities are in the Health & Education District. The demand for housing from these facilities is a function of their student populations, but neither is viewed as a traditional generator of student housing demand. Pacific University's Hillsboro Campus is limited to graduate students, who tend to prefer traditional apartments to dormitory style housing. The current estimated student count is approximately 1,300 students, and is expected to grow to close to 2,000 students by 2020. PCC's Hillsboro Center has a significantly lower student count. A high proportion of these students are part-time, and PCC does not offer on-campus housing at any of their locations.

There are currently no dedicated student housing projects in Hillsboro, with the closest available housing provided by Pacific University for undergraduate students at their Forest Grove campus. Due to the character and magnitude of current and expected residential demand from students, our expectation is that students will represent an important demand segment in the market but are likely insufficient in number to support purpose-built student housing. Most of the local students are non-traditional, in that they are part-time and/or older. As a result, they are expected to look for more traditional housing options.

Housing Demand

A mid-term housing forecast was generated for the study area based on recent market trends, as well as the current and projected demographic characteristics of households in the study area.

The demand for rental apartments in the area is projected at around 1,000 units over the next five years in the downtown Hillsboro area, or approximately 200 units per year. New rental residential product will likely be targeted towards households earning $35,000 and above, with any new product targeting a lower income bracket likely need to be subsidized. The projected net demand for ownership housing during the period is for 3,600 units, or 720 net new units per year.

Demand was also segmented based on product type, split into single family residential, townhouse, and condominium units. This split was based on the current observed split between units. We expect that the economics of new construction will likely produce a significant change in new product offerings by price point, with lower price point units increasingly difficult to produce outside of townhome and condominium configurations. As a result, while the market may have a demand preference for single family housing, much of this demand will be realized in attached for-sale product due to market factors.

For both rental and ownership residential, it is important to make a distinction between potential and realized demand. While our model anticipates the demand profiles summarized, the capture of this demand is a function of the market's ability to deliver and adequate level of acceptable product types at the appropriate price points. In other words, while there may be demand for 200 rental apartment units in

a single year, if no units are delivered to the market that demand will likely shift outside of the market and not be "realized" locally.

The current demand for senior housing in Hillsboro is estimated at 616 units, including 292 ILUs, 237 ALUs, and 88 MCUs. We expect most of the support for a new private-pay project to come primarily from households with incomes above $25,000. These make up two-thirds of the 75+ segment, and represent a market total of roughly 415 units. Based on current occupancy rates, the market appears to be somewhat undersupplied.

We estimate future senior housing demand by applying current penetration rates to our estimates of future households in the 75+ segment. Based on our baseline projections for household growth, the current penetration rates in the PMA suggest a total net increase in demand of around 66 ILUs, 54 ALUs, and 20 MCUs over the coming five years. This represents a total of 140 units, or nearly 28 units per year. Among households with incomes above $25,000, which we expect to dominate the demand for new, private-pay projects, five-year demand growth is estimated to around 56 ILUs, 45 ALUs, and 17 MCUs. This represents a total market increase of 118 units over the period, or 24 units per year. Because of the aging of the baby boomers, we would expect even stronger demand growth in the following years.

This analysis is limited to projected demographic trends in the Hillsboro area, and doesn't include the potential to increase regional share within Washington County. The broader Washington County area has a senior housing population roughly four times greater than Hillsboro, and Hillsboro has the capacity to increase its share of marginal growth through better product offerings.

Both affordable and student housing are a subset of overall rental residential demand. The demand for affordable units is dependent upon how "affordable" is defined. The distribution of new and overall rental residential demand includes affordable rent levels that would be insufficient to support new residential construction without significant assistance. These are the demand components that are typically associated with affordable housing, and are not likely to be addressed by new development unless subsidies are available.

Within the City of Hillsboro, an estimated 12.7% of the rental housing stock is income-restricted. This compares to an 11.0% rate in the broader metropolitan area. The remainder of housing for lower income households is provided by the private market, primarily through filter-down housing as opposed to new construction.

Summary of Findings

The following matrix summarizes the findings of our analysis in terms of market depth, pricing, and other comments.

PRODUCT TYPE	MARKET DEPTH	PRICING	COMMENTS
Rental Apartments	Net new demand for approximately 200 units in the downtown Hillsboro area. The level of realized demand will be a function of the level of product delivered to the market, and influenced by activity in proximate markets such as South Hillsboro.	Pricing at 10% to 15% discount from Orenco, with achievable rents at between $1.75 to $2.05. Highest achievable rents in Health & Education and Main Street districts, and better rents if linked to grocer.	Achievable market rents currently insufficient to support podium product without intervention. A mix of tuck under and surface parking would be more viable, while garden apartments would need no intervention.
Affordable Housing	There is a current need beyond what likely can be met through new construction. Net projected growth of low-income households is limited.	Pricing is set by OHCS annually for tax credit and bond projects.	These projects are typically done using tax credits (4% or 9%), as well as bond financing. The viability of projects is dependent upon target market and tools available.
Senior Housing	Demographically-driven market depth for senior housing is estimated at only 24 to 28 units per year.	Pricing would likely reflect that in the upper third of comparables, but likely below The Springs. Site sizes will limit the ability to provide aging in place options.	Access to health services and transit is important to seniors, and a location in the Health & Education district would be highly desirable.
Student Housing	Based on interviews and information available to-date from Pacific, there is likely demand for approximately 100 student housing units in the area.	Students are highly price sensitive, and to-date have located in lower priced locations such as Aloha as opposed to Orenco or newer projects in Tanasbourne.	The campus location along the light rail line allows students to easily commute from lower cost locations. Due to price sensitivity, a newer product would likely need to be specifically targeted to students to capture demand fully.
Ownership Housing	Projected ownership demand in Hillsboro is over 700 units per year, but this would be split between downtown and South Hillsboro. In the study area, a target of 200 units in a five-year period is viewed as reasonable.	Achievable pricing for condominium flat product would likely be in the $220 to $300 per square foot, depending upon location and execution. Townhome pricing would be $220 to $260.	There has been high demand for attached for-sale product, but construction defect litigation and financing issues have impacted new development. Fee simple townhome product should be feasible without subsidy.

This section summarizes in general terms the financial characteristics of a range of residential development types and forms, as well as tools that can be used to improve the viability of residential development in the study area.

ECONOMIC CHARACTERISTICS OF RESIDENTIAL DEVELOPMENT

Rental Apartments

The economics of residential development are primarily driven by achievable pricing and development form (which drives unit yield and cost). As with many downtown areas in suburban communities, highly urban development forms are a preferred outcome, but the cost of this type of construction and achievable pricing in the market is often a barrier to achieving these forms. In general terms, higher density development forms cost more per square foot to build, but the increased yield in terms of units can provide a greater return to the property if achievable pricing is high enough.

The economics of development change the highest and best use as achievable rents shift. To-date, the Hillsboro and greater Washington County markets have seen primarily garden apartment development, except for recent activity in downtown Hillsboro, at Orenco Station, in downtown Beaverton, and in Tualatin near Bridgeport Village. Of these projects, only Eddyline Bridgeport was done without significant public assistance. This can be explained by the economics of mid-rise and high-rise residential, which require assumed achievable rent levels that are largely above local market rates. The higher density projects that have been completed in downtown Hillsboro and Orenco Station have required some assistance to be viable, indicating that the forms are not yet viable under existing achievable rent levels.

To test financial viability regarding alternative residential development forms in the downtown Hillsboro study area, a series of prototypical pro formas were generated to contrast the financial viability of garden, podium, mid-rise, wrap, and high-rise rental residential development. The following is a summary of key assumptions used:

- *Residential Price Assumption:* JOHNSON ECONOMICS assumed that rental residential units achieve an average lease rate of $1.75 to $2.10 per square foot per month. This is a rough estimate for the study area in the current market, and developers may vary greatly in what they consider to be achievable. These rates do not reflect pricing well established in the market, which will likely lead to an unusually high level of variability in assumptions.
- *Capitalization Rates and Rates of Return:* The analysis assumes a market capitalization rate of 5.00%. The threshold rate of return for all developments is set at 115% of the assumed market capitalization rate, reflecting that at completion the project is worth 15% more than its' cost of construction.

Under these assumptions, the model indicates that a three-story wood-frame project with surface parking currently represents the highest and best use in the area under both the low and high rent scenarios, followed by a townhome project under the low rent scenario and a podium project with reduced parking ratios under the high assumed rent scenario. The simplified pro formas indicate that "podium" and "wrap" projects would likely require some level of assistance or market intervention to make these development forms competitive with garden apartments or townhomes.

Affordable Housing

The primary difference between market rate and affordable housing projects is the limited income that can be received due to affordability requirements. While affordable housing can be met through projects that are not income-restricted, new construction that is priced for households at 60% of MFI and below will largely be limited to those receiving tax credits and/or bond financing through OHCS. In general, these projects entail both lower levels of income as well as higher costs. Income limitations are typically set by the program guidelines. For 9% tax credits, which are competitive, there is also a risk factor that credits will not be obtained in any funding round.

In our experience, tax credit projects can compete effectively with market rate projects for land. Returns are often higher, but the time and risk associated with getting the credits can dissuade private developers from pursuing this type of project. As the primary cost associated with this type of development is the variance between allowed rents and achievable rents, these projects are considerably more viable in locations where that delta is not as great.

Ownership Housing

A range of ownership housing options was also evaluated. The development forms evaluated included: single family homes, duplexes, townhomes, wood frame condominium flats, wood frame over podium flats, mid-rise, and high-rise flats. The relationship between uses was similar, with higher density uses supporting higher residual land values when assumed achievable pricing is higher, while lower cost and intensity development has higher yields at lower price points.

To test financial viability regarding alternative residential development forms in the downtown Hillsboro study area, a series of prototypical pro formas were generated to contrast the financial viability of the range of development forms. Pricing was assumed to range from $220 to $300 per square foot. As with the rental apartments, the lack of local comparables is likely to yield a wide range of assumptions from the development community. The necessary return on cost was assumed to be 15%.

The simplified pro formas indicate that “podium” project with condominium units would likely require some level of assistance to make these development forms competitive with alternative uses.

Potential Tools and Impacts

The preceding analysis of financial viability did not consider potential market interventions. There are many tools and interventions that can substantively contribute to the viability of a development program, including the following:

- Vertical housing tax credit
- SDC financing
- Low Income Housing Tax Credits
- Grants
- Bond financing
- SDC/Fee waivers and credits
- Land write-downs

The financial characteristics of an actual development will inherently vary, as site characteristics and program parameters will drive returns. In addition, acceptable return parameters vary by developer and/or

investor, as will assumptions with respect to achievable pricing. The cost side of the equation is also highly dynamic, with recent cost increases observed in the market negatively impacting project viability.

Block 67 Implications

The City of Hillsboro has purchased a full block, with the intention of releasing the site to the development community. The site will be released with clear development requirements designed to further downtown development objectives. As residential development is likely to represent a significant component of any program on the site, this analysis can provide guidance with respect to what can be expected in proposals from the development community.

Our analysis indicates that the likely development program will include rental residential, with either market rate or income-restricted units (or some combination). Some level of ground floor retail is also likely, as well as a structured parking solution.

From a financial perspective, this development form is likely to not be viable without a considerable level of intervention, primarily related to the cost of the structured parking solution. While proximity to transit will allow for a relatively low parking ratio, the cost of structured parking will be well above what can be recovered through monthly fees. In addition, the scale of ground floor retail will be limited due to the difficulties in economically providing parking to support such a use.

As the city will typically be responding to specific development proposals, clarifying assumptions and return parameters will be integral to evaluating the need for and/or requests for project assistance. We would expect that proposals will request a package of interventions to develop the site, with the level of required intervention a function of the nature of the programmatic requirements placed on the site.

III. CONTEXT

This section will provide a summary of previous studies commissioned by the City of Hillsboro that address downtown housing needs, as well as housing policy considerations.

A. PREVIOUS PLANNING EFFORTS

The City of Hillsboro has completed many studies with respect to housing needs and policies relevant to the downtown area, including the Downtown Framework Plan, Urban Renewal Plan, and a ULI Technical Advisory Panel recommendations. The following is a summary of these reports, with a focus on findings related to downtown housing:

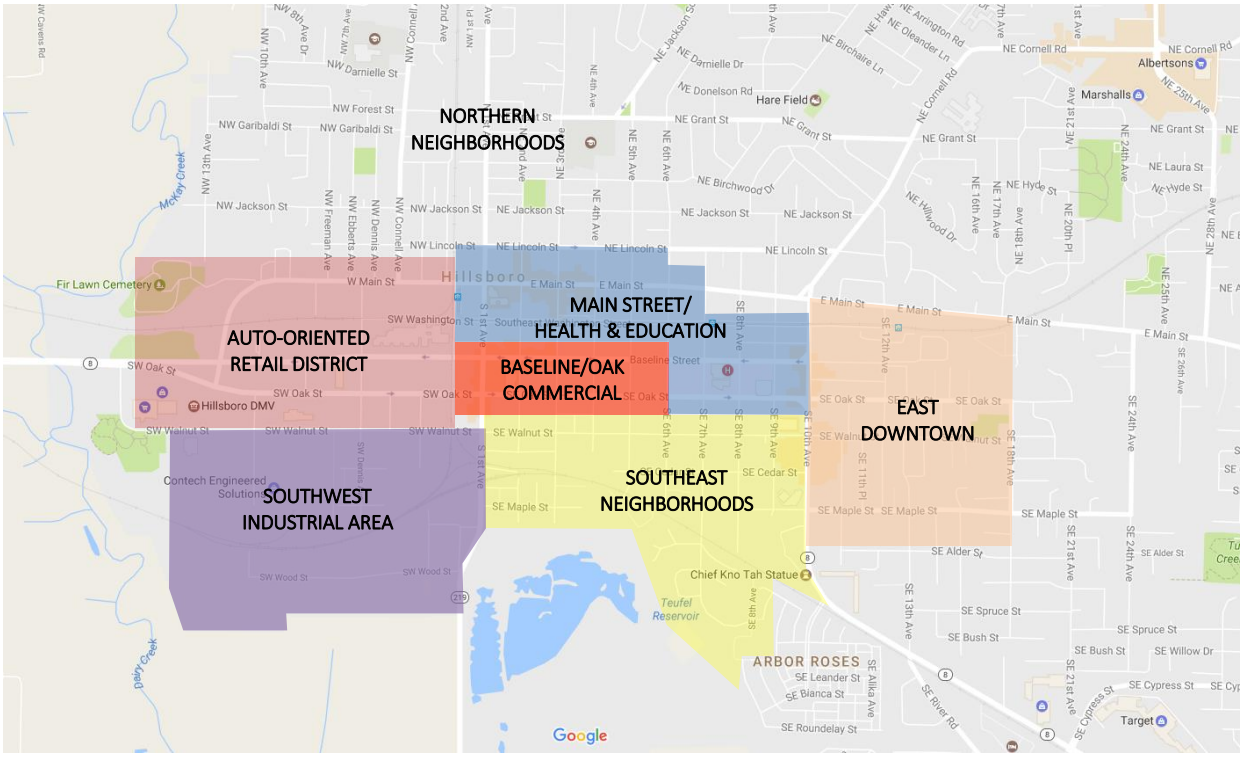
Plan	Comments
City of Hillsboro Downtown Framework Plan, 2009	The Framework Plan is based on an extensive public outreach process, and was extensively influenced by citizens and elected officials. The output included five key goals: a. The downtown core is vibrant, active, sustainable, and accessible b. Development in downtown neighborhoods is compatible c. Pedestrian, bicycle, and transit travel is safe and well-connected d. Major streets are more inviting with enhanced streetscapes and safe pedestrian/bike crossings e. Sustain and enhance Downtown's economic, environmental, cultural, and historic diversity The study area was divided into four subareas, and vision statements were developed for each subarea. A policy under this plan was to support and encourage new higher-density mixed-use growth near the Tuality/Pacific campus. The plan encouraged consideration of an urban renewal area, in support of a policy to encourage new investment in the downtown core area. The plan also includes extensive recommendations with respect to urban design and treatment of public spaces.
Downtown Hillsboro Urban Renewal Plan, May 2010	This plan contains the assumptions underlying the establishment of the Downtown Hillsboro Urban Renewal Area. Guiding goals and objectives related to housing include: ▪ Revitalization of the downtown commercial district, with a stated objective to encourage new investment and quality development on vacant and underutilized parcels. ▪ Promote and support stable and sustainable residential neighborhoods for a range of household income. This goal includes assisting development of new housing units supporting the provision of housing choices that address needs of area employees and students, as well as attracting new households. Other goals address infrastructure and public spaces. The project list in the plan is extensive, allowing for the flexible use of these funds to support objectives.

Plan	Comments
ULI Technical Assistance Panel Recommendations, 2016	The City of Hillsboro sponsored a panel from the Urban Land Institute to provide recommendations regarding downtown redevelopment opportunities. The panel recommended a short-term focus on the city's core, with specific mention of the former site of Hank's Thriftway as a short-term opportunity. The panel discussed the need for the city to encourage redevelopment on catalyst sites, and bring a range of tools to bear to meet its goals in the area. The panel saw a link between the Health & Education District and Central Main Street, linked along SE Washington and Main Streets. Parking management and the vertical housing development zone were identified as key tools.

IV. Study Area Overview

The Downtown Hillsboro Study area is shown in the following map. For purposes of this analysis, we have divided the downtown study area into six distinct submarkets, the general boundaries of which are introduced in previous work in the downtown district and have been modified somewhat for this analysis. These are significantly different in their physical characteristics as well as existing development pattern. The area also includes largely residential districts dominated by single family residential development.

Overview of Downtown Hillsboro Sub-Districts.



The downtown area is bisected east to west by TriMet's MAX light rail line, which terminates at the Hatfield Government Center and has four stations within the study area. The following is a summary of the six subareas.

Area One: Main Street/Health & Education Districts

This area represents the core of downtown, and includes commercial corridors on Main Street and Washington, as well as major institutional uses such as the Hillsboro City Civic Center, the Washington County Courthouse, and Washington County Public Services Complex. The Health & Education district is dominated by Tuality hospital and health complex and Pacific University campus, which are discussed in greater detail elsewhere in this report. The district is a major employment and visitor hub in the area, and has been extensively planned. The area has three light rail stations, as well as many of the City and County municipal buildings. The pedestrian environment is most developed in this area, and it has a variety of commercial services and programmed uses. While a significant activity center, the area currently lacks housing options consistent with the level of employment and visitor activity.

Current zoning is Station Community Commercial – Downtown (SCC-DT), which allows for a broad range of residential and commercial uses. The zoning is somewhat more restrictive in terms of allowed height in residential compatibility areas, which are at the boundaries of the district.

Code	Minimum	Maximum	Height
SCC-DT	30 du/na	90 du/na	75' max

Area Two: Baseline/Oak Commercial Corridor

The Baseline/Oak commercial corridor is an area of mixed commercial and residential structures, many of which are dated. The businesses are largely auto-oriented with surface parking, and reflect the influence of the significant east-west traffic flow through the area on the Baseline/Oak couplet. The area does not have an inviting pedestrian environment at this time, and is not expected to be the focus of new residential investment over the next five years. As the broader study area develops, this subarea's proximity to the Main Street and Health & Education districts, as well as light rail access, will be marketable assets. The scale of property holdings in this area is quite small, providing opportunities for smaller scale redevelopment and reinvestment. The volume of traffic along the Oak/Baseline couplet will allow for some level of continued commercial viability, although the existing structures are aging and in dated formats.

Current zoning is Station Community Commercial – Downtown (SCC-DT), consistent with the Main Street/Health & Education Districts.

Area Three: East Downtown

The East Downtown area includes the eastern edge of the 10th Street commercial corridor, as well as a mix of multi-family and single-family housing. The area has a light rail station in the northern portion of the district, and has attracted a considerable level of tax credit housing development. The commercial corridor includes several dated retail forms, and is expected to see ongoing redevelopment and reuse over the next decade.

Current zoning in the area is a combination of Station Community Residential, Medium and High Density (SCR-MD, SCR-HD), as well as Multi-Family Residential (MFR-2) and SCC-DT. The following table summarizes residential densities allowed per net acre in these designations:

Code	Minimum	Maximum	Height
SCR-MD	18 du/na	23 du/na	3 stories
SCR-HD	24 du/na	30 du/na	5 stories
MFR-2	17 du/na	21.25 du/na	3 stories/40'
SCC-DT	18 du/na	90 du/na	75'

The area's proximity to transit and relative affordability within the downtown area will likely favor continued multi-family residential development.

Area Four: Auto-Oriented Retail District

Moving west of 1st Avenue, the Baseline/Oak couplet becomes increasingly auto-oriented, with parcel sizes increasing significantly west of SW Dennis Avenue. The area has a mixture of new and used car lots, auto-oriented retail, services, and some vacant properties. While providing services, this district does not have an urban feel and is associated more with the TV Highway through traffic than downtown Hillsboro. The light rail corridor does not extend this far west, and residential development here is likely to be either smaller scale and/or relatively auto-oriented. The zoning in the area is largely C-G (General Commercial, which allows residential uses up to 24 density units per net usable acre, with a maximum height of 35'. A portion of the district is zoned Industrial General (I-G), which providing opportunities for all types of manufacturing, warehouse, and wholesale industrial Uses, and retail, service, and office commercial uses. Certain retail uses may be subject to square footage limitations based on Metro Title 4 requirements.

Area Five: Southwest Industrial Area

The Southwest industrial area includes a mix of industrial uses as well as modest housing. The area has limited visibility. Uses are relatively low density, and often have significant yard space and outdoor storage. The current comprehensive plan designation in the area is industrial, which precludes residential development. The area does have some existing residential uses that are grandfathered, with pricing at some of the lowest levels in the city.

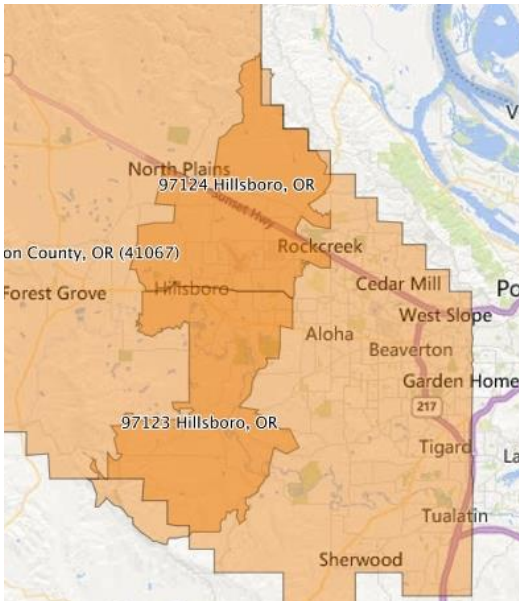
Area Six: Southeast Neighborhoods

The southeast neighborhoods have a diverse population, with over half identifying as Hispanic. The area has a mix of single family and multi-family housing options, with Tenth Avenue serving as the primary commercial center. Public facilities in the area include the Shute Park Library, Shute Park, Walnut Street Park, and Miller Education Center West. The vision statement for this neighborhood stresses quality affordable housing, safety, and high-quality locally owned shops and restaurants.

Code	Minimum	Maximum	Height
SCR-MD	18 du/na	23 du/na	3 stories
SFR-7	5 du/na	6.25 du/na	2.5 stories/35'
MFR-2	17 du/na	21.25 du/na	3 stories/40'

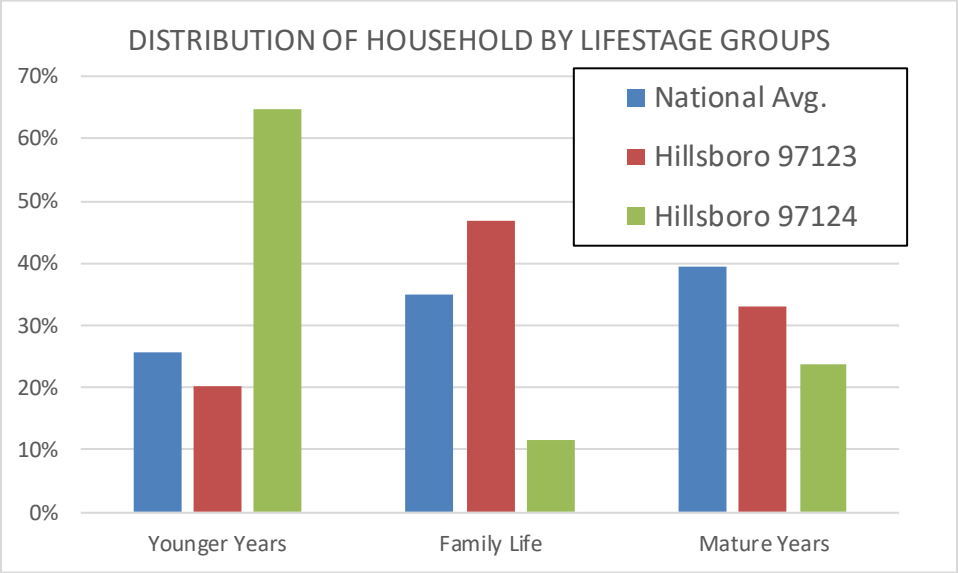
A. Demographic Profile

A demographic profile of Hillsboro was run, using zip codes 97123 and 97124 as proxies for the city. This area includes most of the city, including the Tanasbourne and Orenco Station areas.



In order to characterize the profile of the local market, we collected information on the area from Claritas' PRIZM Premier segmentation system. This data set defines households in terms of demographically and behaviorally distinct types, or "segments". These segments consider characteristics such as income, education, occupation and home value) and are grouped into Lifestage Groups and Social Groups. The Social Groups are based on urbanization and socioeconomic rank, while the Lifestage Groups are based on age, socioeconomic rank, and the presence of children at home.

The data indicates that the demographic profile in the City of Hillsboro is quite young compared to national averages, particularly in the northern portion of the city that contains a significant rental apartment concentration.



The social, demographic, and ethnic composition of households in Hillsboro is quite urban, with households that have similar profiles consistently showing a preference for more urban housing options. On the following table, segments shown in green have a disproportionately high local concentration relative to the national average. This is unusual, in that housing product in the Hillsboro area remains largely suburban in nature, except for some newer projects in the Orenco Station area. The local household mix likely reflects

the local high-tech employment sector, which employs a well-educated labor force that is more typically viewed as favoring more urban locations.

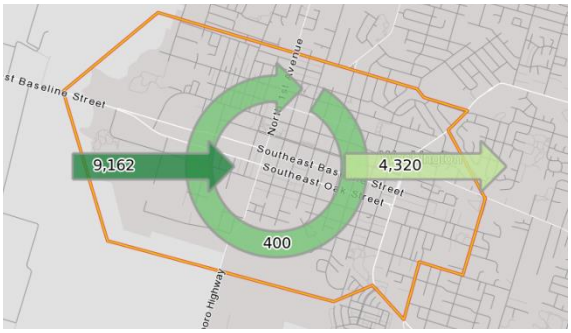
	URBAN	SUBURBAN	SECOND CITY	TOWN & RURAL
HIGH ←		SOCIAL GROUPS		→
	URBAN UPTOWN	**ELITE SUBURBS**	**SECOND CITY SOCIETY**	**LANDED GENTRY**
	04 Young Digerati 500.9	01 Upper Crust 0.0	22 Middleburg Managers 53.5	05 Country Squires 11.2
	07 Money & Brains 205.9	02 Networked Neighbors 40.8	33 Second City Startups 25.5	09 Big Fish, Small Pond 26.6
	19 American Dreams 767.9	03 Movers & Shakers 0.0	37 Bright Lights, Li'l City 32.1	11 Fast-Track Families 102.3
	21 The Cosmopolitans 920.0			15 New Homesteaders 205.4
	MIDTOWN MIX	**THE AFFLUENTIALS**	**CITY CENTERS**	**COUNTRY COMFORT**
	17 Urban Elders 88.4	06 Winner's Circle 76.3	47 Striving Selfies 84.1	18 Mayberry-ville 126.2
	31 Connected Bohemians 565.0	08 Gray Power 38.0	48 Generation Web 36.4	23 Township Travelers 5.1
	35 Urban Achievers 192.5	10 Executive Suites 160.0	49 American Classics 63.5	24 Pickup Patriarchs 46.1
	40 Aspiring A-Listers 250.4	12 Cruisin' to Retirement 127.9	53 Lo-Tech Singles 18.7	27 Big Sky Families 0.0
		13 Upward Bound 389.5	54 Struggling Singles 8.0	28 Country Casuals 0.0
		14 Kids & Cul-de-Sacs 144.8		29 White Picket Fences 59.4
		16 Beltway Boomers 98.8		
$	**URBAN CORES**	**MIDDLEBURBS**	**MICRO-CITY MIX**	**MIDDLE AMERICA**
	42 Multi-Culti Mosaic 47.9	20 Empty Nests 46.6	59 New Melting Pot 21.8	32 Traditional Times 31.1
	43 City Roots 210.2	25 Up-and-Comers 99.3	61 Second City Generations 50.1	38 Hometown Retired 19.9
	45 Urban Modern Mix 111.4	26 Home Sweet Home 44.5	64 Family Thrifts 0.0	39 Kid Country, USA 22.5
	56 Multi-Culti Families 527.9	30 Pools & Patios 219.2	66 New Beginnings 63.5	44 Country Strong 9.7
	63 Low-Rise Living 69.3		67 Park Bench Seniors 29.8	46 Heartlanders 16.4
				51 Campers & Camo 11.4
				52 Simple Pleasures 15.2
		INNER SUBURBS		**RUSTIC LIVING**
		34 Young & Influential 243.8		55 Red, White & Blue 7.2
		36 Toolbelt Traditionalists 31.0		57 Back Country Folks 1.1
		41 Domestic Duos 21.4		58 Golden Ponds 10.4
		50 Metro Grads 52.6		60 Small-Town Collegiates 1.1
				62 Crossroad Villagers 4.1
				65 Young & Rustic 2.1
LOW				68 Bedrock America 0.0

While the profile indicates a demographic composition that would typically be receptive to urban housing products, available residential development in the local market has been largely more suburban in form. This suggests that households in the area would be receptive to more urban product types in downtown Hillsboro.

