HOUSING DEMAND, SUPPLY AND AFFORDABILITY IN KING COUNTY

WASHINGTON REALTORS® REPORT

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HOUSING DEMAND, SUPPLY AND AFFORDABILITY IN KING COUNTY

King County is one of the most economically successful areas of the country, with a growing and dynamic economy, very high levels of education, high incomes and an enviable base of world-leading businesses. But the county also has very high housing prices. King County has failed to keep up with the housing needs of its workforce, relying on adjacent counties to provide homes for many of the middle and lower income individuals and families with jobs in King County.

Of the 1.4 million people working in King County, nearly a half million, or about 35 percent, commute from an adjacent county. About 175,000 people commute to King County daily from Snohomish County, about 135,000 commute from Pierce County and about 30,000 commute from Kitsap County. These commutes can be punishingly long, and many of these commuters would gladly give them up if they could afford a home closer to their King County workplace.

In the past decade, home prices in King County have surged upward, with a recent bump due to pandemic purchasing. In September of 2022, the median sales price of a single family home in King County was $875,000, down from a peak of $999,000 in May 2022, but up from $660,000 in September 2019, pre-pandemic. This 33 percent increase mirrors, to some extent, national patterns of home price increases, but is also in line with longer term trends in home prices in the Puget Sound region.

To put this home price in some context, with normal assumptions about financing, a household wanting to buy that $875,000 home would need a 20 percent down payment and an annual income somewhere in the neighborhood of $200,000. The median annual wage paid to a worker in King County is about $72,000, and the average wage outside the software and e-commerce industries is about $88,000, so, however we measure it, two typical King County income earners with a large down payment would not be able to qualify for this home.

This paper will review the housing situation in King County as it has unfolded over the past 20 years, in terms of both demand and supply. County and city plans drafted under the Washington State Growth Management Act began to take effect in the early 1990s and by 2000 their impact was being felt in land and housing markets: a booming regional economy began to run out of inexpensive land for homebuilding. The relationship between land costs and housing prices is explained in some detail in Appendix B.

MEASURING AFFORDABILITY

Data and discussions concerning housing affordability usually suffer from a basic methodological problem: they compare housing costs in an area to the incomes of people living in the area. This ends up being circular, since people living in an area, by definition, can afford that area. Over time, a more expensive area will become populated primarily by higher income households, especially in single family ownership housing. When these high incomes are applied to a standard affordability calculation, they can give a false impression of affordability that does not reflect the housing cost situation faced by people working in that area.

A far more helpful comparison is between housing costs in an area and the earnings of people working in that area. It should be a goal of public policy that people should have an opportunity to live within a reasonable commute of where they work. And, even more helpful, is to concentrate on the earnings of those taking new jobs being created in an area, since they are the ones that will be looking for housing in the current cost environment.

In this report we use wages to assess affordability to the extent possible. Wage data is not as finely grained as income data, but we can make reasonable estimates of wages at the sub-area level. We also discuss the growth in jobs in sub-areas and the wages associated with those jobs, to see if housing affordability is improving or deteriorating at the margins.

Because of the special circumstances of the pandemic, we will stop most of the analysis in 2019 or early 2020, before the unprecedented, and still unresolved, economic, and demographic shifts of the pandemic began to occur. The combination of work-from-home trends, rapidly rising interest rates and falling asset values has introduced a great deal of volatility and uncertainty into housing markets since 2020 and that is still playing out in 2023.

We will begin by looking at the demand for housing generated by economic and job growth in King County, focusing on key demographic drivers. We will then shift to the supply of housing that has been brought to market during that period, always making a clear distinction between the single family and multi-family markets. We then put supply and demand together and examine trends in housing prices and affordability.

To help understand how demographic and housing supply trends fit with the current housing market, focus groups of active Realtors were convened in King, Kitsap, Pierce and Snohomish Counties in the summer and fall of 2022. Findings from these focus groups have informed the analysis of this paper, and highlights are found in Appendix A.

The reader will note that the data used in this report will often cover inconsistent timelines. That is because the data used is often not available for all years, or because a particular data series began or ended in an awkward timeframe. Administrative and survey data that help us understand trends in housing has generally been improving, but quality data is not always as granular as we might like or available as far back or as recently as we might like.

King County is a large and diverse county (the 13th most populous county in the country) that is generally broken into three subareas for planning analysis. This report will, to the extent possible, treat the three subareas—Seattle/Shoreline, South King County, East King County—separately. This necessitates some data manipulation and estimation, so individual data points on subareas should be treated as estimates.

1. CHANGES IN HOUSING DEMAND IN KING COUNTY

"A home is where a job goes at night." To understand housing demand, we need to understand employment growth. The Puget Sound region[1] as a whole is not an above-average retirement or vacation destination (King County has a lower than average number of retirees) so regional housing demand should be roughly proportional to employment growth at the regional level. Within the region, it should be a policy goal that everyone should have the opportunity to live and work within the same subarea of the region.

King County encompasses three of the subareas of the region, so we need to determine if sufficient housing is being developed to meet the needs of those working in each of the subareas. And we cannot just look at averages and current employment. We need to look at what economists call the margins: the area of change. In other words, new housing must meet the needs of the most recent job growth, not the historic or average employment pattern.

1 For purposes of this report the Puget Sound Region refers to the four counties included in the Puget Sound Regional Council: King, Kitsap, Pierce, Snohomish. There is clearly "leakage" in both job and housing markets to adjacent counties—especially Thurston, Skagit, Island—but this leakage does not affect the fundamental trends in movement of people and jobs in the four counties.

Fig 1 King County Total Employment

	2001	2019	Growth
Private wage and salary employment	1,048,713	1,322,467	26%
Self employment	201,344	326,448	62%
Federal civilian	20,839	19,559	-6%
Military	7,608	7,222	-5%
State and local	136,169	165,670	22%
Total employment	1,414,673	1,841,366	30%

Source: Bureau of Economic Analysis

Figure 1 shows the growth in major categories of employment in King County from 2001 to 2019.

The county saw growth in all major private sector employment categories, and a decline in the already-small federal presence in the county. During this time employment in the four-county region grew by 32 percent, with King and Kitsap Counties growing a bit below average and Pierce and Snohomish Counties growing well above the regional average.

GROWTH IN COVERED EMPLOYMENT

Figures 2A, 2B and 2C show changes in covered employment (jobs covered by the unemployment insurance system, which does not include the self-employed or uniformed military. Covered employment data is far more detailed than the total employment data used in Figure 1) in each of the subareas of King County by major industry sectors between 2000 and 2019 (pre-pandemic).

Fig 2A East King County Covered Employment

	2019 Employment	Job growth 2000-2019		County avg annual wage 2019
Constuction/natural resources	19,536	1,101	6%	$78,581
Wholesale/transp/utilities	20,560	2,395	13%	$88,640
Manufacturing	20,716	-8,936	-30%	$94,570
Retail stores	32,496	1,713	6%	$41,998
Information	78,600	34,728	79%	$231,770
Finance/insurance/real estate	21,304	1,285	6%	$103,714
Professional services	44,544	12,095	37%	$119,813
Management of firms	9,235	1,462	19%	$132,958
Administration and waste mgmt	17,504	8,432	93%	$63,018
Private education	8,376	4,491	116%	$42,783
Healthcare and social serv.	35,532	16,942	91%	$60,594
Arts/entertainment	6,234	2,911	88%	$44,130
Accommodations and food service	28,484	8,580	43%	$30,494
Other services	11,888	3,205	37%	$49,523
Government	13,745	3,903	40%	$77,263
Total	368,754	94,307	35%	$93,300

Sources: Puget Sound Regional Council, Washington State Department of Employment Security

Fig 2B NW King County* Covered Employment

	2019 Employment	Job growth 2000-2019		County avg annual wage 2019
Constuction/natural resources	25,548	2,252	10%	$78,581
Wholesale/transp/utilities	31,985	-12,069	-27%	$88,640
Manufacturing	26,376	-10,928	-29%	$94,570
Retail stores	45,000	6,000	15%	$41,998
E-commerce	58,000	53,000	1060%	$194,589
Information	40,629	10,629	35%	$231,770
Finance/insurance/real estate	35,324	-7,994	-18%	$103,714
Professional services	74,377	26,257	55%	$119,813
Management of firms	18,197	7,064	63%	$132,958
Administration and waste mgmt	13,780	-7,435	-35%	$63,018
Private education	13,205	5,006	61%	$42,783
Healthcare and social serv.	83,375	24,581	42%	$60,594
Arts/entertainment	12,900	4,339	51%	$44,130
Accommodations and food service	60,390	20,036	50%	$30,494
Other services	26,147	4,362	20%	$49,523
Government	50,572	270	1%	$77,263
Total	615,805	125,370	26%	$93,300

*Seattle, Shoreline, Lake Forest Park

Sources: Puget Sound Regional Council, Washington State Department of Employment Security

East King County saw a huge growth in the information sector, which includes software publishing. That sector pays an average annual wage that is 2.5 times the average wage in the county, and nearly four times the average wage in the next fastest growing sector, healthcare. Professional services (many of which are supplied to the information sector) also saw substantial growth with high incomes. The Eastside's manufacturing sector lost quite a number of fairly high paying jobs. This loss was just about matched by the gains in the accommodation and food service sector, but the average job lost in manufacturing paid over three times as much as the average job gained in hospitality.

When looking at jobs and wages on the Eastside it is critical to distinguish between the median wage (where half of wages are above and half below) and average wages. The software sector, while accounting for 21 percent of jobs on the Eastside, accounts for 48 percent of wages paid, thereby pulling the average up considerably. We cannot derive median wage data at the subarea level, but, as the countywide level, the median wage for 2019 was about $65,000, while the average was over $93,000, or 43 percent higher than the median.

In 2011, venture capitalist Marc Andreessen declared that "software is eating the world." It is clear that software is eating the economy of East King County, with income levels that can severely distort housing markets.

While East King County was seeing massive growth in information/software, Seattle was seeing massive growth in the e-commerce sector, led by Amazon. In 2000, Amazon and the rest of the dot-com sector were a relatively small group, much of which disappeared in the big bust. But in the past ten years, Amazon and the next generation of e-commerce firms exploded, adding tens of thousands of jobs, primarily within the city of limits of Seattle.

According to the Bureau of Labor Statistics, there were just about 5,000 people working in the electronic shopping sector (NAICS 4541) in King County in 2001. Within 10 years it had doubled to about 10,000. Then, the sector began its rapid growth to nearly 70,000 workers by 2021. Between 2019 and 2021 (data is missing for 2020) the sector added nearly 15,000 workers. These workers are averaging an annual income of almost $200,000.

Fig 2C South King County Covered Employment

	2019 Employment	Job growth 2000-2019		County avg annual wage 2019
Constuction/natural resources	23,923	9,913	71%	$78,581
Wholesale/transp/utilities	60,790	11,646	24%	$88,640
Manufacturing	55,884	-13,005	-19%	$94,570
Retail stores	35,057	-1,287	-4%	$41,998
Information	3,968	-681	-15%	$231,770
Finance/insurance/real estate	12,814	1,314	11%	$103,714
Professional services	9,731	1,206	14%	$119,813
Management of firms	1,520	-3,544	-70%	$132,958
Administration and waste mgmt	11,343	1,843	19%	$63,018
Private education	1,587	-295	-16%	$42,783
Healthcare and social serv.	37,932	19,105	101%	$60,594
Arts/entertainment	4,895	12	0%	$44,130
Accommodations and food service	30,249	7,004	30%	$30,494
Other services	9,683	1,001	12%	$49,523
Government	24,858	6,107	33%	$77,263
Total		40,339	17%	$93,300

Sources: Puget Sound Regional Council, Washington State Department of Employment Security

The job base of South King County has not grown as fast as either Seattle or East King County. The manufacturing sector has seen job losses since 2000, as has been seen across the country. At the same time, the wholesale and transportation business, which is the largest sector in the subarea, has grown by almost as much as the manufacturing sector has declined. The high wage information and e-commerce sectors of the county are not particularly well represented in the South County area.

The largest growth sector in the subarea has been healthcare, with job growth comparable to the other subareas. With the exception of some specialized services, healthcare tends to be dispersed around the region, with facilities located near population centers. So as population and employment have grown in the South County area, so have healthcare providers.

South King County has long been a source of more affordable single family homes and has attracted people who work in Seattle and East King County but cannot afford to live there. Among the 60,000 people who commute from a home within the city of Kent, about 20,000 commute to either Seattle or East King County. At the same time, Kent itself has become expensive, and many people who work in Kent cannot afford to live there: half of the jobs in Kent are held by people who live elsewhere in South King County or in Pierce County.