B. Commute Patterns

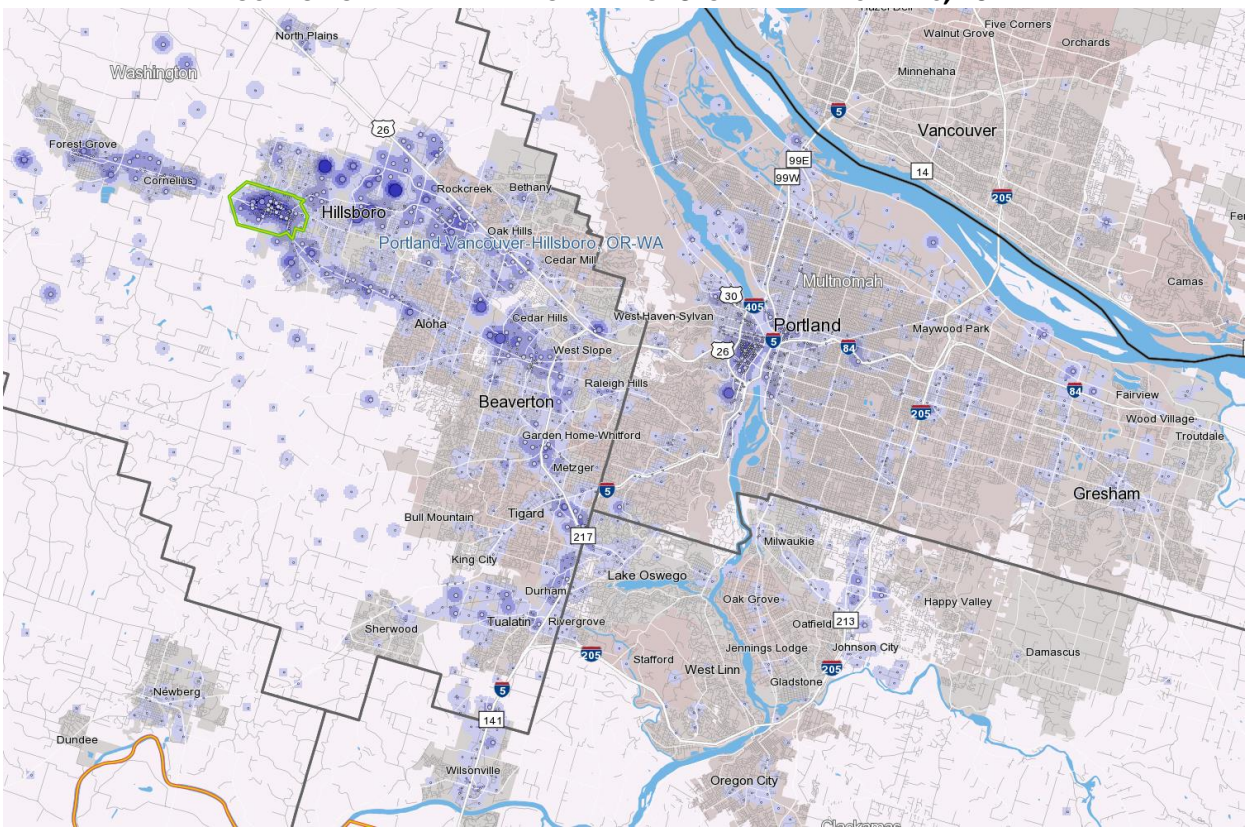
The study area is a significant employment center, with an estimated 9,562 persons employed in the study area in 2014. Over 9,100 employees are estimated to commute into the area for their primary employment, while an additional 4,300 live in the study area and commute elsewhere. Only 400 employees were estimated to both live and work in the study area as of 2014.[3] Employees working in the study area are typically a primary source of demand, as these residents would benefit the most from proximity to employment and savings in commute time.

Inflow and Outflow of Employees, 2014



The broader regional workforce, as well as senior households, are other key target markets. The workforce living in the study area is employed broadly throughout the metropolitan area, as shown in the following map:

Location of Primary Employment of Study Area Residents, 2014[1]



3 US Census Bureau, Longitudinal Employer-Household Dynamics Program

V. Residential Market Conditions and Trends

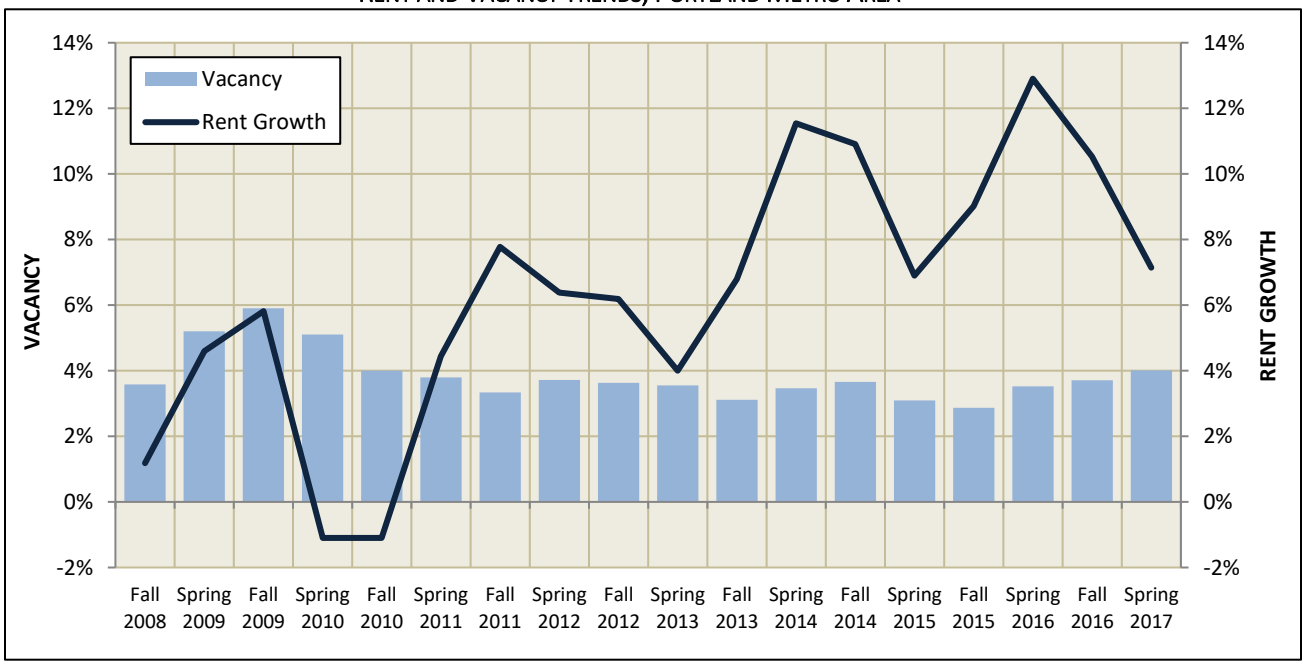
In this section, we evaluate trends in the rental apartment market as well as the for-sale markets for condominium flats and townhomes. More detailed analysis of projects that are comparable or competitive to the subject site are included in the following section.

A. Rental Apartment Market

Regional Trends

As new supply is delivered at an accelerating pace, the Portland Metro apartment market is seeing easing pressure on occupancy and rents. According to Multifamily NW, the regional vacancy rate has risen steadily over the past 18 months, and sits at 4.0% at the end of 1Q17. This represents an increase of 30 basis points since the fall. At the same time, the annual rent growth has declined from 10.5% to 7.1%. Despite the cooling, this is still a landlord's market, and the market remains undersupplied on a regional level.

Rent and Vacancy Trends, Portland Metro Area



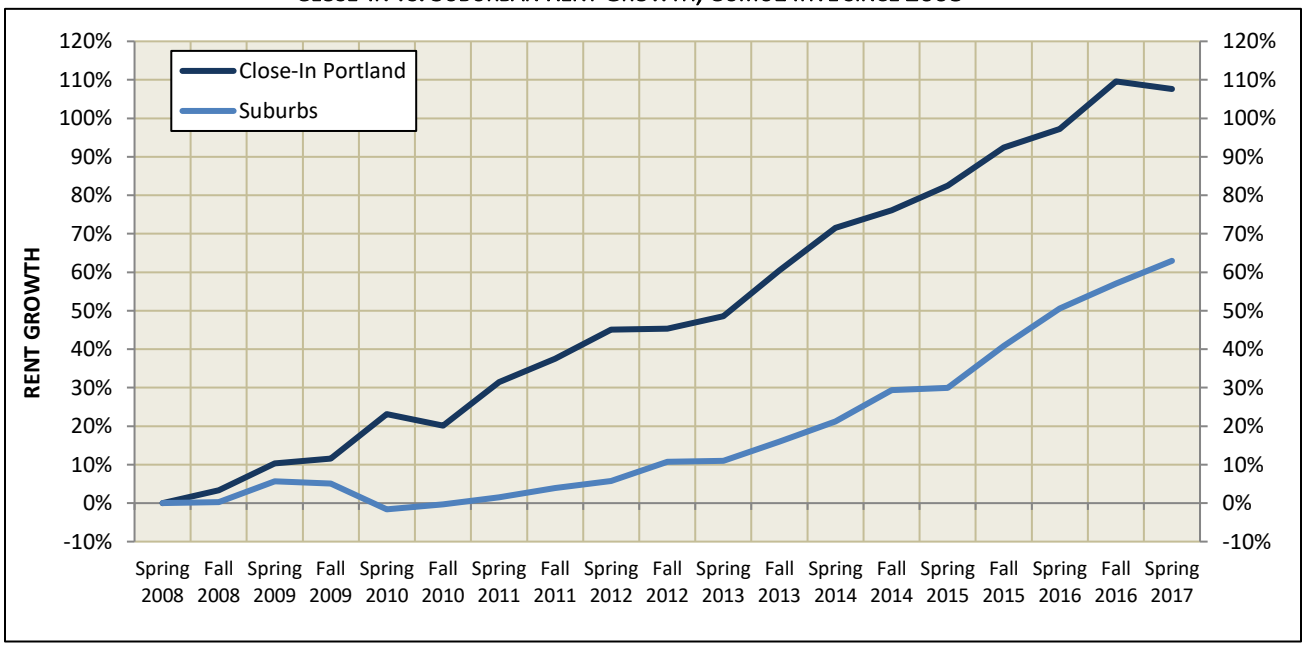
SOURCE: Multifamily NW

Much of the new apartment supply delivered to the regional market is concentrated in Central Portland. Of the roughly 6,000 new units completed in the Portland Metro Area in 2016, 73% were in Close-In submarkets. These submarkets, which include most of Portland proper west of 82nd Avenue, accounted for only one-third of the regional apartment stock prior to this construction cycle. The heavy concentration of new supply in central areas fits a national pattern, and has been driven by the observation that most apartment renters prefer urban locations.

Given the concentration of new supply in central markets, and the shift in demand to more peripheral locations, the cooling effect of the new supply is primarily seen in close-in submarkets. Based on the

Multifamily NW survey, rents have declined by 1.0% in Close-In Portland over the past six months, while the suburbs have seen an increase of 3.8%. The decline recorded in Close-In Portland is the first since 2010, and comes after rent levels have more than doubled over the past ten years.

CLOSE-IN VS. SUBURBAN RENT GROWTH, CUMULATIVE SINCE 2008

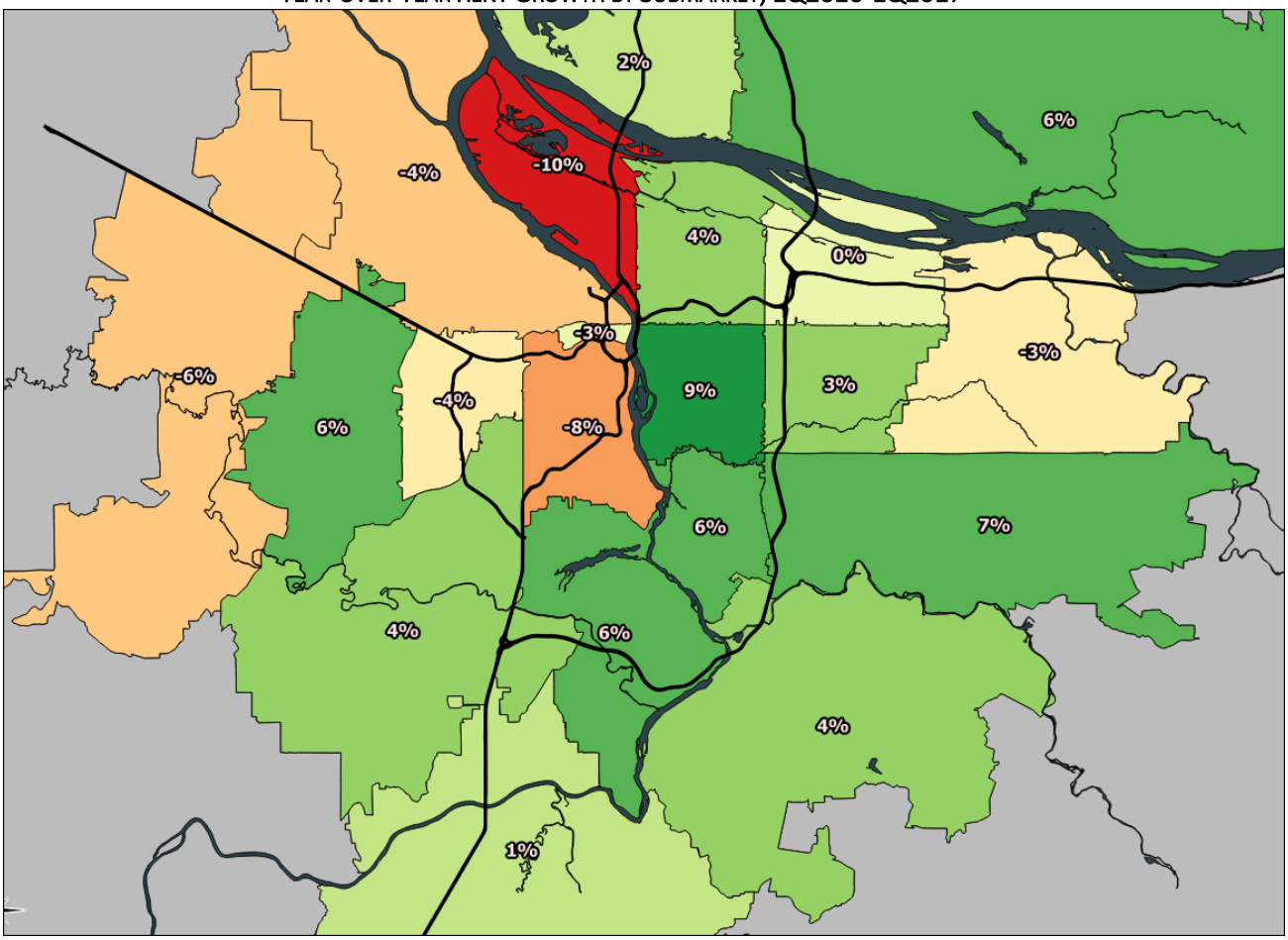


SOURCE: Multifamily NW

In general, the submarkets that currently see strong rent growth are those that have seen very limited new supply in recent years. Using the Multifamily NW delineations, these include Lake Oswego/West Linn, Milwaukie, Clackamas, and East Vancouver. The steepest declines over the past six months have been observed in North Portland – mostly at properties along the north-south arterials, where a lot of new properties have opened over the past two years. Apart from North Portland, declines are concentrated on the Close-In Westside, including the Northwest/Pearl, Downtown, and Southwest Portland. The Hillsboro market reported a 6% reduction in average rent levels over the last year, essentially bringing rent levels down to 2015 levels. Some of this reflects the introduction of new construction and lease-up concessions.

The downtown Hillsboro study area has seen very little new construction. Recent projects in the Orenco Station and AmberGlen areas are comparable but not directly competitive with the downtown Hillsboro area. The amenity and employment mix is dissimilar enough that we expect any downtown project to be able to differentiate itself from those alternative locations. Rising construction activity will likely stop rent escalation in the established markets, but the downtown Hillsboro market has the potential to see some additional escalation in this cycle due to a lack of new construction.

YEAR-OVER-YEAR RENT GROWTH BY SUBMARKET, 1Q2016-1Q2017

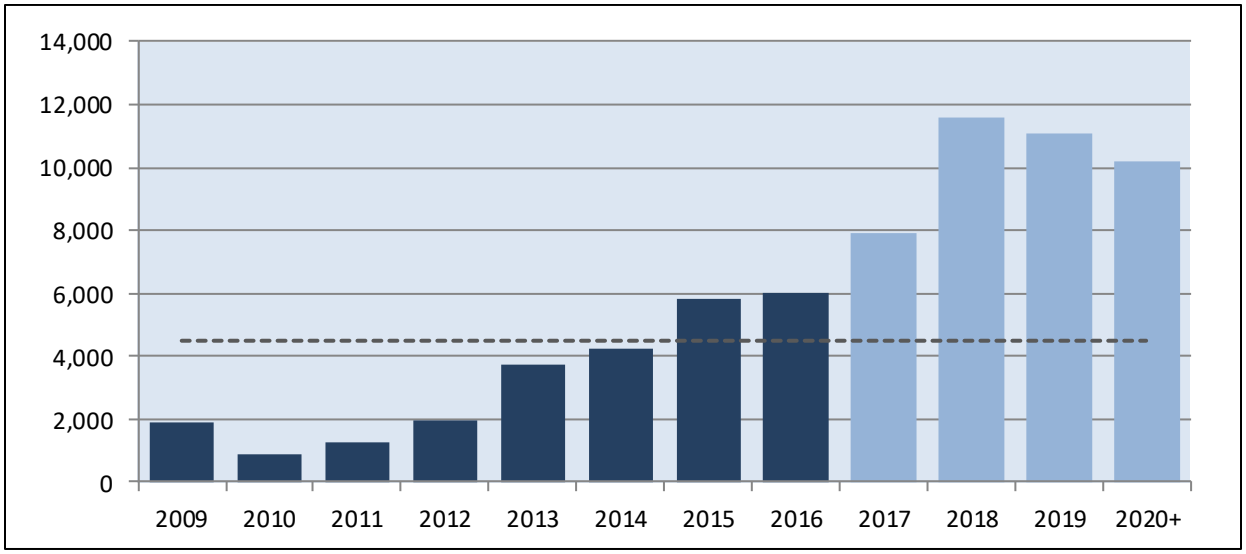


SOURCE: Multifamily NW

Rent growth calculated from submarket averages in the Multifamily NW survey can sometimes be misleading, as the properties included in each survey vary. Data from CoStar is derived from the same projects over time, and covers the majority of market-rate properties with 20 or more units in our region. Costar reports that effective annual rent growth (net of concessions) in the Portland Metro Area was 3.1% through the first quarter of 2017.

The amount of new supply in all stages of development has grown significantly across the Portland Metropolitan Area in recent years. At the end of 2016, JOHNSON ECONOMICS was tracking more than 450 projects with a total of 38,000 units at some stage in the development process. However, this figure includes many recently proposed projects that sought to be vested under the former entitlement regime in Portland, before the new inclusionary zoning rules took effect. Many of these are tentative, and with softening market fundamentals in Central Portland, we expect many to be shelved or abandoned. Our estimate of new deliveries over the coming five years is 32,000 units. Defining the current construction cycle as beginning in 2012, this cycle is on pace to supply around 53,000 new apartment units – a 27% inventory increase. Only 40% of this new supply has already been delivered.

HISTORICAL AND ANTICIPATED APARTMENT DELIVERIES (UNITS), PORTLAND METRO AREA (2009-2020)



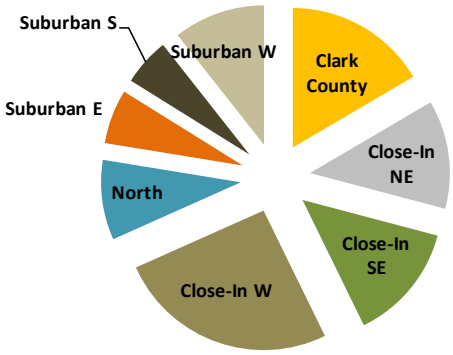
SOURCE: JOHNSON ECONOMICS

Suburban deliveries outpaced urban deliveries through the first two years of the cycle. The balance trended back to Central Portland in 2014, and two-thirds of the current pipeline is in close-in submarkets. The pace of expansion in the pipeline has slowed considerably after the deadline for avoiding Portland's new inclusionary zoning mandate expired in February 2017. The metro-wide pipeline now totals 500 projects with more than 41,000 units. We also track more than 10,000 units in potential projects, including multi-phase, master-planned projects.

DEVELOPMENT PIPELINE BY SUBMARKET, FIRST QUARTER 2017

Submarket	Units	%	Qtly Δ
Clark County	6,821	17%	1,197
Close-In Northeast	5,194	13%	307
Close-In Southeast	5,629	14%	350
Close-In Westside	10,540	26%	921
Close-In North	3,824	9%	370
Suburban East	2,599	6%	-250
Suburban South	2,275	6%	8
Suburban West	4,377	11%	-43
Total	**41,259**	**100%**	**2,860**

Distribution

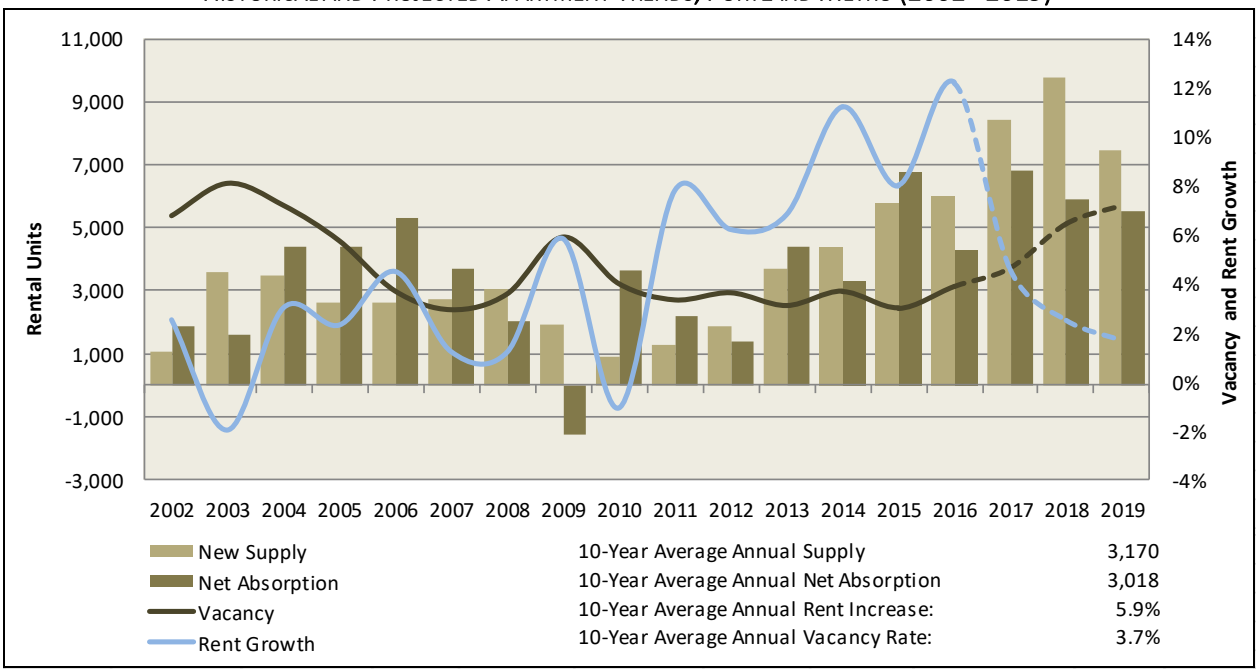


SOURCE: JOHNSON ECONOMICS

The historically wide pipeline of new apartment projects has raised concerns over whether the Portland market will be overbuilt, and what the impacts of the pipeline will be on rents and occupancy rates. For the Metro Area, we do not believe that 32,000 units represents significant overbuilding. The four-county Metro Area had roughly 200,000 households in rental apartments in 2012, according to estimates based on tax lot and census data. The current pipeline represents an inventory increase of roughly 15%. Over a five-year

period, this translates into an annual average increase of 2.8%. This is within the absorption potential of the Metro Area, considering natural household growth, in-migration, existing pent-up demand, and replacement of dated units. For the Metro area, our baseline absorption estimate is for between 5,500 and 6,800 units in each of the coming three years.

HISTORICAL AND PROJECTED APARTMENT TRENDS, PORTLAND METRO (2002 - 2019)

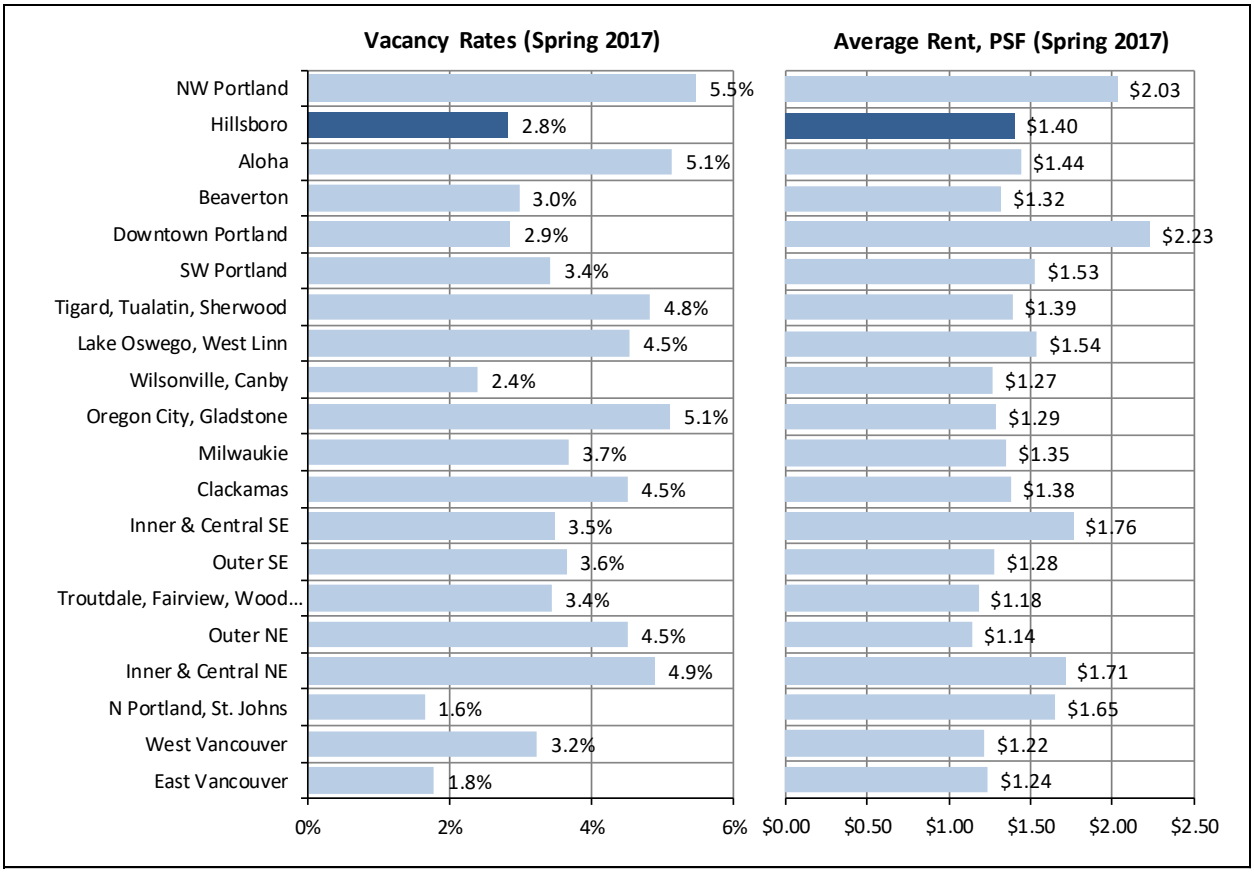


SOURCE: Multifamily NW, JOHNSON ECONOMICS

HILLSBORO MARKET

The Hillsboro rental apartment market has generally outperformed the overall metropolitan area market, with an estimated overall vacancy rate of 2.8%. Average rent levels in the market, including older product, were $1.40 per square foot, which along with Aloha represented the highest per square foot rents outside of the City of Portland.

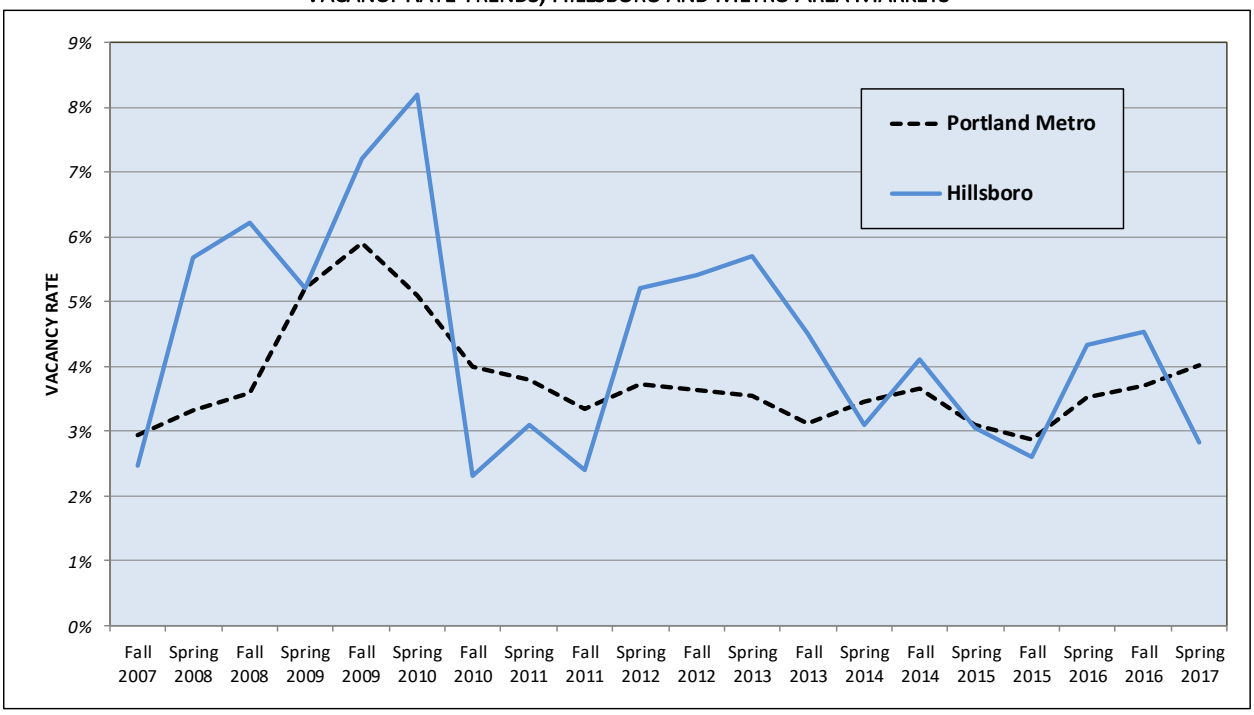
CURRENT OVERALL VACANCY RATES AND AVERAGE RENT PER SQUARE FOOT[4]



Vacancy rates in the Hillsboro area have fluctuated between 2% and 8% over the last decade, and are currently well below the Portland metro area average. Based on current planned and proposed construction activity, the Hillsboro area is expected to outperform the metro area in terms of occupancy rates over the next several years.

4 Multifamily NW, Spring 2017 Survey

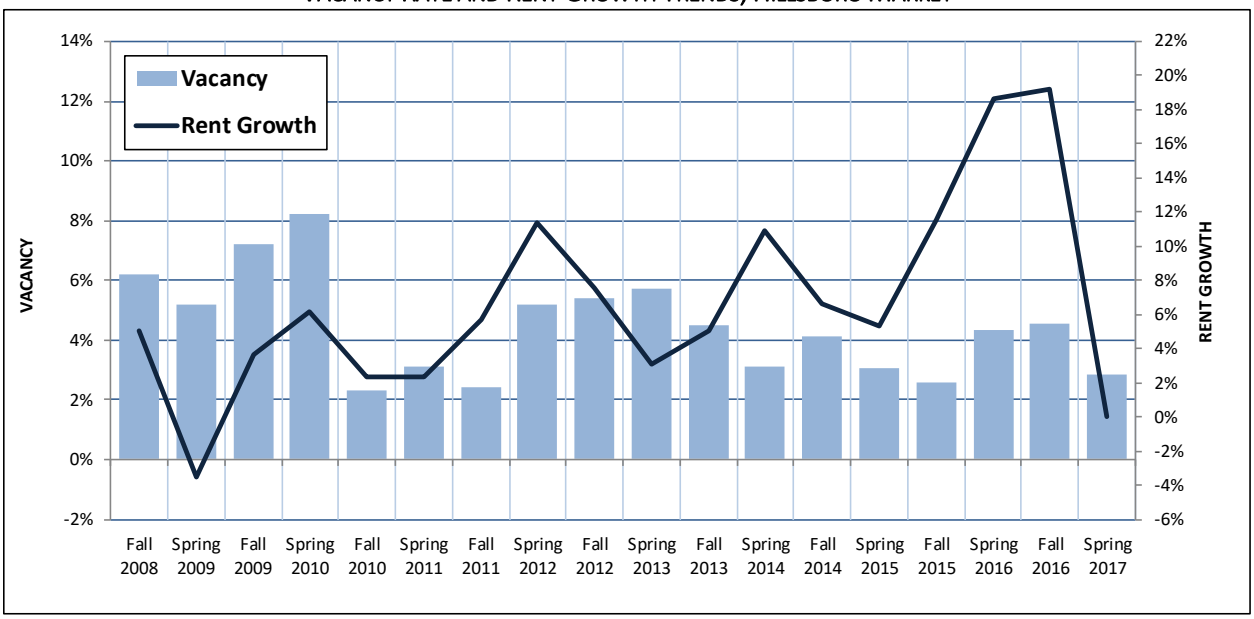
VACANCY RATE TRENDS, HILLSBORO AND METRO AREA MARKETS



Source: Multifamily NW

Low vacancy rates have allowed for rent escalation, with significant annualized rent growth reported from 2009 through the spring of 2017.

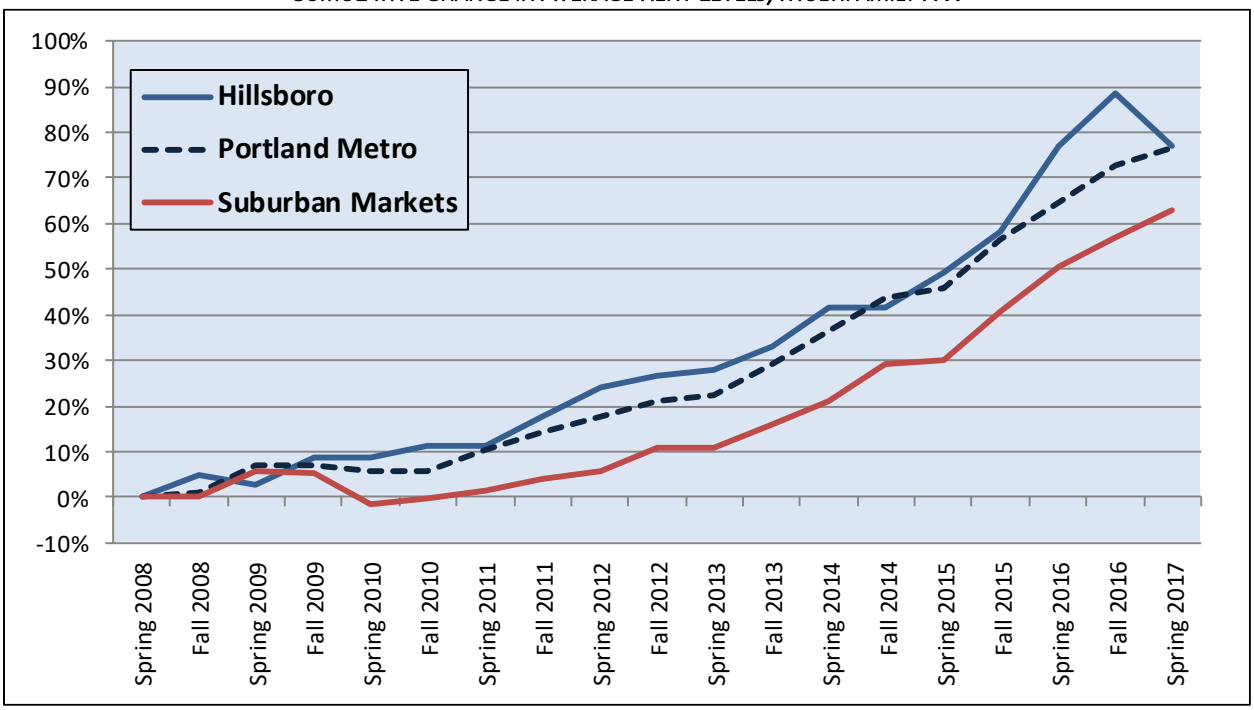
VACANCY RATE AND RENT GROWTH TRENDS, HILLSBORO MARKET



Source: Multifamily NW

In the current expansion cycle, the City of Hillsboro has seen rent escalation largely consistent with the metro area average, and above that experienced in the overall suburban markets. In Hillsboro, the average rent level is currently 77% higher than it was prior to the recession in 2008, consistent with the metro area and well above the 63% increase in the overall suburban markets.

CUMULATIVE CHANGE IN AVERAGE RENT LEVELS, MULTIFAMILY NW



The days of double-digit price growth—for multifamily projects, at least—have gone away in the past few months, and—in some cases—turned negative. Depending on the data source you look at, the numbers tell a slightly different story. Zillow, for instance, showed year-over-year rent growth of 6.5% and 5.2% for January 2017 in Portland and Hillsboro, respectively. Axiometrics, on the other hand, had the Portland Metro area at only 3% annual *effective* rent growth in its fourth quarter report. It is no surprise that the Zillow data shows higher growth than Axiometrics as the former includes single-family home rentals and the latter does not.

Given the continued health of the single-family market due in large part to lack of demand, this relationship between the datasets should continue. Regardless of the source, the trends are clearly downward in terms of rent escalation. Though rents are lower in the suburbs, occupancy rates are higher, leading to faster absorption rates. The glut of development seen in Portland proper has not been seen to the same extent in other parts of the Metro area, even on the West side, and the relatively lower building costs could entice builders out into the suburbs.

From 2013 to present, Portland has seen 0.03 units built per capita (including units currently under construction), as opposed to 0.024 in Hillsboro. If we look at proposed units included, the per capita unit output in Portland is more than Beaverton and Hillsboro *combined*. This is significant. There has already been a glut of multifamily development in Portland and prices have already adjusted because of it.

RECENT PIPELINE

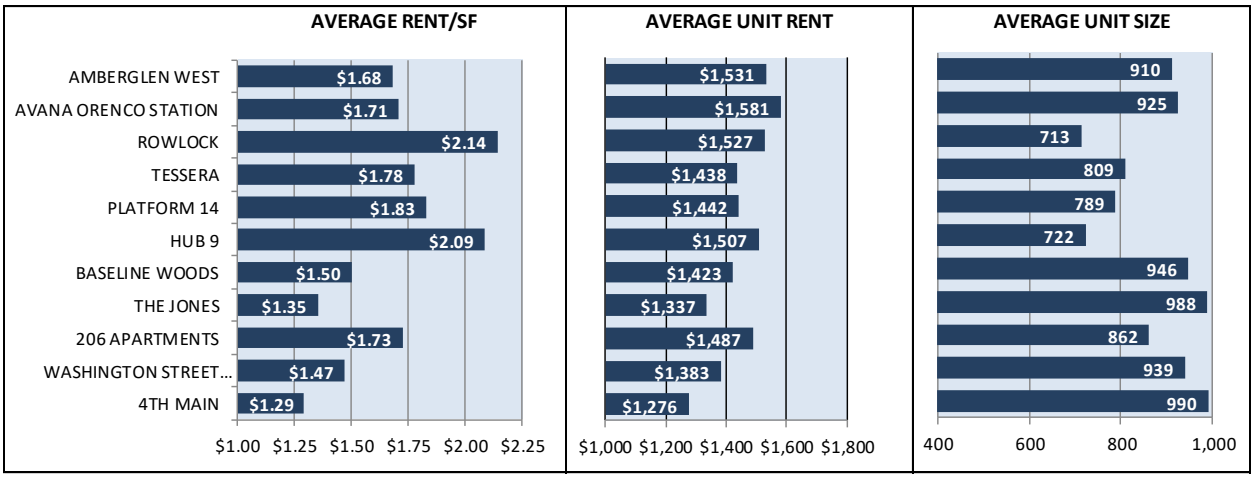
	Beaverton	Hillsboro	Portland
Population	96,577	102,347	632,309
Complete	1,018	2091	12595
Under Construction	632	327	6407
Total Units (2013-2017)	1650	2418	19002
Units/Population	0.017	0.024	0.030
Proposed	815	530	20495
Pipeline Units/Pop.	0.026	0.029	**0.062**

In addition to this movement, any proposed project in Hillsboro will be better situated to take advantage of regular population increases. According to the most recent data from the U.S. Census Bureau's American Community Survey, Hillsboro's population—from 2010 to 2015—has grown 2.2% per year compared to 1.6% in Portland. We expect Hillsboro growth to continue to outpace Portland in percentage terms going forward.

COMPARABLE PROJECTS

A total of twelve market rate rental apartments were surveyed to help establish the market context within which a new rental apartment project in the study area would compete. The projects are largely of a recent vintage, either completed or substantively remodeled over the last few years. While some of the projects are from the study area, we also included projects in the Orenco Station and AmberGlen areas for context. These two areas are not directly competitive in terms of locational and commercial attributes, but both provide locations with amenities and access to the light rail line.

The twelve projects surveyed have a total of 2,276 units, of which 61% are studio and one bedroom units. Average pricing in the survey was $1.74 per square foot, reflecting an average monthly rent level of $1,476 for an 847 square foot unit. At the project level, current per square foot rents range from $1.29 to $2.14, while average unit rents range from $1,276 to $1,581 per month. The current vacancy rate in the projects surveyed was 6%, with vacancy concentrated in a few projects still under their initial lease-up.



The following tables summarize project characteristics and current pricing.

SUMMARY OF SELECTED MARKET RATE RENTAL APARTMENT PROJECTS, APRIL 2017

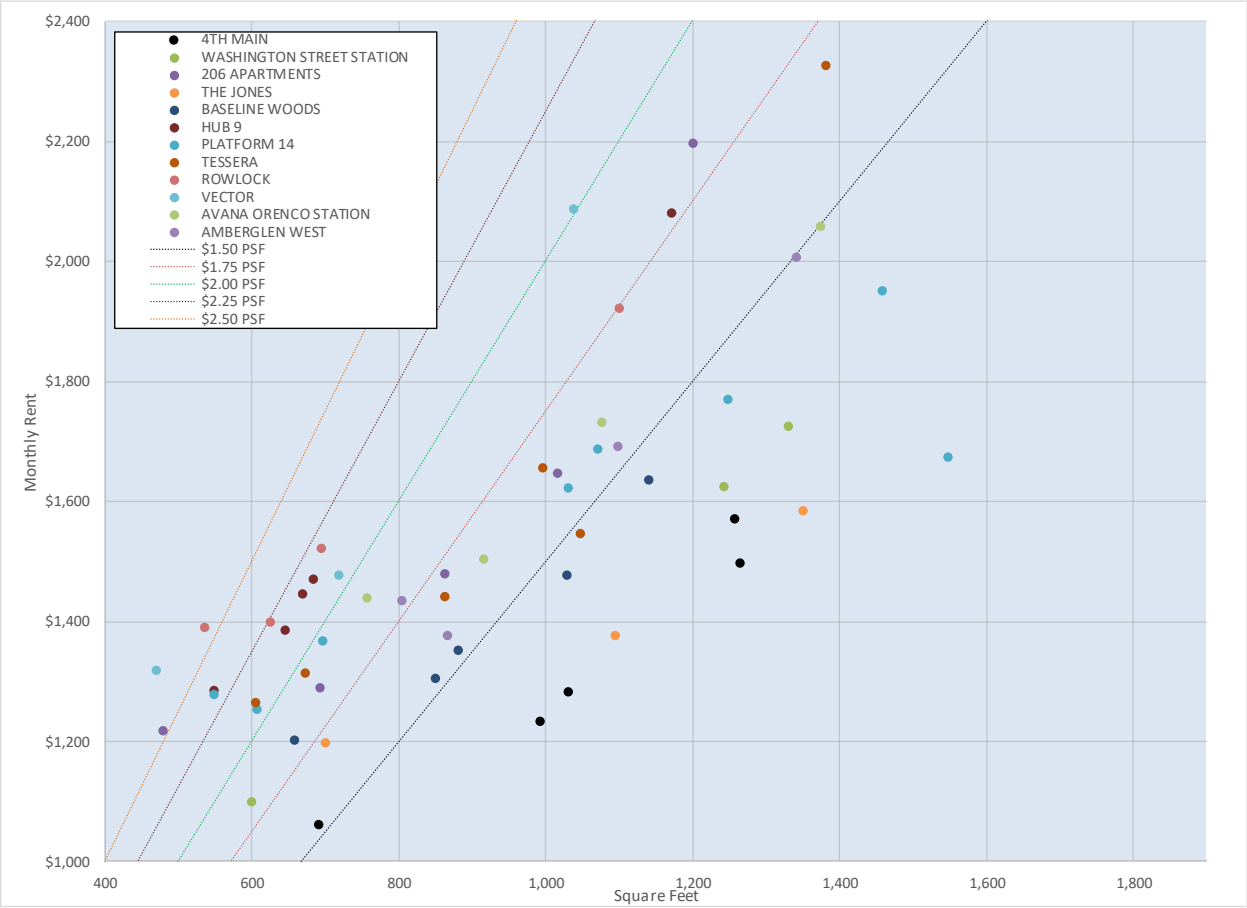
Project Name/ Location	Year	Occupancy	Unit Characteristics: Type	Units	Mix	Sq. Ft.	Vacant #	Vacant %	Rent Characteristics: Low Rent	High Rent	Avg. Rent	Avg. Rent Per SF.
4TH MAIN	2014	100%	Studio	3	4%	545	0	0%	$905 -	$965	$935	$1.72
390 E Main Street,			1B/1b	6	8%	690	0	0%	$845 -	$1,250	$1,062	$1.54
Hillsboro			1B/1b Loft	8	11%	603	0	0%	$995 -	$995	$995	$1.65
			1B/1b Den	3	4%	992	0	0%	$1,235 -	$1,235	$1,235	$1.24
			2B/2b	33	46%	1,030	0	0%	$1,245 -	$1,340	$1,284	$1.25
			2B/2b Den	12	17%	1,263	0	0%	$1,450 -	$1,685	$1,498	$1.19
			3B/2b	6	8%	1,257	0	0%	$1,465 -	$1,735	$1,572	$1.25
			Tot./Avg:	***71***	***100%***	***990***	***0***	***0%***	***$845 -***	***$1,735***	***$1,276***	***$1.29***
WASHINGTON STREET STATION	2008-12	100%	1B/1b	10	50%	600	0	0%	$1,100 -	$1,100	$1,100	$1.83
433-449 SE Washington Street,			2B/2.5	6	30%	1,243	0	0%	$1,600 -	$1,650	$1,625	$1.31
Hillsboro			2B/2.5 deck	4	20%	1,330	0	0%	$1,700 -	$1,750	$1,725	$1.30
			Tot./Avg:	***20***	***100%***	***939***	***0***	***0%***	***$1,100 -***	***$1,750***	***$1,383***	***$1.47***
206 APARTMENTS	2014	97%	Studio	7	3%	479	0	0%	$1,149 -	$1,275	$1,218	$2.54
2499 NW 206th Ave,			1B/1b	85	42%	692	3	4%	$1,128 -	$1,429	$1,290	$1.86
Hillsboro			2B/1b	4	2%	863	1	25%	$1,469 -	$1,490	$1,480	$1.72
			2B/2b	104	51%	1,017	2	2%	$1,525 -	$1,868	$1,646	$1.62
			3B/2b	3	1%	1,200	0	0%	$2,196 -	$2,196	$2,196	$1.83
			Tot./Avg:	***203***	***100%***	***862***	***6***	***3%***	***$1,128 -***	***$2,196***	***$1,487***	***$1.73***
THE JONES	2013	96%	1B/1b	64	33%	699	3	5%	$1,185 -	$1,305	$1,198	$1.71
1099 NW Ordonez Pl,			2B/2b	112	58%	1,095	3	3%	$1,350 -	$1,595	$1,377	$1.26
Hillsboro			3B/2b	17	9%	1,351	2	12%	$1,550 -	$2,125	$1,584	$1.17
			Tot./Avg:	***193***	***100%***	***988***	***8***	***4%***	***$1,185 -***	***$2,125***	***$1,337***	***$1.35***
BASELINE WOODS	2014	98%	1B/1b	30	13%	657	0	0%	$1,180 -	$1,225	$1,203	$1.83
545 SW 201st Ave,			2B/1b	20	9%	849	0	0%	$1,305 -	$1,305	$1,305	$1.54
Beaverton			2B/2b	60	26%	881	2	3%	$1,325 -	$1,380	$1,353	$1.54
			2B/2b	78	34%	1,029	2	3%	$1,445 -	$1,510	$1,478	$1.44
			3B/2b	42	18%	1,140	0	0%	$1,595 -	$1,675	$1,635	$1.43
			Tot./Avg:	***230***	***100%***	***946***	***4***	***2%***	***$1,180 -***	***$1,675***	***$1,423***	***$1.50***
HUB 9	2015	96%	Studio	8	6%	549	1	13%	$1,240 -	$1,300	$1,285	$2.32
980 NE Orenco Station			Studio Loft	28	23%	645	2	7%	$1,325 -	$1,445	$1,385	$2.15
Loop, Hillsboro			1B/1b Loft	56	45%	669	1	2%	$1,220 -	$1,590	$1,446	$2.10
			1B/1b Deck	16	13%	683	1	6%	$1,230 -	$1,670	$1,472	$2.12
			2B/2b	16	13%	1,172	0	0%	$1,800 -	$2,190	$2,081	$1.70
			Tot./Avg:	***124***	***100%***	***722***	***5***	***4%***	***$1,220 -***	***$2,190***	***$1,507***	***$2.09***

SUMMARY OF SELECTED MARKET RATE RENTAL APARTMENT PROJECTS, APRIL 2017-CONTINUED

Project Name/ Location	Year	Occupancy	Unit Characteristics: Type	Units	Mix	Sq. Ft.	Vacant #	Vacant %	Rent Characteristics: Low Rent	High Rent	Avg. Rent	Avg. Rent Per SF.
PLATFORM 14	2013	96%	Studio	60	34%	548	1	2%	$1,265 -	$1,290	$1,278	$2.33
1030 NE Orenco Station			Studio	5	3%	606	2	40%	$1,235 -	$1,272	$1,254	$2.07
Pkwy, Hillsboro			1B/1b	60	34%	697	1	2%	$1,335 -	$1,400	$1,368	$1.96
			1B/2b	10	6%	1,071	1	10%	$1,675 -	$1,700	$1,688	$1.58
			1B/2b	1	1%	1,548	0	0%	$1,673 -	$1,673	$1,673	$1.08
			2B/2b	12	7%	1,030	1	8%	$1,590 -	$1,655	$1,623	$1.58
			2B/2b	24	14%	1,248	1	4%	$1,750 -	$1,790	$1,770	$1.42
			2B/2b	5	3%	1,459	0	0%	$1,950 -	$1,950	$1,950	$1.34
			Tot./Avg:	***177***	***100%***	***789***	***7***	***4%***	***$1,235 -***	***$1,950***	***$1,442***	***$1.83***
TESSERA	2014	92%	Studio	25	8%	604	1	4%	$1,230 -	$1,300	$1,265	$2.09
6523 NE Cherry Drive,			1B/1b (Sm)	152	50%	673	13	9%	$1,270 -	$1,400	$1,315	$1.98
Hillsboro			1B/1b (Lg)	48	16%	862	4	8%	$1,345 -	$1,620	$1,442	$1.72
			2B/2b (Sm)	16	5%	996	1	6%	$1,520 -	$1,785	$1,656	$1.66
			2B/2b (Lg)	47	15%	1,047	4	9%	$1,450 -	$1,730	$1,546	$1.52
			3B/2b	16	5%	1,381	2	13%	$2,230 -	$2,425	$2,328	$1.69
			Tot./Avg:	***304***	***100%***	***809***	***25***	***8%***	***$1,230 -***	***$2,425***	***$1,438***	***$1.78***
ROWLOCK	2015	95%	Studio	7	3%	536	1	14%	$1,380 -	$1,400	$1,389	$2.59
6380 NE Cherry Dr.,			1B Loft	72	28%	625	2	3%	$1,290 -	$1,465	$1,400	$2.24
Hillsboro			1B/1b	149	58%	694	7	5%	$1,375 -	$1,590	$1,523	$2.20
			2B/2b	27	11%	1,101	2	7%	$1,770 -	$2,040	$1,921	$1.75
			Tot./Avg:	***255***	***100%***	***713***	***12***	***5%***	***$1,290 -***	***$2,040***	***$1,527***	***$2.14***
VECTOR	2016	88%	Studio	24	10%	470	11	46%	$1,223 -	$1,404	$1,318	$2.81
967 NE Orenco Station			1B/1b	176	77%	718	13	7%	$1,354 -	$1,869	$1,478	$2.06
Loop, Hillsboro			2B/2b	30	13%	1,038	3	10%	$1,957 -	$2,619	$2,087	$2.01
			Tot./Avg:	***230***	***100%***	***734***	***27***	***12%***	***$1,223 -***	***$2,619***	***$1,540***	***$2.10***
AVANA ORENCO STATION	1998	97%	1B/1b	108	41%	756	4	4%	$1,446 -	$1,496	$1,440	$1.90
6710 NE Vinings Way,	(2015 Renovation)		1B/1b Den	48	18%	916	0	0%	$1,504 -	$1,504	$1,504	$1.64
Hillsboro			2B/2b	100	38%	1,076	3	3%	$1,653 -	$1,800	$1,732	$1.61
			3B/2b	8	3%	1,374	1	13%	$2,058 -	$2,059	$2,059	$1.50
			Tot./Avg:	***264***	***100%***	***925***	***8***	***3%***	***$1,446 -***	***$2,059***	***$1,581***	***$1.71***
AMBERGLEN WEST	2016	87%	1B/1b	138	67%	804	17	12%	$1,370 -	$1,573	$1,435	$1.78
1101 NE 89th Avenue,			2B/1b	6	3%	866	0	0%	$1,342 -	$1,410	$1,376	$1.59
Hillsboro			2B/2b	47	23%	1,099	6	13%	$1,499 -	$1,938	$1,691	$1.54
			3B/2b	14	7%	1,341	4	29%	$1,929 -	$2,066	$2,008	$1.50
			Tot./Avg:	**205**	**100%**	**910**	**27**	***13%***	**$1,342 -**	**$2,066**	**$1,531**	**$1.68**
ALL SURVEYED UNITS			Studio	167	7%	560	19	11%	$1,255 -	$1,332	$1,295	$2.31
Average age (years):	3.1		1B/1b	1,240	54%	725	70	6%	$1,316 -	$1,535	$1,403	$1.94
Average occupancy:	94%		2B/1b	30	1%	854	1	3%	$1,334 -	$1,351	$1,342	$1.57
			2B/2b	733	32%	1,060	30	4%	$1,516 -	$1,742	$1,596	$1.51
			3B/2b	106	5%	1,263	9	8%	$1,772 -	$1,959	$1,825	$1.45
			Total	***2,276***	***100%***	***847***	***129***	***6%***	***$1,255 -***	***$1,959***	***$1,476***	***$1.74***

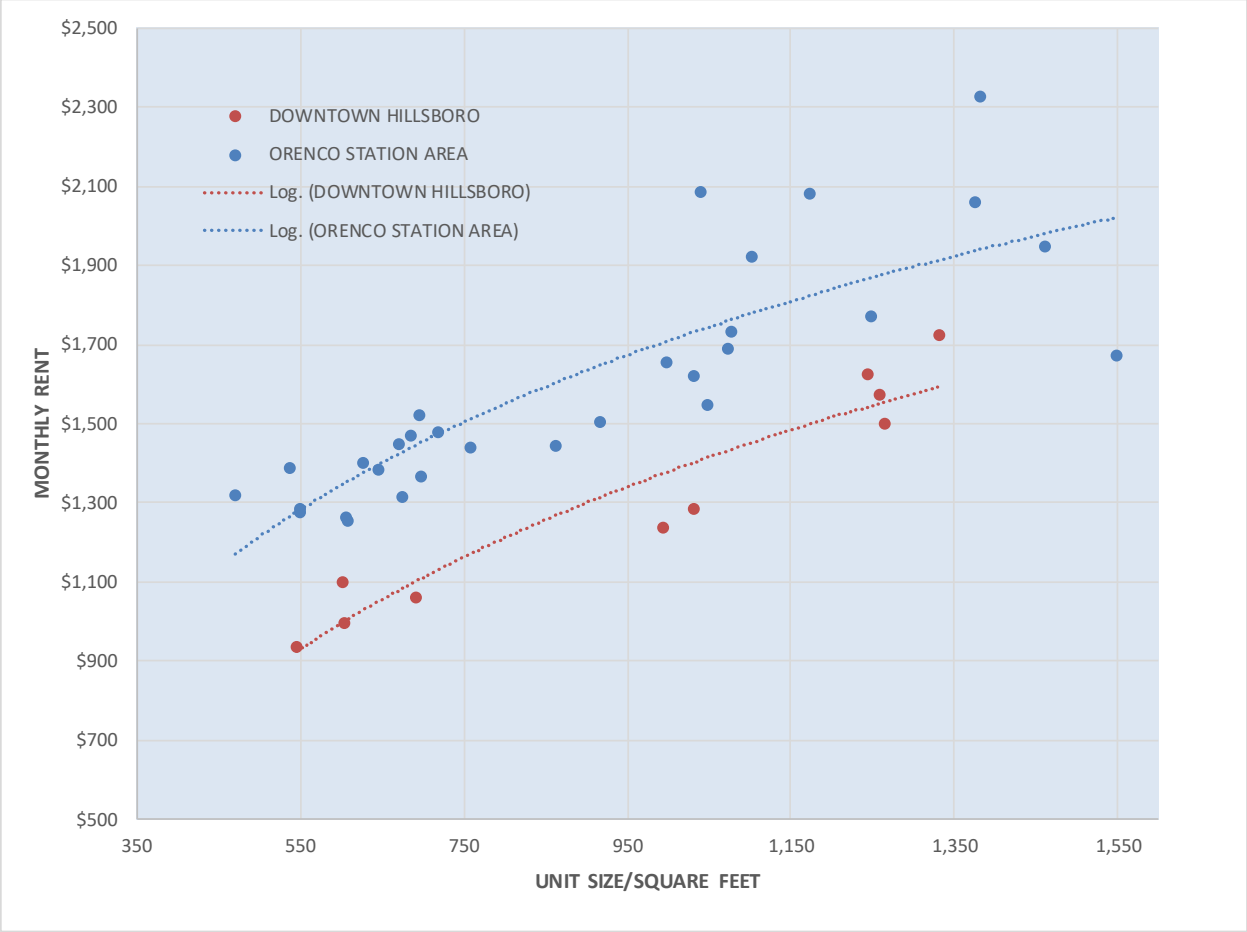
The pattern of pricing is higher on a per square foot basis for smaller units, with only a few smaller units achieving pricing more than $2.50 per square foot in the survey. Most units are priced between $1,200 and $1,800 per month,

COMPARATIVE PRICING BY PROJECT



The downtown Hillsboro project currently lease at a discount vis-à-vis projects in the Orenco Station area, with average pricing for an assumed 850 square foot unit at 78% of the same unit at Orenco Station. With no current vacancy in the downtown projects, the actual achievable pricing in this area is likely higher than currently being asked.

COMPARATIVE AVERAGE PRICING, DOWNTOWN HILLSBORO AND ORENCO STATION AREA



There are a few key points from this comparables that can be applied to market rate as well as affordable projects in the downtown Hillsboro study area. The first of these is that pricing in this area at the current time will likely be discounted somewhat from that achieved in the Orenco Station area. The current average discount is likely overstated as the downtown market is fully occupied, but a significant discount is likely still in place. The level of discount may decline and even reverse over time as the local amenity base in downtown Hillsboro improves, but developers underwriting projects in the current market will likely assume achievable pricing at a 10% to 20% discount from the Orenco Station area.

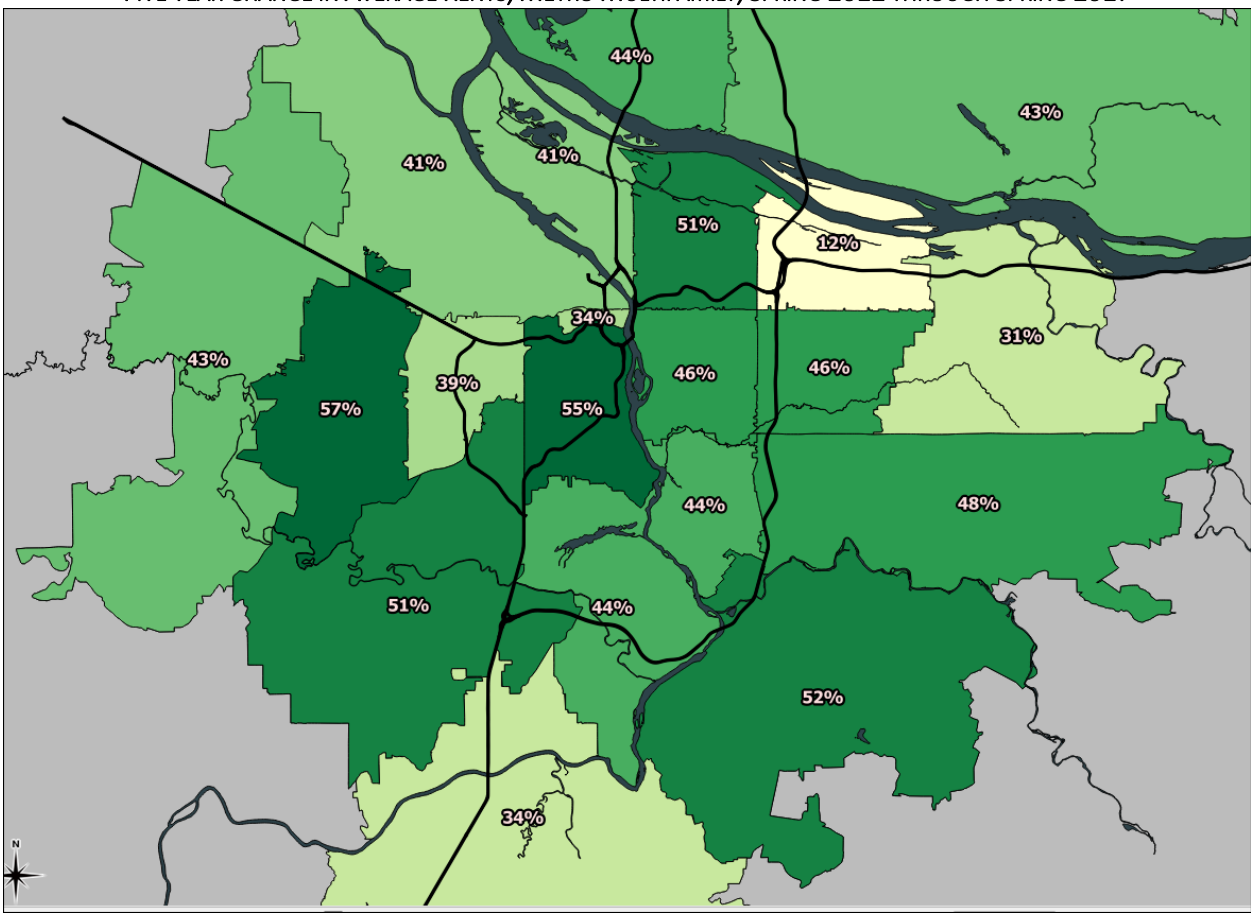
B. Affordable Housing

The affordable housing market is typically considered to be underserved. As a result, developers considering this type of product do not typically evaluate the depth of demand for this product type. While a substantial portion of affordable housing is provided by non-regulated older units in the market, new construction that targets these households is expected to be largely limited to projects utilizing Oregon Housing and Community Services tax credit and bond programs, and developed either by for-profit or non-profit entities. This section summarizes some key trends in the affordable housing market, as well as estimates of local market conditions by level of need.