So, when considering the adequacy of the South King County housing stock for job growth in the subarea, we need to also consider the demands that will be placed on that housing stock by people who have potentially higher incomes from their jobs in Seattle and East King County.

Fig 3 Covered Employment Growth 2000 to 2019

	Const./Resources	FIRE*	Manufacturing	Retail	Services	WTU**	Government	Education	Total
Bellevue	391	1,364	-2,393	-530	30,797	-1,183	404	1,306	30,155
Bothell	416	1,082	654	417	2,275	713	77	1,112	6,746
Issaquah	-77	331	-205	1,113	10,617	1,723	299	412	14,215
Kirkland	1,082	711	-619	-205	12,557	-351	2,434	790	16,400
Mercer Island	15	-600	8	56	769	-195	-8	161	208
Redmond	-499	-1,780	-6,143	341	28,975	861	-20	330	22,065
Sammamish	-205	68	53	167	1,500	213	135	739	2,668
Snoqualmie	194	65	721	90	1,466	249	579	267	3,929
Woodinville	-534	-137	-1,189	10	2,502	171	21	55	898
Seattle	1,875	-7,521	-10,911	40,724	98,644	-11,971	714	5,530	117,084
Shoreline	360	-342	27	-8	1,759	-121	-467	-95	1,112
Auburn	1,425	891	-2,764	-472	1,146	4,021	2,002	1,933	8,181
Burien	400	36	-118	229	258	-116	-364	436	760
Covington	462	46	-22	948	1,103	44	101	238	2,919
Des Moines	233	-93	42	75	726	171	0	115	1,268
Enumclaw	339	-158	268	-119	629	9	107	129	1,205
Federal Way	289	764	-194	-792	-857	669	114	405	398
Kent	3,286	495	-1,929	734	8,005	4,451	115	1,187	16,343
Renton	932	-35	-3,789	-2,248	12,684	1,645	2,296	1,051	12,538
Sea Tac	434	-73	-191	150	717	1,308	2,253	148	4,746
Tukwila	1,379	-679	-4,962	98	3,193	-845	-602	68	-2,350
Uninc. King	-1,165	-487	-1,441	-2,533	-980	-752	1,232	-2,214	-8,341
Other cities	1,080	154	774	271	5,190	482	92	468	8,216
Total	12,112	-5,898	-34,323	38,516	223,675	1,196	11,514	14,571	261,363

* Finance, insurance, real estate

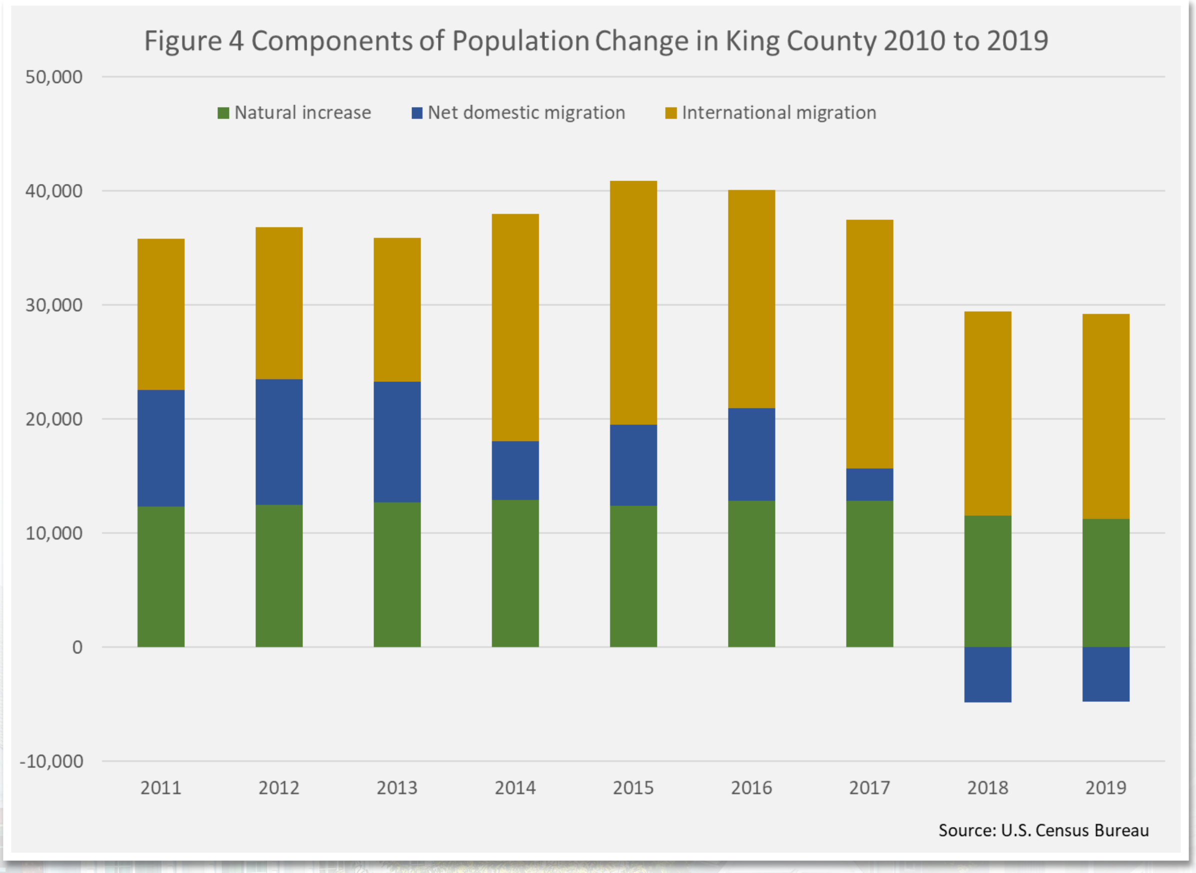
** Wholesale, transportation, utilities

Source: Puget Sound Regional Council

Figure 3 shows job growth at the city level for 21 of King County's 39 cities, as well as the unincorporated areas. Job losses in unincorporated areas reflect the shift of jobs to cities as they annexed lands that had been unincorporated.

MIGRATION PATTERNS

Population growth comes from a combination of natural growth (births minus deaths) domestic net in-migration (in-migrants from other 49 states minus out-migrants to them) and foreign in-migration (foreign out-migration is not measured reliably). Figure 4 shows annual population growth estimates for 2011 through 2019 for the three components.



As usual, the natural population growth rate is fairly consistent. What is noticeable is that net domestic migration is relatively small and shrinking over the time. As will be discussed below, large numbers of households move to King County from out of state. At the same time, large numbers of households move from King County to adjacent counties in Washington. In 2019, King County had a net positive flow of about 14,000 people to and from other states, and a net negative flow of about 18,000 people to and from other Washington counties. Hence the negative blue bar for 2019 in Figure 4.

The migration pattern has been clear for a long time: King County welcomes people from outside the state and country (with their high income and education levels, as seen below) and squeezes current residents out to adjacent counties. In 2019 King County had a net outflow of 6,700 people to Pierce County, 6,200 people to Snohomish County and 850 people to Kitsap County.

Fig 5 In-migrants to King County

30 largest U.S. sources of inmigrants 2018-2019

	Households	Average income
From Washington	20,998	$66,044
From other states	42,469	$98,602
San Francisco	919	$206,108
Santa Clara	1,343	$198,438
San Mateo	479	$195,645
New York	610	$186,911
Alameda	856	$136,289
Middlesex (MA)	510	$131,614
Washington (OR)	489	$112,826
San Diego	1,048	$111,708
Harris (TX)	518	$110,228
Los Angeles	2,254	$108,437
Cook	1,222	$106,699
Orange	866	$105,618
Kings (NY)	485	$102,404
Denver	333	$100,204
Dallas	449	$100,029
Travis (TX)	470	$94,964
Honolulu	512	$86,197
Hennepin (MN)	400	$84,748
Maricopa	1,048	$83,250
Multnomah	895	$82,284
Kitsap	981	$75,749
Salt Lake	365	$73,277
Snohomish	7,701	$73,096
Clark (WA)	433	$63,656
Pierce	6,673	$61,042
Thurston	851	$60,855
Clark (NV)	523	$56,981
Spokane	673	$56,461
Yakima	328	$55,448
Whatcom	764	$48,806

Source: Internal Revenue Service

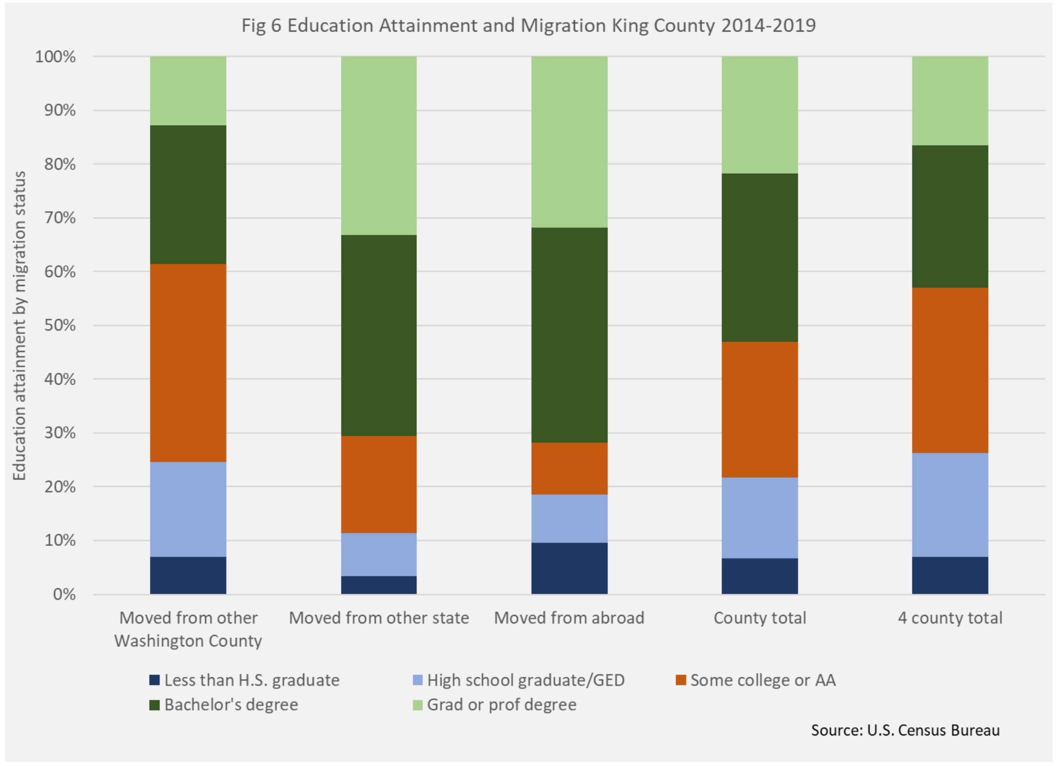
IN-MIGRATION OF HIGH EARNERS

The most important factor driving housing prices in King County is the consistent flow of in-migrants who are well educated and are arriving to take high paying jobs, mostly with technology firms. Applying their numbers and earning power to the King County housing market increases demand, drives up prices and skews the new construction market toward expensive homes.

Figure 5 shows in-migration from the 30 counties in the U.S. that are the largest sources if in-migrants to King County, ranked by the average income of those households.

In 2019, nearly 4,000 households moved from the San Francisco Bay area (including Contra Costa and Marin Counties, not shown on the table) to King County. These households had an average household income of $182,000, well above the county average. And their household size is relatively small, at an average of 1.5 people, so these are mostly single adults presumably coming to work in the tech industries where they got started in the Bay Area. Where they choose to live will vary, but they have the purchasing power to enjoy a wide range of choices. And note that the largest source in in-migrants to King County from Washington, Snohomish County, is well down the list in terms of income.

Another way to look at in-migration is through education levels, which correlate very strongly with incomes. Figure 6 shows education attainment levels for migrants to King County by origin, alongside attainment levels for the entire county and the four county region.