Regional Trends

While the need for affordable units is typically always present, the recent escalation trends in the Portland metropolitan and Hillsboro areas have increased the need for affordable units through a decrease in available market rate units affordable to lower income households. The cumulative growth in average rental apartment rents was 43% in the Hillsboro area over the last five years, which reflects the 12th highest rate of escalation by submarket during this period and is below the metro area average.

Five Year Change in Average Rents, Metro Multifamily, Spring 2012 through Spring 2017

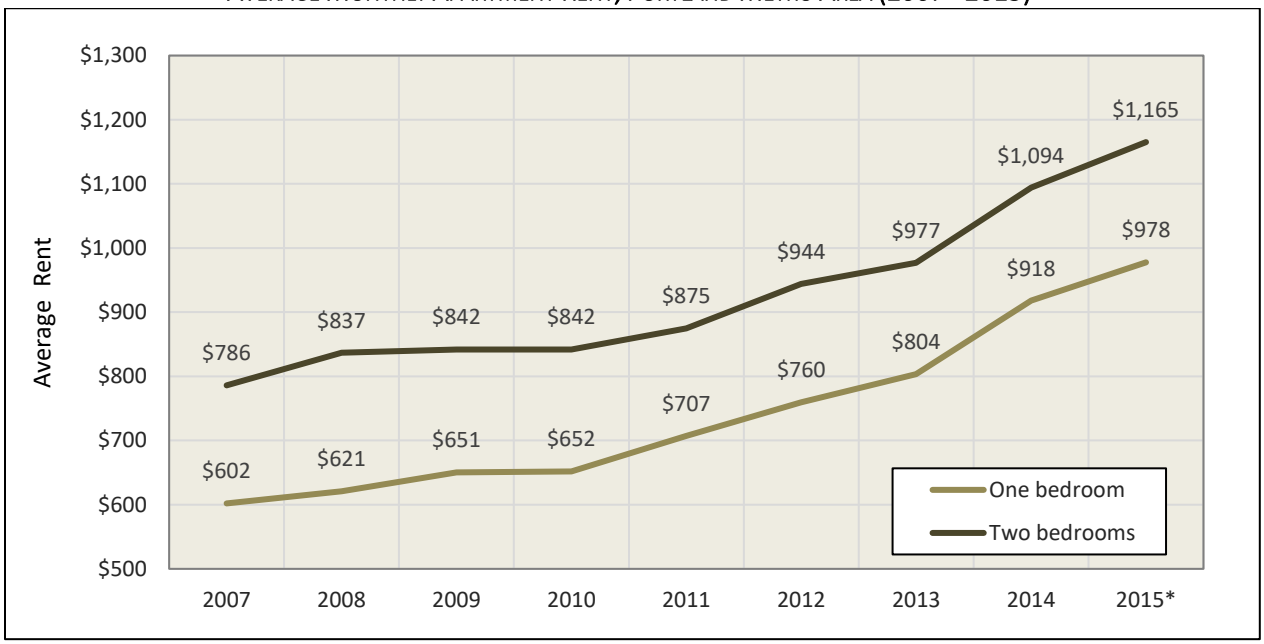


Johnson Economics completed an assessment of regional need for affordable housing in November 2015 for Metro, some of which is excerpted here to provide context with respect to trends in the need for

affordable housing. This section discusses housing market and demographic trends that impact housing affordability in the Portland Metro Area. While some of the information is dated, the marginal trends have had a net effect of increasing the need for affordable units at a regional as well as local level.

Apartment rents increased only modestly during the difficult economic period between 2007 and 2010, but have escalated rapidly since.

AVERAGE MONTHLY APARTMENT RENT, PORTLAND METRO AREA (2007 - 2015)



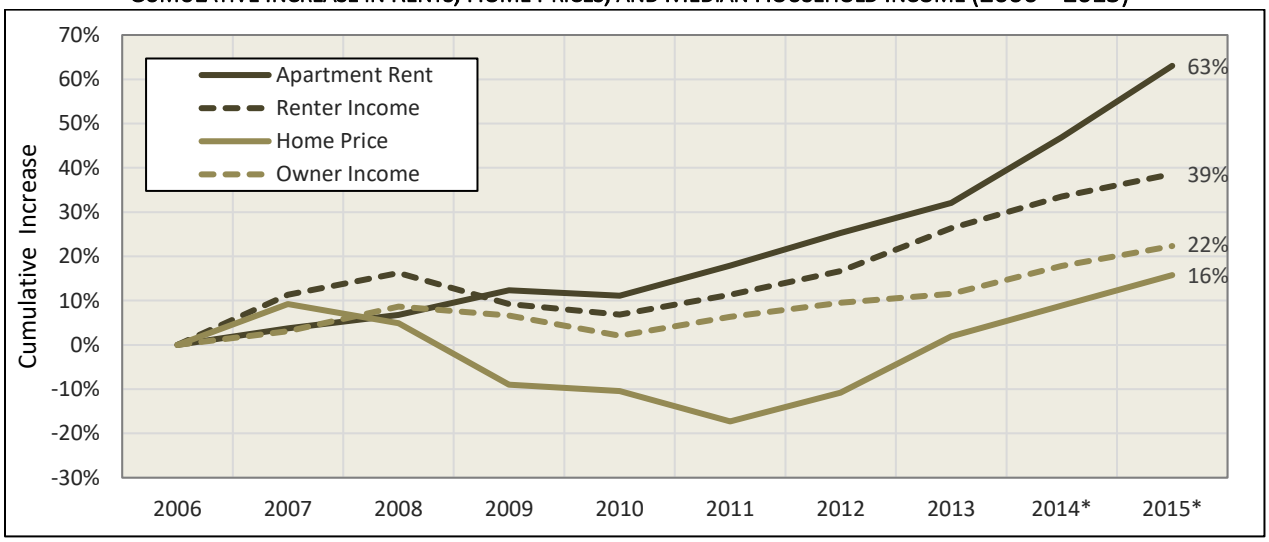
* 2015 data reflects Q2 increase (6.5%) reported by Axiometrics, added to spring data from Multifamily NW. For other years, the rents represent averages of Multifamily NW spring and fall data.

SOURCE: Multifamily NW, Axiometrics, JOHNSON ECONOMICS

Wages in the Portland Metro Area have seen relatively stable growth since the most recent recession, and averaged $55,000 in 2015. The average annual increase in the wage level since 2009 is 3.0%, which is high in a national context, reflecting growth in high-wage tech and business management jobs. While the wage metric applies only to employed workers, median household income captures the impact on the overall income level of both employment and wages, and is thus a more useful metric in the context of housing affordability. The median household income declined rapidly as jobs were cut between 2008 and 2010, but rose at an annual rate of 3.5-3.8% between 2010 and 2013. This statistic is only available through 2013, but we have included our estimates of 2014 and 2015 based on the metric's correlation to wages, employment, and households.

A comparison of recent income growth to recent rent and price increases reveals that the discrepancy between pricing and income is particularly wide in the rental market. Since 2006, rents have increased by 63%, while we estimate that renter incomes have increased by only 39%. For owners, the income growth has increased a moderate 22%, according to our estimates, but still exceeding the 16% price increase over the period.

CUMULATIVE INCREASE IN RENTS, HOME PRICES, AND MEDIAN HOUSEHOLD INCOME (2006 – 2015)



* 2014 and 2015 income estimates are based on estimated total household income growth (fig. 3.3).

SOURCE: Multifamily NW, RMLS, U.S. Census Bureau, JOHNSON ECONOMICS

When rents increase more rapidly than incomes, it is usually a sign that market demand exceeds market supply. The undersupply is visible in metrics that reflect market slack, such as the rental vacancy rate. In general, a balanced rental apartment market has a 5% overall vacancy rate.

Renters are without exception impacted negatively when rents rise faster than incomes. As rents eat up a larger share of their disposable income, it not only reduces their spending on non-housing items; it also diminishes their ability to enter the ownership market, as it makes it more difficult to save for a down payment. When home prices rise quickly, as in the current market, homeownership becomes an increasingly distant possibility for most renters. When caught in a rental market that demands an increasing share of their incomes, renters tend to downsize to more affordable units or move to more affordable locations. This "inverse filtering" ultimately hits the bottom of the market, forcing some of those with the lowest incomes to give up their own households and move in with others. This doubling up also takes place in more affluent market segments, but usually among singles for whom this option represents a minor sacrifice.

HILLSBORO MARKET

Within the Hillsboro market, affordable housing is provided through a combination of older market-rate units as well as income restricted projects. The city currently has a significant supply of both unit types, but maintaining an ongoing ability to deliver new units at affordable rates will be a challenge moving forward. If supply is unable to keep up with the demand for units, tight market conditions will place pressure on rents across the entire market rate inventory. Providing adequate capacity for new residential development it therefore a key strategy to further affordable housing goals. Components of an affordable housing strategy should include providing for more mid-level rent units and overall additional supply, to allow for upward renter movement, supporting additional income-restricted affordable units, and allowing flexibility in the market to increase accessibility to different groups in downtown Hillsboro.

Comparable Projects

As with market rate apartments, we surveyed a series of ten income-restricted rental apartment projects in the area. These projects targeted households with incomes ranging from 30% to 80% of MFI. The age of the survey is somewhat older, with projects completed or significantly remodeled after 1998. Pricing in these projects is less relevant than with market rate developments, as allowable rent levels are set by OHCS on an annual basis by unit type and income limit. The pricing at each of these projects will be significantly below what is achievable in the general market, and as a result, the projects typically stay fully occupied. The projects were developed and are maintained by both non-profit as well as for-profit firms.

AFFORDABLE HOUSING MARKET COMPARABLES HILLSBORO-FOREST GROVE AREA

Project Name	Built/ Renov	Units Total	Units Type	Units SF	Units Mix	Income Limit	
ALMA GARDENS	2013	45	1B/1b	684	100%		Mid-rise project located in the Orenco Station area. The
6200 Campus Court		45		684	100%		developer and owner is Northwest Housing Alternatives.
Hillsboro, 97124							
BRIAR CREEK	2000/	108	1B/1b	575	50%	60%	Garden apartment project north of Quatama Station in
1001 Briarcreek Way	2004	108	2B/2b	850	50%	60%	Beaverton, developed by GSL Properties
Beaverton, 97006		216		713	100%		
CITY CENTER	2004	1	2B/1b	896	1%	30%	Urban project in Downtown Hillsboro, developed by GSL
160 SE Washington St.		1	1B/1b	695	1%	40%	Properties.
Hillsboro, 97123		40	1B/1b	695	44%	50%	
		10	2B/1b	896	11%	50%	
		29	1B/1b	695	32%	60%	
		10	2B/1b	896	11%	60%	
		91		741	100%		
GATEWAY COMMONS	2004	1	2BR	957	1%	50%	Three story garden apartment project east of Downtown
181 SE 18th Avenue		1	3BR	1,126	1%	50%	Hillsboro. The project was developed by Cascade
Hillsboro, 97123		19	1BR	702	14%	60%	Housing Development.
		1	2BR	957	1%	60%	
		66	2BR	957	48%	60%	
		50	3BR	1,126	36%	60%	
		138		984	100%		
JOSE ARCIGA	1994-	5	2BR	1,000	9%	40%	This project is scattered on sites in Cornelius and
3231 22nd Place	2002	15	2BR	1,000	27%	40%	Foreast Grove. At least one member of each household
Forest Grove, 97116		2	2BR	1,000	4%	40%	must be employed in agriculture. The project is owned
		5	3BR	1,250	9%	40%	by Bienestar.
		5	3BR	1,250	9%	40%	
		13	3BR	1,250	24%	40%	
		5	3BR	1,250	9%	40%	
		2	2BR	1,000	4%	50%	
		3	3BR	1,250	5%	50%	
		55		1,141	100%		
ORCHARDS AT ORENCO I	2015	40	1B/1b	618	70%		This project is a mid-rise in the Orenco community,
6520 NE Cherry Drive		17	2B/1b	852	30%		developed by REACH Community Development
Hillsboro, OR 97124		57		688	100%		
QUATAMA CROSSING	1998	222	1B/1b	752	31%	80%	This project is located at the Quatama light rail station,
20700 NW Trailwalk Drive		212	2B/1b	974	30%	80%	and was developed by Quatama Housing Limited
Beaverton, 97006		211	2B/2b	1,051	30%	80%	Partnership.
		66	3B/2b	1,220	9%	80%	
		711		950	100%		
SIERRA WEST	2008	3	3B/1.5b	1,120	5%	50%	Two-story garden project east of downtown Hillsboro.
356 SE 12th Avenue		13	3B/1.5b	1,120	23%	60%	This project was aquired by Bienestar in 2007.
Hillsboro, 97123		41	2B/1b	788	72%	80%	
		57		881	100%		
SUNSET GARDENS	1970/	96	2BR		95%	50%	This project was aquired by Bienestar in 2007, and was
951 SE 13th Avenue	2008	2	3BR		2%	50%	the organization's firt LIHTC project not exclusively for
Hillsboro, 97123		3	4BR		3%	50%	farmworkers. Rehab work completed in 2008.
		101			100%		
WOODLAND PARK		40	1B/1b	611	36%		Older but well maintained project east of Downtown
280 SE 12th Avenue		8	1B/1b	600	7%		Hillsboro.
Hillsboro, 97123		48	2B/2b	868	43%		
		15	3B/2b	1,174	14%		
		111		797	100%		

Within the study area, existing affordable housing product is concentrated in the East Downtown area, except for City Center immediately south of City Hall. Other products are located in the Orenco Station and Quatama Station areas, capitalizing on transit investments.

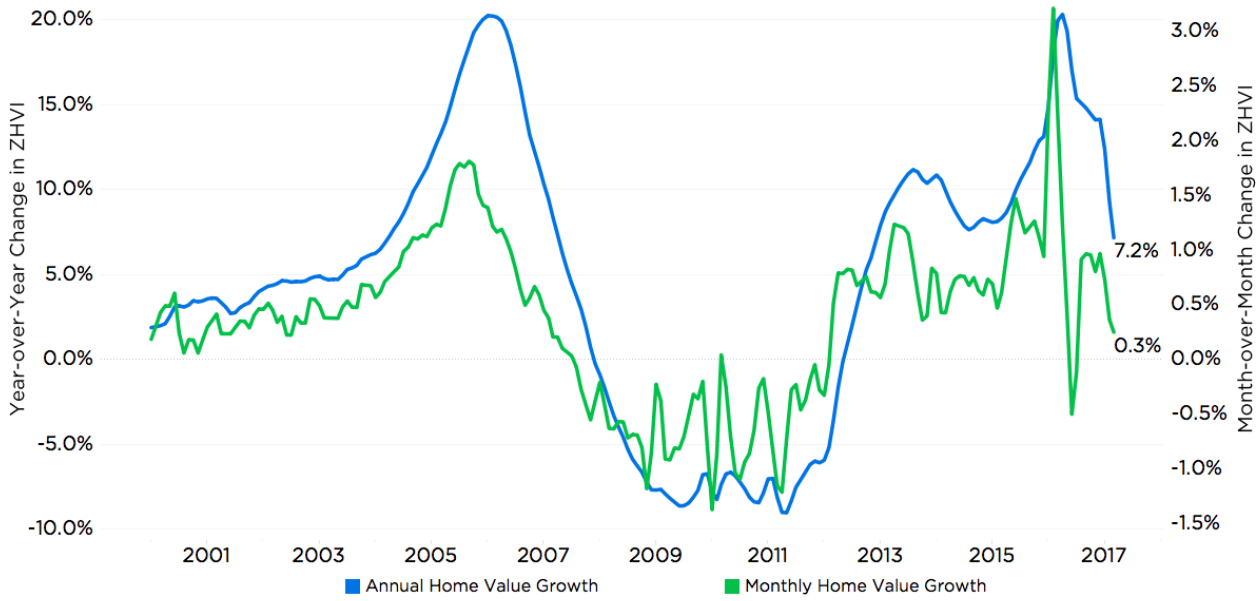
C. Ownership Residential

New residential ownership construction in the study area is expected to include a mix of townhomes, multi-family duplexes and condominiums. The area is currently largely urban, and new development is in the subareas outlined will likely be limited to these development forms.

Regional Trends

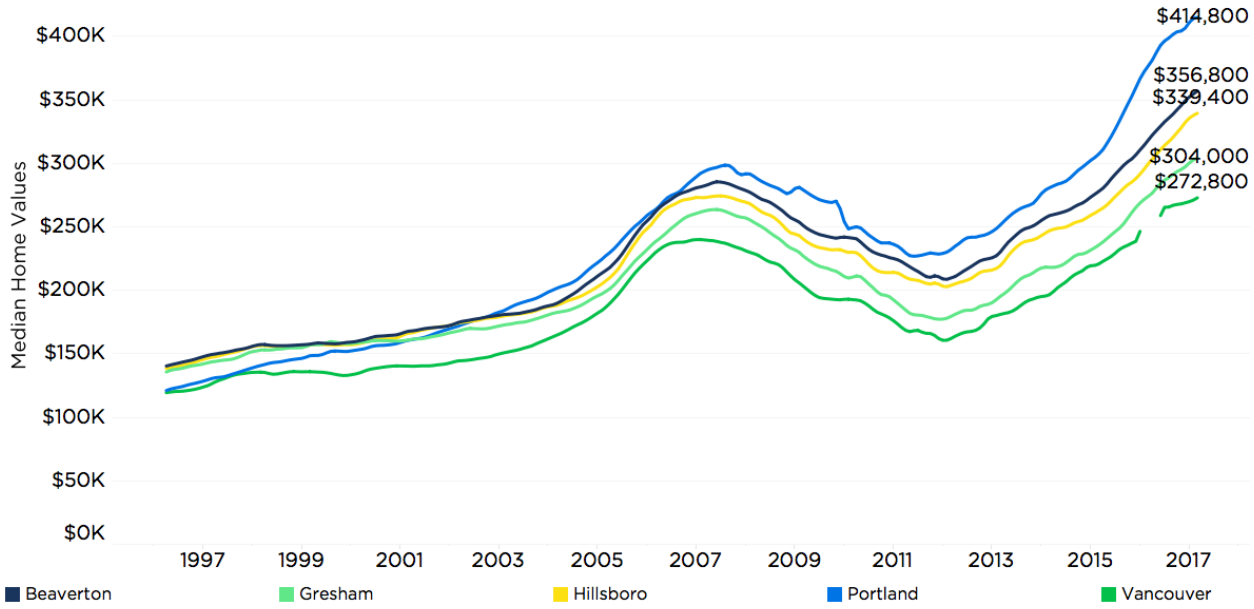
The ownership housing market in the Portland metropolitan area has largely recovered from the housing crash, with pricing largely back to pre-crash levels. Home price trends have been robust over the last several years, with double digit price escalation common since 2013 at the regional level.

Portland metropolitan Area Housing Sales Price Trends, Zillow Home Price Index



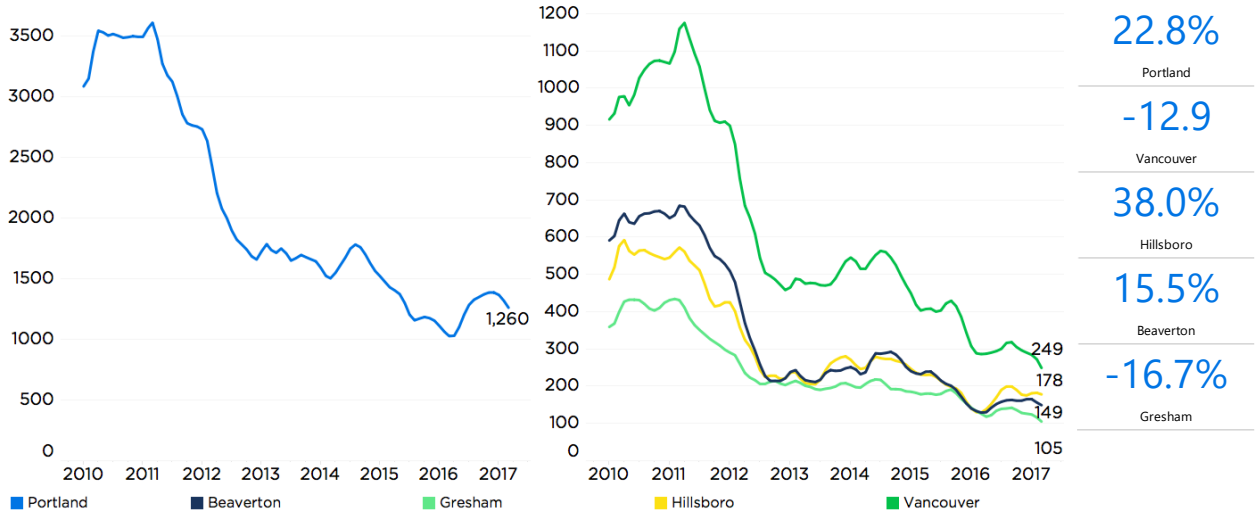
The average housing price in the City of Hillsboro is estimated at $339,400 as of April 2017, well above the pre-recession peak of just over $280,000.

HOUSING SALES PRICE TRENDS BY CITY, ZILLOW HOME PRICE INDEX



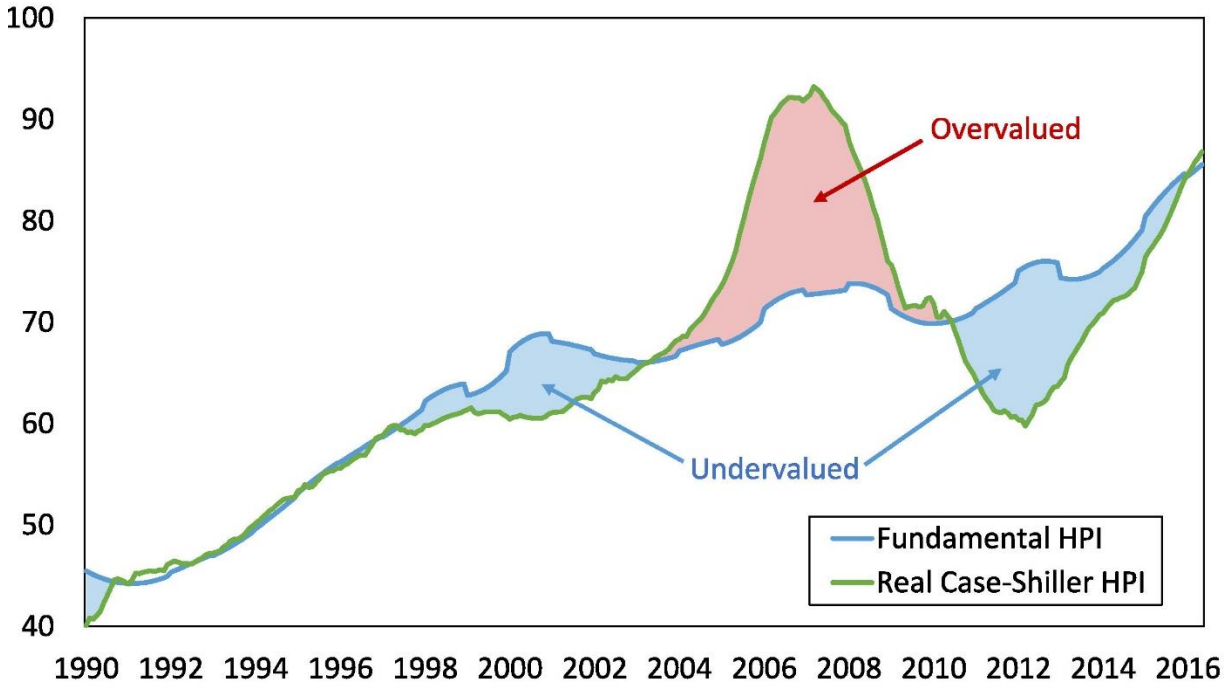
The rise in pricing is function of sustained demand for housing and a sharply declining inventory of homes for-sale. As shown in the following graphic, the inventory has dropped dramatically throughout the metropolitan area. While the City of Hillsboro has seen an increase in available inventory over the last year, the standing inventory is still close to historic lows.

PORTLAND METROPOLITAN AREA FOR SALE INVENTORY, ZILLOW



Affordability is much better than during the previous peak despite rising prices, as incomes have grown and mortgage rates have dropped. As outlined in the following chart, housing prices are now largely in line with what market fundamentals support. While we have seen strong escalation in pricing, the current market pricing is not considered to reflect a pricing bubble.

PORTLAND METROPOLITAN AREA HOUSING PRICE INDEX, ACTUAL VS. OBSERVED, 1990-2016



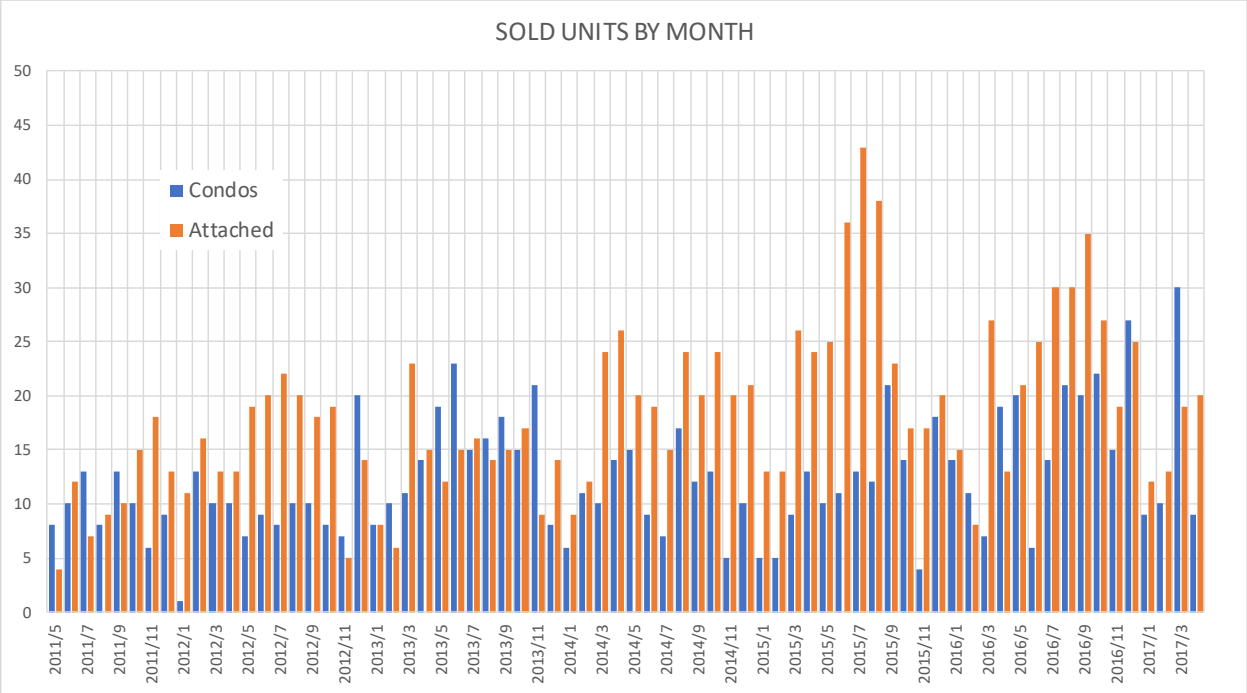
SOURCE: NERC, BLS, Case-Shiller

The markets for townhomes and condominium flats were hard hit by the downturn, as these markets are dominated by young buyers, who were disproportionately hard hit when the economy collapsed. However, these markets have rebounded strongly in recent years, and currently see annual price increases on par with single-family homes in the region.

Our analysis of housing trends includes Hillsboro and Forest Grove (RMLS area 152). The trends reflect a broad geographic area, as this type of development in the study area would be expected to compete within this broader area.

Sales volumes in both the townhome and condo markets have increased notably over the past several years in the Hillsboro area, and is now back to prerecession levels, despite very limited supply of new units. The townhome market has more than doubled in terms of sales velocity since 2011, while condo units have seen an increase of 153%. Sales recorded with RMLS, which represent most but not all transactions, indicate nearly 300 townhome transactions and around 200 condo transactions currently taking place annually in the market. The level of transactions in the market area has been limited by new supply, which is reflected in the current low inventory of product. The market currently has a 1.3-month supply of townhome units, and a 2.0-month supply of condominium units.

ANNUAL SALES TRANSACTION, ATTACHED FOR-SALE RESIDENTIAL, 2011-2017



SOURCE: *RMLS*

The downturn led to a supply glut in the residential markets, particularly in suburban areas with a lot of new homes. This caused listed homes to remain on the market for long periods. The average market time for townhomes increased from 42 days in 2005 to 192 days in 2011. Conditions were even worse in the condo market, where the average market time went from 35 to 215 days between 2005 and 2009, and then remained above 200 through 2012. However, both market segments have seen a steep decline in the market time as the oversupply from the downturn has been absorbed, and both are now well below 2005 levels. The median days on market was only 8.3 for condominiums and 6.5 for townhome units in 2016. This compares to a more typical 60 to 90-day period in a balanced market.