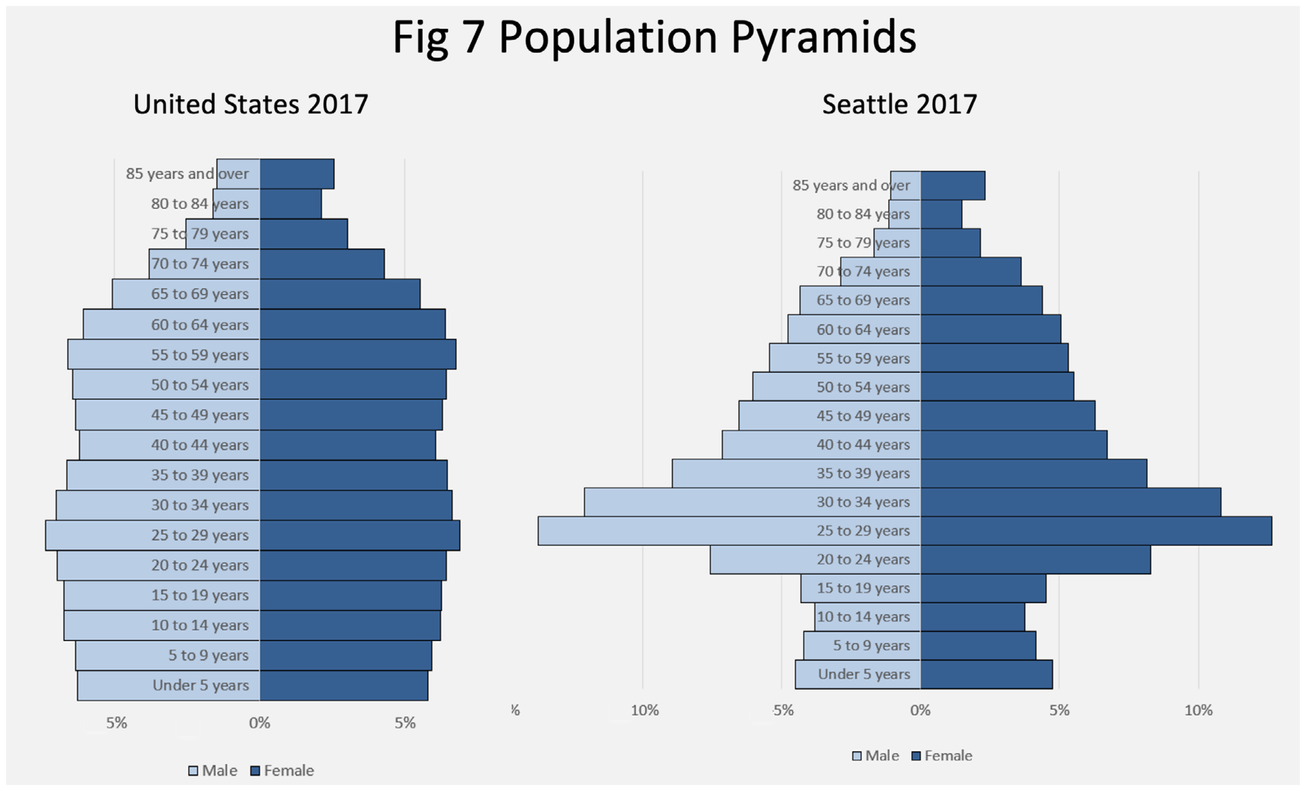


While a little over 40 percent of adults in the region (and about 35 percent nationally) have a college degree over 70 percent of those migrating to King County from other states and from abroad have college degrees. This pattern has been underway for decades, raising the countywide rate of degree holding to nearly 55 percent.

BULGE IN YOUNG ADULTS

As has been well-documented, migration skews heavily toward young adults. The most noticeable demographic trend in King County in the past decade has been the growing bulge of young adults moving into the county, and into Seattle, in particular. These young people are being recruited by technology firms and tend to arrive as singles, and almost never with children in tow.

Figure 7 shows population pyramids for the U.S. and for Seattle. Each band shows the share of the population in that five-year group, males on the left, females on the right. The population figures are the average of 2015 to 2019, so center on 2017.



The national pyramid shows a slight bulge with the baby boomers in 55 to 64 bands, and a slight bulge for the Millennials in the 35 to 34 bands. But in Seattle, the three bands from age 25 to 40 are way out of proportion. Across the country, people between the ages of 25 and 40 make up about 20 percent of the population. In Seattle, this group makes up 33 percent of the population. This demographic bulge in Seattle accounts for the massive development of apartment buildings in the central part of the city.

The question is, how many of these young adults will stick around the area as they get older, form families, and take their very high incomes out into the market for single family housing. There is no evidence that this demographic has any interest in remaining in apartments as they form families.

GROWTH IN HEALTHCARE EMPLOYMENT

Outside of technology fields, healthcare has seen the largest employment growth in King County. The sector added over 60,000 jobs between 2000 and 2019 accounting for 23 percent of total job growth. The average wage in healthcare is well below the overall average wage for the county. Within the sector, wages vary widely.

Figure 8 shows King County employment and average wages by occupations that are specific to healthcare (the total is less than the total employment for the sector seen in Figures 2A, 2B and 2C because many people who work in the sector do not work in health-specific occupations). It also shows the monthly housing payment that would be supported by the average wage for that occupation.

Fig 8 King Co. Health Professions Employment

	2019 Employment estimate			2019 Average	Monthly housing
	East King	NW King	South King	Wage	payment
Aides and assistants	3,796	8,906	4,052	$50,961	$1,401
Administrators	1,739	4,081	1,857	$79,050	$2,174
Therapists	1,574	3,694	1,681	$79,954	$2,199
Nurses, physicians asst.	5,352	12,558	5,714	$90,445	$2,487
Physicians	1,464	3,436	1,563	$227,691	$6,261
Technicians	3,812	8,944	4,069	$70,939	$1,951
Total	17,737	41,620	18,935	$87,087	$2,395

Sources: Washington State Department of Employment Security, Puget Sound Regional Council

As healthcare institutions look to lower costs, they are employing more aides and assistants, who will be paid below the average wage in the county. And as we will see below, aides, assistants and technicians will struggle pay rapidly increasing rents.

WORK FROM HOME

The work-from-home requirements of the pandemic have proven quite sticky. While we have no prior experience on which to base predictions about the staying power of this trend, many observers believe that a large share of the office-based workforce will continue to work from home for a large part of the week. This could affect parts of King County by making outlying areas attractive to people whose jobs are based in the Seattle-Redmond corridor but can now commute infrequently.

Those making a move to take advantage of work-from-home possibilities will tend to focus on some combination of affordability and lifestyle objectives. If large numbers of people seek affordability by moving to outer area of the county, this could act to compress price gradients, making homes close to job centers more affordable (although still expensive), as demand for them drops, and making homes farther from job centers less affordable, as people with higher incomes bid up prices.

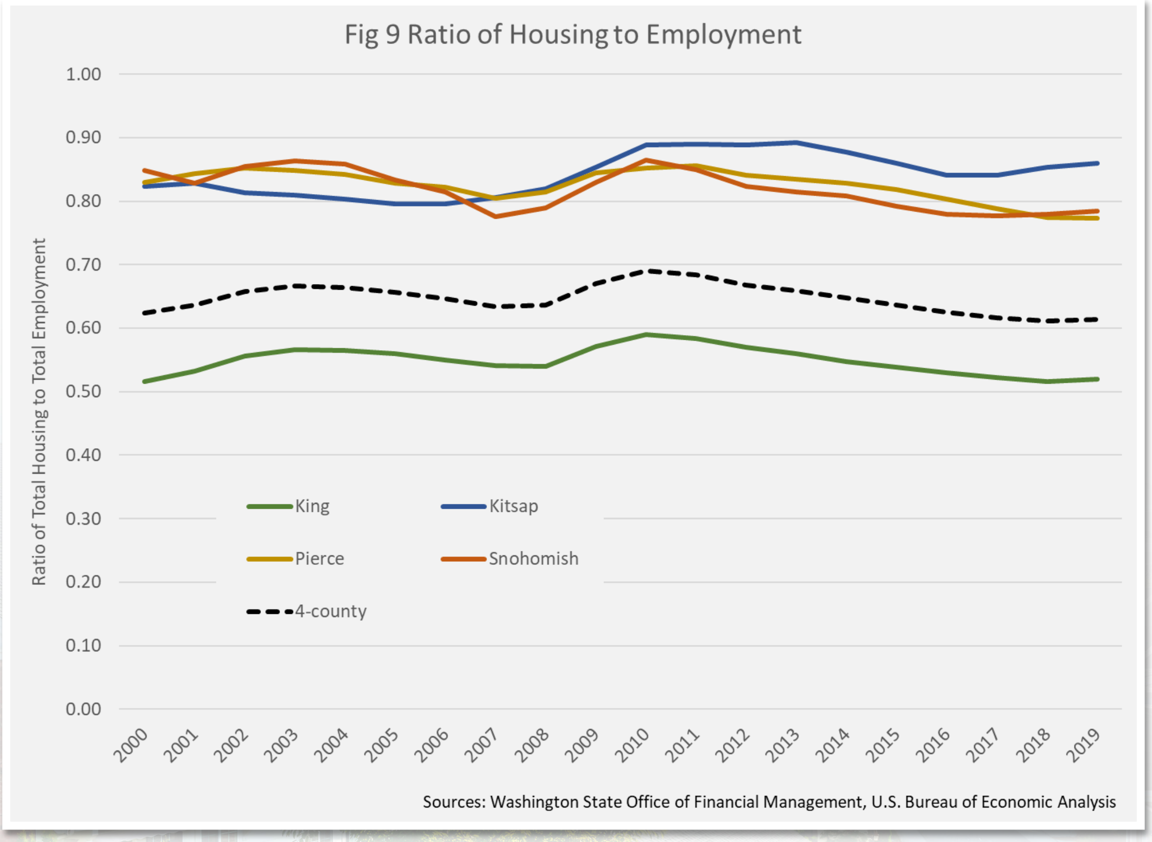
The bigger picture of work-from home is uncharted territory—no one knows how it will play out over time. But it seems likely that it will stick around to some extent. Some segment of the Seattle-Redmond workforce will opt to live in a place that has historically been affordable and is close to natural areas, but that is still within range of the cultural and entertainment centers of the county.

Another impact of work-from-home is the desire for larger homes with space for offices—extra bedrooms or other spaces that can be converted. Much of the new construction housing in King County has consisted of townhouses and relatively small multi-family units. While these homes can work well for people who just live in the space, they will not have the space desired for home offices. Those working from home will tend to look for larger homes than they might otherwise have.

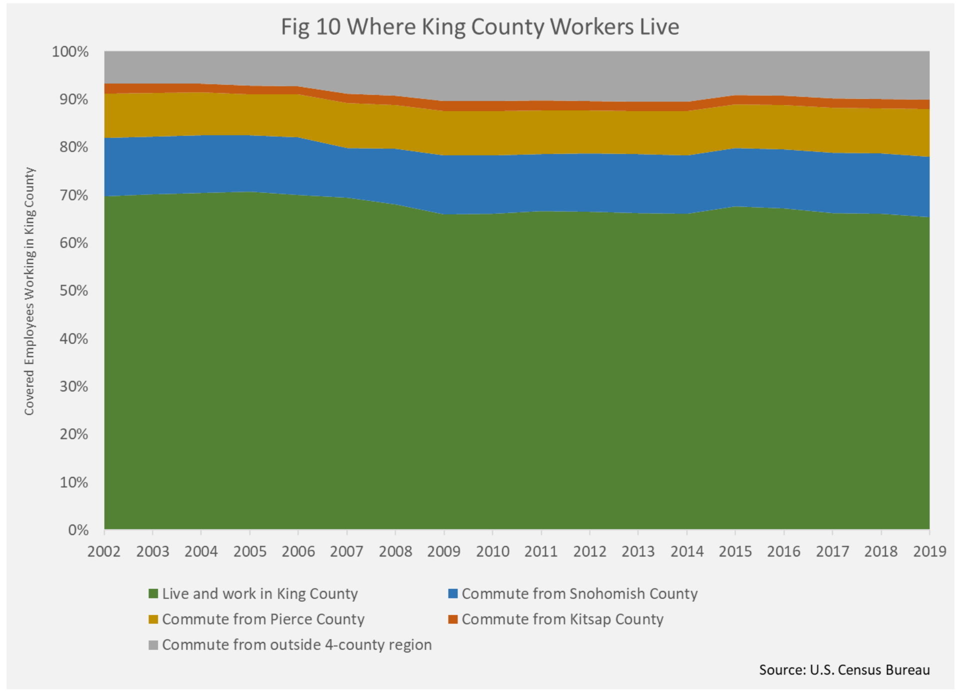
2. TRENDS IN HOUSING SUPPLY IN KING COUNTY

The biggest driver of housing demand in King County has been the large influx of high paid tech workers. Those who arrive with families will have the incomes to pay high prices for homes close to the Seattle-Bellevue-Redmond corridor upon arrival. Younger recruits without families will use their high initial wages to live in the expensive apartments being built in Seattle and East King County, and then use their higher future wages to move to expensive single family homes in the county. For those not paid the high wages of the tech industry, things are not so easy.

King County has consistently failed to provide enough housing for its workforce. Figure 9 shows the ratio of housing units to jobs for the four counties of Central Puget Sound.

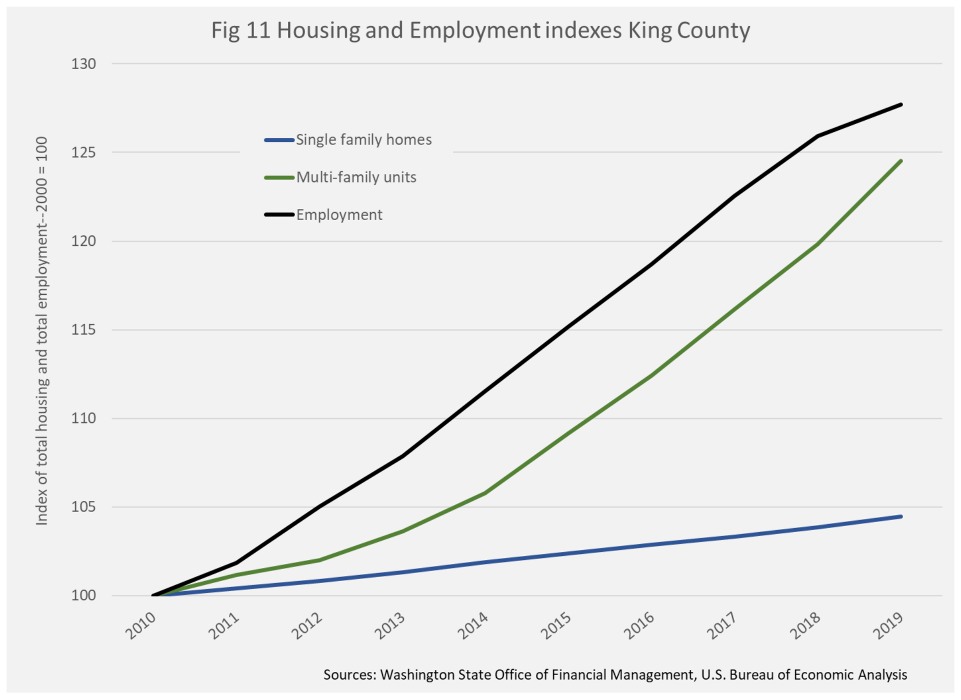


The relationships here are remarkably steady. King County consistently has a lower ratio of housing to jobs than the region as a whole, and Snohomish, Kitsap and Pierce Counties have a higher ratio. Kitsap, Pierce and Snohomish counties are providing housing to people working in King County, and the degree to which they are doing that is not changing much at all. Figure 10 shows the origins of people commuting to jobs in King County.



We see a slow and steady decline in the share of King County workers who live in the county, dropping from 70 percent in 2002 to 65 percent in 2019. This might not seem like a huge problem, but consider that between 2000 and 2019, 50,000 more people were added to the Snohomish commute and 40,000 added to the Pierce commute. All that on top of a transportation infrastructure that saw little expansion during that period.

Figure 11 shows an index of employment growth and growth in the total stock of single family and multi-family housing units. The index shows, for each year, the number of housing units and jobs for every 100 that existed in 2010.



Employment growth in King County was brisk coming out of the Great Recession, averaging 2.8 percent per year from 2011 to 2019. Multi-family housing growth was brisk as well, with the unit count growing an average of 2.5 percent per year over the same period. But growth in single family homes was anemic over that time, with the stock of homes growing just 0.5 percent per year.

Figure 11 is based on estimates of total existing housing units made by the Office of Financial Management. We now turn to actual construction of new housing. Building permit data is not always consistent or timely, but we can get a reasonable assessment of construction using building permit data collected by the Census Bureau and presented locally by the Puget Sound Regional Council. The permitting data becomes much less reliable in recent years, so we cut off the analysis at 2017.

Figure 12A, 12B and 12C show permits issued by jurisdictions within each of the subareas of King County for single family and multi-family homes. To smooth out the normal variation in permitting and reporting, the figure for each year (except 2002 and 2003) is the average of that year plus the two previous years.

Fig 12A Permits issued in East King County Trailing 3-year average. Net after demolitions

	Single family	Multi-family				Mobile home
		Total	2 to 19	20 to 49	50 and over	
2002*	2,040	1,518	1,027	170	321	11
2003*	2,782	399	350	49	0	10
2004	2,563	874	560	152	162	10
2005	2,618	761	337	158	266	9
2006	2,355	1,335	887	151	297	397
2007	1,777	1,806	878	155	772	393
2008	1,334	3,973	895	900	2,177	390
2009	873	3,424	369	895	2,160	78
2010	804	3,168	562	847	1,759	146
2011	854	823	624	34	165	271
2012	1,029	1,181	583	57	541	192
2013	1,120	1,387	403	35	949	122
2014	1,120	2,026	290	190	1,546	-36
2015	1,110	2,254	335	355	1,564	-39
2016	1,055	2,421	319	362	1,740	-37
2017	930	2,583	406	212	1,964	-2
2002-2017	22,606	32,017	8,684	4,656	18,677	1,910

Source: Puget Sound Regional Council

East King County saw a big drop off in home construction after 2008. Given its high prices, this market would not have been affected as much by the sub-prime mortgage crash. But it just became harder to get construction financing and sell homes, at any price. As job growth emerged from the Great recession, multi-family construction picked up, but single family construction never got back to its earlier levels.

Fig 12B Permits issued in Northwest King County
Trailing 3-year average. Net after demolitions

	Single family	Multi-family				Mobile home
		Total	2 to 19	20 to 49	50 and over	
2002*	333	4,599	1357	841	2401	0
2003*	392	3,003	1035	531	1437	0
2004	405	4,246	1,346	731	2,169	0
2005	428	4,250	1,375	610	2,265	0
2006	392	4,740	1,685	557	2,498	0
2007	330	5,528	1,834	421	3,273	0
2008	271	6,023	1,726	294	4,003	0
2009	198	5,158	1,171	179	3,807	0
2010	141	3,716	641	100	2,975	1
2011	122	3,066	382	124	2,560	1
2012	186	5,046	469	218	4,358	1
2013	318	6,376	539	322	5,515	0
2014	430	7,538	749	575	6,214	0
2015	490	8,582	1,004	705	6,873	0
2016	481	9,478	1,205	991	7,281	1
2017	391	10,089	1,471	931	7,687	-24
2002-2017	5,260	97,497	18,465	8,444	70,588	-70

Source: Puget Sound Regional Council

Single family neighborhoods in the Seattle-Shoreline area are largely built out, so we would not expect a great deal of single family construction there. Multi-family construction fell only modestly during the Great Recession and boomed after it. As Figure 12B shows, most of the action was in large projects over 50 units, which tend to be built by large builders and purchased by institutional investors, such as pension funds, endowments and real estate investment trusts (REITs). These investors are looking for stable, long term cash flow and are less concerned about short term trends. For much of this time Seattle was a very highly rated market for investing in multi-family projects, so builders could be confident of selling their projects to national and international investors, even if the rental market might soften.

Fig 12C Permits issued in South King County Trailing 3-year average. Net after demolitions

	Single family	Multi-family				Mobile home
		Total	2 to 19	20 to 49	50 and over	
2002*	2,689	921	700	96	125	57
2003*	3,191	1,559	1,353	0	206	35
2004	2,914	1,047	872	64	110	47
2005	3,070	962	737	57	168	37
2006	2,847	678	496	69	113	107
2007	2,238	797	407	36	354	92
2008	1,489	800	371	41	387	84
2009	935	646	237	20	389	-3
2010	880	551	321	31	199	25
2011	864	426	329	8	89	24
2012	1,011	367	279	16	71	29
2013	1,159	187	133	16	39	0
2014	1,212	412	123	87	202	1
2015	1,041	983	402	381	200	1
2016	951	1,281	510	490	281	0
2017	967	1,411	612	615	184	-12
2002-2017	25,493	12,953	7,216	2,520	3,217	460

Source: Puget Sound Regional Council

Like the Eastside, the South King County single family market slowed after 2008 and never got back to its earlier levels of construction. This is puzzling, since South King County has long provided a more affordable alternative for those working in the booming job centers of Seattle and East King County. South King County produced far less multi-family housing than either Seattle or East King County, although that was picking up somewhat in the later part of this time period.

How short of demand is housing construction in King County? Figure 13 estimates the number of single family homes and multi-family units that would be required to meet the needs of King County job growth between 2002 and 2017 and compares that estimate to the actual homes and units permitted.

Fig 13 Estimate of Required and Permitted Housing King County 2002-2017

Employment growth 2002-2017*	352,398
Single family homes per job in 2002--4-county region	0.41
Multifamily units per job in 2002	0.20
Single family homes required for job growth	143,803
Multi-family units required for job growth	72,112
Single family homes permitted 2002-2017	53,359
Multi-family units permitted 2002-2017	142,467
Single family home deficit 2002-2017	90,444
Multi-family unit deficit (surplus) 2002-2017	(70,355)
Percent of required single family homes permitted	37%
Percent of required multi-family units permitted	198%

*includes self employed and uniformed military

Sources: Puget Sound Regional Council, U.S. Bureau of Economic Analysis, author's calculation

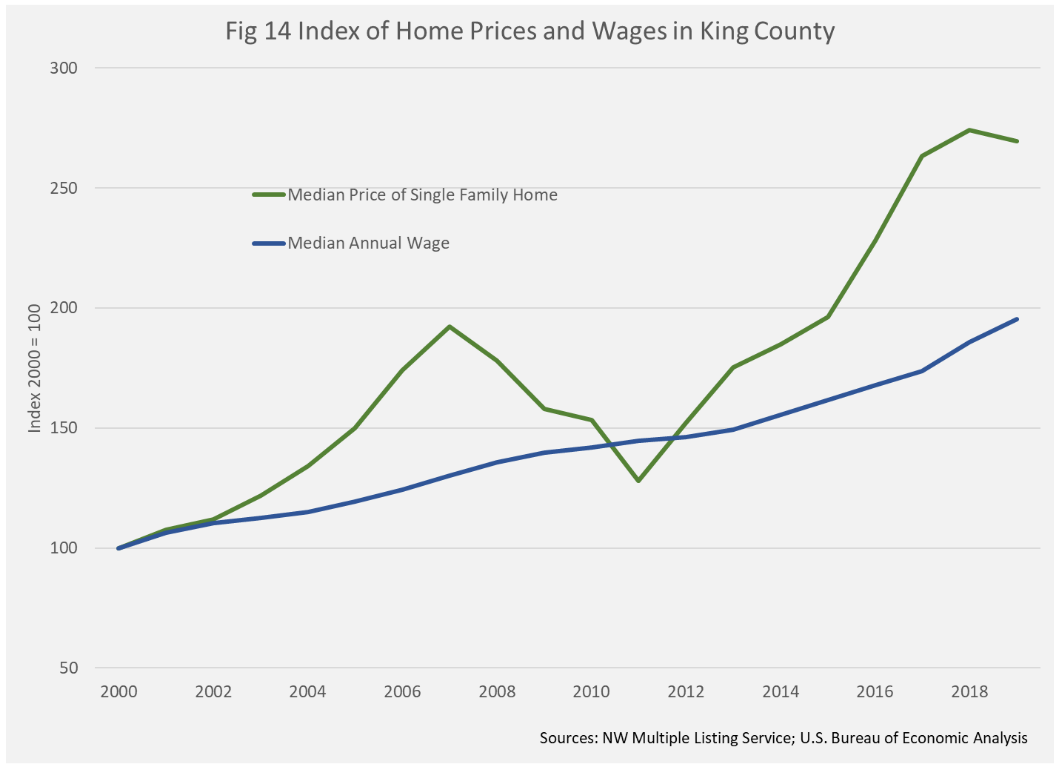
During this 15 year period King County added just over one third of the single family homes that would be required by job growth, but twice as many multi-family units as would have been expected, based on 2002 ratios. To some extent, this imbalance is due to the demographics noted above: large numbers of young adults moving to the region, working in urban centers, and living in apartments. So, we would expect less than average demand for single family homes from this group.