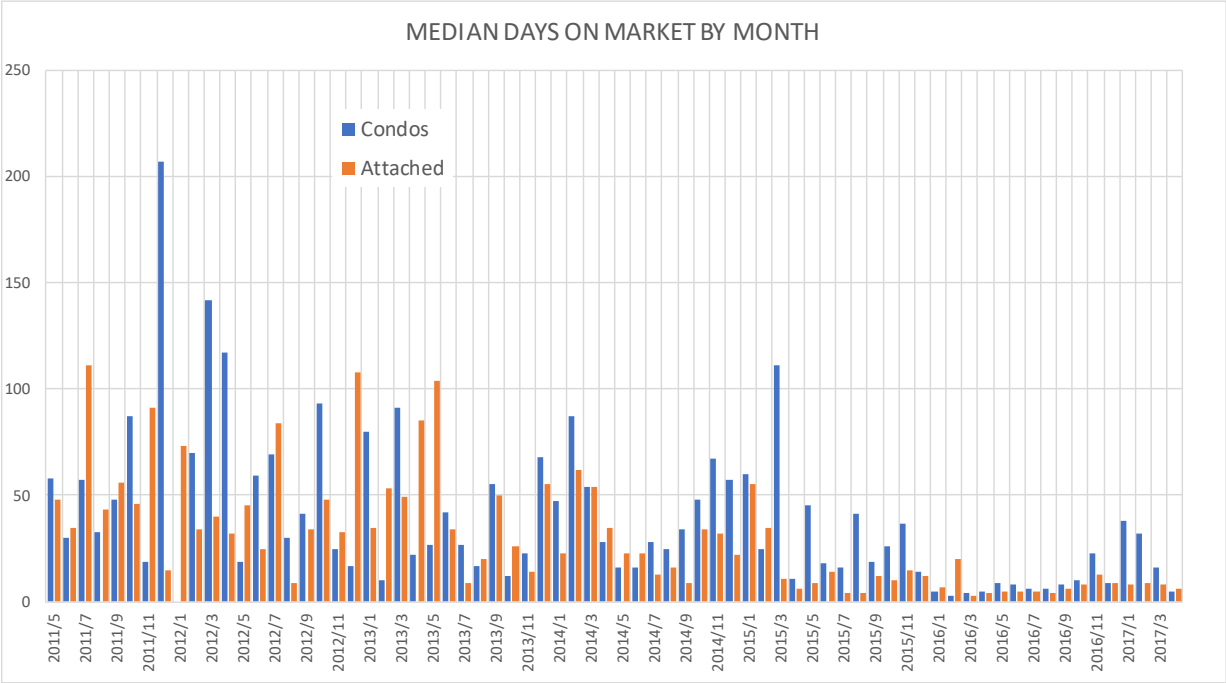
HILLSBORO MARKET

Sales volumes in both the townhome and condo markets have increased notably over the past several years in the Hillsboro area, and is now back to prerecession levels, despite very limited supply of new units. The townhome market has more than doubled in terms of sales velocity since 2011, while condo units have seen an increase of 153%. Sales recorded with RMLS, which represent most but not all transactions, indicate nearly 300 townhome transactions and around 200 condo transactions currently taking place annually in the market. The level of transactions in the market area has been limited by new supply, which is reflected in the current low inventory of product. The market currently has a 1.3-month supply of townhome units, and a 2.0-month supply of condominium units.

As the standing inventory has declined and demand has picked up, the pricing for townhome and condo units has also recovered. New attached for-sale residential inventory is currently quite limited in the study area, with only three new projects currently actively marketing units. The projects are in more suburban areas east of the study area, and provide limited information with respect to achievable pricing for a more urban product in the study area. As the South Hillsboro development enters the market, we expect the

supply of active for-sale product to increase significantly, and for those projects to be successfully received in the market.

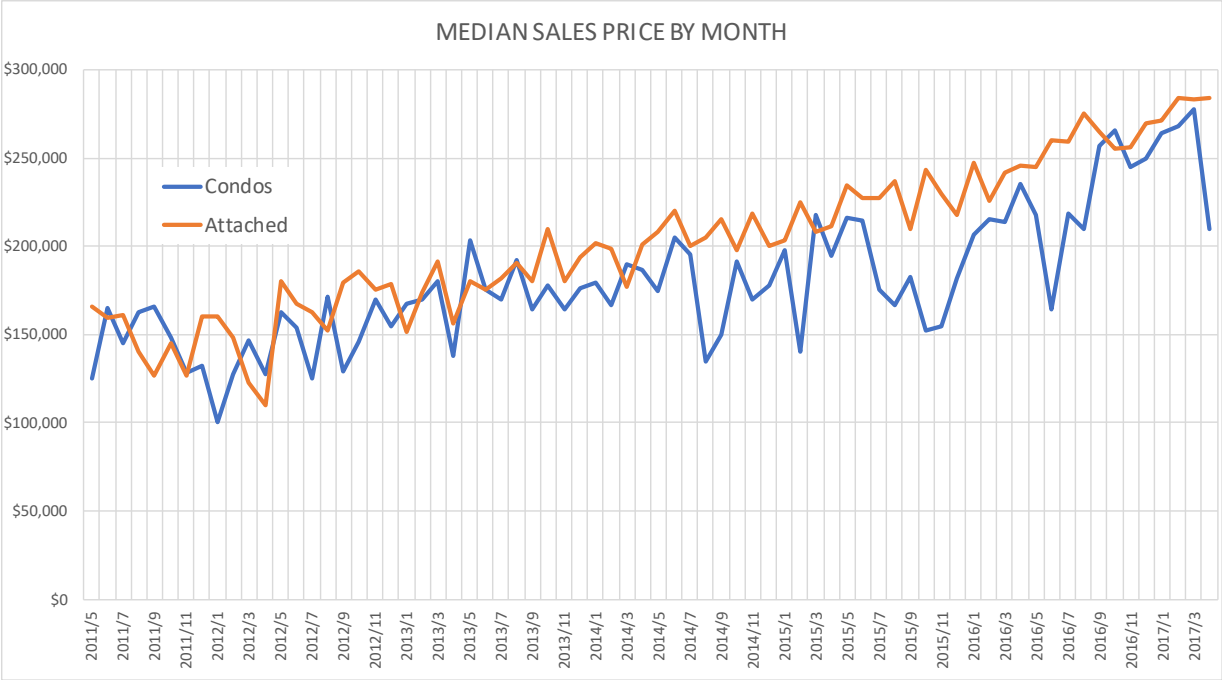
MEDIAN DAYS ON THE MARKET, ATTACHED FOR-SALE, HILLSBORO-FOREST GROVE (2005 - 2017)



SOURCE: *RMLS*

As the supply has declined and demand has picked up, the pricing for townhome and condo units has also recovered. Both segments currently have median sales prices above pre-recession highs.

MEDIAN SALES PRICE PER MONTH, ATTACHED FOR-SALE, HILLSBORO-FOREST GROVE (2005 - 2016)



SOURCE: *RMLS*

There is expected to be considerable demand for ownership residential housing as a potential development form in the study area. The development market is currently reticent to construct condominium units, dissuaded by difficulty in obtaining financing for these types of projects as well as legal issues associated with construction defect litigation. Condominium development will likely be a viable use in the area in the mid- to long-term, with less short-term interest. Townhome development with fee simple ownership of the land is highly viable, but the yield in terms of density for this type of development is more limited.

In the current market, rental apartment development has been the highest and best residential use solution for most sites. As the rental market starts to moderate in terms of escalation, the ownership market is expected to account for an increasing share of new residential construction. While a condominium project is unlikely to be initiated in the next few years, over the mid- to long-term this development form is expected to return to the market. In the interim, townhomes and other common-wall development forms with fee simple ownership are currently considered viable and a prospective use in the study area.

COMPARABLE PROJECTS

New attached for-sale residential inventory is currently quite limited in the study area, with only three new projects currently actively marketing units. The pricing in these projects ranges from $245,000 to $350,000, with per square foot pricing ranging from $1.63 to $2.42. The projects are in more suburban areas east of the study area.

ACTIVE ATTACHED FOR-SALE PROJECTS, HILLSBORO AREA

				Units		Unit Characteristics		
Project	Year	Information		Permitted	Sold	Size/SF	Pricing	Price/SF
Sequoia Village	2016	Developer:	Polygon Homes	157	62	1,230	$272,990	$222
Cornelius Pass & Baseline		Building Type:	Townomes			1,579	$349,990	$222
Hillsboro		Ownership Type:	Condominium					
Quatama Park Townhomes	2007	Developer:	Lennar	84	71	1,200	$290,950	$242
21075 NW Quatama		Building Type:	Townomes			1,634	$334,900	$205
Hillsboro		Ownership Type:	Fee Simple					
Victoria Estates	2015	Developer:	Bella Terra Homes	28	16	1,506	$244,900	$163
2975 SW 182nd Avenue		Building Type:	Townomes			1,506	$284,900	$189
Washington County		Ownership Type:	Condominiums					

Source: New Home Trends and Johnson Economics

As the South Hillsboro development enters the market, we expect the supply of active for-sale product to increase significantly, and for those projects to be successfully received in the market.

As there were so few comparable projects active in the area, we have also included information on projects that have recently finished their sales programs. Some of these projects were initiated prior to the housing crash and were marketed during the recession, and pricing is significantly lower than what is being asked at newer projects.

RECENTLY SOLD ATTACHED FOR-SALE PROJECTS, HILLSBORO AREA

Project	Start Date	Units Permitted	Units Sold	Unit Characteristics Size/SF	Pricing	Price/SF
Arbor Pass Condominium	8/1/2007	186	168	772	$109,900	$142
NW Cornelius Pass Rd & NW Wilkins St				1,589	$239,000	$150
Autumn Creek: The Carriages	9/1/2010	110	95	694	$99,900	$144
NW 185th Ave at NW Holly St				1,194	$179,990	$151
Autumn Creek: The Cottages	10/27/2010	54	52	1,408	$209,990	$149
NW 185th Ave at NW Holly St				1,783	$294,593	$165
Autumn Creek: The Villas	9/1/2010	120	120	1,129	$149,990	$133
NW 185th Ave at NW Holly St				1,526	$297,990	$195
Brookwood Crossing	4/23/2005	142	142	1,760	$177,619	$101
SW 247th St & SW Lone Oak St				1,812	$283,398	$156
Carlyle Oaks	2/1/2005	41	41	1,045	$142,950	$137
N of Tualatin Valley Highway				1,423	$232,900	$164
Creekside Meadows	9/7/2012	30	30	1,610	$199,930	$124
W Baseline Rd & SW 197th Ave				2,304	$388,395	$169
Evergreen Park	4/1/2007	104	30	1,276	$189,900	$149
4700 NE 15th Ave				1,720	$289,283	$168
Glenwood	3/16/2007	46	5	1,320	$231,500	$175
3140 SW 192nd Ave				1,604	$299,900	$187
Hawthorne Manor Condo	6/1/2005	20	8	1,250	$129,900	$104
1720 S Dogwood St				1,250	$129,900	$104
Heron Creek Condos	6/28/2006	125	56	756	$135,900	$180
NW 185th Ave & NW Cornell Rd				1,626	$270,458	$166
Orenco Station: The Q Condominiums	10/1/2006	62	54	819	$175,000	$214
NE Cornell Rd & Orenco Station Pkwy				1,842	$339,900	$185
Parks at Tanasbourne (The)	7/1/2008	102	101	1,460	$219,900	$151
NW Cornell Rd & 188th Ave NW				1,978	$331,765	$168
Quatama: Arbor Crossing Condominiums	6/1/2006	324	321	772	$104,400	$135
SW 205th Ave & NW Quatama Rd (N of Intersection)				1,556	$260,740	$168
Shute School Estates	7/1/2007	24	16	1,682	$235,000	$140
1919 NE Shute Rd				1,821	$279,950	$154
Tanasbourne Place (attached)	1/1/2005	112	111	801	$148,990	$186
1599 NW 191st Pl				1,479	$305,252	$206
Tanasbourne: Crossings at	6/1/2006	153	150	664	$124,990	$188
1780 NW 193rd Pl				1,194	$222,231	$186
Travertine Condos	8/1/2006	69	37	1,515	$186,900	$123
4845 NE Airport Rd (4801 NE Airport Rd)				1,881	$310,000	$165

Source: New Home Trends and Johnson Economics

While representing a distinct product from single family homes, attached for-sale housing competes with the single-family housing market. The primary advantage offered by attached for-sale housing is price, as it is more affordable to construct common-wall housing products which can be reflected in lower sales prices. As shown in the following summary of active single-family home and lot sales programs, detached home prices in the area currently range from $225,000 to $880,000, with only one subdivision offering product below $350,000 in the market.

ACTIVE SINGLE-FAMILY HOME/LOT SALES PROGRAMS, HILLSBORO AREA

Development Name/ Address	Typical Lot Size	Homes Price Range	Homes Home SF Range	Homes $/SF Range	Lots Recorded	Lots Sold	Start of Sales	Vacant Lots	Spec Inventory
Autumn Park	7,126	$579,000	2,713	$196	9	2	9/9/2016	0	7
NW Milne St & NW 2nd Ave		$664,950	3,395	$226					
Brookwood Glen	7,854	$449,950	2,407	$167	25	22	4/1/2016	1	1
1070 SW Brookwood Ave		$574,950	3,382	$206					
Brookwood Meadows	3,656	$354,995	1,850	$165	25	15	1/1/2017	6	4
Brookwood Ave & Alexander St		$424,995	2,482	$205					
Colby Ridge	8,600	$399,950	2,478	$174	7	3	1/17/2017	3	1
SE Frances St & SE 65th Ln		$584,950	4,116	$200					
Jackson Hollow	7,361	$375,000	1,638	$195	25	6	9/16/2016	10	9
782 SE Hollow St		$599,950	2,962	$242					
Keystone Grove	10,320	$849,950	3,603	$211	5	3	6/3/2016	0	1
NE Dunbar Ct & NE 8th Ave		$879,950	4,170	$243					
Langwood Crossing	5,817	$429,950	2,140	$189	24	19	7/1/2016	2	3
SE Frances St & SE 72nd Ave		$511,565	2,472	$216					
Lois Gardens	6,098	$569,990	3,209	$178	6	2	1/20/2017	0	4
6092 SE Lois St		$624,900	3,396	$184					
Meier Woods	7,475	$225,500	1,981	$191	39	37	2/24/2015	0	2
3995 SW Rood Bridge Rd		$689,683	3,553	$286					
Pacific Crossing	5,250	$357,660	1,838	$123	144	87	4/30/2015	43	12
Oregon HWY 8 & Goff Rd		$559,900	3,400	$239					
Pohlman Woods	6,118	$468,820	2,440	$178	41	40	3/1/2016	1	0
23755 W Baseline Rd		$634,990	3,382	$216					
Silverstone Ph 1	4,500	$422,671	1,866	$164	45	8	12/5/2016	31	6
2465 NW Highway 47		$559,765	3,128	$246					
Skipper Estates	8,308	$529,900	2,956	$179	6	0	4/1/2017	2	3
NE Jackson St & NE 43rd Ave		$549,900	2,956	$186					

Source: New Home Trends and Johnson Economics

D. Senior Housing

The senior housing market is a growing residential sector, driven by the aging of population. Key locational criteria for these users is proximity to services, family, current friend networks, and local amenities. Projects are typically categorized based on level of care. Independent senior living is merely rental apartments with greater common areas and age restrictions, while assisted living, memory care, and full nursing care facilities provide progressively higher levels of service for residents.

Senior Housing Market Trends

As in other residential markets, the foreclosure crisis and ensuing recession caused declines in the senior housing market nationwide, particularly at private-pay facilities. Many seniors chose to remain in their own or their families' homes rather than rent or buy into costlier senior housing. Continuing care facilities with high entrance fees saw declines in demand, as the downturn greatly reduced seniors' savings and home equity. After reaching a bottom in 2010, the market has recovered steadily, along with the wider economic recovery. With limited new construction, occupancy rates and rent growth have many places advanced well above long-term averages, providing attractive opportunities for new development.

According to the National Investment Center for Seniors Housing & Care (NIC), 2016 set a record for absorption of senior housing units in the Portland Metro Area. The region is among the stronger senior housing markets in the nation, with occupancy rates for independent and assisted living 230 basis points above the national metro average, as of 4Q16.[5]

Independent Living

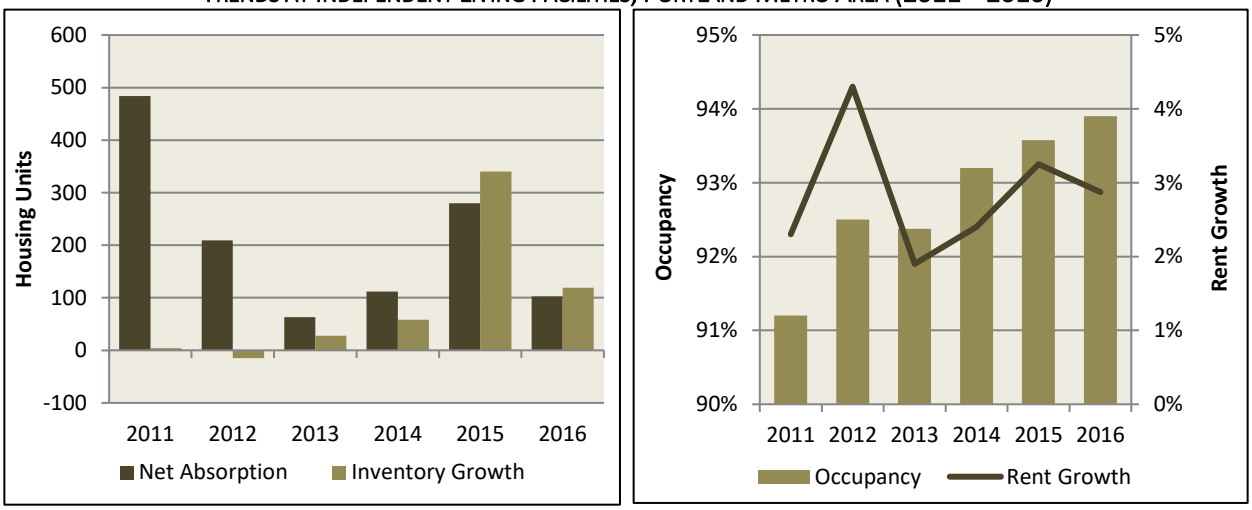
Independent living units (ILUs) are defined as senior apartments with access to a central dining facility and a limited range of services (e.g., meals, housekeeping, transportation, activities). This housing format has exhibited positive net absorption every year for the past six years, absorbing a total of 1,250 units over the period. Prior to 2015, there was virtually no new supply in this market, and the absorption reduced vacancies at existing properties to the point where absorption was being held back by a lack of availability. Delivery of new units has picked up over the last two years, accommodating stronger absorption. However, the new supply has fallen short of meeting demand, and the occupancy rate has continued to climb. At the end of 2016, the occupancy rate stood at 94.1%, which can be compared to a national average of 91.6%. Average rent growth over the past year was 2.9%.

In Washington County, the occupancy rate has generally been in line with the metro average, but it has declined to 91.1% as of 4Q16 due to an increase in new deliveries over the past two years. Rents climbed by 2.1% during 2016, slightly lower than in the remainder of the region.

The following charts display key trend metrics for facilities with a majority of ILUs at the metro level, as reported by NIC. Most continuing care retirement communities (CCRCs) fall into this category.

5 NIC tracks 200+ private-pay senior facilities in the Portland Metro Area, representing an estimated 90-95% of the market.

TRENDS AT INDEPENDENT LIVING FACILITIES, PORTLAND METRO AREA (2011 – 2016)

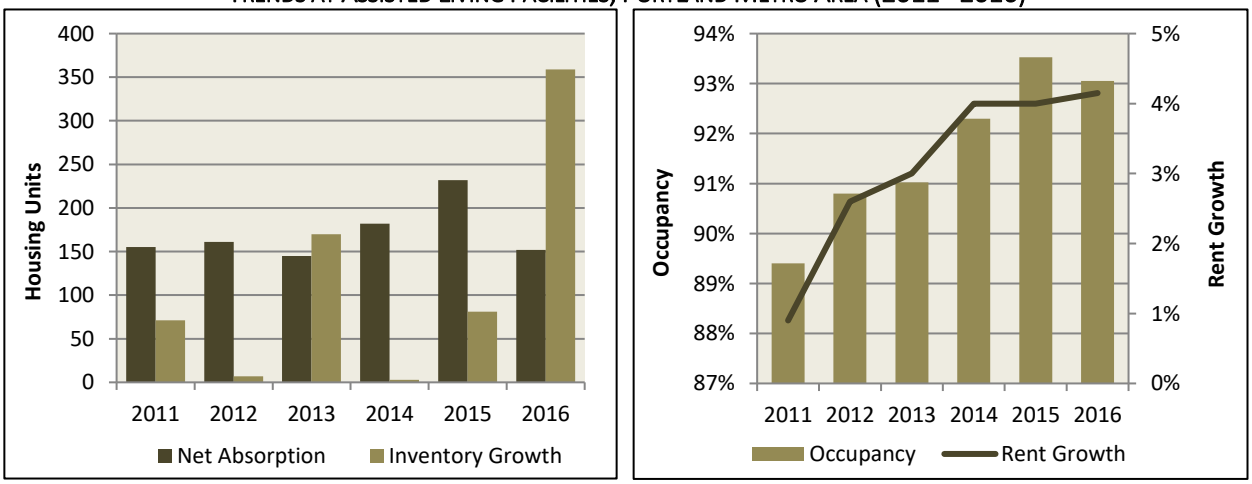


SOURCE: *National Investment Center for Seniors Housing & Care*

Assisted Living

Assisted living communities offer some personal assistance and care (sometimes including memory care) in addition to typical independent living services. The market for assisted living units (ALUs) has seen a tightening like the ILU market in recent years, although the occupancy level is slightly lower (which is normal). The occupancy rate climbed 370 basis points metro-wide over this period, and was 93.1% at the end of 2016. In comparison, the national metro average was 89.9%. As with ILUs, ALUs have seen positive net absorption every year since 2010, absorbing 1,030 units on the metro level over the past six years. Delivery of new units jumped in 2016, exceeding absorption and thus reducing occupancy somewhat. Annual rent growth has accelerated in recent years, reaching 4.2% in 2016. In Washington County, the occupancy rate was 94.1% at the end of 2014, and annual rent growth was 3.4%.

TRENDS AT ASSISTED LIVING FACILITIES, PORTLAND METRO AREA (2011 - 2016)

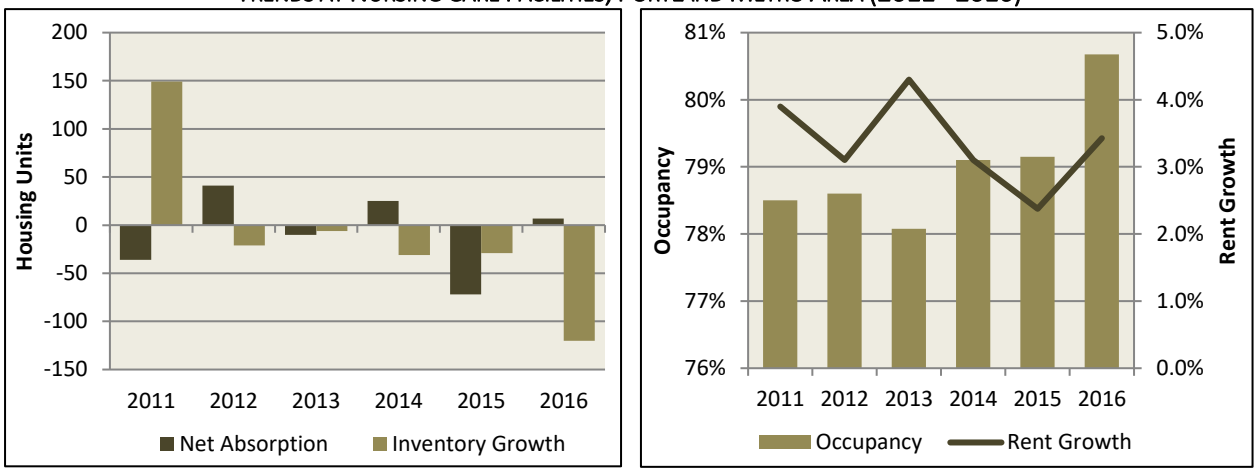


SOURCE: *National Investment Center for Seniors Housing & Care*

Nursing Care

Overall, the market for nursing care units (NCUs) in the Metro Area appears somewhat weak, with occupancy at 80.6% as of 4Q16, compared to 87.0% nationally. A contributor to the weakness is the lack of up-to-date facilities. (Data from REIS shows considerably higher occupancy rates for newer facilities.) The median age of the Metro Area's nursing care facilities is 44 years, which is older than the national average. Though absorption has been weak in recent years, dated units have been taken off the market and thus caused occupancy to climb. Monthly rates have also climbed (3.4% in 2016). In Washington County, the occupancy rate is 86.6% and annual rent growth is 2.2%.

TRENDS AT NURSING CARE FACILITIES, PORTLAND METRO AREA (2011 - 2016)



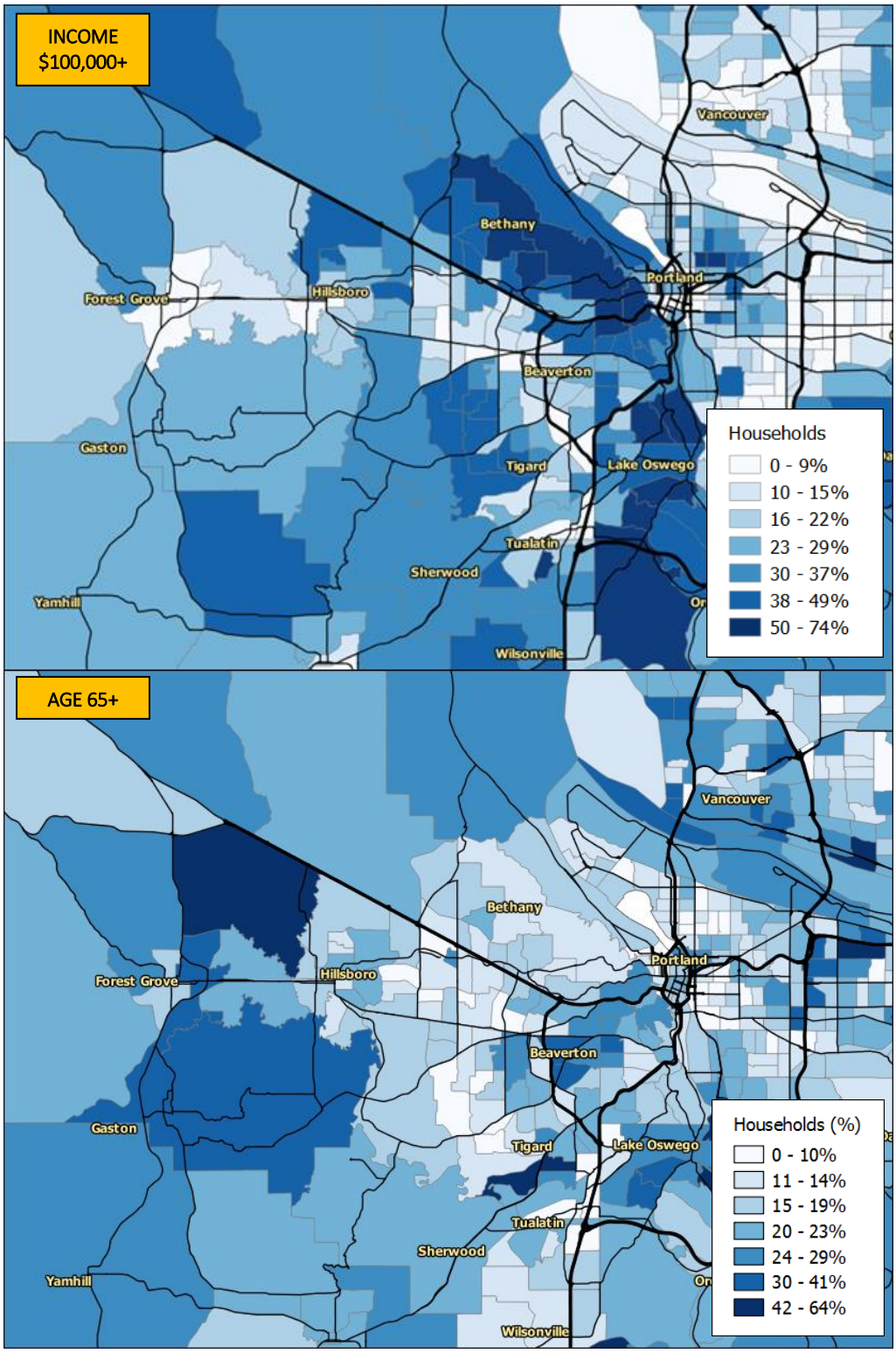
SOURCE: *National Investment Center for Seniors Housing & Care*

REGIONAL CONTEXT

The west side of the Portland Metro Area is relatively affluent, and the study area is within a 7-mile radius (~ 20-minute drive) of three high-income areas: North Hillsboro, Bethany/Forest Heights, and West Beaverton/Tigard. The largest concentrations of high-income households are found in the Bethany-Forest Heights area, where around 65% of the households have annual incomes above $100,000.

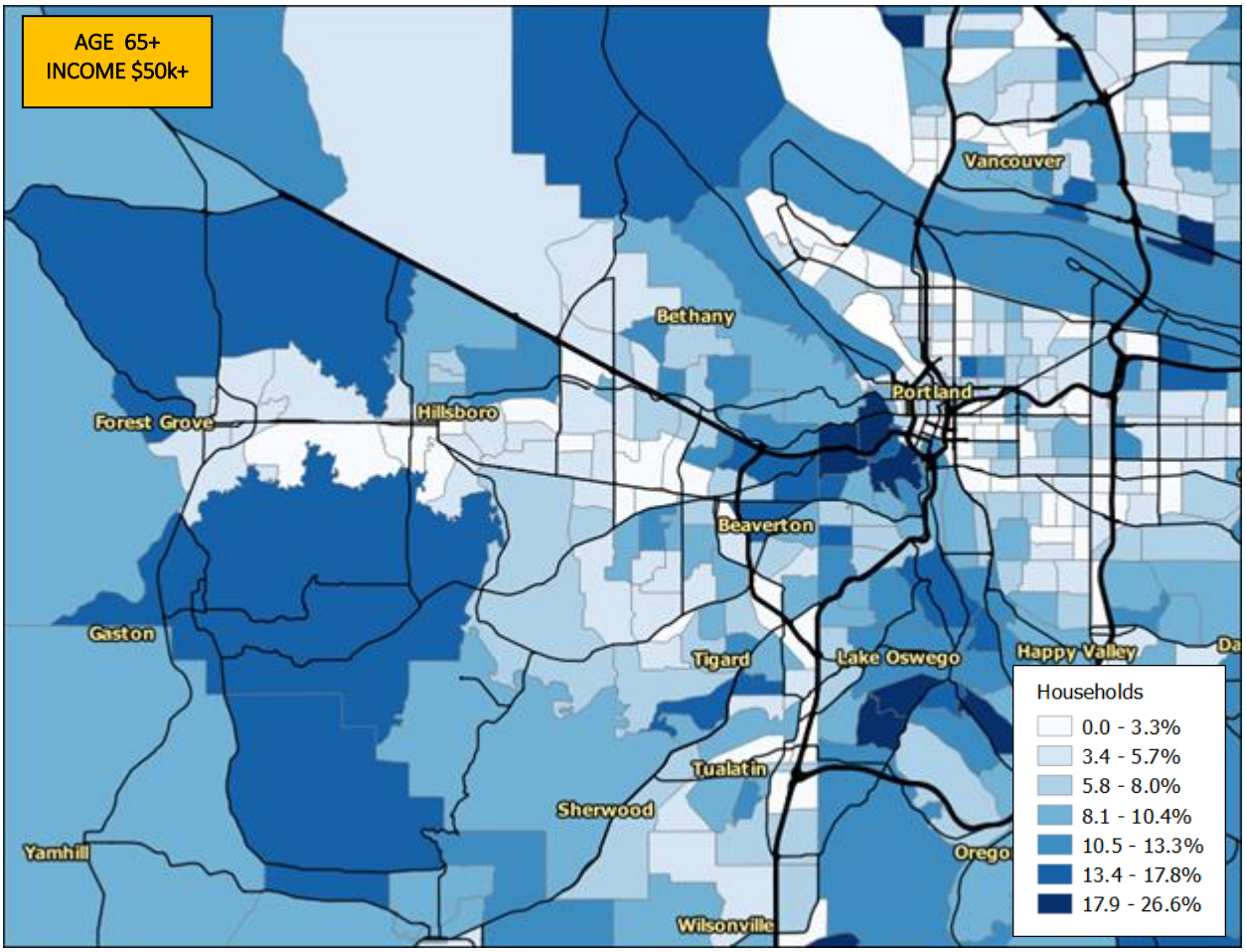
In terms of age, there is a concentration of seniors (age 65+) within a five-mile radius of the site, in the rural areas to the northwest and southwest, Beaverton, and Tigard.

HIGH-INCOME AND SENIOR HOUSEHOLD CONCENTRATIONS



Because the senior population is made up mostly of retirees, and their incomes are derived mostly from investments, seniors tend to have lower incomes than the working-age population. For seniors, we therefore use an annual income level of $50,000 to indicate affluence. The following map displays concentrations of seniors with incomes above $50,000 in the Portland Metro Area.

CONCENTRATIONS OF AFFLUENT SENIOR HOUSEHOLDS



SOURCE: U.S. Census Bureau, Metro, QGIS, JOHNSON ECONOMICS

An important factor for seniors evaluating housing options is proximity to their adult children. The majority of adult children of seniors who reside in senior housing facilities are now in the empty nester segment (age 55-64). A location with access to concentrations of empty nesters is therefore considered attractive from a development standpoint. Moreover, empty nesters represent future demand for senior housing options, and proximity to empty nesters is therefore an advantage also in a long-term perspective.

Empty nester concentrations are found somewhat further out than senior concentrations, and correlate strongly with high-income concentrations. This reflects that workers generally reach their highest income level toward the end of their careers. Downtown Hillsboro benefits from a central location accessible to concentrations of empty nesters on the west side of the Metro Area.

Hillsboro Market

We regard the study area to represent a strong mid-market location. It is easily accessed from a large part of the Portland Metro's west side, and provides visibility from an important commercial and commute corridor. We expect many adult children of prospective senior residents to find the location convenient, as visits can be combined with their commute. The site also benefits from proximity to medical services at Tuality hospital, as well as the new OHSU clinics, which is an important consideration for many seniors. Easy pedestrian access to the light rail line and transit is highly valued by seniors.

Features associated with very high-end senior communities are somewhat limited in the study area. All else being equal, we therefore do not expect the site to compete strongly with luxury properties that offer a naturally scenic setting, extensive views, or a situation within a well-designed and upscale residential area. Based solely on-site characteristics, we therefore expect the subject to be a mid-market option.

Comparable Projects

Most of the surveyed properties are typical suburban mid-market projects, featuring amenities and finishes that represented a high – but not luxury – standard at the time of their completion. Among these mid-market properties, Bonaventure Tigard represents the most upscale option due to its recent vintage (2016). However, its location is less marketable than most of the other properties. The two exceptions to the mid-market positioning are the Springs at Tanasbourne and Ackerly at Timberland. These two projects represent a more upscale profile that are positioned above the other comparables.

Occupancy appears to be very high within the PMA – above the average levels for Washington County and the Portland Metro Area. At the stabilized properties, which include all except the Ackerly, the overall occupancy rates were 99% for ILUs, 96% for ALUs, and 92% for MCUs. Bonaventure Tigard, which opened with 152 units in May 2016, is already fully occupied, according to staff. For detailed occupancy rates, see the following tables.

Independent Living

Monthly rates for ILUs generally range between $2,000 and $5,000, depending on unit size. The highest rates are found at the Ackerly, where small studios start at $2,895 and large two-bedroom units lease for more than $5,000. In the low end, Courtyard Village offers a price range from $1,820 to $2,920. Bonaventure Tigard is priced between the two, with units leasing for between $2,500 and $4,000. When units of similar size are compared, the Ackerly represents a premium of $1,400 relative to Courtyard Village, and $600 to $800 relative to Bonaventure Tigard.

PRICE AND OCCUPANCY SUMMARY – INDEPENDENT LIVING UNITS

ASSISTED LIVING		UNIT MIX			OCCUPANCY		AVERAGE RENT			
Type	Project	Units (#)	Units (%)	Avg. Size	Vac. (#)	Occ. (%)	Low	High	Average	Avg. PSF
Studio	The Ackerly	17	41%	506	N/D	N/D	$2,995	$4,195	$3,595	$7.10
	Raleigh Hills	28	35%	419	2	93%	$3,395	$3,395	$3,395	$8.10
	Edgewood Point	22	61%	360	1	95%	$3,575	$3,850	$3,713	$10.31
	Oswego Springs	18	26%	330	1	94%	$3,800	$4,000	$3,900	$11.82
	All Properties	**85**	**30%**	**402**	**4**	**94%**	**$2,995**	**$4,195**	**$3,624**	**$9.01**
1B/1b	Bonaventure Tigard	49	83%	591	0	100%	$3,100	$3,700	$3,400	$5.75
	Raleigh Hills	48	61%	464	6	88%	$3,735	$3,735	$3,735	$8.05
	The Ackerly	20	49%	732	N/D	N/D	$3,995	$4,895	$4,445	$6.08
	Edgewood Point	12	33%	550	0	100%	$4,095	$4,250	$4,173	$7.59
	Oswego Springs	44	65%	500	0	100%	$4,300	$4,400	$4,350	$8.70
	All Properties	**173**	**61%**	**546**	**6**	**96%**	**$3,100**	**$4,895**	**$3,909**	**$7.16**
2B/2b	Bonaventure Tigard	10	17%	933	0	100%	$3,750	$3,750	$3,750	$4.02
	Raleigh Hills	3	4%	758	0	100%	$4,200	$4,200	$4,200	$5.54
	Edgewood Point	2	6%	800	0	100%	$4,695	$4,695	$4,695	$5.87
	The Ackerly	4	10%	1,006	N/D	N/D	$4,995	$5,495	$5,245	$5.21
	Oswego Springs	2	3%	850	0	100%	$5,000	$5,000	$5,000	$5.88
	All Properties	**21**	**7%**	**901**	**0**	**100%**	**$3,750**	**$5,495**	**$4,308**	**$4.78**
Shared	Oswego Springs	4	6%	675	0	100%	$5,400	$5,800	$5,600	$8.30
	All Properties	**4**	**1%**	**675**	**0**	**100%**	**$5,400**	**$5,800**	**$5,600**	**$8.30**
All Units	Bonaventure Tigard	59	100%	649	0	100%	$3,100	$3,750	$3,459	$5.33
	Raleigh Hills	79	100%	459	8	90%	$3,395	$4,200	$3,632	$7.91
	The Ackerly	41	100%	665	N/D	N/D	$2,995	$5,495	$4,171	$6.27
	Edgewood Point	36	100%	448	1	97%	$3,575	$4,695	$3,920	$8.76
	Oswego Springs	68	100%	476	1	99%	$3,800	$5,800	$4,324	$9.09
TOTAL	**All Properties**	**283**	**100%**	**531**	**10**	**96%**	**$2,995**	**$5,800**	**$3,877**	**$7.30**

SOURCE: Surveyed Properties, JOHNSON ECONOMICS

Assisted Living

Rates for ALUs are for the most part in the $3,000-5,000 range. The older properties that have an established resident base appear to capture higher rates than the new properties. This likely reflects that the base pricing at the older properties includes more services, and that their smaller scale is more attractive to prospective residents. Ratios of staff per resident may also be a factor. It is also possible that the two new properties, both of which have reported original 2016 lease-up pricing, may have underpriced some of their ALUs.

Bonaventure Tigard represents the low end of the ALU pricing, with units ranging from $3,100 to $3,750. The highest rates are found at Brookdale Oswego Springs ($3,800-$5,000 per person), which benefits from proximity to the affluent Lake Oswego market. The property offers a few shared ALU units, which capture premiums of roughly $1,000 compared to the estimated rate for similarly sized one-person units. Edgewood Point, Raleigh Hills, and the Ackerly are priced between Bonaventure Tigard and Oswego Springs.

PRICE AND OCCUPANCY SUMMARY – ASSISTED LIVING UNITS

INDEPENDENT LIVING		UNIT MIX			OCCUPANCY		AVERAGE RENT			
Type	**Project**	**Units (#)**	**Units (%)**	**Avg. Size**	**Vac. (#)**	**Occ. (%)**	**Low**	**High**	**Average**	**Avg. PSF**
Studio	Courtyard Village	32	17%	530	1	97%	$1,820	$1,820	$1,820	$3.43
	The Ackerly	4	4%	524	N/D	N/D	$2,895	$3,595	$3,245	$6.20
	All Properties	**36**	**10%**	**529**	**1**	**97%**	**$1,820**	**$3,595**	**$1,978**	**$3.74**
1B/1b	Courtyard Village	120	63%	750	2	98%	$2,420	$2,420	$2,420	$3.23
	Bonaventure Tigard	27	39%	662	0	100%	$2,500	$3,500	$3,000	$4.53
	The Ackerly	53	60%	760	N/D	N/D	$3,295	$4,495	$3,895	$5.13
	All Properties	**200**	**57%**	**741**	**3**	**98%**	**$2,420**	**$4,495**	**$2,889**	**$3.90**
2B/2b	Courtyard Village (1b)	9	5%	928	0	100%	$2,920	$2,920	$2,920	$3.15
	Courtyard Village	28	15%	960	0	100%	$2,920	$2,920	$2,920	$3.04
	Bonaventure Tigard	43	61%	974	0	100%	$3,000	$4,000	$3,500	$3.59
	The Ackerly	32	36%	1,089	N/D	N/D	$4,595	$5,595	$5,095	$4.68
	All Properties	**112**	**32%**	**1,000**	**0**	**100%**	**$2,920**	**$5,595**	**$3,764**	**$3.77**
Total	Courtyard Village	189	100%	752	3	98%	$1,820	$2,920	$2,416	$3.21
	Bonaventure Tigard	70	100%	854	0	100%	$2,500	$4,000	$3,307	$3.87
	The Ackerly	89	100%	868	N/D	N/D	$2,895	$5,595	$4,297	$4.95
TOTAL	**All Properties**	**348**	**100%**	**802**	**3**	**99%**	**$1,820**	**$5,595**	**$3,077**	**$3.84**

SOURCE: Surveyed Properties, JOHNSON ECONOMICS

Memory Care

Memory care units represent a wide range in terms of pricing. For single-person units, the Ackerly is priced at the top, with units ranging from $5,000 to $6,000. Raleigh Hills and Bonaventure Tigard represent the low end, with units priced roughly $2,000 below the Ackerly, ranging from $4,300 to $4,700. Edgewood Point is priced in the center of the set, representing a discount of $1,000 to the Ackerly. Shared (two-person) units exhibit less price variation, with units ranging from $4,345 to $4,795 per person.

PRICE AND OCCUPANCY SUMMARY – MEMORY CARE UNITS

MEMORY CARE		UNIT MIX			OCCUPANCY		AVERAGE RENT			
Type	Project	Units (#)	Units (%)	Avg. Size	Vac. (#)	Occ. (%)	Low	High	Average	Avg. PSF
Studio	Bonaventure Tigard	19	83%	334	0	100%	$4,300	$4,700	$4,500	$13.47
	Edgewood Point	4	25%	360	0	100%	$5,460	$5,460	$5,460	$15.17
	The Ackerly	11	48%	383	N/D	N/D	$5,995	$6,995	$6,495	$16.98
	All Properties	**34**	**47%**	**353**	**0**	**100%**	**$4,300**	**$6,995**	**$5,258**	**$14.91**
1B/1b	Raleigh Hills	1	9%	419	0	100%	$4,345	$4,345	$4,345	$10.37
	Bonaventure Tigard	4	17%	557	0	100%	$4,840	$4,840	$4,840	$8.69
	All Properties	**5**	**7%**	**529**	**0**	**100%**	**$4,345**	**$4,840**	**$4,741**	**$8.96**
Semi-Priv.	Edgewood Point	12	75%	442	4	67%	$8,920	$8,920	$8,920	$20.18
	All Properties	**12**	**16%**	**442**	**4**	**67%**	**$8,920**	**$8,920**	**$8,920**	**$20.18**
Shared	Raleigh Hills	10	91%	464	0	100%	$8,690	$8,690	$8,690	$18.73
	The Ackerly	12	52%	628	N/D	N/D	$8,990	$9,590	$9,290	$14.80
	All Properties	**22**	**30%**	**553**	**0**	**100%**	**$8,690**	**$9,590**	**$9,017**	**$16.30**
Total	Bonaventure Tigard	23	100%	372	0	100%	$2,500	$4,840	$4,559	$12.26
	The Ackerly	23	100%	510	N/D	N/D	$5,995	$9,590	$7,953	$15.58
	Edgewood Point	16	100%	568	4	75%	$5,460	$8,920	$8,055	$14.19
	Raleigh Hills	11	100%	460	0	100%	$4,345	$8,690	$8,295	$18.04
TOTAL	**All Properties**	**73**	**100%**	**472**	**4**	**92%**	**$2,500**	**$9,590**	**$6,958**	**$14.75**

SOURCE: Surveyed Properties, JOHNSON ECONOMICS

Locations in the study area are expected to compete well relative to the comparable projects, with access to health services and transit representing marketable advantages. While achievable pricing will be specific to the site and execution, the sample set offers guidance on what is likely achievable in the current market environment.

Estimates of achievable monthly rates in the $2,900 to $3,900 range for ILUs; $3,880 to $4,800 for ALUs, and $5,460 to $5,870 for MCUs ($8,900-9,100 for shared MCUs).

E. STUDENT HOUSING

While student housing is identified as a distinct market product, students at Pacific University's Hillsboro Campus are expected to largely find their housing products within the context of the general rental apartment market. The study area includes Pacific University's Hillsboro Campus (housing the College of Health Professions) as well as Portland Community College's Hillsboro Center (and extension of the Rock Creek Campus). Both facilities are in the Health & Education district. The demand for housing from these facilities is a function of their student populations, but neither is viewed as a traditional generator of student housing demand. Pacific University's Hillsboro Campus is limited to graduate students, who tend to prefer traditional apartments to dormitory style housing. The current estimated student count is approximately 1,300 students, and is expected to grow to close to 2,000 students by 2020. PCC's Hillsboro Center has a significantly lower student count. A high proportion of these students are part-time, and PCC does not offer on-campus housing at any of their locations.

Comparable Projects

There are currently no dedicated student housing projects in Hillsboro, with the closest available housing provided by Pacific University for undergraduate students at their Forest Grove campus. Housing rates for the 2017-2018 academic year are summarized as follows:

Summary of Undergraduate Pricing Options, Pacific University Forest Grove Campus

Cascade, Clark, McCormick, and Walter Halls	Academic Year (Per Person)	Semester (Per Person)
Double, or Quad w/four persons	$6,710	$3,355
Deluxe Double (Cascade Hall only)	$7,060	$3,530
Single	$7,286	$3,643
Double suite, Quad suite	$7,440	$3,720
Single suite	$7,676	$3,838
2 or 3-person Apt w/kitchen/double bedroom	$9,172	$4,586
3-person Apt w/kitchen/single bedroom	$9,588	$4,794
Burlingham or Gilbert Halls	**Academic Year (Per Person)**	**Semester (Per Person)**
3 or 4-person Suite/double bedroom	$7,544	$3,772
4 or 6 person Apt/double bedroom	$7,986	$3,993
4 or 6 person Apt/single bedroom	$8,684	$4,342
Vandervelden Court	**Academic Year (Per Person)**	**Semester (Per Person)**
2-person Apt/single bedroom	$7,544	$3,772
4-person Apt/single bedroom	$7,746	$3,873
Studio (one available)	$8,390	$4,195

Students living in these units are also required to be enrolled in meal plans.

Traditional student housing is also located near Portland State University, which has a combination of traditional student projects and student-targeted rental apartments.

The most recently completed traditional student project is University Pointe at College Station, which was completed in November 2013. We also included the Emery in our peer analysis, as this project primarily targets students although it is also open to other tenants. Two older projects affiliated with College Housing Northwest, and located relatively close to the subject, were also included.

All the surveyed properties are fully leased at this time, with projects only reporting vacancy in the summer months. The following table provides an overview of pricing at these properties by floor plan.

SURVEYED STUDENT HOUSING PROPERTIES, PRICING BY UNIT TYPE

	Unit Characteristics								Rent Characteristics			
Project Name/	Year		Unit Mix			Unit Size			Rent Range		Average Rent	
Location	Built	Occupancy	#	%	Type	Low	High	Avg.	Low	High	Total	Per S.F.
University Pointe *	2012	100%	98	27%	Studio (furn)	441	441	441	$1,369	$1,369	$1,369	$3.10
1955 SW Fifth Avenue			100	27%	2B/2b priv (furn)	771	771	771	$1,908	$1,908	$1,908	$2.47
Portland, Oregon			60	16%	2B/2b shr (furn)	948	948	948	$2,396	$2,396	$2,396	$2.53
			110	30%	4B/2b (furn)	1,200	1,200	1,200	$2,916	$2,916	$2,916	$2.43
		Total/Average:	***368***	***100%***		***441***	***1,200***	***840***	***$1,369***	***$2,916***	***$2,145***	***$2.55***
Clay	1920s	100%	2	5%	Studio	300	375	338	$755	$755	$755	$2.24
1110 SW Clay Street			34	92%	1B/1b	490	595	543	$935	$950	$943	$1.74
Portland, Oregon			1	3%	2B/1b	595	595	595	$1,105	$1,105	$1,105	$1.86
		Total/Average:	***37***	***100%***		***300***	***595***	***533***	***$755***	***$1,105***	***$937***	***$1.76***
Goose Hollow Plaza	1999	100%	25	11%	1B/1b	585	612	599	$1,080	$1,170	$1,125	$1.88
1604 SW Clay Street			94	39%	2B/1b	784	954	869	$1,350	$1,525	$1,438	$1.65
		Total/Average:	***119***	***100%***		***585***	***954***	***812***	***$1,080***	***$1,525***	***$1,372***	***$1.69***
MW8 Apartments	2013	100%	1	2%	Studio (furn)	434	434	434	$1,599	$1,599	$1,599	$3.68
1962 SW 5th Ave			3	7%	1B/1b (furn)	487	487	487	$1,999	$1,999	$1,999	$4.10
Portland, OR			3	7%	2B/1b (furn)	627	627	627	$969	$1,099	$1,034	$1.65
			15	37%	2B/2b (furn)	628	643	636	$1,150	$1,250	$1,200	$1.89
			12	29%	3B/2b (furn)	855	1,007	931	$2,805	$3,045	$2,925	$3.14
			7	17%	4B/2b (furn)	909	951	930	$3,076	$3,900	$3,488	$3.75
		Total/Average:	***41***	***100%***		***628***	***1,007***	***664***	***$1,150***	***$3,900***	***$1,891***	***$2.85***

** The surveyed property did not disclose its unit mix; a relatively even mix was assumed.*

Source: Surveyed properties and JOHNSON REID

While a sampling of student housing is provided, our expectation is that the local student population is likely to represent a portion of the demand pool as opposed to being of adequate scale to support a student-only project.

VI. Residential Demand Analysis

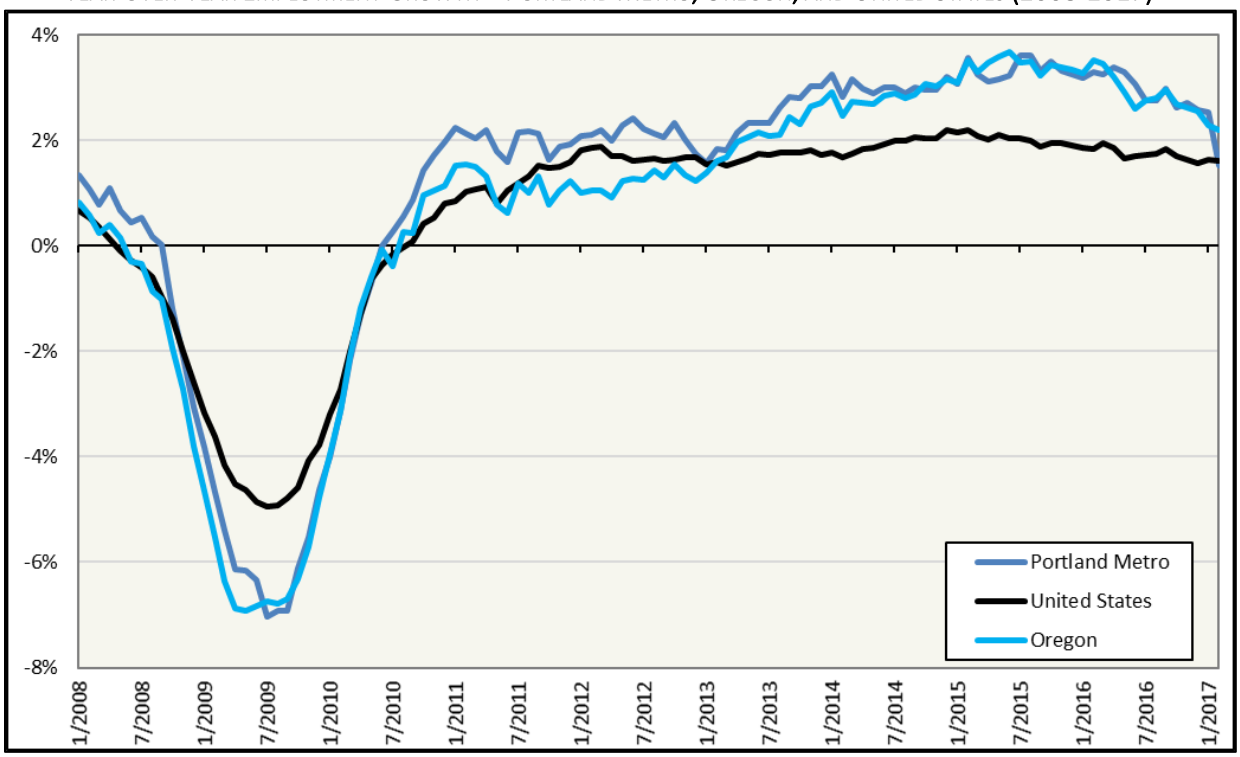
A. Economic and Demographic Trends

Employment Growth and Unemployment

The Portland Metro Area and State of Oregon have seen strong employment growth in recent years. While both markets suffered stronger employment effects than the United States during the downturn, growth since then has significantly outpaced national trends. The Portland area was quicker to rebound than the State, seeing year-over-year employment growth over 2% as early as January 2011. Oregon growth caught up to the Portland area in January 2013.

Employment growth in Oregon and the Portland MSA have mimicked each other in the four subsequent years. During that time, the Portland MSA saw 42 consecutive months of annual employment growth at or above 2.5%. Oregon saw 38 consecutive months at this threshold. Both markets saw peak employment growth rates of near 4% since the downturn, while U.S. employment growth peaked at 2.2%, most recently in February 2015. Figure 5.1, below, shows year-over-year employment growth from 2008 to February 2017.

Year-over-Year Employment Growth – Portland Metro, Oregon, and United States (2008-2017)

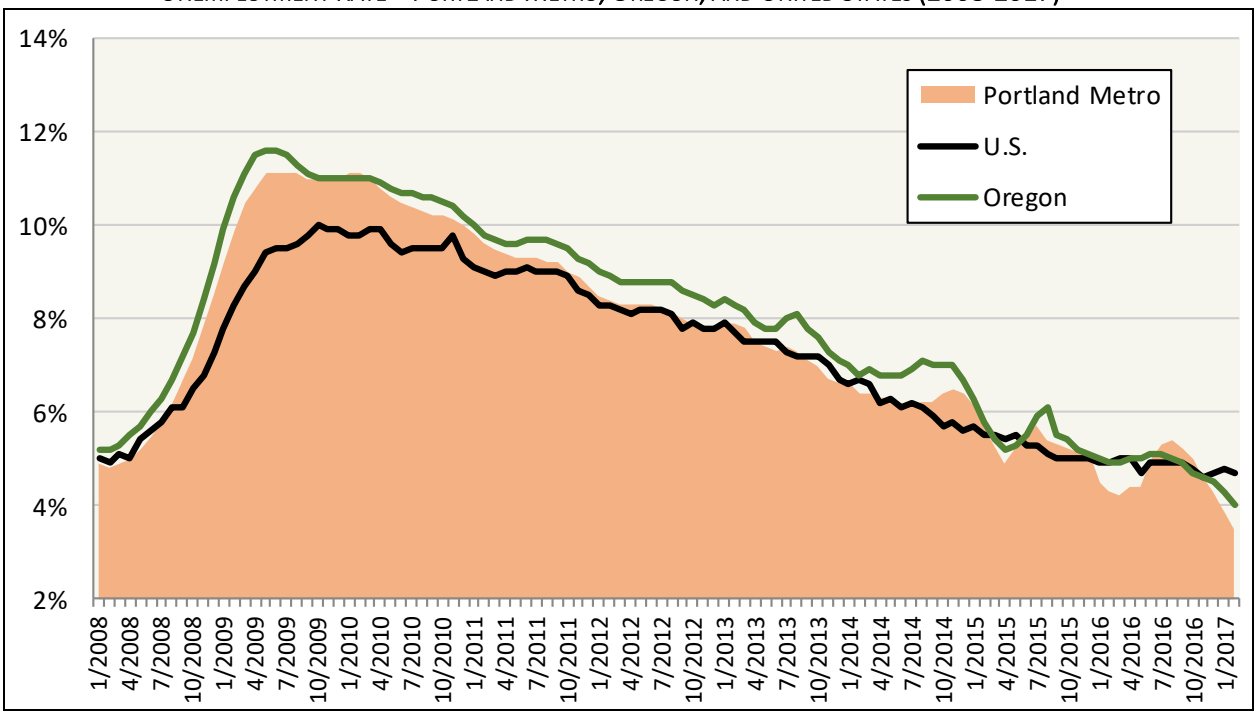


SOURCE: Oregon Employment Department, BLS, Johnson Economics

The unemployment rate has fallen dramatically with the steady employment growth. The metropolitan area and State were both hit harder than the U.S. during the Great Recession. Both markets topped out at over 11% unemployment; the State nearly hit 12% (U-3 rate). Since then, the rate has dropped rapidly.

The United States has been at or below 5% unemployment for 18 consecutive months. The national 4.7% rate in February is the lowest since November 2007. In recent months, the Portland MSA and Oregon have both surpassed the nation. As of February, unemployment in the Portland MSA was at an astounding 3.5%, while Oregon was only slightly higher at 4%. These numbers are the lowest for the region in at least the past 27 years, the last year for which we have data collected. Employment is as robust as it has ever been in the State.

UNEMPLOYMENT RATE – PORTLAND METRO, OREGON, AND UNITED STATES (2008-2017)



SOURCE: Oregon Employment Department, BLS, JOHNSON ECONOMICS

INCOME AND POPULATION

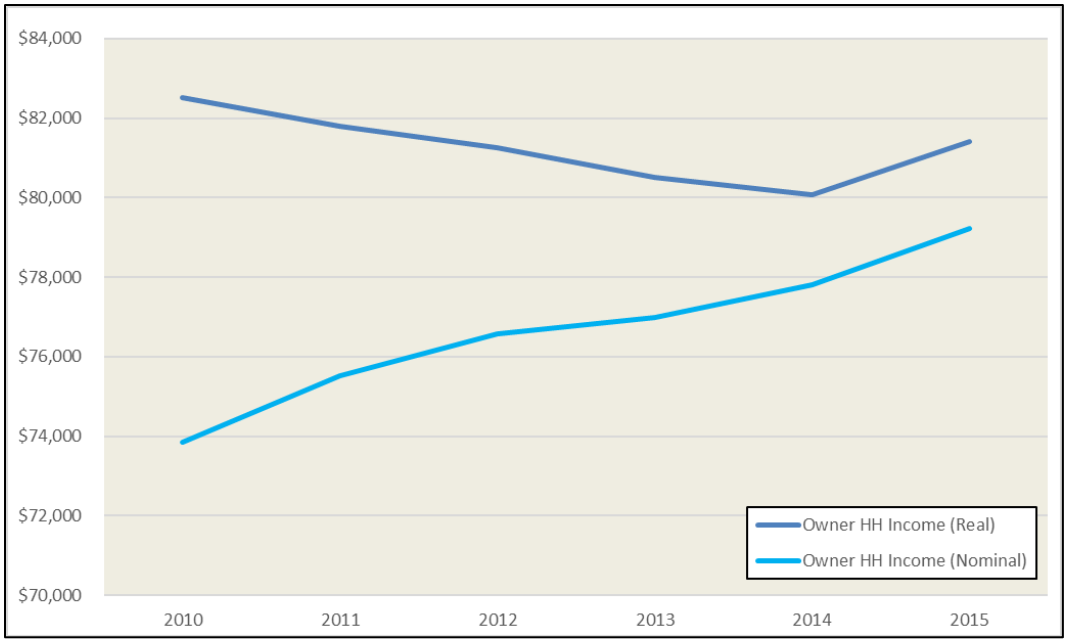
Median household incomes in the Portland Metro Area have stagnated since the recession, consistent with national trends. While income in nominal terms has increased on a yearly basis, this is not true when adjusted for inflation. However, 2015 income levels (the most recently available year for data from the U.S. Census Bureau's American Community Survey), rebounded dramatically to their highest levels since 2011. Real median household income in the Portland MSA increased from $60,539 to $61,961 from 2014 to 2015, a 2.3% increase.

Rental households have fared better than ownership households in terms of income growth in the five-year period ending in 2015. In fact, rental households have grown in real terms from $37,461 to $38,832, indicating an annual growth rate of 0.72%. Ownership median household income experienced negative growth of -0.27% per year over this time frame, though like the overall market, it increased significantly from 2014 to 2015. One reason that renters have seemingly done well in comparison to owners vis-à-vis income levels is that tenure has been shifting dramatically towards rental units. With lending tightening

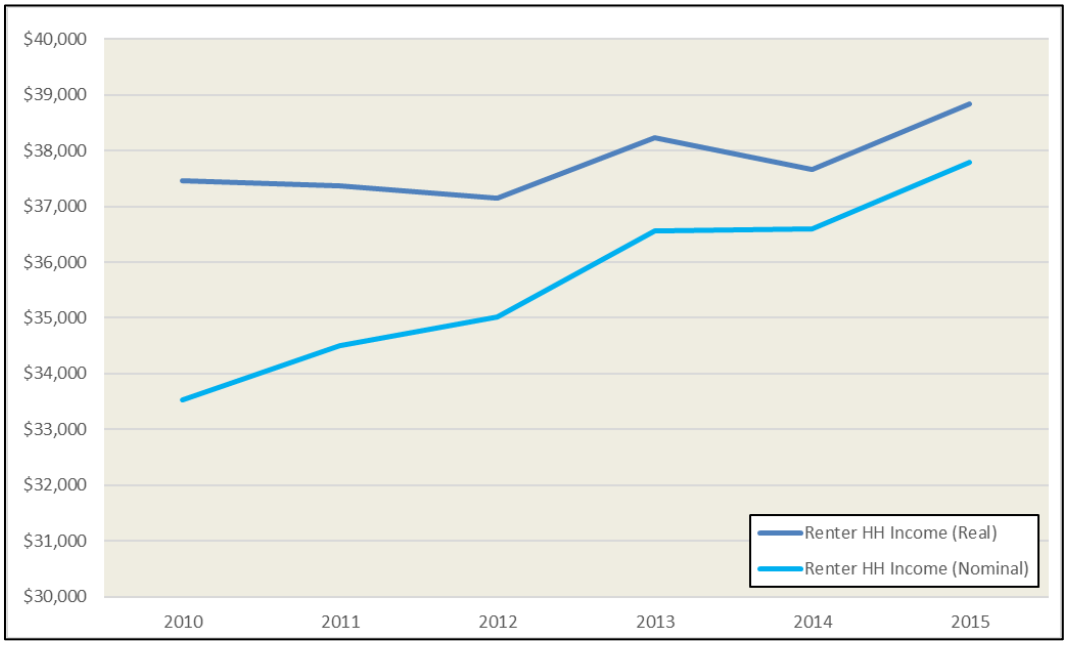
after the downturn, higher-income households that would previously have been able to obtain a loan have had to look at rental units instead.