But those young people do age, form families, and, just like generations before them, look for single family homes in which to raise their children. A 22-year-old single in-migrant from 2012 has, by 2022, become a 32-year-old prospective parent in search of a quiet neighborhood, a back yard and good schools. Not all those young adults bulging out the population pyramid in Figure 7 will stay in the area, but many will, and with that bow wave of future families, the county is woefully short of single family homes.

3. TRENDS IN HOUSING PRICES AND AFFORDABILITY IN KING COUNTY

King County, and especially Seattle, have followed the "Superstar city" pattern described in an influential paper from 2006. This paper identified cities that have a combination of growing incomes and wealth tied to technology industries, and restrictive land use policies that create housing shortages (San Francisco being the prime example) The paper suggests that as long as the tech industries keep growing and keep providing new high paying jobs, there will be no self-correcting mechanism to moderate housing prices. We have certainly seen that in the Seattle area over the past 20 years, as housing prices in King County have grown far faster than the wages of non-tech workers.

Figure 14 shows an index of median home prices and median wages for King County, starting in 2000. The chart shows the wage or price for each year for every $100 of wage or price in 2000.



The green line shows the boom and price decline of the years 2000 to 2011. From 2012 through 2019, pre-pandemic, median prices climbed an average of 10 percent per year, while wages increased an average of only 3.9 percent per year.

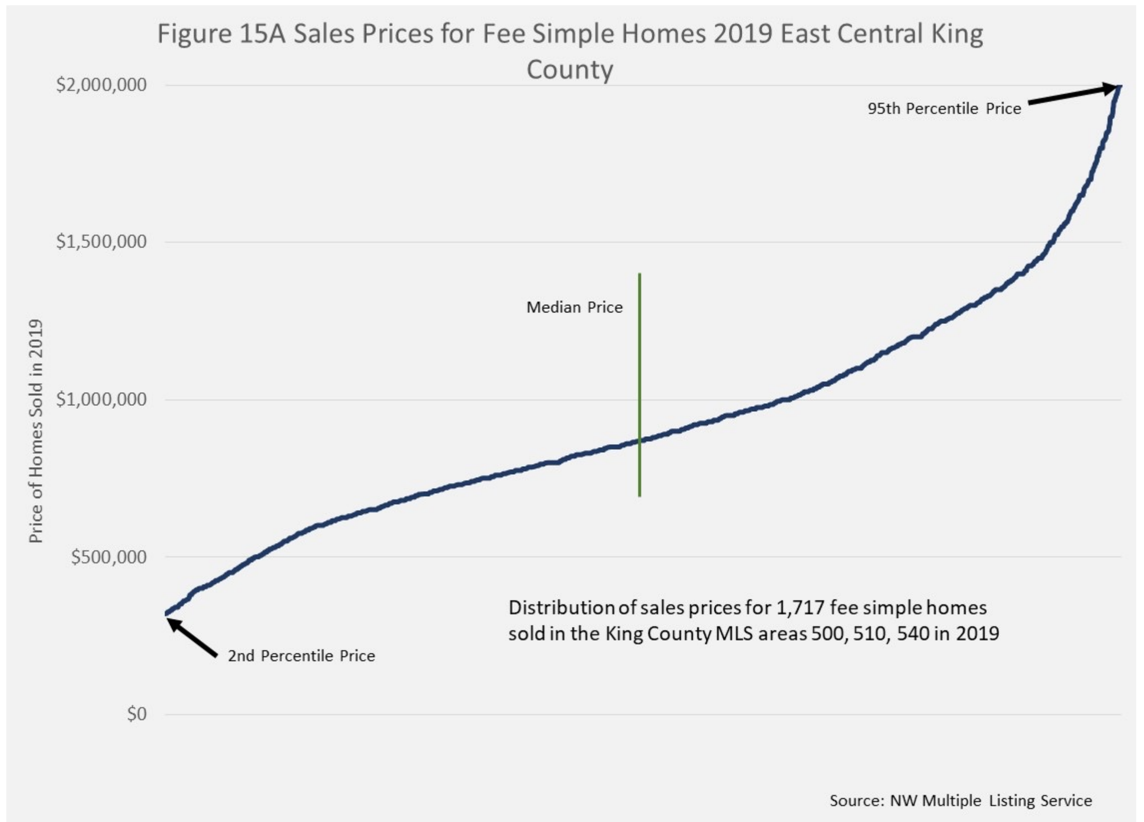
The Washington Center for Real Estate Research publishes a Housing Affordability Index (HAI) that indicates whether a household with the median income can afford the median priced house. An HAI reading of 100 means that the median income is just able to afford the median priced home, given prevailing interest rates, with readings above 100 indicating more affordability. The HAI for King County peaked at 132 in 2012,in the wake of the housing bust, having been as low as 65 in 2007. But since 2012, affordability has declined steadily with the HAI reaching 80 in 2019, pre-pandemic, plunging to 56 in the third quarter of 2022 as interest rates climbed and housing prices came down only slightly.

We do need to be careful about just focusing on median prices, as the HAI does. We need to look at the distribution of prices across the range of the market. What happens below the median? Do prices fall at the same rate that incomes do as we move below medians?

The answer to that question is no. The curve of home prices, from least to most expensive, is flatter than the curve of incomes. To illustrate this, we will look at sales prices of all homes sold in sections of each of the subareas of King County.

Figures 15A, 15B and 15C show the curve of sales prices for fee-simple homes in each area sold in each market area in 2019 (pre-pandemic). We eliminate the outliers at the bottom 2 percent and the top 5 percent (still, most of the homes in the bottom 20 percent are townhomes). For home sales we use one or more MLS areas, as shown on each chart. These MLS areas correspond closely to Census Bureau Public Use Microdata Areas (PUMAs) which are geographic designations with approximately 100,000 people.

Figure 15A, for East King County, covers an area from Mercer Island through Newcastle, Issaquah and Sammamish.

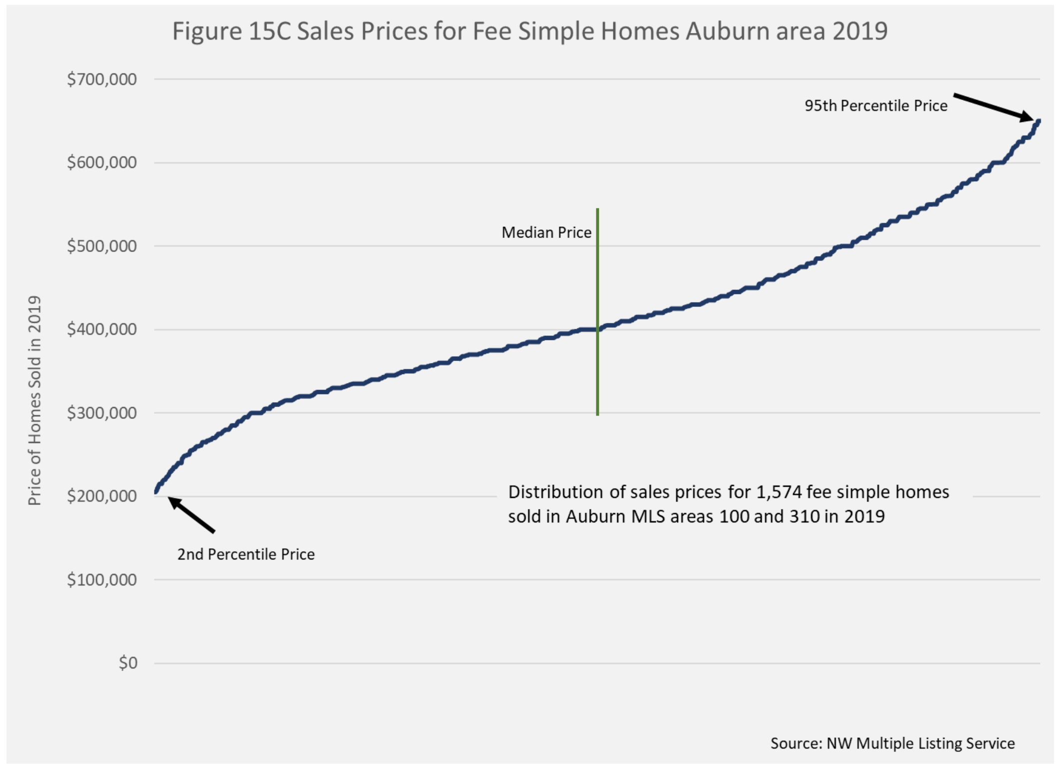


While the curve is fairly steep at the upper end, it is flatter in the middle, especially below the median. The difference between the home priced at the 30 percentile level and the median priced home is $95,000, or 11 percent.

For Figure 15B we use the MLS area 140, which covers all of West Seattle.

The curve of prices in the West Seattle market matches the curve on the Eastside but slightly flatter and set a bit lower. The difference between the home at the 30 percentile level and the median in this market was $88,000 or 14 percent.

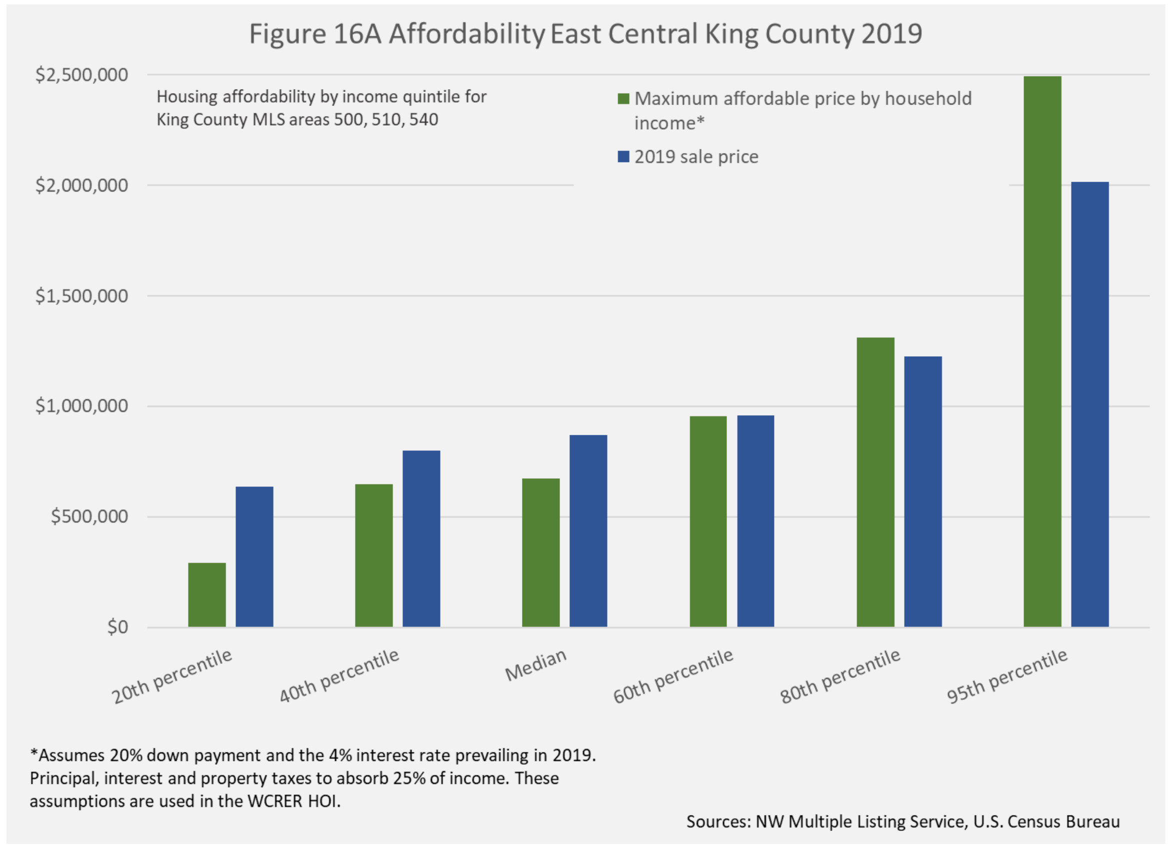
For the South King County area we use MLS areas 100 and 310 in the Auburn area.

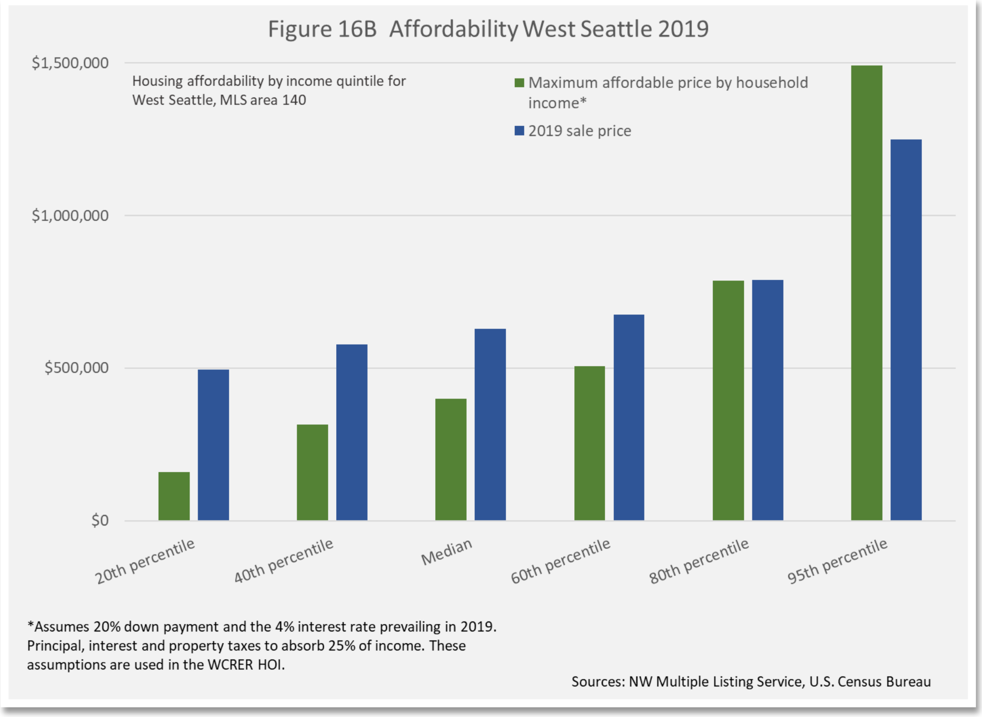


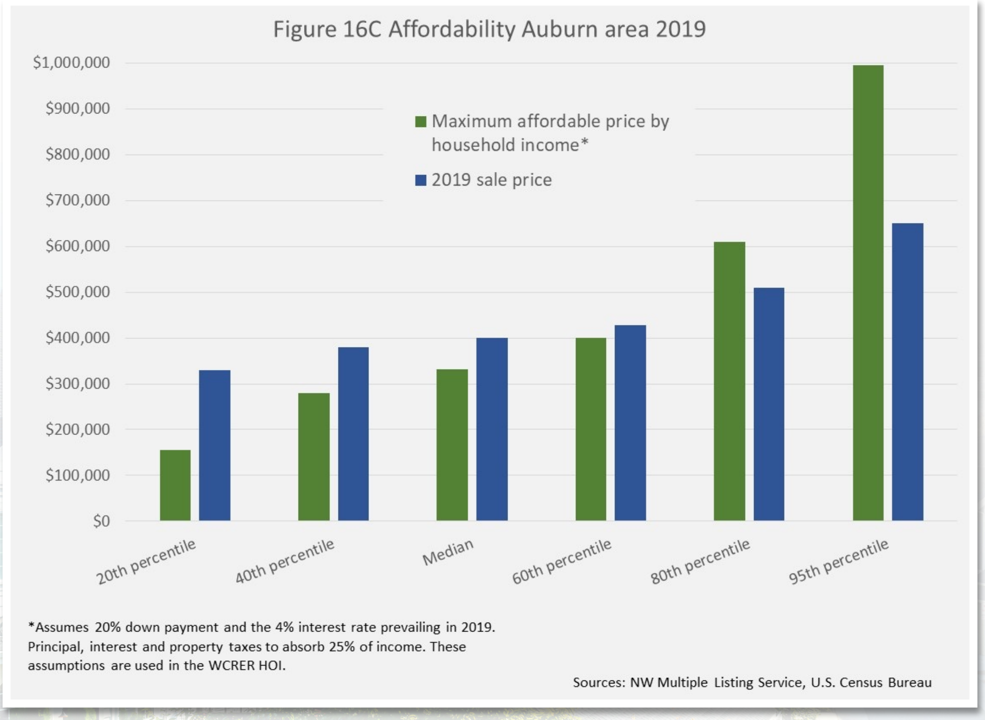
Same curve again, but this time, starting at around $200,000 for the home at the 2nd percentile level. In the Auburn market the difference between the home at the 30th percentile level and the median home price was $46,000, or 12 percent.

The similarity of these curves is important. Each starts at a different point, but with the middle section of the curve showing a very similar slope. This is because the starting point (at least for detached homes) is the value of the lot underneath the house, which will be consistent across a given market area, but vary between market areas (Appendix B explains this in more detail). The curve, then, reflects the value of the structures on the lots which tend to improve very gradually within the middle of the market. At the upper end, where homes tend to have high amenity values (waterfront, view, golf courses) structures get very expensive quickly.

Incomes, however, are not as flat as home prices. Income data is far less granular, but we can see what happens when we compare incomes in that PUMA/MLS area (wage data is not available) with home prices. Figures 16A, 16B and 16C, for 2019, what would be affordable to a family at the median and each income quintile for residents of the PUMA/MLS area alongside the actual prices of homes sold in the MLS area at those quintiles.







In each subarea the homes at the 20th percentile are at least twice as expensive as the income at that level could afford, although we would not expect to see a great deal of home ownership at that income level. But at the 40th percentile we should see ownership. On the Eastside, the income at the 40th percentile would be enough to afford the home at the 20th percentile, but nearly all homes at that price point are townhomes that may not appeal to families.

In West Seattle and Auburn, however, the income at the 40th percentile is not enough to afford the home at the 20th percentile level. In Auburn, the median income is enough to afford the home at the 20th percentile level, but that does not hold for West Seattle. In West Seattle it takes the income at the 60th percentile to afford the home at the 20th percentile level.

In all areas, things improve at the upper end, where upper incomes are enough to afford upper-end homes.

Those seeking affordability in King County will not get much relief in the rental market. Rents across King County have been increasing above inflation. Figure 17 shows the inflation-adjusted rents for 2000 and 2019 for a one-bedroom apartment in the three subareas, the growth rate of that rent, and that rent as a share of county median income.

Fig 17 Apartment Rents 2000 to 2019

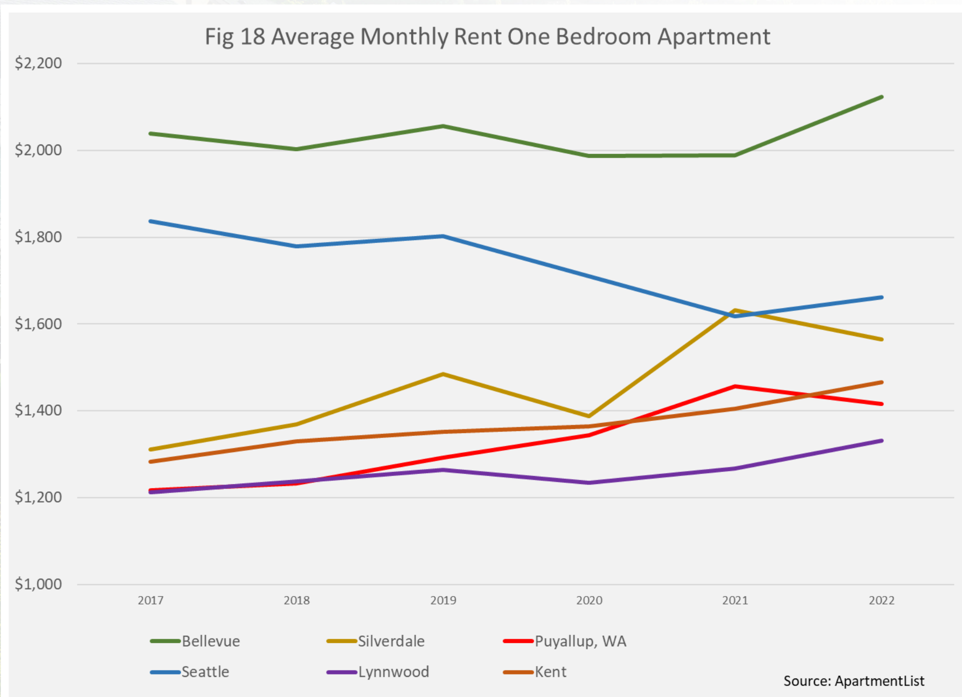
Monthly rent for one-bedroom apartment

	Rent in 2019 dollars		Increase above inflation	Rent as share of county median income	
	2000	2019		2000	2019
East King	$1,158	$2,333	102%	27%	38%
South King	$870	$1,665	91%	20%	27%
North King	$1,106	$1,820	65%	25%	30%

Sources: Dupre + Scott, Zumper

Over the past 20 years, the inflation-adjusted rent on a one-bedroom apartment has doubled in East King County, nearly doubled in South King County and increased by 65 percent in Seattle and Shoreline. Meanwhile, inflation-adjusted median wages in the county increased just 39 percent. Rent as a share of median income has risen in all areas.

The sudden shifts of work arrangements during the pandemic caused rents to shift around the region. Generally, rents farther away from the Seattle-Redmond axis increased more than rents closer in. Work-from home allowed many people to move further from expensive job centers and to shift to lower priced housing, putting pressure on rents in outlying areas. Figure 18 shows average one-bedroom rents for the past six years for six markets in the region.



Rents in the high cost areas of Seattle and Bellevue were relatively steady from 2017 to the onset of the pandemic in early 2020. Then in Seattle we see rents dipping and then stabilizing below their pre-pandemic level. Bellevue saw a sharp jump in 2022, but over the six years on the chart, Bellevue rents increased less than 1 percent per year. In the lower cost markets of Kent, Lynnwood, Puyallup and Bremerton, we see steady increases.

Many renters realized that work-from-home was going to continue indefinitely and that they could relocate to a lower cost area and still keep doing their job in Seattle or Bellevue. But the rental stock in those areas did not suddenly grow, so building owners were able to raise rents in response to increased demand.

As seen in Figures 12A and 12B, apartment construction has been robust in Seattle and East King County, but much less so in the South King County area. Nearly all apartment construction in the county has consisted of large stacked-flat projects with structured parking, which command rents that start high and stay high. There is very little construction of moderate priced apartments, so average rents will keep climbing as the mix of buildings throughout the county gradually goes upscale.

CONCLUSION

King County established its urban growth boundaries and growth management strategies in the early 1990s, when the economic geography of the county was vastly different than it is today. But instead of updating those strategies to respond to the new environment, the county has doubled down its strategies that emphasize growth of urban centers and high density housing (i.e. apartments) and deemphasized expansion of single family neighborhoods.

King County strategies have been predicated on a monocentric region that defines "sprawl" by the distance of development from Downtown Seattle. But the region has evolved much differently. In 1990, Microsoft had perhaps 6,000 employees in Redmond, and within a decade it had around 40,000 employees across the Eastside. Yet King County maintained its urban growth boundary within three miles of the Microsoft campus and the corporate headquarters of Costco, in Issaquah.

And it turns out that those very well paid technology industry and corporate headquarters employees want to live in single family detached homes, the supply of which near their jobs has gotten increasingly restricted. Prices have responded accordingly, and large parts of King County are very expensive and out of reach of families that do not earn tech industry wages.

The County's strategies might have assumed that those people working in King County but priced out of single family homes there would flock to the exciting new urban centers. They did not. Instead, they drove up and down Interstate 5 and Interstate 405 until they could find a home they could afford.

Those urban centers themselves turned out to be quite expensive as well. Mid-rise and high rise apartments are not inexpensive to build, and with a steady stream of childless in-migrants heading to the area, there has been an ample market for this expensive housing, with multi-family developers moving away from less expensive garden style complexes.

In 1990 the Seattle area economy was defined by solidly middle class employers like Boeing and the ports, both of which peaked in employment about that time. Since then, the Seattle area has been become a "superstar city," where continual growth in high wage technology employment keeps housing prices high and provides no natural market force to bring prices down. King County is a welcoming place for high earning in-migrants, and a far less welcoming place for mid and lower wage workers who provide essential public and private services to those high wage workers.

Migration data show a consistent pattern: people migrate to King County from out of state, and King County residents move to adjacent counties looking for affordability. The cost of this pattern is borne by individuals and families with jobs in King County that do not pay the high wages typical of technology industries.

Is this what King County leaders had in mind in 1990? Probably not, but economic events have a way of disrupting the most carefully wrought plans. The experiment of the 1990s has not worked, and it needs to be adjusted.