The following three charts look at median income levels and growth in ownership and rental households in the PMA from 2010 to 2015. All figures in the following three graphs are adjusted for 2017 dollars.

AVERAGE ANNUAL MEDIAN INCOME FOR OWNERSHIP HOUSEHOLDS, PORTLAND METRO AREA (2010-2015)

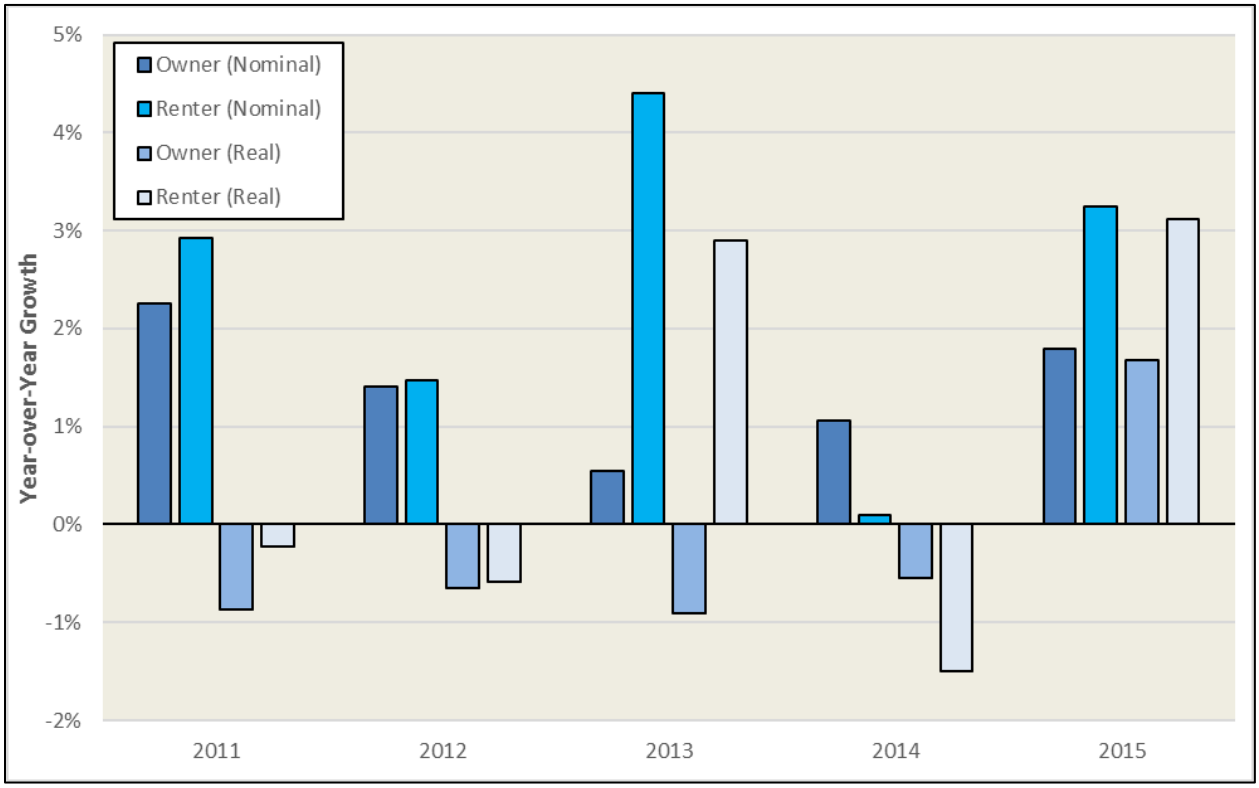


AVERAGE ANNUAL MEDIAN INCOME FOR RENTAL HOUSEHOLDS, PORTLAND METRO AREA (2010-2015)



SOURCE: U.S. Census Bureau, JOHNSON ECONOMICS

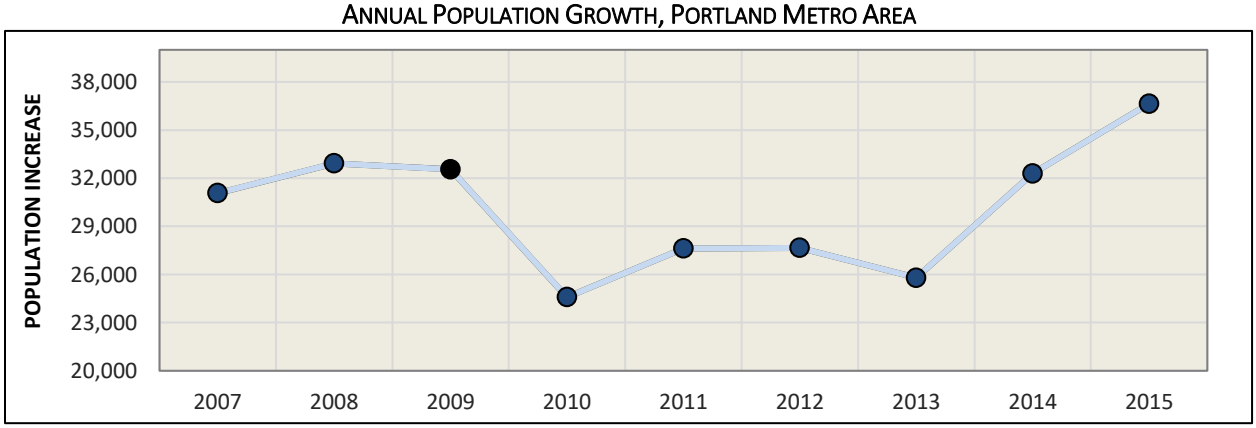
ANNUAL HOUSEHOLD INCOME GROWTH, PORTLAND METRO AREA (2011-2015)



SOURCE: U.S. Census Bureau, JOHNSON ECONOMICS

The following chart displays the annual population increase in the four-county Portland Metro Area. After growing by 25,000 to 28,000 persons per year throughout most of this recovery, the data indicates an acceleration in growth over the two most recent years. Growth in 2015 approached 37,000, well above pre-recession levels. At an average household size of 2.57 (2005-2013 average), this should translate into household formation in the order of 14,000 units per year, assuming adequate housing supply.

ANNUAL POPULATION GROWTH, PORTLAND METRO AREA



SOURCE: U.S. Census Bureau, JOHNSON ECONOMICS

B. Demand Analysis

Johnson Economics has developed a demographically driven housing demand model to forecast near-term residential market depth. The demand forecast begins with estimates of market area households stratified by age and income cohort, which are the best predictors of tenure split (owner/renter). Rates of housing expenditures and psychographic analysis are used to derive assumptions of housing preferences and ability/willingness to pay by rent level. The projected new households are converted to a forecast for rental housing units by type and price.

Demographic Profile of the Market

According to Nielsen Claritas, the market area has grown from 27,143 to 37,815 households since the turn of the millennium. This increase of over 10,000 households translates to average annual growth of 1.97%, which is considerably faster than the remainder of the Metro Area over this period (1.3%).

The data reveals strong growth among all segments, with the strongest growth taken place among empty-nesters and retirees. This is consistent with nation-wide demographic trends, reflecting that the cusp of the baby boomer wave has moved from family-age segments to pre-retirement and retirement age segments.

In a regional context, the PMA has also seen unusually robust growth among working-age households, which more than anything reflects the strength of Hillsboro's tech sector. Over this period, most parts of the suburban Metro Area have seen a decline in the 25 to 34 age segment, which is so important to the apartment market. To some extent, the decline reflects a migration of young adults to Central Portland, where they find trendier workplaces and a broader base of urban amenities. That the Hillsboro area has been able to counter this trend and attract young adults is a good sign for its apartment market going forward.

Age and Income Distribution of Households, City of Hillsboro

2017	Age Cohort							
Income Cohort	**15-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65-74**	**75+**	**Total**
< $15,000	229	488	419	431	474	330	387	**2,758**
$15,000 - $24,999	175	489	470	334	370	405	447	**2,690**
$25,000 - $34,999	156	567	521	299	295	488	437	**2,763**
$35,000 - $49,999	327	693	684	618	559	713	432	**4,026**
$50,000 - $74,999	245	1,472	1,538	1,385	1,175	956	420	**7,191**
$75,000 - $99,999	181	1,452	1,737	1,265	1,018	467	166	**6,286**
$100,000 - $124,999	4	883	1,182	1,200	877	363	107	**4,616**
$125,000 - $149,999	27	588	798	629	487	230	74	**2,833**
$150,000 - $199,999	2	449	852	627	441	156	40	**2,567**
$200,000+	1	230	502	666	470	168	48	**2,085**
TOTAL:	**1,347**	**7,311**	**8,703**	**7,454**	**6,166**	**4,276**	**2,558**	**37,815**

With respect to income, the growth has taken place in mid-to-upper and upper-income segments. Over 62% of the growth has taken place among households with incomes above $100,000, an increase since our last report. Over 84% of new growth comes from households making more than $75,000 per year. The

influx of wealthy households might explain the decline in high school/college-age segments, which often cannot afford the rent increases that follow a demographic shift to higher incomes.

As shown in the following table, employment growth over the last several years in Washington County has been captured by somewhat older employees over the last few years. This pattern is more supportive of ownership housing options on the margin, as older households tend to have higher income levels as well as a greater propensity to own homes.

ANNUAL EMPLOYMENT GROWTH BY AGE OF EMPLOYEE, PORTLAND METRO AREA AND WASHINGTON COUNTY

METRO	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
19-24	2,254	286	-1,259	-12,302	-3,135	-12	1,391	2,882	3,134	3,430	3,491
25-34	5,470	5,431	2,711	-15,027	-3,201	2,357	1,710	2,613	5,638	7,538	8,204
35-44	4,456	2,229	-5	-13,764	-1,617	5,581	6,068	6,542	7,398	7,965	7,495
45-54	6,129	2,266	-134	-12,420	-4,206	1,805	866	1,929	5,359	7,032	5,477
55-64	9,300	8,339	7,660	55	2,591	7,047	4,423	5,486	4,153	6,003	4,979
65-99	2,550	2,929	2,841	-482	1,497	2,450	4,441	3,823	3,889	4,713	4,608
TOTAL	**31,751**	**22,760**	**10,827**	**-59,171**	**-11,440**	**17,977**	**18,450**	**23,793**	**30,768**	**38,538**	**36,692**

WASH.	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
19-24	563	584	-988	-3,013	-521	598	522	454	1,361	493	586
25-34	1,773	2,013	-553	-4,366	-784	1,504	369	-1,356	3,023	1,904	1,253
35-44	1,814	2,061	-533	-4,100	-272	2,370	1,723	-662	3,742	2,064	1,230
45-54	2,532	2,465	-125	-3,225	-273	1,596	473	-590	3,294	2,537	1,711
55-64	2,635	2,995	1,436	-150	1,060	2,427	1,435	1,229	2,260	2,264	1,976
65-99	798	915	806	-396	332	736	1,017	885	1,070	1,403	1,354
TOTAL	**10,679**	**11,482**	**-283**	**-16,739**	**-1,270**	**9,094**	**5,327**	**-5**	**15,175**	**11,292**	**8,760**

RENTAL AND OWNERSHIP RESIDENTIAL DEMAND

JOHNSON ECONOMICS' mid-term housing forecast is based on recent market trends, as well as the current and projected demographic characteristics of households in the study area. Existing households in the market area are stratified by age and income cohort, which are the best predictors of tenure split. Using a matrix of propensities to either own or rent based on age and income cohort (derived from city-level Hillsboro data), the projected new households are converted to a forecast for rental housing units.

Over the five-year forecast period, we estimate that the PMA has underlying demand for nearly 4,800 hew households, supporting approximately 5,000 new housing units. Marginal growth is projected to be concentrated in households in the 35 to 54-year age cohort, with incomes above $75,000 per year. This reflects an ongoing trend towards relatively more affluent households in the area. The following tables summarize the forecast age by income distribution of households in the area, and the projected net change by cohort.

new housing units.

PROJECTED HOUSEHOLD GROWTH BY AGE AND INCOME COHORT, CITY OF HILLSBORO

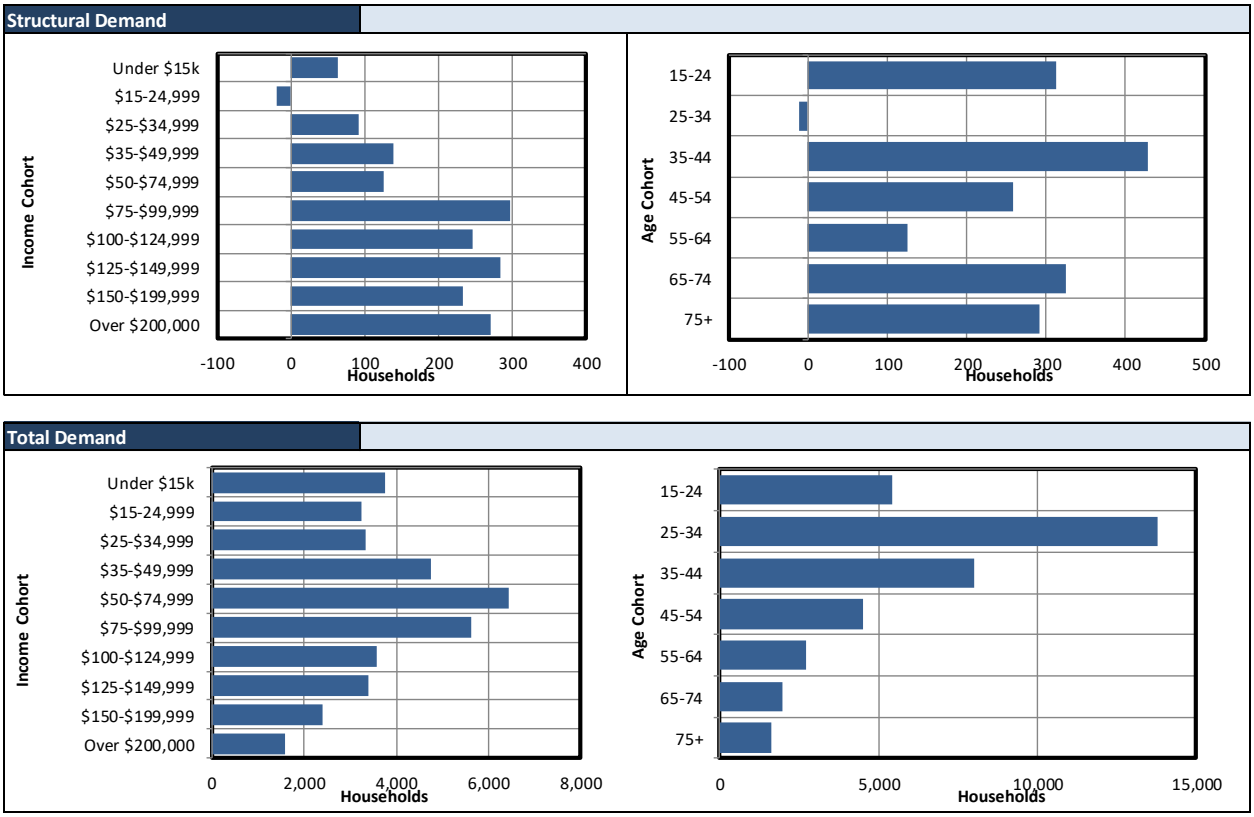
2022	Age Cohort							
Income Cohort	15-24	25-34	35-44	45-54	55-64	65-74	75+	Total
< $15,000	279	467	426	411	450	367	434	**2,834**
$15,000 - $24,999	189	456	446	309	332	441	492	**2,665**
$25,000 - $34,999	196	552	513	297	293	553	503	**2,908**
$35,000 - $49,999	395	669	670	625	550	808	529	**4,246**
$50,000 - $74,999	305	1,407	1,543	1,368	1,167	1,127	541	**7,458**
$75,000 - $99,999	256	1,479	1,931	1,375	1,089	588	228	**6,946**
$100,000 - $124,999	8	924	1,419	1,390	992	469	156	**5,358**
$125,000 - $149,999	42	676	1,063	815	612	331	108	**3,647**
$150,000 - $199,999	8	515	1,190	850	581	232	60	**3,436**
$200,000+	6	251	855	984	663	279	89	**3,126**
TOTAL:	**1,685**	**7,396**	**10,056**	**8,424**	**6,729**	**5,195**	**3,140**	**42,625**

2017-2022 Growth	Age Cohort							
Income Cohort	15-24	25-34	35-44	45-54	55-64	65-74	75+	Total
< $15,000	50	-21	7	-20	-24	37	47	**76**
$15,000 - $24,999	14	-33	-24	-25	-38	36	45	**-25**
$25,000 - $34,999	40	-15	-8	-2	-2	65	66	**145**
$35,000 - $49,999	68	-24	-14	7	-9	95	97	**220**
$50,000 - $74,999	60	-65	5	-17	-8	171	121	**267**
$75,000 - $99,999	75	27	194	110	71	121	62	**660**
$100,000 - $124,999	4	41	237	190	115	106	49	**742**
$125,000 - $149,999	15	88	265	186	125	101	34	**814**
$150,000 - $199,999	6	66	338	223	140	76	20	**869**
$200,000+	5	21	353	318	193	111	41	**1,041**
TOTAL:	**338**	**85**	**1,353**	**970**	**563**	**919**	**582**	**4,810**

Over the five-year forecast period, demand from new household growth is estimated to around 1,000 households seeking rental apartment housing in the market area, or 200 annually. Projected growth has shifted to more affluent households. We estimate that most new demand will come from households making more than $75,000 per year. The following charts summarize estimated market depth for rental apartments by age and income cohort, both from structural demand (net-new household growth) and total demand (net new demand and turnover demand).

When turnover demand is considered, the demand profile more closely resembles the current household distribution. Collectively, the target market has a total demand profile of over 7,600 rental apartment households annually. This reflects all leasing activity. Turnover households, by definition, vacate existing units which become vacant supply. Therefore, structural demand is a better measure of the net new units needed annually. However, the total demand reflects the larger pool for which a project in the study area can compete for.

PROJECTED RENTAL HOUSING DEMAND BY AGE AND INCOME COHORT, CITY OF HILLSBORO, 2017-2022



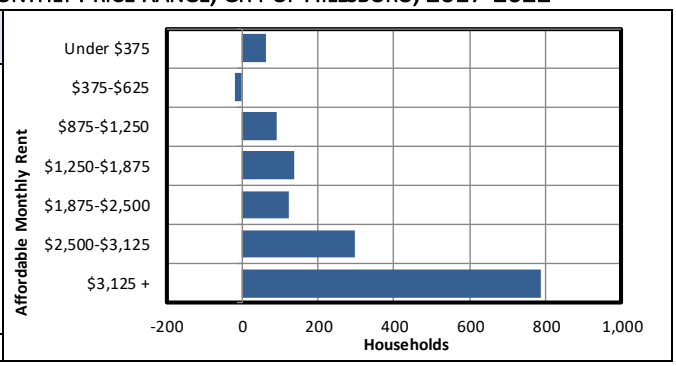
SOURCE: JOHNSON ECONOMICS

The profile of projected demand is dominated by the primary rental ages of 25 to 44, although the net new demand has a high proportion of households aged 65 and over. This indicates some potential for new senior-oriented rental housing, either independent living or with some level of assistance.

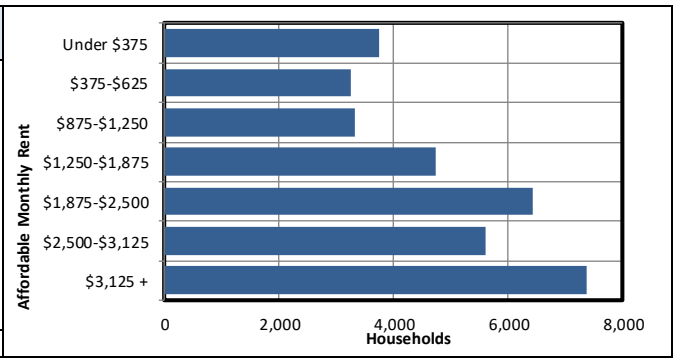
The projections by income cohort were converted into associated affordable rent levels using a 30% of income measure. While we know that lower income household spend a greater share of their income on housing, while higher income households spend less, this ratio is generally a sound rule of thumb for the households with incomes ranging from $35,000 to $75,000 per year. New rental residential product will likely be targeted towards households earning $35,000 and above, with any new product targeting a lower income bracket likely requiring subsidies from groups such as Oregon Housing and Community Services.

PROJECTED RENTAL HOUSING DEMAND BY MONTHLY PRICE RANGE, CITY OF HILLSBORO, 2017-2022

Net-New Demand	Rents @30% of Income		Total
Income Cohort	Low	High	2017-22
Under $15,000	< $375		**63**
$15,000 - $24,999	$375 - $625		**-20**
$25,000 - $34,999	$625 - $875		**92**
$35,000 - $49,999	$875 - $1,250		**139**
$50,000 - $74,999	$1,250 - $1,875		**125**
$75,000 - $99,999	$1,875 - $2,500		**297**
$100,000 - $124,999	$2,500 - $3,125		**246**
$125,000 - $149,999	$3,125 - $3,750		**284**
$150,000 - $199,999	$3,750 - $5,000		**234**
$200,000 +	$5,000 +		**270**
TOTAL:			**1,730**



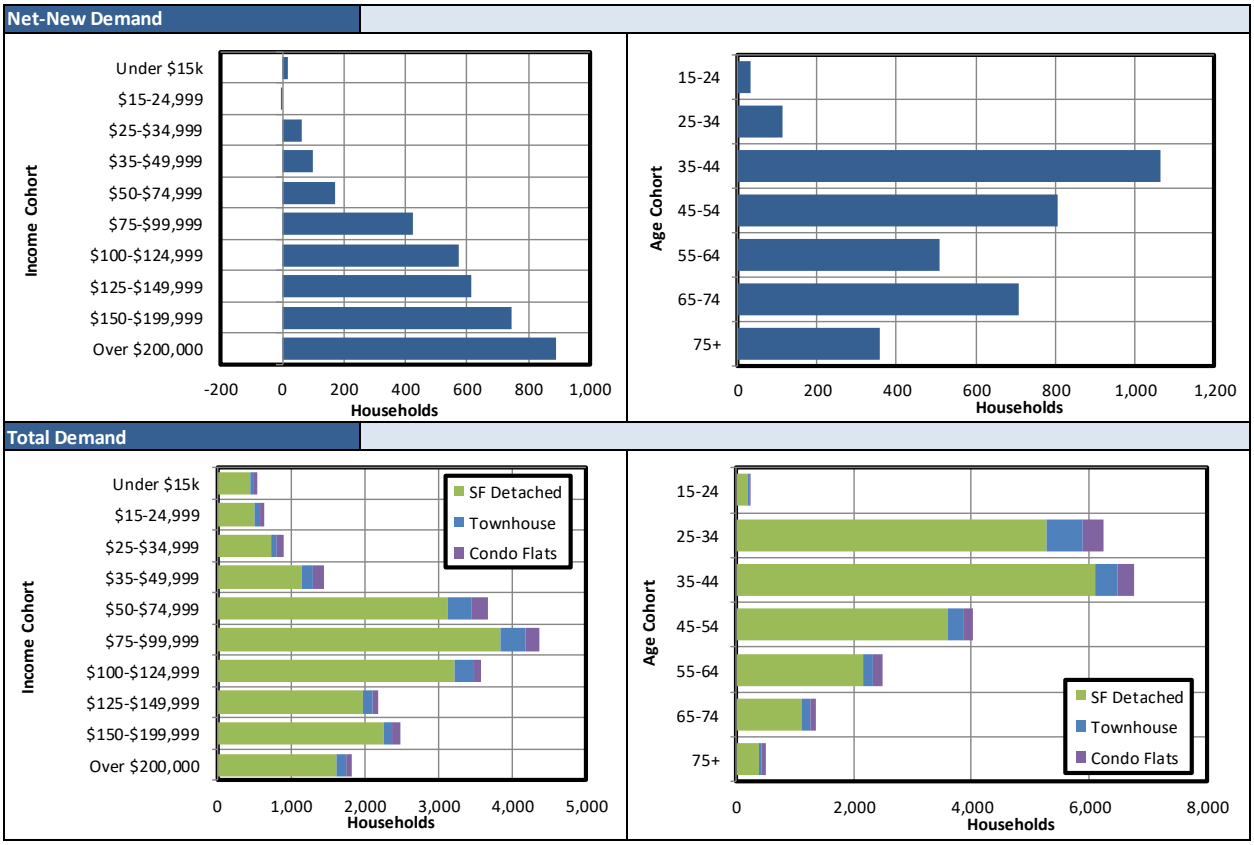
Total Demand	Rents @30% of Income		Total
Income Cohort	Low	High	2017-22
Under $15,000	< $375		**3,750**
$15,000 - $24,999	$375 - $625		**3,244**
$25,000 - $34,999	$625 - $875		**3,330**
$35,000 - $49,999	$875 - $1,250		**4,741**
$50,000 - $74,999	$1,250 - $1,875		**6,428**
$75,000 - $99,999	$1,875 - $2,500		**5,618**
$100,000 - $124,999	$2,500 - $3,125		**3,587**
$125,000 - $149,999	$3,125 - $3,750		**3,393**
$150,000 - $199,999	$3,750 - $5,000		**2,399**
$200,000 +	$5,000 +		**1,583**
TOTAL:			**38,072**



A similar analysis was done for ownership residential demand, converting the projected age and income composition of households into a projected demand for ownership housing products. The age and income profile of projected growth is weighted towards household that would typically demand ownership housing products. The projected net new demand for ownership housing during the period is for 3,600 units, or 720 net new units per year. As with rental housing, we also produced a forecast of overall demand assuming a turnover of existing ownership housing in the area.

Demand was also segmented based on product type, split into single family residential, townhouse, and condominium units. This split was based on the current observed split between units. We expect that the economics of new construction will likely produce a significant change in new product offerings by price point, with lower price point units increasingly difficult to produce outside of townhome and condominium configurations. As a result, while the market may have a demand preference for single family housing, much of this demand will be realized in attached for-sale product due to market factors.

PROJECTED OWNERSHIP HOUSING DEMAND BY AGE AND INCOME COHORT, CITY OF HILLSBORO, 2017-2022



In contrast to rental residential demand, the demand profile is somewhat older and more affluent.

Projected demand by household income level was converted into a supportable purchase price using a series of assumptions. These included a maximum 28% of gross income towards mortgage payments, and a 30-year fixed mortgage at 4.25%. The down payment assumption ranged from 5% for lower income buyers to 20% for higher income buyers. The resulting projection indicated the bulk of demand to be in the $350,000 to $600,000 price range, although there was considerable net new demand in price ranges through $1.2 million. Projected net new demand is for higher priced units than the market, with the bulk of demand able to support pricing above $400,000.

PROJECTED OWNERSHIP HOUSING DEMAND BY SUPPORTABLE PRICE, CITY OF HILLSBORO, 2017-2022

Net-New Demand	Pmts @28% of Income		Supportable Mortgage		Down	Supportable Price		Total
Income Cohort	Low	High	Low	High	Payment	Low	High	2017-22
Under $15,000		< $350		< $71,000	5%		< $74,737	**16**
$15,000 - $24,999	$350	- $583	$71,000	- $119,000	5%	$74,737	- $125,263	**-6**
$25,000 - $34,999	$583	- $817	$119,000	- $166,000	10%	$132,222	- $184,444	**65**
$35,000 - $49,999	$817	- $1,167	$166,000	- $237,000	10%	$184,444	- $263,333	**99**
$50,000 - $74,999	$1,167	- $1,750	$237,000	- $356,000	10%	$263,333	- $395,556	**171**
$75,000 - $99,999	$1,750	- $2,333	$356,000	- $474,000	10%	$395,556	- $526,667	**426**
$100,000 - $124,999	$2,333	- $2,917	$474,000	- $593,000	10%	$526,667	- $658,889	**575**
$125,000 - $149,999	$2,917	- $3,500	$593,000	- $711,000	20%	$741,250	- $888,750	**616**
$150,000 - $199,999	$3,500	- $4,667	$711,000	- $949,000	20%	$888,750	- $1,186,250	**744**
$200,000 +	$4,667	+	$949,000	+	20%	$1,186,250	+	**890**
TOTAL:								**3,596**

Total Demand	Pmts @28% of Income		Supportable Mortgage		Down	Supportable Price		Total
Income Cohort	Low	High	Low	High	Payment	Low	High	2017-22
Under $15,000		< $350		< $71,000	5%		< $74,737	**548**
$15,000 - $24,999	$350	- $583	$71,000	- $119,000	5%	$74,737	- $125,263	**643**
$25,000 - $34,999	$583	- $817	$119,000	- $166,000	10%	$132,222	- $184,444	**898**
$35,000 - $49,999	$817	- $1,167	$166,000	- $237,000	10%	$184,444	- $263,333	**1,437**
$50,000 - $74,999	$1,167	- $1,750	$237,000	- $356,000	10%	$263,333	- $395,556	**3,666**
$75,000 - $99,999	$1,750	- $2,333	$356,000	- $474,000	10%	$395,556	- $526,667	**4,365**
$100,000 - $124,999	$2,333	- $2,917	$474,000	- $593,000	10%	$526,667	- $658,889	**3,576**
$125,000 - $149,999	$2,917	- $3,500	$593,000	- $711,000	20%	$741,250	- $888,750	**2,182**
$150,000 - $199,999	$3,500	- $4,667	$711,000	- $949,000	20%	$888,750	- $1,186,250	**2,486**
$200,000 +	$4,667	+	$949,000	+	20%	$1,186,250	+	**1,827**
TOTAL:								**21,628**

For both rental and ownership residential, it is important to make a distinction between potential and realized demand. While our model anticipates the demand profiles summarized, the capture of this demand is a function off the market's ability to deliver and adequate level of acceptable product types at the appropriate price points. In addition, residential construction activity in proximate markets, such as South Hillsboro, has the potential to substantively impact demand potential.

SENIOR HOUSING DEMAND

Current market depth refers to the number of units needed to support existing senior housing residents in the PMA. In saturated markets with occupancy rates above long-term averages, this number can be assumed to equal the existing inventory. The PMA belongs to this category, judging from the high occupancy rates observed in our survey and the rates reported by NIC for Washington County. In addition to estimating the depth of the market in terms of units, we will also estimate the depth of the market in terms of annual turnover transactions.

Because there is no reliable inventory of senior housing projects that includes unit counts by living/care type, we will estimate the PMA inventory via penetration rates. Penetration rates represent the number of senior housing units that a market can support per senior household, and are typically calculated by dividing the market's total unit count by the number of 75+ households. In this analysis, we will apply penetration rates reported by NIC for Washington County. Though the county includes large geographic areas outside the PMA, we regard these rates to be representative for the Hillsboro study area.