Plans need to assume that King County workers will have the same desires to live in single family homes that they have always had—about two thirds of housing units should be detached—and the land supply and development capacity for single family should be expanded accordingly. At the same time, plans should encourage development of inexpensive walk-up apartments.

We need to plan for the housing needs of the world we live in, and not the world we though would emerge but did not.

APPENDIX A

FOCUS GROUP FINDINGS

Focus groups of real estate professionals were conducted in King, Kitsap, Pierce and Snohomish counties in the summer and fall of 2022. The objective of these group interviews was to gain a sense of market preferences among homebuyers, and the ways in which those preferences have been shifting. Shifts are noted that have taken place over the past 20 to 30 years, as well as during the recent pandemic years.

Shifts in market preferences can be the result of changes in social trends, public policy, environmental conditions, demographics, economic conditions or exogenous forces such as the pandemic. As will be noted, however, some preferences resist change even in the face of these larger contextual changes.

It is important to remember that focus groups and other qualitative research methods are intended to gather a range of issues and ideas that should be further explored. For most of this summary there is no attempt to quantify the scope or intensity of any of the issues and ideas. But these matters do come into play in planning processes and deserve consideration and further research. There are a small number of "dead ends," or instances where there was broad consensus among the real estate professionals that certain ideas are non-starters.

The focus group discussions centered around a short paper exercise that asked the participants to name factors that go into decisions by people seeking new homes, and to rank those factors in importance for three demographic groups. This summary is organized around those factors and the ways in which each factor:

Has changed. How have preferences of those seeking homes shifted in the middle-term and short term?

Has not changed. What are the constants in preferences that persist in the face of other changes in the region?

Presents opportunities. Are there ways to further the provision of housing opportunities at various levels and for various groups?

Presents challenges. What persistent challenges lead to barriers to housing for various groups?

Suggests dead ends. What concepts have a very low likelihood of success?

KING

4 COUNTY FINDINGS

4 COUNTY FINDINGS

1. HOME SIZE AND LOT SIZE

WHAT HAS CHANGED.

Home office space. New work-from-home opportunities have led to the need for home office spaces that are separate from other living spaces. These can be extra bedrooms, or spaces carved out of flex-spaces like bonus rooms.

Multi-generational needs. Many families, especially immigrant families, will anticipate the need to house parents or adult children, and will want spaces that afford privacy, functional features and appropriate access.

Acceptance of smaller lot sizes. As single family lot sizes in subdivisions have shrunk over the past 30 years, the market has come to accept these smaller parcels as a reasonable tradeoff for new construction.

WHAT HAS NOT CHANGED

Space for families. Families with children still want ample bedrooms, bathrooms, recreation rooms and other spaces that give everyone enough room.

Single level homes for older residents. Homeowners who want to age in place will seek out single level homes or homes with ground floor bedrooms, laundry etc.

Guest space. Homeowners without children at home still want guest bedrooms and spaces for visiting family and friends. Many anticipate housing their adult children.

Privacy and light. Even in higher density environments, people still value privacy (no one looking in the windows) and natural light (windows and more than one side).

Willingness to commute to afford larger lots. For those who want larger lot sizes, many buyers are willing to commute long distances.

Expectation of large lots in outlying areas. Buyers moving to outlying areas, especially in Kitsap County and parts of Pierce County, expect large lots. That is the reason they moved there.

OPPORTUNITIES

Townhouses and duplexes. In certain markets, buyers can get the spaces and privacy they need in townhouse or duplex developments.

Cottage cluster. The concept of small, detached homes clustered around common open spaces has proved successful, especially for older single people who still want a detached home but without the size or maintenance requirements of traditional single family homes.

CHALLENGES

Missing middle economics. The economics of duplex, townhouse, cottage and other "missing middle" forms of housing are not simple. Zoning must be crafted so these building forms are viable uses of land that might otherwise be used for single family homes.

DEAD ENDS

Families with children in multi-family buildings. While it is common in in the Mid-Atlantic area, and in many parts of the world, there is little enthusiasm for raising children in large walk-ups or stacked flat buildings. When economically feasible, families with children will almost always opt for detached homes, even if it means a long commute for parents. Resistance to raising children in multi-family settings has not changed in recent decades and there is no sign that it will change in the future.

2. LOCATION

WHAT HAS CHANGED

Commute times less important. For those who can work from home all or part of the time, commute times have become a much less important factor in location decisions.

Walkability. Both younger and older buyer groups are placing increased emphasis on walkability and the ability to access retail and other services on foot.

WHAT HAS NOT CHANGED

Schools are important. The importance of school quality varies by buyer group, but many groups still place great value on the quality of local public schools.

Safety is very important. Crime and safety, in both perception and reality, are very important to all groups.

Access to medical services. Older buyers want to have good access to healthcare services.

Access to retail. Easy access to retail and basic services is important, but not highly important.

OPPORTUNITIES

Fee simple townhouses, duplexes, cottages. Some buyers who are willing to accept smaller lots will consider semi-attached homes at densities in the range of 10 to 30 units/acre.

CHALLENGES

Commutes for those that cannot work from home. A large share of the working population cannot work from home. These people often hold middle and lower income jobs and face new affordability issues in outlying areas.

DEAD ENDS

Trading high density for short commutes for families. None of the real estate professionals can detect any willingness among families to compromise their preferences on density in order to get shorter commutes. The idea that families might want to live in urban centers with very short commutes seems to be a non-starter.

3. FEATURES AND CONDITION OF HOME

WHAT HAS CHANGED

Less interest in renovation. Younger buyers are less interested in buying homes on which they will need to do substantial work. They lack the skills to do the work themselves and lack the financial resources to pay for the work.

Emphasis on new construction. Many buyers, especially some immigrant groups, place a high emphasis on new construction or newer homes. This is because of concern about both layouts and condition.

Smaller exterior spaces. Many buyers are willing to accept relatively small yards and outdoor spaces.

Low maintenance exteriors. Many buyers are looking for exterior spaces that do not require much maintenance.

WHAT HAS NOT CHANGED

Desire for private open space. Although they will be flexible on the size, homebuyers still want to have some private open space. This might be a deck, hardscaped area or low maintenance landscaping, but it must allow for private space for small children and pets.

4. OWNERSHIP

WHAT HAS CHANGED

Expansion of ownership options. New options present buyers with expanded ownership and income options, such as including attached and detached ADUs and short term rentals.

WHAT HAS NOT CHANGED

Desire for investment value. The rate at which individuals and families want to own their own home has not changed. Home ownership is still seen as a solid investment, especially for some immigrant groups.

OPPORTUNITIES

Flexible ownership structures. Flexible ownership methods, such as condominiumizing duplexes and including ADU income, can expand opportunities for both owners and renters.

CHALLENGES

Avoiding condominium ownership. Many buyers fear the complications and expenses of condominium ownership.

Avoiding HOAs. While homeowner's associations (HOAs) can provide order and predictability to communities, especially high density ones, many buyers are leery of the rules and processes that HOAs require.

DEAD ENDS

Convincing buyers to be renters. Buyers and renters have different objectives and expectations, and they tend not to move from one category to the other. While the case can be made that other investment strategies can generate long terms returns comparable to home ownership, few prospective owners will opt to remain renters and pursue those alternative strategies.

KING COUNTY HIGHLIGHTS

The King County focus group of active Realtors was convened in October 2022. Some key points coming out of the King County discussion:

- Home size, layout, bedrooms etc. are still very important for all groups.
- Work-from-home has increased the value of extra bedrooms and flexible space that can be converted to office. Some households will want two offices.
- Proximity to work is an issue for blue collar workers and others who cannot work from home. This is less of an issue for those who can work from home.
- Neighborhood and community are very important for all groups. But valued characteristics will be different for different groups.
- Families with children will not favor apartments if they can afford a house.
- Outdoor space is still important.
- Condition of home is important. Less interest in remodels and sweat equity.
- Schools are still important for families
- Each immigrant group on the Eastside has its own unique set of preferences. Cannot generalize.
- Condominiums are popular with seniors, but not with younger families. Seniors want to keep their money in real estate. Not enough condos.
- Cottage housing and townhouses will work for certain buyer groups, but not enough available.

APPENDIX B

WHY SINGLE FAMILY HOMES ARE SO EXPENSIVE

Single family home prices in the Seattle area have consistently increased faster than the rate of wage and income growth, making it harder for families to afford to live in areas convenient to their workplace. As homebuyers shift from expensive areas to moderately priced areas, they push up prices in those areas, forcing families that otherwise might have lived there to, themselves, move on to the next most affordable area. "Drive to qualify" has become the norm.

It does not have to be this way. Home prices, and their rate of increase, vary widely around the country and are not tied to relative levels of economic success in a region. Figure A-1 shows median home prices for major metro areas around the country in the fourth quarter of 2022. Figure A-2 shows the rate of increase in prices in those cities based on the widely observed Case-Shiller home price index, which tracks repeat sales of existing homes.

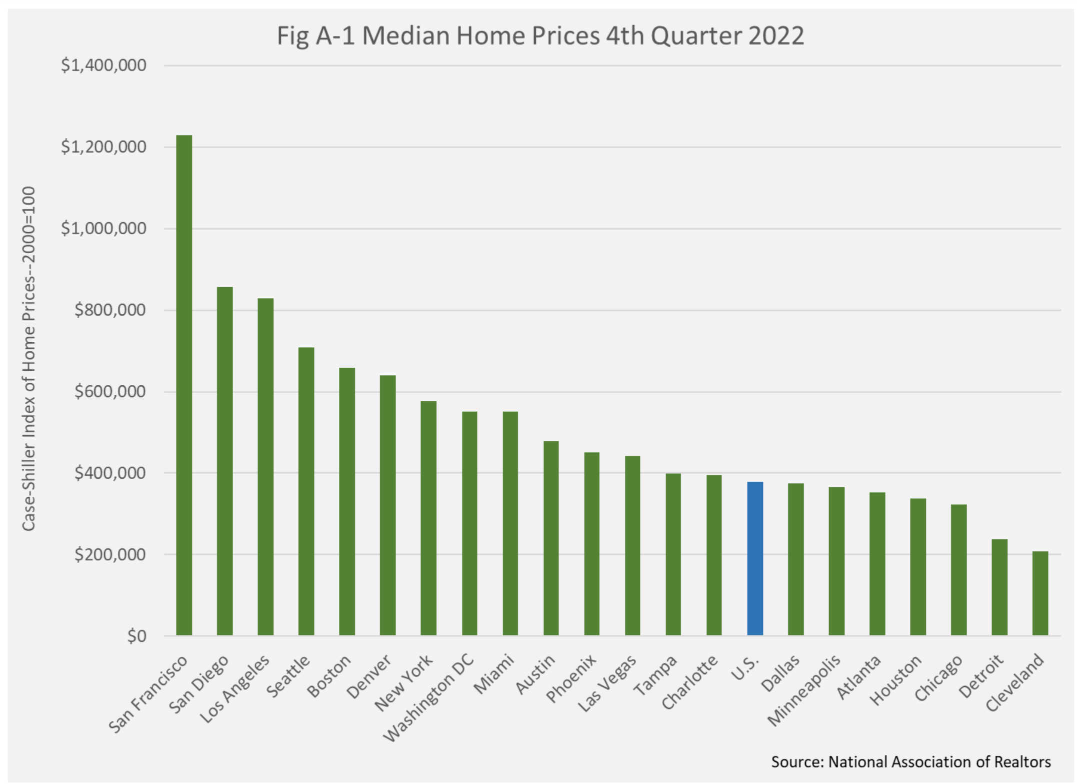
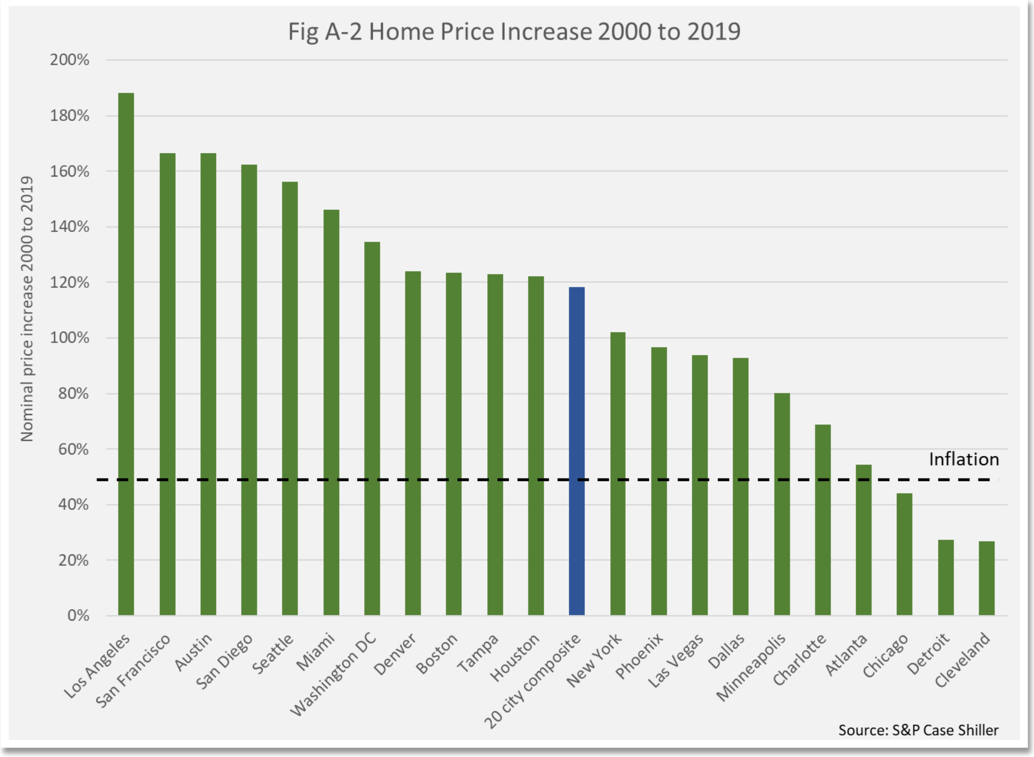