The following table provides an overview of local, regional and national penetration rates in the private-pay sector. The Portland Metro Area has traditionally had penetration rates well above national rates.

Washington County's rates for ILUs and ALUs are slightly below the metro average, while its MCU rate is higher. The latter might reflect that private-pay memory care facilities tend to be of newer vintage and thus represent high monthly costs, something that the more affluent seniors in Washington County are better able to afford.

PENETRATION RATES, PRIVATE-PAY SENIOR HOUSING FACILITIES (4Q16)

	INDEPENDENT	ASSISTED	MEMORY CARE
U.S. (31 largest MSAs)	6.1%	3.4%	1.2%
Portland Metro	12.2%	8.7%	2.5%
Washington County	11.4%	9.2%	3.5%

SOURCE: NIC, JOHNSON ECONOMICS

By applying the penetration rates for Washington County to the number of PMA households in the 75+ age segment, we arrive at a total market estimate of roughly 616 senior housing units, including ILUs, ALUs, and MCUs. We expect most the support for a new private-pay project to come primarily from households with incomes above $25,000. These make up two-thirds of the 75+ segment, and represent a market total of roughly 415 units.

CURRENT MARKET DEPTH, HILLSBORO

PMA Households, 75+	All Incomes	$25,000 +		
Existing households (2017)	2,558	1,724		
Projected Households (2022)	3,140	2,214		
Demand growth (2017-2022)	582	490		
Households 75+ in Private-Pay Senior Housing	Project Type			
	ILUs	ALUs	MCUs	*TOTAL*
Penetration rate, 4Q16 (Wash. Co.)	11.4%	9.2%	3.5%	*24.1%*
ALL INCOMES				
Estimated market depth	292	237	88	616
Assumed annual turnover (U.S. averages)	42%	56%	57%	*49%*
Annual turnover transactions, all incomes	**122**	**131**	**50**	***303***

SOURCE: Nielsen Claritas, NIC, ASHA, JOHNSON ECONOMICS

Based on national annual turnover rates for each of these three categories, we estimate that the market generates roughly 300 turnover transactions annually across all income categories. Within the $25,000+ segment, the market is estimated to generate over 200 transactions. Demand from households in turnover tend to benefit new projects disproportionately, due to more marketable units and amenities, and more visible marketing and publicity.

Note that the penetration rate approach assumes that the market is appropriately supplied, as it is based on current inventory penetration. However, based on current occupancy rates, the market appears to be somewhat undersupplied. We therefore regard the estimates presented to be conservative.

We estimate future senior housing demand by applying current penetration rates to our estimates of future households in the 75+ segment. Based on our baseline projections for household growth, the current penetration rates in the PMA suggest a total net increase in demand of around 66 ILUs, 54 ALUs, and 20 MCUs over the coming five years. This represents a total of 140 units, or nearly 28 units per year.

Among households with incomes above $25,000, which we expect to dominate the demand for new, private-pay projects, five-year demand growth is estimated to around 56 ILUs, 45 ALUs, and 17 MCUs. This represents a total market increase of 118 units over the period, or 24 units per year. Because of the aging of the baby boomers, we would expect even stronger demand growth in the following years.

PROJECTED PMA DEMAND GROWTH, SENIOR HOUSING (2017-2022)

Households 75+ in Private-Pay Senior Housing	Project Type			
	ILUs	**ALUs**	**MCUs**	***TOTAL***
Penetration rate, 4Q16 (Wash. Co.)	11.4%	9.2%	3.5%	*24.1%*
ALL INCOMES				
Estimated market depth	292	237	88	616
Assumed annual turnover (U.S. averages)	42%	56%	57%	*49%*
Annual turnover transactions, all incomes	**122**	**131**	**50**	***303***
Total demand (units), 2022	358	290	108	*757*
Net new demand (units), 2017-2022	**66**	**54**	**20**	**140**
Annual Net New Demand (Units), 2017-2022	13	11	4	*28*
$25,000+				
Estimated market depth	197	159	60	415
Assumed annual turnover (U.S. averages)	42%	56%	57%	*49%*
Annual turnover transactions, $25,000+	**82**	**89**	**34**	**204**
Total demand (units), 2022	252	205	76	*534*
Net new demand (units), 2017-2022	**56**	**45**	**17**	**118**
Annual Net New Demand (Units), 2017-2022	11	9	3	*24*

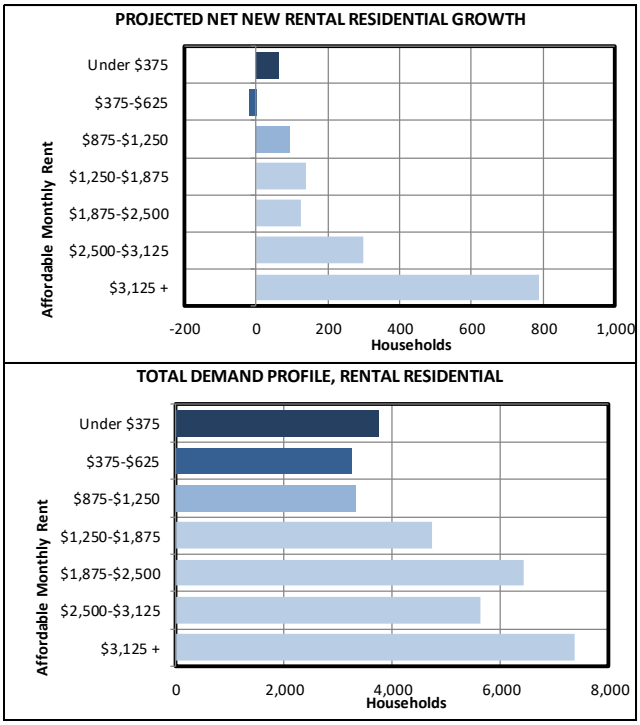
SOURCE: NIC, Nielsen Claritas, JOHNSON ECONOMICS

This analysis is limited to projected demographic trends in the Hillsboro area, and doesn't include the potential to increase regional share within Washington County. The broader Washington County area has a senior housing population roughly four times greater than Hillsboro, and Hillsboro has the capacity to increase its share of marginal growth through better product offerings.

AFFORDABLE AND STUDENT HOUSING DEMAND

Both affordable and student housing are considered a subset of overall rental residential demand. The demand for affordable units is dependent upon how "affordable" is defined. While there are many possible definitions, the most commonly used are based on HUD's guidelines that estimated affordability based on

percentage of Median Family Income (MFI) for the region. There are several programs in place to encourage the development and maintenance of affordable housing, most of which are targeted towards households at 60% of MFI or below. Oregon Housing and Community Services (OHCS) administers tax credit and bond programs designed to assist in the development of units to this target market. We have also seen programs developed for households earning up to 80% of MFI.



The distribution of new and overall rental residential demand includes affordable rent levels that would be insufficient to support new residential construction without significant assistance. These are the demand components that are typically associated with affordable housing, and are not likely to be addressed by new development unless subsidies are available.

Within the City of Hillsboro, an estimated 12.7% of the rental housing stock is income-restricted. This compares to an 11.0% rate in the metropolitan area as a whole. The remainder of housing for lower income households is provided by the private market, primarily through filter-down housing as opposed to new construction.

Student housing demand is also commonly reflected as demand by households with limited means. As Pacific University's local campus is limited to graduate students, many of who may be working and/or married, this is not always the case. Nonetheless, tuition costs and time commitments associated with graduate school reduce a household's ability to pay rent.

VII. Financial Characteristics

This section summarizes in general terms the financial characteristics of a range of residential development types and forms, as well as tools that can be used to improve the viability of residential development in the study area.

A. Economic Characteristics of Residential Development

The economics of residential development are primarily driven by achievable pricing and development form (which drives unit yield and cost). As with many downtown areas in suburban communities, highly urban development forms are a preferred outcome, but the cost of this type of construction and achievable pricing in the market is often a barrier to achieving these forms. While a general rise in achievable pricing has improved projected income, this has in many cased been more than offset by a considerable increase in construction costs over the last few years.

In general terms, higher density development forms cost more per square foot to build, but the increased yield in terms of units can provide a greater return to the property if achievable pricing is high enough.

The economics of development change the highest and best use as achievable rents shift. To-date, the Hillsboro and greater Washington County markets have seen primarily garden apartment development, except for recent activity in downtown Hillsboro, at Orenco Station, and in Tualatin near Bridgeport Village. This can be explained by the economics of mid-rise and high-rise residential, which require assumed achievable rent levels that are largely above local market rates. The higher density projects that have been completed in downtown Hillsboro and Orenco Station have required some assistance to be viable, indicating that the forms are not yet viable under existing achievable rent levels.

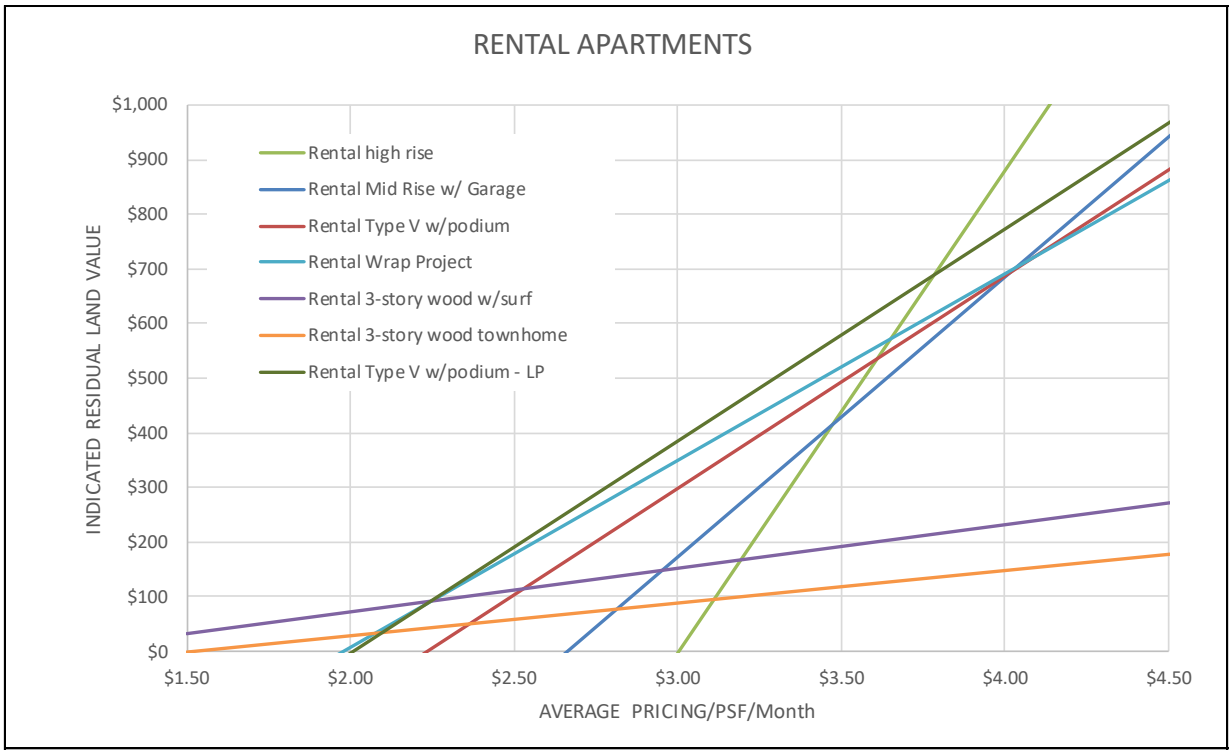
The five residential use types have significantly different financial characteristics from a development perspective.

Rental Apartments and Student Housing

The financial characteristics of student housing will be the same as those of market rate rental apartments, as we expect that students housing in downtown Hillsboro will likely not be purpose built. The viability of market rate apartments is primarily a function of achievable pricing and project cost (which varies substantially with development forms).

To assess the general viability of rental apartments, we modeled a series of prototypical rental residential development forms under a series of assumptions. The development forms modeled included wood frame (townhomes and garden apartments), wrap (wood frame surrounding an internal parking garage), podium (wood frame or lightweight steel above a concrete podium) and high-rise construction with structured parking. In addition, we included a podium project with a lower parking ratio. The following graph shows the relationship between supported residual land values and average monthly rents for the residential development forms evaluated. In this graphic, the highest and best use of the property is determined by which development form can support the greatest residual land value, which is the illustrated by the line that is highest at any given rent assumption. As shown, as average monthly rent levels increase, higher density development forms increase their ability to pay for land at a greater rate than lower density options.

SUPPORTED RESIDUAL LAND VALUES BY FORM AND AVERAGE MONTHLY RENT PSF



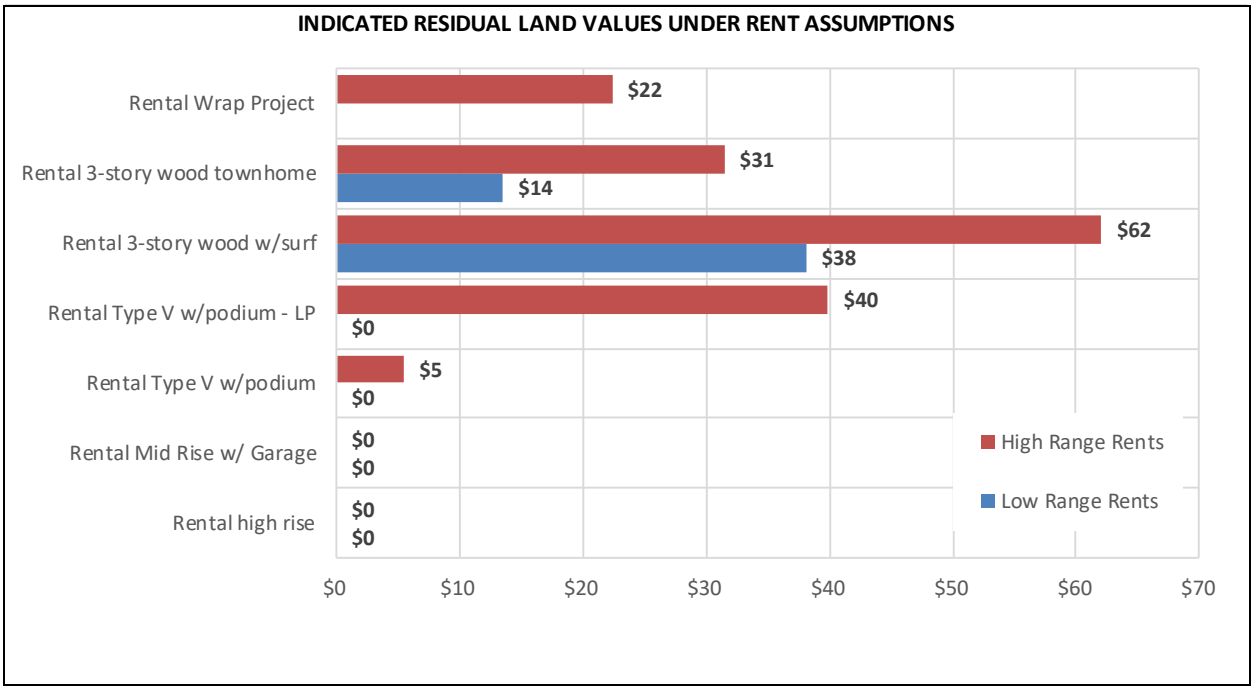
The key area of interest are the transition points between development forms. The modeled programs are highly simplified, and specific projects will likely vary substantively in terms of form, yield and project cost. In addition, other key variables in the development equation can vary substantively by developer, including return parameters. Nonetheless, the general relationships remain consistent, and reflect observed market patterns in the current market.

To illustrate financial viability regarding alternative residential development forms in the downtown Hillsboro study area, a series of prototypical pro formas were generated to contrast the financial viability of garden, podium, mid-rise, and high-rise residential development. The following is a summary of key assumptions used:

- *Land and Price Characteristic:* Land values in the district are not assumed in the baseline pro formas, and instead are established by the highest and best land use. Assuming a competitive land market, land values will be set by this method. The sites assumed for prototypical developments are what are considered necessary to allow for an efficient development program, and projects can be scaled with limited impact on average costs and revenues.
- *Residential Price Assumption:* JOHNSON ECONOMICS assumed that rental residential units achieve an average lease rate of $1.75 to $2.10 per square per month. This is a rough estimate for the study area in the current market, and developers may vary greatly in what they consider to be achievable. These rates do not reflect pricing well established in the market, which will likely lead to an unusually high level of variability in assumptions.
- *Capitalization Rates and Rates of Return:* The analysis assumes a market capitalization rate of 5.00%. The threshold rate of return for all developments is set at 115% of the assumed market

capitalization rate, reflecting that at completion the project is worth 15% more than its' cost of construction.

Under these assumptions, the following is a summary of the model's outputs:



The model indicates that a three-story wood-frame project with surface parking currently represents the highest and best use in the area under both the low and high rent scenarios, followed by a townhome project under the low rent scenario and a podium project with reduced parking ratios under the high assumed rent scenario. High-rise and mid-rise development has a negative return.

The simplified pro formas indicate that "podium" or wrap projects would likely require some level of assistance to make these development forms competitive with garden apartments or townhomes. If parking was provided through alternative means, such as a public garage, prototypes with structured parking solutions would become significantly more viable.

AFFORDABLE HOUSING

The primary difference between market rate and affordable housing projects is the limited income that can be received due to affordability requirements. While affordable housing can be met through projects that are not income-restricted, new construction that is priced for households at 60% of MFI and below will largely be limited to those receiving tax credits and/or bond financing through OHCS. These programs are discussed in more detail in the tools section of this report.

In general, these projects entail both lower levels of income as well as higher costs. Income limitations are typically set by the program guidelines. Additional costs are incurred in the OHCS process to allocate tax credits and bond financing, which requires an extended due diligence period as well as higher soft costs to

process the application. For 9% tax credits, which are competitive, there is also a risk factor that credits will not be obtained in any funding round.

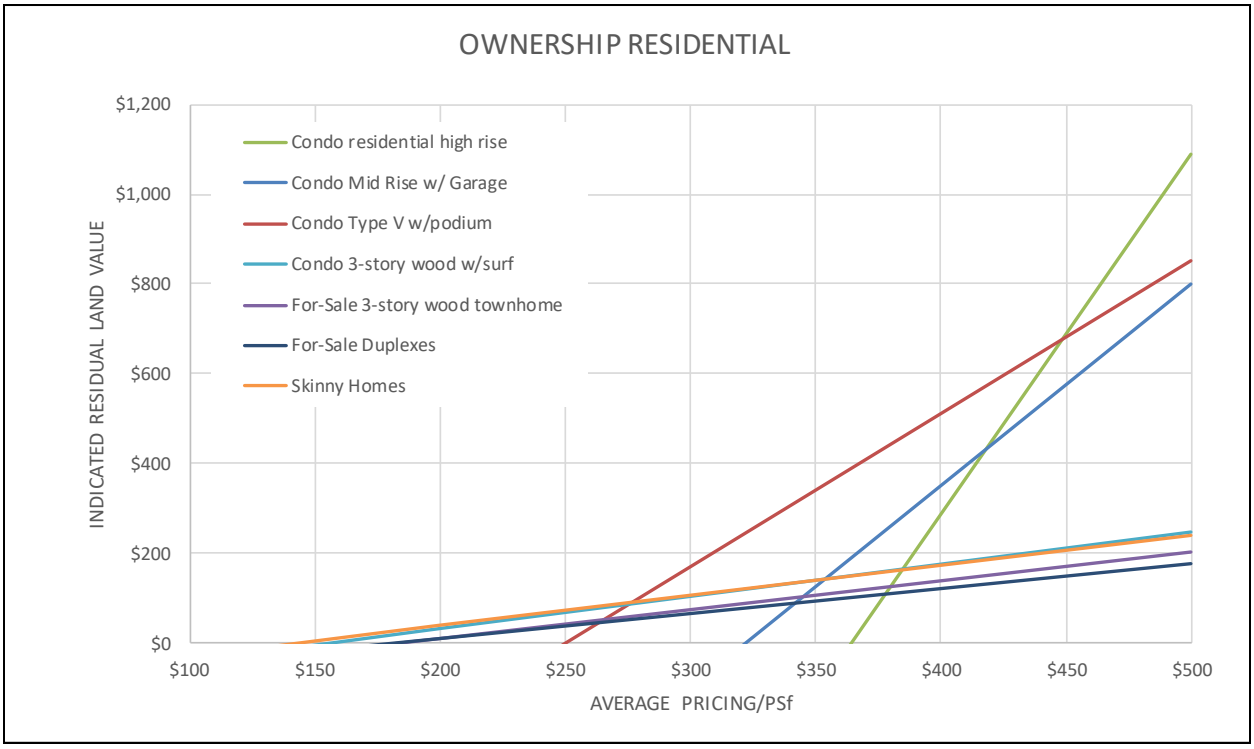
In our experience, tax credit projects can compete effectively with market rate projects for land. Returns are often higher, but the time and risk associated with getting the credits can dissuade private developers from pursuing this type of project.

As the primary cost associated with this type of development is the variance between allowed rents and achievable rents, these projects are considerably more viable in locations where that delta is not as great. As an example, if the allowable rent level for a one-bedroom unit at 50% MFI is $700 and the achievable rate in the market is $800 for that unit, the annual reduction in income is only $1,200 per year for that unit. Assuming a 5% capitalization rate, the impact on value is $24,000 per unit. If the achievable rate in the market was $1,000, the impact on value of the rent limitation would be $72,000. The result of this is that tax credit projects tend to be more viable in areas in which allowed rents are closest to market.

Ownership Housing

A range of ownership housing options was also evaluated, using a methodology like that used for rental apartments. The development forms evaluated included from single family homes, duplexes, townhomes, wood frame condominium flats, wood frame over podium flats, mid-rise, and high-rise flats. The relationship between uses was similar, with higher density uses supporting higher residual land values when assumed achievable pricing is higher, while lower cost and intensity development has higher yields at lower price points.

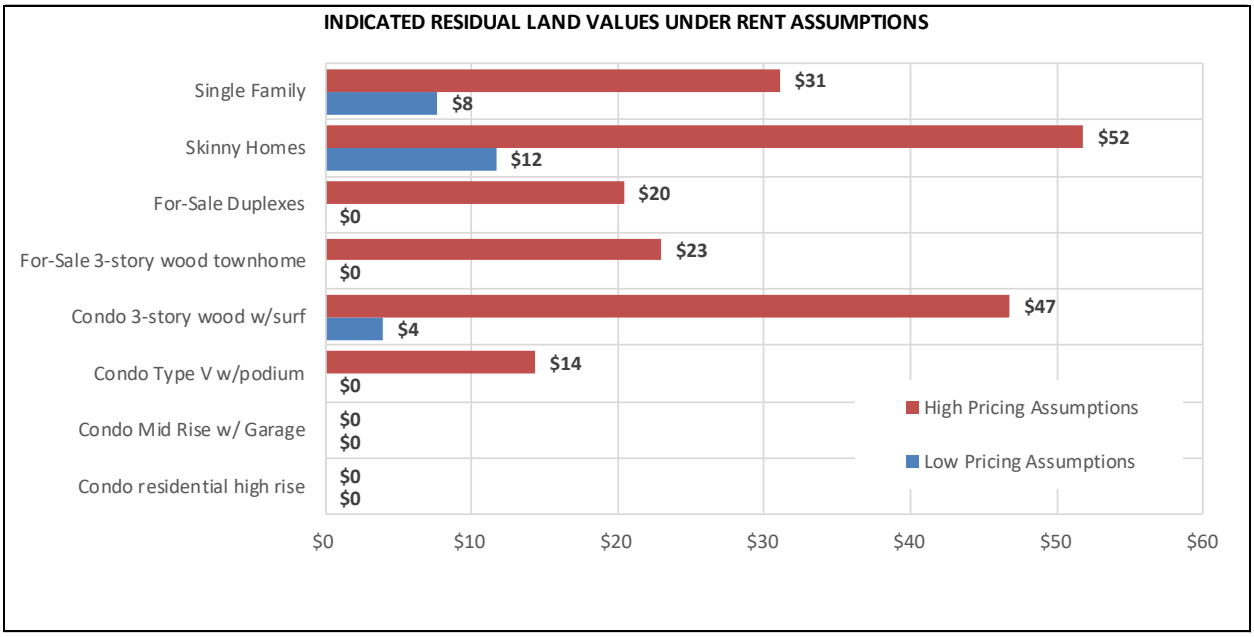
Supported Residual Land Values by Form and Average Sales Price PSF



To test financial viability regarding alternative residential development forms in the downtown Hillsboro study area, a series of prototypical pro formas were generated to contrast the financial viability of the range of development forms. Pricing was assumed to range from $220 to $300 per square foot. As with the rental apartments, the lack of local comparables is likely to yield a wide range of assumptions from the development community. The necessary return on cost was assumed to be 15%.

The model indicates that under the low pricing assumption, skinny homes and single-family solutions yield the highest residual land value. Under the pricing assumption, the highest and best use remains skinny homes, followed closely by wood frame condominiums. As with rental apartments, high-rise and mid-rise development has a negative return. The simplified pro formas indicate that "podium" projects would likely require some level of assistance to make these development forms competitive with alternative uses. It should also be noted that land values will be set by all allowed uses, and ownership residential development will need to compete for land with rental alternatives.

The following is a summary of the model's outputs:



Senior Housing

Senior housing developments vary widely based on the level(s) of care provided. Independent senior housing has financial characteristics that are like standard market rate rental apartments, apart from greater common areas, smaller units, and generally higher rents. This section evaluates a generalized assisted living project with some enhanced and memory care beds. This type of project allows for aging in place, and includes amenities such as food service.

The prototypical senior development modeled is a 69-unit assisted living center with 10 enhanced care beds and 24 memory care beds. The project is three story wood frame construction with interior corridors. The access requirements for senior housing preclude walk up facilities. The project has surface parking, and sits on a site that is larger than a full city block in the study area. While senior housing developments have

relatively low parking ratios for residents, they also have significant staffing needs, with the modeled facility having a stabilized staffing estimate of 48 full time employees.

Under the baseline assumptions, the facility supports a residual land value of $13 per square foot under a baseline pricing scenario, increasing to $36 if achievable rents are assumed to be 10% higher. A full range of development forms was not evaluated for this type of facility, as the operational requirements limit the physical solutions. Within the market, these are typically wood frame projects with surface parking, or high-rise developments in higher rent locations. Podium solutions have been very limited, and most still retain surface parking.

SUPPORTED RESIDUAL LAND VALUES UNDER PROTOTYPICAL ASSISTED LIVING PROGRAM

BASELINE PRICING

PROGRAM	**Property Assumptions**	
	Site Size (SF)	217,800
	Density	13.80
	Unit Count	69
	Ave Unit Size	580
	Efficiency Ratio	67%
	Building Square Feet	60,020
	FAR	0.28
	Cost Assumptions	
	Hard Costs	$9,904,000
	Soft Costs	$2,210,428
	Total Construction Cost Less: Land	$12,114,428
OPERATING ASSUMPTIONS	**Income Assumptions**	
	Assisted Living	$2,395,332
	Alzheimer's Care	$1,732,572
	Other revenue	$29,616
	Expenses	
	Dietary	$396,002
	Laundry and Housekeeping	$95,880
	Assisted Living and Enhanced	$658,496
	Alzheimer's Care	$427,651
	Plant Operations	$394,507
	Activities	$86,598
	Marketing	$123,160
	Non-Departmental Labor	$31,489
	Administrative	$682,045
	Operating Expenses	*$2,895,829*
	Valuation	
	Capitalization Rate	7.00%
SUPPORTABLE PROPERTY VALUE	**Cost**	
	Total Construction Cost Less: Land	$12,114,428
	Income	
	Annual NOI	$1,261,691
	Property Valuation	
	Return on Cost	10.41%
	Threshold Return on Cost	8.40%
	Residual Property Value	$2,905,702
	RPV/SF	**$13.34**

HIGHER PRICING

PROGRAM	**Property Assumptions**	
	Site Size (SF)	217,800
	Density	13.80
	Unit Count	69
	Ave Unit Size	580
	Efficiency Ratio	67%
	Building Square Feet	60,020
	FAR	0.28
	Cost Assumptions	
	Hard Costs	$9,904,000
	Soft Costs	$2,210,428
	Total Construction Cost Less: Land	$12,114,428
OPERATING ASSUMPTIONS	**Income Assumptions**	
	2395332	$2,634,865
	1732572	$1,905,829
	29616	$32,578
	Expenses	
	Dietary	$396,002
	Laundry and Housekeeping	$95,880
	Assisted Living and Enhanced	$658,496
	Alzheimer's Care	$427,651
	Plant Operations	$394,507
	Activities	$86,598
	Marketing	$123,160
	Non-Departmental Labor	$31,489
	Administrative	$682,045
	Operating Expenses	*$2,895,829*
	Valuation	
	Capitalization Rate	7.00%
SUPPORTABLE PROPERTY VALUE	**Cost**	
	Total Construction Cost Less: Land	$12,114,428
	Income	
	Annual NOI	$1,677,443
	Property Valuation	
	Return on Cost	13.85%
	Threshold Return on Cost	8.40%
	Residual Property Value	$7,855,130
	RPV/SF	**$36.07**

VIII. Summary of Findings

The following matrix summarizes the findings of our analysis in terms of market depth, pricing, and other comments.

PRODUCT TYPE	MARKET DEPTH	PRICING	COMMENTS
Rental Apartments	Net new demand for approximately 200 units in the downtown Hillsboro area. The level of realized demand will be a function of the level of product delivered to the market, and influenced by activity in proximate markets such as South Hillsboro.	Pricing at 10% to 15% discount from Orenco, with achievable rents at between $1.75 to $2.05. Highest achievable rents in Health & Education and Main Street districts, and better rents if linked to grocer.	Achievable market rents currently insufficient to support podium product without intervention. A mix of tuck under and surface parking would be more viable, while garden apartments would need no intervention.
Affordable Housing	There is a current need beyond what likely can be met through new construction. Net projected growth of low-income households is limited.	Pricing is set by OHCS annually for tax credit and bond projects.	These projects are typically done using tax credits (4% or 9%), as well as bond financing. The viability of projects is dependent upon target market and tools available.
Senior Housing	Demographically-driven market depth for senior housing is estimated at only 24 to 28 units per year	Pricing would likely reflect that in the upper third of comparables, but likely below The Springs. Site sizes will limit the ability to provide aging in place options.	Access to health services and transit is important to seniors, and a location in the Health & Education district would be highly desirable.
Student Housing	Based on interviews and information available to-date from Pacific, there is likely demand for approximately 100 student housing units in the area.	Students are highly price sensitive, and to-date have located in lower priced locations such as Aloha as opposed to Orenco or newer projects in Tanasbourne.	The campus location along the light rail line allows students to easily commute from lower cost locations. Due to price sensitivity, a newer product would likely need to be specifically targeted to students to capture demand fully.
Ownership Housing	Projected ownership demand in Hillsboro is over 700 units per year, but this would be split between downtown and South Hillsboro. In the study area, a target of 200 units in a five-year period is viewed as reasonable.	Achievable pricing for condominium flat product would likely be in the $220 to $300 per square foot, depending upon location and execution. Townhome pricing would be $220 to $260.	There has been high demand for attached for-sale product, but construction defect litigation and financing issues have impacted new development. Fee simple townhome product should be feasible without subsidy.