Fig A-1 Median Home Prices 4th Quarter 2022

Source: National Association of Realtors



How can we account for this wide variation, especially when considering the lower prices and lower price growth rates in economically successful places like Atlanta, Charlotte and Dallas? Why should the median price in Seattle be twice as high as the median price in a booming place like Houston?

To understanding the difference in single family home prices around the country and why prices are so high in the Puget Sound area, it is helpful to consider a home as having two distinct components:

Entitled land. This is defined as a parcel that is legally described and, according to existing zoning, is allowed to have one single family home built on it (plus any accessory structures allowed by local zoning). We will refer to this as an "entitled lot."

Improvements. This includes all the improvements to the land (roads, utilities) and the home itself.

CONSTRUCTION COSTS ARE NOT THE ISSUE

We can begin by emphasizing that construction costs—materials and labor—are not the source of variation in home prices around the country. Single family home construction costs do vary across metro areas, but not nearly as much as home prices.

According to Estimation QS, residential construction costs in Washington State are just about the national average. The least expensive state for construction, Idaho, is just 9 percent below the national average, and the most expensive state (other than Alaska and Hawaii), Massachusetts, is just 12 percent above the national average.

Most materials are traded on national markets, so prices of lumber, fixtures, paint, etc., will be similar around the country. Labor costs will vary, but labor is somewhat mobile and will shift in response to employment opportunities. Average wages for construction workers are just about the same in Texas as in Washington, while home prices are quite different.

LAND IS THE ISSUE

The general price level of new and existing homes is driven in a fundamental way by the land component of the package: the value of the entitled lot. The size of the parcel is not that important, as long as the allowable building envelope (heights and setbacks) in the zoning code allows for the size of home that meets market demand. We are seeing very expensive homes built on very small lots.

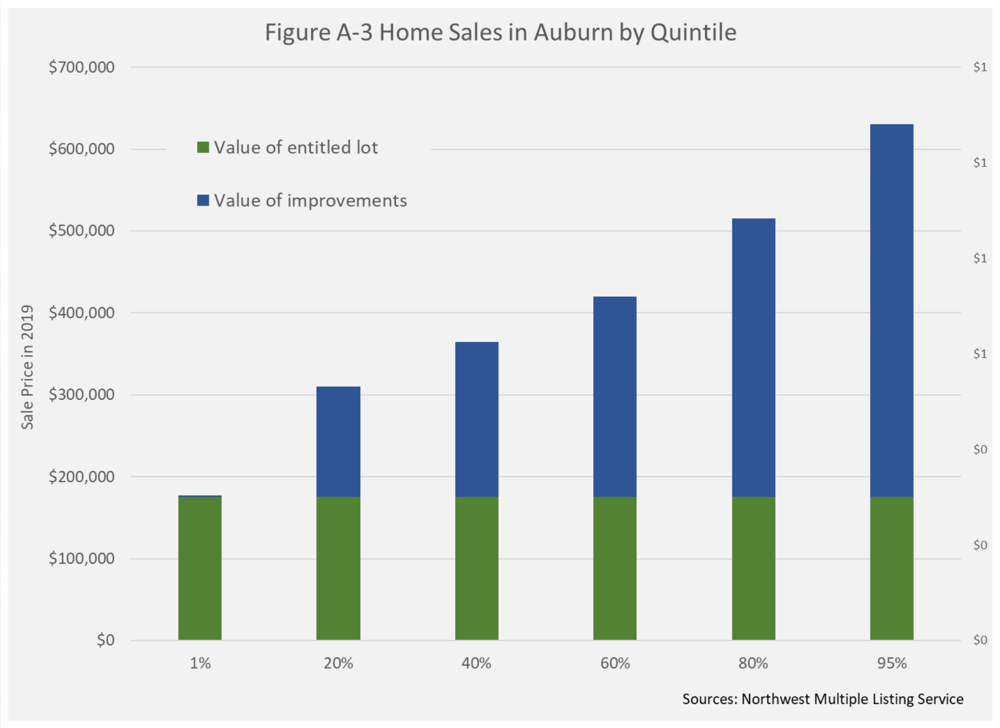
In other words, we can explain nearly all of the variation in Figure A-1 through differences in the value of entitled land. And, crucially, those land value differences apply across all homes, not just new construction.

In a given market area, a building lot that does not feature notable amenities (waterfront, views, golf course) or disamenities (on an arterial, next to a rail yard, under a flight path) is a commodity. That is, one lot is just about the same as another. Basic economics says that the value of any building lot will be equal to the cost of developing a similarly situated new lot.

In a given market area, the value of a newly developed vacant lot, a lot under a tear-down, a lot under a quality used home and a lot under a brand new home will be similar.

The value of entitled lots provides the "floor" for home prices, with the price of a barely habitable home roughly equal to the prevailing lot price in the market area (the structure having near zero value). The difference in home prices in a market area is then determined by the structures themselves, starting from the floor of lot values. Figure A-3 illustrates the relationship between lot values and home prices, using actual sales data from 2019 for the Auburn market area (MLS area 310).

In this area in 2019, 1,034 fee simple homes were sold, ranging in price from $135,000 to $2.15 million. The lowest priced detached home sold for $177,000. This home was old and in extremely poor condition, so we can assign no real value to the structure. The lot under this house could easily be redeveloped, so we will assign a value to the lot of $175,000 (we will ignore demolition costs and assume that the lot value includes roads, utilities, etc.).



We then look at the sales prices of homes sold in that area in 2019 at the 20th percentile level, 40th percentile, 60th percentile, 80th percentile and 95th percentile, assigning a lot value of $175,000 to each of them. (The top 5 percent of homes typically have high amenity values and are not illustrative of general market conditions.)

For the homes at each price level, the green bar represents the value of the entitled lot, and the blue bar represents the value of all the improvements. The total height of the bars is the sales price of the home at that percentile level in that market area in 2019. We see a fairly straight line upward for prices.

Figure A-4 shows details on the six properties in Figure A-3.

Fig A-4 Home Sales Auburn 2019

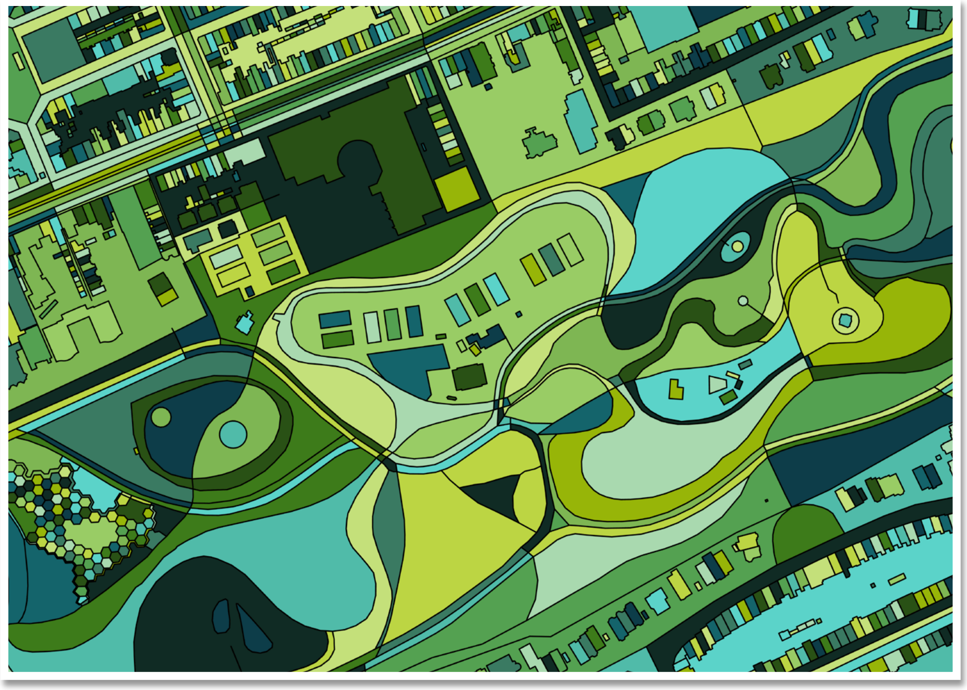
	Percentile level of ranked single family sales in 2019 in MLS area 310					
	1 percent	20 percent	40 percent	60 percent	80 percent	95 percent
Sale price	$177,000	$310,000	$364,950	$420,000	$514,950	$630,000
Home square feet	1,183	1,320	1,460	2,042	2,855	3,225
Lot square feet	11,325	10,000	10,000	5,250	3,904	6,435
Year built	1959	1992	1988	1998	2019	2017
Structure cost per square foot	$0	$102	$130	$120	$119	$141

Source: NW Multiple Listing Service

If we look at the size of the homes at each price level, and calculate the cost paid for the structure on a per-square-foot basis (dividing the value of the blue bar by the size of the home), we get remarkably consistent figures. The value of the improvements, per square foot, for the homes at the 40, 60 and 80 percentile level are quite similar, between $119 and $130.

This is a fairly homogenous market area, and the values of the structures are being determined primarily by size. As the homes get newer, they are getting larger and, therefore, more expensive. This is due to the familiar dynamic in homebuilding: the mandatory ratio of home price to lot value. In new construction, homes will generally be priced at least three times the lot value. Note that the home at the 80th percentile level was sold as new construction for $514,950, which is 2.94 times our assumed lot price of $175,000.

In a dynamic economy like that in the Puget Sound region, we can expect volatility in home prices—the rapid increase in prices in the 2020-2021 time frame are now being offset by price drops in 2022-2023. But over the longer term, stable or lower values for entitled lots will lead to generally lower prices for new and resale homes.



IMPLICATIONS

The value of entitled land acts as the floor under home prices, so that the price of a home will never be lower than that floor, even for the least habitable house. That floor sits at different levels depending on the demand to live in an area, but in even the lowest cost areas of the Central Puget Sound region, that floor sits above $200,000 in 2023.

A small parcel of undeveloped land on the periphery of a metro area has no real economic value other than as a home site. So, if that parcel is priced at $200,000, we can assume that is the minimum value of an entitled lot. The Washington State Growth Management Act, and the comprehensive plans and zoning codes developed under it, have severely restricted the amount of land that can be used for homebuilding. This scarcity, combined with strong demand, leads to these high prices for entitled lots.

The key to lowering the price of single family homes, at all price levels, will be to lower the value of entitled lots. In other words, make the green bars in Figure A-3 smaller, so that the price of homes more closely reflects the value of just the improvements. The only way to do that, absent some large secular shift in demand (i.e., an economic crash) is to increase the supply of entitled lots. That increase can be done in two ways.

First, vacant and redevelopable residential land within urban growth areas can be zoned for smaller parcel sizes so that more entitled lots can be created. Second, more land can be brought into urban growth areas. In either case, the addition of more entitled lots into the marketplace will lower the value of all entitled lots, lowering the floor under home prices and making all homes more affordable.